NAPA COUNTY HOUSING ELEMENT UPDATE Draft Environmental Impact Report

Prepared for Napa County August 2022



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August 2022

180 Grand Avenue Suite 1050 Oakland, CA 94612 510.839.5066 esassoc.com

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CHAPTER 1 Introduction

This Draft Environmental Impact Report (EIR) has been prepared pursuant to the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and Napa County's Local Procedures for Implementing CEQA to analyze potential physical environmental impacts of the proposed Napa County Housing Element Update (HEU), referred to in this EIR as the HEU or the "Project".¹ A brief overview of the Project and the environmental review process, and a description of the purpose of this Draft EIR and opportunities for public comment, are provided below, along with an explanation of how this Draft EIR is organized.

1.1 Project Overview

The Project analyzed in the EIR would include adoption of General Plan amendments that would add or modify goals, objectives, policies, and implementation programs related to housing that would apply throughout unincorporated Napa County, and that would address the maintenance, preservation, improvement, and development of housing. The Project would also include amendments to other elements of the County General Plan in order to maintain internal consistency, to improve consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan*, and to comply with recent changes in State law.

In addition, the Project would identify specific sites appropriate for the development of multifamily housing, and the County would rezone those sites if/as necessary to meet the requirements of State law. The sites proposed to accommodate development of multifamily housing are located in five discrete areas of the County, as described in Chapter 3, *Project Description*.

Based on the County's Regional Housing Needs Assessment (RHNA) allocation, as amended by the Association of Bay Area Governments (ABAG) in March 2022,² the HEU plans for an additional 106 dwelling units plus a sizeable "buffer." This EIR evaluates the potential for up to 302 single family homes (including accessory dwelling units) and 458 units of multifamily housing as a maximum scenario for purposes of the CEQA evaluation, understanding that the

¹ The *California Environmental Quality Act* can be found in the California Public Resources Code, Section 21000 et seq. The State CEQA Guidelines, formally known as the *Guidelines for California Environmental Quality Act*, can be found in the California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000 et seq.

² On March 17, 2022, ABAG's executive board approved the County's request to transfer portions of its December 2021 RHNA allocation to the Cities of Napa, American Canyon, and St. Helena based on previously executed agreements between the County and these cities.

buffer size and the final sites selected for inclusion in the Housing Element will be determined by the Board of Supervisors upon adoption of the HEU.

In addition to the amendments that would take place within the General Plan's Housing Element, a number of other amendments to other elements of the General Plan would be required to fully conform those elements to the changes made in the Housing Element or comply with other changes in State law. Please see Chapter 3, *Project Description*, for more information.

1.2 Purpose and Use of this EIR

CEQA requires a public agency to prepare an EIR describing the environmental effects of a project before a public agency can approve a project that may have potentially significant, adverse physical effects on the environment. The EIR is a public information document that identifies and evaluates potential environmental impacts of a project, recommends mitigation measures to lessen or eliminate significant adverse impacts, and examines feasible alternatives to the project. The information contained in the EIR must be reviewed and considered by Napa County and by any responsible agencies (as defined in CEQA) prior to a decision to approve or modify the project.

1.3 This is a Program EIR

This EIR is a program EIR, as provided for in CEQA Guidelines Section 15168, and consistent with Section 15168(b) of the CEQA Guidelines, allows the County "to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." As a program EIR, this EIR analyzes potential impacts of development that would be allowed by the HEU without having site-specific development proposals in hand, and broadly considers proposed sites, their environmental setting, and potential impacts that could stem from their development. Readers will note that the level of detail is different than in a project-specific EIR, which generally considers a single, specific proposal on an individual site.

Future discretionary actions that would be facilitated by the HEU's adoption, such as those related to the development of housing, would be assessed to determine consistency with the analysis provided in this program EIR. Potential future actions would also be subject to the mitigation measures established in this program EIR unless superseded by a subsequent environmental document that is required to analyze significant environmental impacts not foreseen in this program EIR.

It is important to note that while the law requires the HEU to include an inventory of housing sites and requires the County to zone those sites for multifamily housing, the County is not required to actually develop housing on these sites. Future development on the identified sites will be up to the property owners and will be largely dependent on market forces and (in the case of affordable housing) available subsidies.

1.4 Environmental Review Process

1.4.1 Notice of Preparation and EIR Scoping

Pursuant to the requirements of CEQA for the initiation of environmental review, on January 24, 2022, the County sent a Notice of Preparation (NOP) to the State Clearinghouse, responsible and trustee government agencies, organizations, and individuals potentially interested in the Project. The NOP requested that agencies with regulatory authority over any aspect of the project describe that authority and identify relevant environmental issues that should be addressed in the EIR. Interested members of the public were also invited to comment. The comment period for the NOP extended from January 24, 2022 to February 25, 2022, during which time, the County accepted written comments on the scope of the EIR. A scoping meeting was held by the County Planning Commission on February 16, 2022 to accept oral comments.

The NOP and the comments received on the NOP are included in **Appendix A** of this EIR. As discussed in the NOP and pursuant to the provisions of CEQA, the County did not prepare a CEQA Initial Study prior to preparation of the EIR, because the County determined that it was clear at the time of the issuance of the NOP that an EIR was required (CEQA Guidelines Section 15060[d]).

1.4.2 Public Review of this Draft EIR

This Draft EIR is available for public review and comment as set forth in the Notice of Availability and Notice of Completion circulated by the County. During the review and comment period, written comments (including email) regarding the Draft EIR may be submitted to the County at the address below.

Napa County Planning, Building, and Environmental Services Department Attention: Trevor Hawkes, Project Manager 1195 Third Street, Suite 210 Napa, CA 94559 Email: Trevor.Hawkes@countyofnapa.org

All comments must be received by the Planning, Building and Environmental Services Department no later than 4:00 p.m. on October 7, 2022. Comments provided by email should include "Housing Element/Safety Element DEIR Comment" in the subject line, and the name and physical address of the commenter in the body of the email.

The Draft EIR, Notice of Availability, and other supporting documents, are available for public review at the offices of the County Planning, Building, and Environmental Services Department, 1195 Third Street, Suite 201, Napa, CA 94559, on the County's website at https://www.countyofnapa.org/3250/2022-Housing-Element-Update and on the State Clearinghouse Website at https://ceqanet.opr.ca.gov/2022010309.

The County Planning Commission will hold a public hearing on **October 5, 2022, at 9:00 a.m.**, during which verbal comments on the Draft EIR will be accepted. Readers should consult the

Planning Commission's webpage for how they can listen and participate during the hearing. The webpage can be found at **https://napa.legistar.com/Calendar.aspx**.

1.4.3 Final EIR

Following the public review and comment period for the Draft EIR, the County will prepare responses that address all substantive written and oral comments on the Draft EIR's environmental analyses that are received within the specified review period. The County will also identify any clarifying revisions to the Draft EIR that are necessary to address the comments received. When taken together, the responses to comments and the Draft EIR (as amended if necessary) will constitute the Final EIR for the project. The Board of Supervisors (following a recommendation by the County Planning Commission) will consider certification of the Final EIR prior to making a decision on adoption of the HEU and related approval actions.

1.4.4 Mitigation Monitoring and Reporting Plan

Throughout this EIR, mitigation measures are identified where applicable and presented in language that will facilitate preparation of a Mitigation Monitoring and Reporting Plan (MMRP). As required under CEQA, a MMRP will be prepared and presented to the County Board of Supervisors for adoption at the same time they consider approval of the Project, and will identify the timing and roles and responsibilities for implementation of adopted mitigation measures.

1.5 Organization of the Draft EIR

This *Introduction* (Chapter 1) presents an overview of the process by which this EIR will be reviewed and used by the decision-makers in their consideration of the project.

The *Summary* (Chapter 2) includes a brief project description and a summary table that lists the environmental impacts, proposed mitigation measures, and the level of significance after mitigation. Detailed analysis of these impacts and mitigation measures is provided in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*. The Summary also provides a summary of the alternatives to the project.

The *Project Description* (Chapter 3) describes the project location and boundaries; lists the project objectives; and provides a general description of the technical, economic, and environmental characteristics of the project. This chapter also includes a list of required approvals for the project and other agencies that may be responsible for approving aspects of the project.

The *Environmental Setting, Impacts, and Mitigation Measures* (Chapter 4) contains a description of the environmental setting (existing physical environmental conditions), the regulatory framework, and the environmental impacts (including cumulative impacts) that could result from the project. It includes the thresholds of significance used to determine the significance of adverse environmental effects. This chapter also identifies the mitigation measures that would avoid or substantially lessen these significant adverse impacts. The impact discussions disclose the significance of each impact both with and without implementation of mitigation measures.

Alternatives (Chapter 5) evaluates a range of reasonable alternatives to the project and identifies an environmentally superior alternative, consistent with the requirements of CEQA. The alternatives analysis evaluates each alternative's ability to meet the project objectives and its ability to reduce environmental impacts.

Other CEQA Considerations (Chapter 6) addresses growth-inducing effects, significant irreversible environmental changes, and significant unavoidable environmental effects of the Project.

Report Preparers, and Persons and Organizations Consulted (Chapter 7) identifies the authors of the EIR. Persons and documents consulted during preparation of the EIR are listed at the end of each analysis section.

Appendices. The appendices include environmental scoping information and technical reports and data used in the preparation of the Draft EIR. These documents are included on the County's Project website.

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CHAPTER 2 Summary

2.1 Introduction

As provided by Section 15123 of the California Environmental Quality Act (CEQA) Guidelines (CEQA *Guidelines*), this chapter provides a brief summary of the Napa County Housing Element Update (HEU) and its consequences. This chapter is intended to summarize in a stand-alone section the Project described in Chapter 3, *Project Description*, the impacts and mitigation measures discussed in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, and the alternatives analysis presented in Chapter 5, *Alternatives to the Project*.

This Draft Environmental Impact Report (Draft EIR) has been prepared to evaluate the anticipated environmental effects of the HEU in conformance with the provisions of CEQA and the CEQA *Guidelines*. The lead agency, the County of Napa (County), is the public agency that has the principal responsibility for approving the HEU.

This EIR is a Program EIR, as provided for in CEQA Guidelines Section 15168. Section 15168(a) of the CEQA Guidelines states that a Program EIR is appropriate for projects which are "... a series of actions that can be characterized as one large project and are related either:

- 1. Geographically;
- 2. A logical part in the chain of contemplated actions;
- 3. In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or
- 4. As individual activities carried out under the same authorizing statutory or regulating authority and having generally similar environmental effects which can be mitigated in similar ways."

Section 15168(b) of the CEQA Guidelines further states: "Use of a Program EIR can provide the following advantages. The Program EIR can:

- 1. Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
- 2. Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis;
- 3. Avoid duplicate consideration of basic policy considerations;

- 4. Allow the Lead Agency to consider broad policy alternative and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
- 5. Allow reduction in paperwork."

Future discretionary actions that would be facilitated by the HEU's adoption, particularly those related to the development of housing, would require additional assessment to determine consistency with the analysis provided in this Program EIR. Potential future actions would also be subject to the mitigation measures established in this Program EIR unless superseded by a subsequent environmental document that is required to analyze significant environmental impacts not foreseen in this Program EIR.

2.2 Project Summary

2.2.1 Project Location

Napa County is located in the northern San Francisco Bay area, approximately 50 miles due west of Sacramento, California. The County is bordered by Lake County to the north, Yolo and Solano County to the east, Sonoma County to the west, and San Pablo Bay to the south. The planning area for the Housing Element Update is the same planning area that was considered by the 2008 General Plan, which encompasses all unincorporated land in Napa County. The unincorporated County includes approximately 9,022 residential dwelling units and comprises 789 square miles.

2.2.2 Project Description

Background

State law requires the county to have and maintain a general plan with specific contents in order to provide a vision for the unincorporated County's future. The general plan informs local decisions about land use and development, including issues such as circulation, conservation, and safety. Napa County's General Plan was comprehensively updated in 2008 and contains eight topical chapters or "elements," including one about housing. The County's Housing Element comprises an integral part of the overall plan, providing goals, policies, and programs regarding the preservation and development of housing in the County. The Housing Element was last updated in 2014, and covers the "5th Cycle" housing element planning period from 2014 through 2022. Because this period is drawing to a close, State law [Government Code Section 65588] requires the County to update its Housing Element and provides a deadline of January 31, 2023. In accordance with State law, the planning period for the updated Housing Element will extend to January 31, 2031 and is referred to as the "6th cycle."

In addition to including goals, policies, and implementation programs regarding housing issues, Housing Elements must include an inventory or list of housing sites at sufficient densities to accommodate a specific number of units at various levels of affordability (very low income, low income, moderate income, and above moderate) assigned to the City by the Association of Bay Area Governments (ABAG). This assignment is referred to as a Regional Housing Needs Allocation (RHNA).

The Department of Housing and Community Development (HCD) allocated 441,176 housing units to the nine-county Bay Area ("bulk allocation"). The County's initial RHNA as of December 2021 totaled 1,014 units and was reduced to 106 units on March 17, 2022 with ABAG's approval of the County's request for transfers to incorporated jurisdictions as described further below. The County's initial and final RHNA from March 17, 2022 is shown in **Table 2-1**, below.

	Units by Income Group ^b				
	Very Low (0-50% AMI)	Low (51-80% AMI)	Moderate (81-120% AMI)	Above Moderate (>120% AMI)	Total Units
Initial December 2021 RHNA Allocation	369	213	120	312	1,014
% of Total	36%	21%	12%	31%	100%
March 17, 2022 (Final) RHNA Allocation ^a	45	16	14	31	106
% of Total	42%	15%	13%	29%	100%

 TABLE 2-1

 NAPA COUNTY REGIONAL HOUSING NEEDS (RHNA) ALLOCATION AS OF MARCH 17, 20221

NOTES:

a. The RHNA allocation shown here reflects ABAG's March 17, 2022 approval of RHNA transfers pursuant to California Government Code Section 65584.07, which modified the original RHNA adopted in December 2021

 b. Units are grouped into categories based on the incomes of households accommodated and their relationship (percentage of) Area Median Income (AMI).

SOURCE: ABAG, March 17, 2022.

Over the past 12 years, the County has entered into agreements with the City of American Canyon, the City of Napa, and the City of St. Helena, that allow the County to transfer portions of its RHNA allocation to these jurisdictions pursuant to California Government Code Section 65584.07. The County's request for RHNA transfers sought to transfer approximately 90 percent of the County's December 2021 RHNA based on the executed agreements and on factors/circumstances outlined in the request. The requested transfers with the City of Napa, the City of American Canyon, and the City of St. Helena are summarized in **Table 2-2** below, and involved somewhat fewer units than allowed for in the executed agreements with the City of Napa and the City of American Canyon. The specific numbers included in the requested transfers were arrived at with two primary objectives in mind. First, transfers must meet the requirement in Government Code Section 65584.07(a)(3) which requires transfers of lower income units (i.e. very low and low income units) to be proportional to the transfers of moderate and above moderate units. Second, the County cannot transfer 100 percent of its RHNA and still meet other requirements of State law.

	Very Low Income Units	Low Income Units	Moderate Income Units	Above Mod Income Units	Total Units transferred to the City(s)
Transfer Request #1 (City of Napa) ^a	266	153	86	225	730
Transfer Request #2 (City of American Canyon) ¹	57	44	20	55	176
Transfer Request #3 (City of St. Helena)	1	0	0	1	2
Total of Transfers 1+2+3	324	197	106	281	908

 TABLE 2-2

 REQUESTED TRANSFERS FROM THE CITIES OF NAPA, AMERICAN CANYON, AND ST. HELENA

NOTES:

a. The transfers to the City of Napa and City of American Canyon are somewhat less than the maximum permitted under the terms of agreements executed by the County and the cities. In each case, the distribution of units by income category was crafted to ensure the County's compliance with Government Code Section 65584.07(a)(3).

SOURCE: Napa County, February 4, 2022.

The County's 6th Cycle Housing Element must provide sites sufficient to accommodate its March RHNA plus a buffer. If a site is identified in the Housing Element as having the potential for housing development that could accommodate lower-income units towards meeting the RHNA but is actually developed with units at a higher income level or fewer units, then the locality must either: 1) identify and rezone, if necessary, an adequate substitute site; or 2) demonstrate that the land inventory already contains an adequate substitute site.

In addition, the HEU would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law. The County will need to maintain internal consistency between various elements of the General Plan and zoning ordinance, therefore, changes to elements of the General Plan (for example Land Use and Safety Elements) as well as the County's zoning map and ordinance may be needed to ensure that the General Plan as a whole remains consistent with the HEU.

Housing Sites Inventory

The HEU will include a housing sites inventory with sufficient new housing sites at appropriate densities to meet the County's RHNA requirement and provide a generous buffer, including continued development of single family homes, accessory dwelling units (ADUs), and Junior Accessory Dwelling Units (JADUs), and identification of multifamily housing sites. The Housing Site Inventory is ultimately adopted by the County Board of Supervisors. The County used certain criteria to identify new sites and based on analysis of parcels in the unincorporated County and input from the County's Housing Element Advisory Committee (HEAC), other stakeholders, and interested members of the public, the HEU proposes to include the sites in the Housing Sites Inventory that are grouped in four distinct geographies: Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road. These areas are described below.

Spanish Flat

The unincorporated community of Spanish Flat is located immediately west of Lake Berryessa. The site is located in a Moderate Severity Zone and includes portions of parcel 019-261-041 that have roadway frontage in the north end of the loop formed by Spanish Flat Loop Road and Berryessa Knoxville Road. This portion of the parcel, which is currently zoned Commercial Limited (CL), would be rezoned to require minimum residential densities of 20 du/ac and allow maximum residential densities of 25 du/ac.

Northeast Napa

The HEU would identify some or all of two parcels in the area of unincorporated Napa County that is northeast of the City of Napa, generally between the City limits and the Silverado Country Club as part of the Housing Sites Inventory. The Residential Multiple (RM) zoning district would be amended to provide incentives for the development of lower income housing. The two sites include a 5-acre portion of a 24.5-acre parcel at 1806 Monticello Road and a 5.8-acre parcel at 1011 Atlas Peak Road.

Imola Avenue

The area of Skyline Park immediately adjacent to the Office of Education on Imola Avenue, south and east of the City of Napa and adjacent to the Napa State Hospital is a 5-acre site owned by the State of California. The State has expressed interest in selling Skyline Park to the County and developing workforce housing on this area of Skyline Park.

Foster Road

The parcels along Foster Road south of Imola Avenue are within the City's Rural Urban Limit (RUL) and Sphere of Influence and will ultimately annex to the City of Napa. The HEU would identify one 5-acre site in this area (a portion of APN 043-062-008 and/or APN 043-102-016), that would annex to the City of Napa prior to occupancy, therefore, development standards and review of specific development proposals on this site(s) would require collaboration between the County and the City.

Other Sites and Overall Development Potential

Development and adoption of the HEU is an iterative process involving community input, in depth analysis, review of the draft HEU by HCD, consideration and adoption by the Board of Supervisors following certification of the EIR, and review and certification of the final HEU by HCD. As a result, the multifamily housing sites presented above for inclusion in the Housing Sites Inventory are subject to change. Recognizing the possibility of changes to the sites described above, this EIR analyzes potential impacts based on increases in development potential in the geographic areas identified. The anticipated development for each area is summarized in **Table 2-3** below, and the County recognizes that the total number of sites and the total number of units likely represent an overstatement of the final Housing Sites Inventory that is likely to be considered for adoption by the Board of Supervisors.

	Number of Units
Single Family Homes	230 units
ADU & JADU	72 units
Spanish Flat	100 units
Northeast Napa	158 units
Imola Avenue	100 units
Foster Road	100 units
Total Units	760 units

 TABLE 2-3

 HOUSING INVENTORY SITE LOCATIONS AND ANTICIPATED DEVELOPMENT^a

NOTES:

a. The anticipated development potential is based on the County's assessment of the likely number of units to develop on each individual site, and does not always represent the maximum allowed under the proposed zoning district.

SOURCE: Napa County, March 2022.

Safety Element Update

In conjunction with updates to the Housing Element, the Project would include targeted updates to the Safety Element of the General Plan to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747.

2.2.3 Project Objectives

CEQA *Guidelines* Section 15124(b) requires the description of the project in an EIR to state the objectives sought by the project.

"A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project."

In keeping with this requirement, the County's project objectives are as follows:

- Update the General Plan's Housing Element to comply with State-mandated housing requirements and to address the maintenance, preservation, improvement, and development of housing in the unincorporated County between 2023 and 2031.
- Include an inventory of housing sites and rezone the sites as necessary to meet the required Regional Housing Needs Allocation and to provide an appropriate buffer of additional housing development capacity.
- Amend other elements of the County's General Plan as needed to maintain internal consistency between the elements and update the Safety Element to ensure consistency with the County's Local Hazard Mitigation Plan and comply with recent changes in State law.

• Make necessary General Plan amendments and zoning changes in a manner that affirmatively furthers fair housing while preserving the rural character of Napa County and perpetuating the safety and welfare of both existing and future residents.

2.3 Environmental Impacts and Mitigation Measures

As provided by the CEQA *Guidelines* Section 15123(b)(1), an EIR must provide a summary of the impacts, mitigation measures and significant impacts after mitigation for a proposed project. This information is presented in the various subsections within Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR, and summarized in **Table 2-4** at the end of this chapter.

2.3.1 Significant and Unavoidable Impacts

The Project would result in the following significant and unavoidable impacts:

Aesthetics Impact AES-2: Implementation of the Project could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. (*Significant and Unavoidable with Mitigation*)

Air Quality Impact AIR-2: Implementation of the HEU would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. (*Significant and Unavoidable with Mitigation*)

Air Quality Impact AIR-3: Implementation of the HEU would expose sensitive receptors to substantial pollutant concentrations. (*Significant and Unavoidable with Mitigation*)

Cultural Resources Impact CUL-1: Implementation of the HEU could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. (*Significant and Unavoidable with Mitigation*)

Cultural Resources Impact CUL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, could contribute considerably to cumulative impacts on architectural historic resources pursuant to CEQA Guidelines Section 15064.5. (*Significant and Unavoidable Impact with Mitigation*)

Greenhouse Gas Emissions (GHG) Impact GHG-1: Implementation of the HEU would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (*Significant and Unavoidable with Mitigation*)

GHG Impact GHG-2: Implementation of the HEU would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (*Significant and Unavoidable with Mitigation*)

GHG Impact GHG-1.CU: Implementation of the HEU, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to GHG emissions that may have a significant impact on the environment or conflict with applicable plans, policies or regulations adopted for the

purpose of reducing the emissions of greenhouse gases. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-3: Stationary noise sources from development within the HEU area would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-4: Transportation activities under the HEU would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-2.CU: Stationary noise sources and transportation activities from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation*)

Transportation Impact TRA-2: Implementation of the HEU would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). (*Significant and Unavoidable with Mitigation*)

Utilities and Service Systems Impact UTL-2: Implementation of the HEU could not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (*Significant and Unavoidable with Mitigation*)

Utilities and Service Systems Impact UTL-3: Implementation of the HEU could result in a determination by a wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (*Significant and Unavoidable with Mitigation*)

Utilities and Service Systems Impact UTL-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on water supply. (*Significant and Unavoidable with Mitigation*)

Utilities and Service Systems Impact UTL-3.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on wastewater treatment capacity. (*Significant and Unavoidable with Mitigation*)

2.4 Summary of Alternatives

Chapter 5, *Alternatives to the Project*, analyzes a range of reasonable alternatives to the Project, including the No Project Alternative (Alternative 1) and the Reduced Program Alternative (Alternative 2). The analysis of the alternatives, including a comparison of alternatives to the proposed HEU, is presented in Chapter 5, which provides a summary of impact levels within all environmental topic areas. Overall, the analysis shows that the No Project Alternative would reduce all of the proposed HEU's significant impacts (but would also result in a new significant

land use and planning-related impact and not meet project objectives), and that the Reduced Program Alternative would eliminate significant impacts associated with the proposed HEU in seven environmental topics areas.

Based on the evaluation described in Chapter 5, the No Project Alternative would be environmentally superior to the Project. However, the No Project Alternative would not meet any of the basic objectives of the proposed HEU and would run counter to the requirements of State Law. CEQA requires that a second alternative be identified when the "No Project" alternative is the environmentally superior alternative (CEQA *Guidelines*, Section 15126.6(e)). Therefore, based on its elimination of significant impacts associated with the proposed HEU and the ability of the alternative to meet all of the basic project objectives of the proposed HEU, the Reduced Program Alternative would be the Environmentally Superior Alternative for the purpose of this analysis.

2.5 Areas of Controversy Raised in Scoping Comments

Section 15123(b)(2) of the CEQA *Guidelines* requires that an EIR summary identify areas of controversy known to the lead agency, including those issues raised by other agencies and the public. Issues raised by the public have included concerns regarding aesthetics, air quality, biological resources, tribal cultural resources, energy, hazards and hazardous materials, hydrology and water quality, land use, noise and vibration, transportation, utilities, and wildfire. As a result, these issues are potential areas of controversy.

2.6 Issues to be Resolved

Section 15123(b)(3) of the CEQA *Guidelines* requires that an EIR present the issues to be resolved including the choice among alternatives and whether or how to mitigate identified significant effects. The major issues to be resolved for the Project include decisions by County of Napa, as the Lead Agency, as to whether:

- This EIR adequately describes the environmental impacts of the Project;
- Recommended mitigation measures should be adopted or modified;
- Additional mitigation measures need to be applied to the Project;
- Feasible alternatives exist that would achieve the objectives of the Project and reduce significant environmental impacts;
- Significant and unavoidable impacts would occur if the Project is adopted and implemented; and
- The Project should or should not be approved.

 TABLE 2-4

 SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.1, Aesthetics		
Impact AES-1 : Implementation of the Project would not have a substantial adverse effect on a scenic vista. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact AES-2 : Implementation of the Project could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure AES-1: Imola Avenue Design Standards . The State agency with jurisdiction shall ensure that the design and orientation of housing on the Imola site is in keeping with County development standards to the maximum extent feasible.	Significant and Unavoidable
Impact AES-3: Implementation of the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact AES-1.CU : Implementation of the Project, when combined with other past, present, or reasonably foreseeable development, would not have a substantial adverse effect on a scenic vista. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact AES-2.CU : Implementation of the Project, when combined with other past, present, or reasonably foreseeable development, would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact AES-3.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable development, would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. <i>(Less than Significant)</i>	None required	Less Than Significant
Section 4.2, Agriculture and Forestry Resources		
Impact AGR-1 : Implementation of the HEU would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact AGR-2 : Implementation of the HEU would not conflict with existing zoning for agricultural use, or a Williamson Act contract. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact AGR-3: Implementation of the HEU would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use. <i>(Less than Significant)</i>	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.2, Agriculture and Forestry Resources (cont.)	•	
Impact AGR-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on agriculture. (<i>Less than Significant</i>)	None required	Less Than Significant
Section 4.3, Air Quality		
Impact AIR-1: Implementation of the HEU would not conflict with or obstruct implementation of the applicable air quality plan. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact AIR-2: Implementation of the HEU would result in a	Mitigation Measure AIR-1: Best Management Practices.	Significant and Unavoidable
which the project region is non-attainment under an applicable federal or state ambient air quality standard. (Significant and Unavoidable with Mitigation)	All multifamily housing development projects resulting from adoption of the HEU, regardless of size, shall implement best management practices to reduce construction impacts, particularly fugitive dust, to a less-than-significant level. Specifically, the project sponsor shall require all construction plans to specify implementation of the following best management practices:	
	 All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. 	
	• All haul trucks transporting soil, sand, or other loose material off-site shall be covered.	
	• All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.	
	All vehicle speeds on unpaved roads shall be limited to 15 mph.	
	• All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.	
	 Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. 	
	• All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.	
	• Post a publicly visible sign with the telephone number and person to contact at the County regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.3, Air Quality (cont.)		
Impact AIR-2 (cont.)	Mitigation Measure AIR-2: Emission Reduction Measures for Subsequent Projects Exceeding the Significance Thresholds for Criteria Pollutants.	
	Project sponsors proposing multifamily residential development projects that exceed BAAQMD screening levels shall prepare a project-level criteria air pollutant assessment of construction and operational emissions at the time the project is proposed. The project-level assessment could include a comparison of the project with other similar projects where a quantitative analysis has been conducted, or a project-specific criteria air pollutant analysis to determine whether the project exceeds the air district's criteria air pollutant thresholds.	
	While some projects may be below the screening levels, some aspects of the project that are not known at this time (such as an extensive amount of site preparation or demolition) could cause an exceedance of the significant emissions threshold.	
	In the event that a project-specific analysis finds that the project could result in significant construction and/or operational criteria air pollutant emissions that exceed significance thresholds, the project sponsor shall implement the following emission reduction measures to the degree necessary to reduce the impact to less than significance thresholds, and shall implement other feasible measures as needed to reduce the impact to less than the significance thresholds.	
	Clean Construction Equipment.	
	1) Diesel off-road equipment shall have engines that meet the Tier 4 Final off-road emission standards, as certified by CARB, as required to reduce the emissions to less than the thresholds of significance shown in Table 2-1 of the BAAQMD CEQA Guidelines (BAAQMD 2017b). This requirement shall be verified through submittal of an equipment inventory that includes the following information: (1) Type of Equipment, (2) Engine Year and Age, (3) Number of Years Since Rebuild of Engine (if applicable), (4) Type of Fuel Used, (5) Engine HP, (6) Verified Diesel Emission Control Strategy (VDECS) information if applicable and other related equipment data. A Certification Statement is also required to be made by the Contractor for documentation of compliance and for future review by the air district as necessary. The Certification Statement must state that the Constitute a material breach of contract.	
	The County may waive the equipment requirement above only under the following unusual circumstances: if a particular piece of off-road equipment with Tier 4 Final standards is technically not feasible or not commercially available; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or there is a compelling emergency need to use other alternate off-road equipment. If the County grants the waiver, the contractor shall use the next cleanest piece of off-road equipment available.	

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.3, Air Quality (cont.)		
Impact AIR-2 (cont.)	2) The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than 2 minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the 2-minute idling limit.	
Impact AIR-3: Implementation of the HEU would expose sensitive receptors to substantial pollutant concentrations. <i>(Significant and View)</i>	Mitigation Measure AIR-3: Emission Reduction Measures for Subsequent Projects Exceeding the Significance Thresholds for Health Risks associated with TAC Emissions.	Significant and Unavoidable
Unavoidable with Mitigation)	Project sponsors proposing multifamily development projects within 1,000 feet of sensitive receptors, including residences, schools, day care centers, and hospitals, shall prepare a project-level health risk assessment at the time the project is proposed. The project-level assessment could include a comparison of the project with other similar sized projects located a similar distance from receptors where a quantitative analysis has been conducted, or a project-specific analysis to determine whether the project exceeds the air district's health risk thresholds.	
	In the event that a project-specific analysis finds that the project could result in health risks that exceed significance thresholds, the project sponsor shall implement the clean construction equipment requirement of Mitigation Measure AIR2 to the degree necessary to reduce the impact to less than significance thresholds, and shall implement other feasible measures as needed to reduce the impact to less than the significant thresholds.	
Impact AIR-4: Implementation of the HEU would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact AIR-1.CU: The HEU, in conjunction with cumulative sources, would not result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM2.5) and TACs under cumulative conditions. <i>(Less than Significant Impact)</i>	None required	Less Than Significant
Impact AIR-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not combine with other sources of odors that would adversely affect a substantial number of people. (<i>Less than Significant</i>)	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.4, Biological Resources		
Impact BIO-1: Implementation of the HEU would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. (Less than Significant with Mitigation)	 Mitigation Measure BIO-1: Avoid and Minimize Impacts on Special-Status Plant Species. To ensure protection of special-status plants, the following measures will be implemented. a) Prior to the start of earth-disturbing activities (i.e., clearing and grubbing) in the Imola Avenue, Atlas Peak Road, Foster Road, and Spanish Flat sites, a qualified biologist shall conduct a properly timed special-status plant survey for rare plant species within the project work limits. The survey will follow the CDFW Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFW, 2018). If special-status plant species occur within the project work limits and can be avoided, then the biologist will establish an adequate buffer area for each plant population to exclude activities that directly remove or alter the habitat of, or result in indirect adverse impacts on, the special-status plant species. A qualified biologist will oversee installation of a temporary, plastic mesh-type construction fence (Tensor Polygrid or equivalent) at least 4 feet (1.2 meters) tall around any established buffer areas to prevent encroachment by construction vehicles and personnel. The qualified biologist will determine the exact location of the fencing. The fencing will be checked and maintained weekly until all construction is complete. The buffer zone established by the fencing will be marked by a sign stating: "This is habitat of [list rare plant(s)] and must not be disturbed. This species is protected by [the Endangered Species Act of 1973, as amended/CESA/California Native Plant Protection Act]." b) If direct impacts cannot be avoided, the biologist shall prepare a plan for minimizing the impacts by one or more of the following methods: 1) salvage and replant plants at the same location following construction; 2) salvage and relocate the plants to a suitable off-site location with long-term assurance of site protection; 3) collect seed	

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Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.4, Biological Resources (cont.)		
Impact BIO-1 (cont.)	Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds.	
	Adequate measures shall be taken to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in active use. This shall be accomplished by taking the following steps.	
	a) If construction is proposed within 500 feet of areas of well-developed riparian or oak woodlands during the nesting season (February 15 to August 31), a pre-construction survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 7 days prior to the onset of vegetation removal or construction, to identify any active nests on the project site and in the vicinity of proposed construction. Surveys shall be performed for the project area, vehicle and equipment staging areas, and suitable habitat within 250 feet to locate any active passerine (e.g., songbird) nests and within 500 feet to locate any active raptor (bird of prey) nests. If ground disturbance activities are delayed following a survey, then an additional preconstruction survey shall be conducted such that no more than two weeks will have elapsed between the last survey and the commencement of ground disturbance activities.	
	b) If no active nests are identified during the survey period, or if development is initiated during the non-breeding season (September 1 to February 14), construction may proceed with no restrictions.	
	c) If bird nests are found, an adequate no-disturbance buffer (e.g., 100 to 250 feet) shall be established around the nest location and construction activities restricted within the buffer until the qualified biologist has confirmed that any young birds have fledged and are able to leave the construction area. Required setback distances for the no-disturbance zone shall be established by the qualified biologist and may vary depending on species, line-of-sight between the nest and the construction activity, and the birds' sensitivity to disturbance. As necessary, the no-disturbance zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the development site.	
	d) Any birds that begin nesting within the project area and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby being to show disturbance associated with construction activities, no- disturbance buffers shall be established as determined by the qualified wildlife biologist.	
	e) Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest's success, work within the no-disturbance buffer shall halt until the nest occupants have fledged.	
	f) A report of findings shall be prepared by the qualified biologist and submitted to the County for review and approval prior to initiation of construction within the no-disturbance zone during the nesting season. The report shall either confirm absence of any active nests or shall confirm that any young within a designated no-disturbance zone and construction can proceed.	

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.4, Biological Resources (cont.)		
Impact BIO-1 (cont.)	Mitigation Measure BIO-3: Avoid and Minimize Impacts on Roosting Bats.	Less Than Significant
	A qualified biologist who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to demolition or building relocation activities or tree work to conduct a pre-construction habitat assessment of the project area (focusing on buildings to be demolished or relocated) to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify bat habitat or signs of potentially active bat roosts within the project area (e.g., guano, urine staining, dead bats, etc.).	
	 The following measures shall be implemented should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished or relocated, or in trees adjacent to construction activities that could be trimmed or removed within the study area for the HEU project sites: 	
	a) In areas identified as potential roosting habitat during the habitat assessment, initial building demolition, relocation, and any tree work (trimming or removal) shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid the bat maternity roosting season and period of winter torpor.	
	b) Depending on temporal guidance as defined below, the qualified biologist shall conduct pre- construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition or relocation, or any tree trimming or removal.	
	c) If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition and relocation or tree work, the qualified biologist shall determine, if possible, the type of roost and species. A no-disturbance buffer shall be established around roost sites until the qualified biologist determines they are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site.	
	d) If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist in coordination with CDFW. Such measures may include postponing the removal of buildings or structures, establishing exclusionary work buffers while the roost is active (e.g., 100-foot no-disturbance buffer), or other compensatory mitigation.	

Impacts		Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.4, Biological Resources (cont.)			
Impact BIO-1 (cont.)	e)	The qualified biologist shall be present during building demolition, relocation, or tree work if potential bat roosting habitat or active bat roosts are present. Buildings and trees with active roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.	
	f)	The demolition or relocation of buildings containing or suspected to contain bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.	
	g)	Trimming or removal of existing trees with potential bat roosting habitat or active (non- maternity or hibernation) bat roost sites shall follow a two-step removal process (which shall occur during the time of year when bats are active, according to a) above and, depending on the type of roost and species present, according to c) above).	
	h)	On the first day and under supervision of the qualified biologist, tree branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws.	
	i)	On the following day and under the supervision of the qualified biologist, the remainder of the tree may be trimmed or removed, either using chainsaws or other equipment (e.g., excavator or backhoe).	
	j)	All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.	
		tion Measure BIO-4: Avoid and Minimize Impacts to Western Pond Turtle	
	Before at the turtles neede reloca CDFW hatchl	e construction activities begin, a qualified biologist shall conduct western pond turtle surveys Imola site. Upland areas shall be examined for evidence of nests as well as individual . The project biologist shall be responsible for the survey and for the relocation of turtles, if d. Construction shall not proceed until a reasonable effort has been made to identify and te turtles, if present, a biologist with the appropriate authorization and prior approval from / shall move turtles and/or eggs to a suitable location or facility for incubation, and release ings into the creek system the following autumn.	

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.4, Biological Resources (cont.)		
Impact BIO-2: Implementation of the HEU would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. <i>(Less than Significant with Mitigation)</i>	 Mitigation Measure BIO-1, Avoid and Mitigate Impacts on Special-Status Plants. See above. Mitigation Measure BIO-5: Sensitive Natural Community Mitigation. Prior to issuance of a building permit for development on the Spanish Flat site, the property owner or developer shall retain a qualified biologist to accurately map locations supporting Valley oak woodlands, so that the development can avoid and retain viable oak trees where feasible. Downed and dead trees and former woodlands where trees are removed for safety considerations are not considered a sensitive natural community. Consistent with Policy CON-24, where temporary construction impacts to valley oak woodlands cannot be avoided, revegetation and restoration measures will be developed as part of a revegetation plan approved by Napa County. The revegetation plan will include specific actions for the revegetation and restoration of impacted valley oak woodlands. Revegetation will include a 2:1 replacement ratio (or ratio otherwise identified by the County) of the acreage of woodland lost and for all trees lost as result of the Project. The following success criteria will apply to revegetated areas: 1. Success criteria for replanting will be less than 20 percent mortality annually over a period of 	Less Than Significant
	 Success chema for replaning will be less than 20 percent mortality annually over a period of 5 years. Replanting will be conducted each year that plantings exceed 20 percent mortality, such that at least 80 percent plant survival is maintained each year of the 5-year monitoring period. Cover provided by invasive, non-native plant species shall not exceed 5 percent during each year of the 5-year monitoring period. A qualified biologist shall monitor the mitigation site for a minimum of five years to ascertain if the mitigation is successful. Annual reports will be submitted to the County by December 31 of each monitoring year (or as otherwise identified by Napa County), describing the results of the monitoring and any remedial actions needed to achieve the specified habitat replacement ratio, or equivalent for permanent impacts on sensitive natural communities. 	
Impact BIO-3: Implementation of the HEU would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant)	None required	Less Than Significant
Impact BIO-4: Implementation of the HEU would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. <i>(Less than Significant)</i>	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.4, Biological Resources (cont.)		
Impact BIO-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, would	Mitigation Measures BIO-1: Avoid and Mitigate Impacts on Special-Status Plants. See above.	Less Than Significant
not contribute considerably to cumulative impacts on biological resources. (Less than Significant with Mitigation)	Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds. See above.	
	Mitigation Measure BIO-3: Avoid and Minimize Impacts on Roosting Bats. See above.	
	Mitigation Measure BIO-5: Sensitive Natural Community Mitigation. See above.	
Section 4.5, Cultural Resources and Tribal Cultural Resources		
Impact CUL-1 : Implementation of the HEU could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. <i>(Significant and Unavoidable with Mitigation)</i>	Mitigation Measure CUL-1: Document Architectural Historic Resources Prior to Demolition or Alteration. Prior to any demolition work or significant alterations initiated of a known historical resource or a resource identified, the County shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards thoroughly documents each building and associated landscaping and setting. Documentation shall include still photography and a written documentary record of the building to the National Park Service's standards of the Historic American Buildings Survey (HABS) or the Historic American Engineering Record (HAER), including accurate scaled mapping and architectural descriptions. If available, scaled architectural plans will also be included. Photos include large-format (4*x5") black-and-white negative photography if archived locally. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through	Significant and Unavoidable
	site-specific and comparative archival research and oral history collection as appropriate. Copies of the records shall be submitted to the Northwest Information Center at Sonoma State University.	
Impact CUL-2: Implementation of the HEU may cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. <i>(Less than Significant with Mitigation)</i>	Mitigation Measure CUL-2. Cultural Resources Review Requirements. For all discretionary projects that require ground disturbance (i.e. excavation, trenching, grading, etc.) within areas identified in the Baseline Data Report Map 14-3 (Jones & Stokes, 2005) as having a sensitivity of 13 or higher (moderate to high), a records search shall be completed at the Northwest Information Center (NWIC) of the California Historical Resources Information System for the project area. To receive project approval, an archaeologist meeting the U.S. Secretary of the Interior's Standards (SOIS) for Archeology, must review the results and identify if the project would potentially impact cultural resources. If the archaeologist determines that known cultural resources or potential archaeologically sensitive areas may be impacted by the project, a pedestrian survey must be conducted under the supervision of a SOIS-qualified archaeologist of all accessible portions of the project area, if one has not been completed within the previous five years.	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.5, Cultural Resources and Tribal Cultural Resources		
Impact CUL-2 (cont.)	In addition, California Native American tribes identified by the Native American Heritage Commission (NAHC) to be affiliated with Napa County for the purposes of tribal consultation under Chapter 905, California Statutes of 2004 (culturally-affiliated Native American tribes) shall be notified of the proposed project and provided the preliminary findings of the records search and survey results. Following collaboration with the culturally-affiliated Native American tribe(s) and the County, a SOIS-qualified archaeologist shall prepare a cultural resources inventory report to submit to the County and the culturally-affiliated Native American tribe(s) for review. The report shall include the results of the background research and survey, and recommend additional actions, as needed, including subsurface testing, a cultural resources awareness training, and/or monitoring during construction.	
	If the County determines that a cultural resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4, with a preference for preservation in place. In coordination with a SOIS-qualified archaeologist and the culturally-affiliated Native American tribe(s), preservation in place may include, but is not limited to: (1) planning construction to avoid archaeological sites, (2) deeding archaeological sites into permanent conservation easements, (3) capping or covering archaeological sites with a layer of soil before building on the sites, and (4) planning parks, greenspace, or other open space to incorporate archaeological sites.	
	If avoidance is not feasible, the County shall consult with the culturally-affiliated Native American tribe(s) (if the resource is Native American-related) to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2 and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).	
	Mitigation Measure CUL-3. Inadvertent Discovery of Cultural Resources.	
	If pre-contact or historic-era cultural resources are encountered during project construction and implementation, all construction activities within 100 feet shall halt and the County shall be notified. Pre-contact cultural materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era cultural materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. An archaeologist meeting the U.S. Secretary of the Interior's Standards (SOIS) for Archeology shall inspect the find within 24 hours of discovery. Work shall be stopped within 100 feet of the potential cultural resource until the material is either determined by the archaeologist to not be a cultural resource or appropriate treatment has been enacted, in coordination with the culturally-affiliated Native American tribe(s) (if the resource is Native American-related).	

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.5, Cultural Resources and Tribal Cultural Resources (cont	t.)	
Impact CUL-2 (cont.)	If the County determines that a cultural resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4, with a preference for preservation in place. In coordination with the SOIS-qualified archaeologist and the culturally-affiliated Native American tribe(s), preservation in place may include, but is not limited to: (1) planning construction to avoid archaeological sites, (2) deeding archaeological sites into permanent conservation easements, (3) capping or covering archaeological sites with a layer of soil before building on the sites, and (4) planning parks, greenspace, or other open space to incorporate archaeological sites. If avoidance is not feasible, the County shall consult with the culturally-affiliated Native American tribes (if the resource is Native American-related) to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2 and	
	CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).	
Impact CUL-3: Implementation of the HEU may disturb any human remains, including those interred outside of dedicated cemeteries. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact TCR-1: Implementation of the HEU may cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074. (<i>Less than Significant with Mitigation</i>)	Mitigation Measure CUL-2: Cultural Resources Review Requirements. See above. Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources. See above.	Less Than Significant
Impact CUL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, could contribute considerably to cumulative impacts on architectural historic resources pursuant to CEQA Guidelines Section 15064.5. (<i>Significant and Unavoidable Impact with Mitigation</i>)	Mitigation Measure CUL-1: Document Architectural Historic Resources Prior to Demolition or Alteration. See above.	Significant and Unavoidable
Impact CUL-2.CU: Implementation of the HEU, in combination with other cumulative development, would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 or could disturb human remains, including those interred outside of formal cemeteries. <i>(Less than Significant Impact with Mitigation)</i>	Mitigation Measure CUL-2: Cultural Resources Review Requirements. See above. Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources. See above.	Less Than Significant
Impact TCR-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, could contribute considerably to cumulative impacts on tribal cultural resources. <i>(Less than Significant with Mitigation)</i>	Mitigation Measure CUL-2: Cultural Resources Review Requirements. See above. Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources. See above.	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation	
Section 4.6, Energy			
Impact ENE-1: Implementation of the HEU would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact ENE-1.CU: Implementation of the HEU would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction and operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Less than Significant Impact)	None required	Less Than Significant	
Section 4.7, Geology, Soils, Paleontological and Mineral Resources			
Impact GEO-1: Implementation of the HEU would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact GEO-2: Implementation of the HEU would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact GEO-3: Implementation of the HEU would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact GEO-4: Implementation of the HEU would not result in substantial soil erosion or the loss of topsoil. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact GEO-5: Implementation of the HEU would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impacts	Mitigation Measures	Significance After Incorporation of Mitigation	
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Section 4.7, Geology, Soils, Paleontological and Mineral Resources	(cont.)		
Impact GEO-6: Implementation of the HEU would not be located on expansive soil, creating substantial direct or indirect risks to life or property. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact GEO-7: Implementation of the HEU would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. <i>(Less than Significant)</i>	None required	Less Than Significant	
Impact GEO-8: Implementation of the HEU would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)	Mitigation Measure GEO-1: Determination of Paleontological Potential. Prior to issuance of a grading permit for any discretionary projects that require ground disturbance (i.e., excavation, grading, trenching, etc.) below 5 feet in previously undisturbed Holocene-age alluvial deposits or at any depth in previously undisturbed Pleistocene-age alluvial deposits (i.e. all multi-family housing sites except for the Spanish Flat site), the project shall undergo an analysis to determine the potential for a project to encounter significant paleontological resources, based on a review of site-specific geology and the extent of ground disturbance associated with each project. The analysis shall include, but would not be limited to: 1) a paleontological records search, 2) geologic map review, and 3) peer-reviewed scientific literature review. If it is determined that a site has the potential to encounter significant paleontological resources, County General Plan Action Item CC-23.2 would be triggered. Action Item CC-23.2 requires that all construction activities stop if a paleontological resource is encountered and that the Planning Department be notified. Upon notification, the Planning Department would retain a qualified paleontologist (meeting the Society of Vertebrate Paleontology [SVP] standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources) to evaluate the discovery and determine its significance.	Less Than Significant	
Impact GEO-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on geology, soils, paleontological, or mineral resources. <i>(Less than Significant)</i>	None required	Less Than Significant	

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.8, Greenhouse Gas Emissions		
Impact GHG-1: Implementation of the HEU would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (<i>Significant and Unavoidable with Mitigation</i>)	 Mitigation Measure GHG-1: Reduce GHG emissions from building energy use and motor vehicle trips. a) All new residential development proposed as part of the HEU shall be designed to be 100 percent electric with no natural gas infrastructure for appliances, including water heaters, 	Significant and Unavoidable
	 clothes washers and dryers, HVAC systems, and stoves. b) Subsequent residential development projects proposed as part of the HEU shall be designed to comply with EV requirements in the most recently adopted version of CALGreen Tier 2 at the time of project-specific CEQA review. 	
	c) Implement Mitigation Measure TRA-1 included in Chapter 4.15, <i>Transportation</i> .	
Impact GHG-2: Implementation of the HEU would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure GHG-1: Reduce GHG emissions from building energy use and motor vehicle trips. See above.	Significant and Unavoidable
Impact GHG-1.CU: Implementation of the HEU, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to GHG emissions that may have a significant impact on the environment or conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure GHG-1: Reduce GHG emissions from building energy use and motor vehicle trips. See above.	Significant and Unavoidable
Section 4.9, Hazards and Hazardous Materials		
Impact HAZ-1: Implementation of the HEU would not create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact HAZ-2: Implementation of the HEU would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact HAZ-3 : Implementation of the HEU would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. <i>(Less than</i> <i>Significant)</i>	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.9, Hazards and Hazardous Materials (cont.)		
Impact HAZ-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts relative to hazards and hazardous materials. <i>(Less than Significant)</i>	None required	Less Than Significant
Section 4.10, Hydrology and Water Quality		
Impact HYD-1: Implementation of the HEU would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (Less than Significant)	None required	Less Than Significant
Impact HYD-2: Implementation of the HEU would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact HYD-3: Implementation of the HEU would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact HYD-4: Implementation of the HEU would risk release of pollutants due to project inundation due to being located in a flood hazard zone. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact HYD-5: Implementation of the HEU would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact HYD-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on hydrology and water quality. <i>(Less than Significant)</i>	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.11, Land Use and Planning		
Impact LUP-1: Implementation of the Project would not physically divide an established community. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact LUP-2: Implementation of the Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact LUP-1.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not physically divide an established community. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact LUP-2.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. <i>(Less than Significant)</i>	None required	Less Than Significant
Section 4.12, Noise		
Impact NOI-1: Implementation of the HEU would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact NOI-2: Implementation of the HEU would not generate excessive groundborne vibration. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact NOI-3: Stationary noise sources from development within the HEU area would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (<i>Significant</i> <i>and Unavoidable with Mitigation</i>)	Mitigation Measure NOI-1: Operational Noise Performance Standard for State-Owned Properties. Prior to the issuance of any building permit, the project applicant for any housing development of the Imola Avenue site or other development site that is currently state-owned shall ensure that all mechanical equipment is selected and designed to reduce impacts on surrounding uses by meeting a performance standard of 60 dBA, Ldn (equivalent to 50 dBA hourly Leq) at the nearest residential property line. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance has been verified by the County. Methods of achieving these standards include using low-noise-emitting HVAC equipment, locating HVAC and other mechanical equipment within a rooftop mechanical penthouse, and using shields and parapets to reduce noise levels to adjacent land uses.	Significant and Unavoidable

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.12, Noise (cont.)	<u>.</u>	
Impact NOI-4: Transportation activities under the HEU would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. <i>(Significant and Unavoidable with Mitigation)</i>	 Mitigation Measure NOI-2: Preparation of a Project-Level Traffic Analysis and Mitigation. Prior to any potential future development at the Spanish Flat and Foster Road opportunity sites, the project applicant for any housing development shall prepare a project-level noise analysis demonstrating that the increase in noise along roadways used to access the site will not exceed 3 dBA above existing levels. Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program. See Section 4.15, <i>Transportation</i>, below. 	Significant and Unavoidable
Impact NOI-5: Implementation of the HEU would not expose people residing or working in the project area to excessive noise levels due to being located within the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport or public use airport. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact NOI-1.CU: Construction activities associated with implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (<i>Less than Significant Impact</i>)	None required	Less Than Significant
Impact NOI-2.CU: Stationary noise sources and transportation activities from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (<i>Significant and Unavoidable with Mitigation</i>)	 Mitigation Measure NOI-1: Operational Noise Performance Standard for State-Owned Properties. See above. Mitigation Measure NOI-2: Preparation of a Project-Level Traffic Analysis and Mitigation. See above. Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program. See Section 4.15, <i>Transportation</i>, below. 	Significant and Unavoidable
Impact NOI-3.CU: Construction activities associated with implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not result in exposure of persons to or generation of excessive groundborne vibration levels. (<i>Less than Significant Impact</i>)	None required	Less Than Significant

		Significance After Incorporation of
Impacts	Mitigation Measures	Mitigation
Section 4.13, Population and Housing		
Impact POP-1: Implementation of the HEU would not induce substantial unplanned population growth in an area, either directly or indirectly. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact POP-2: Implementation of the HEU would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact POP-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable growth, would not contribute considerably to cumulative impacts on population and housing. <i>(Less than Significant)</i>	None required	Less Than Significant
Section 4.14, Public Services and Recreation		
Impact PSR-1: Implementation of the HEU would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection and emergency medical response services facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact PSR-2: Implementation of the HEU would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact PSR-3: Implementation of the HEU would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact PSR-4: Implementation of the HEU would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. <i>(Less than Significant)</i>	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.14, Public Services and Recreation (cont.)		
Impact PSR-5: Implementation of the HEU would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact PSR-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact PSR-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on parks and recreation. (<i>Less than Significant</i>)	None required	Less Than Significant
Section 4.15, Transportation		
Impact TRA-1: Implementation of the HEU would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact TRA-2: Implementation of the HEU would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program.	Significant and Unavoidable
	Prior to issuance of building permits, project applicants of proposed multi-family development shall develop a TDM program for the proposed project, including any anticipated phasing, and shall submit the TDM Program to the County for review and approval. The TDM Program shall identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program shall be designed to achieve the following trip reduction, as required to meet thresholds identified by OPR:	
	A 15% reduction compared to the unmitigated VMT estimated for the proposed project	
	Trip reduction strategies may include, but are not limited to, the following:	
	1. Provision of bus stop improvements or on-site mobility hubs	
	2. Pedestrian improvements, on-site or off-site, to connect to nearby transit stops, services, schools, shops, etc.	
	3. Bicycle programs including bike purchase incentives, storage, maintenance programs, and on-site education program	

TABLE 2-4 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.15, Transportation (cont.)		
Impact TRA-2 (cont.)	4. Enhancements to Countywide bicycle network	
	 Parking reductions and/or fees set at levels sufficient to incentivize transit, active transportation, or shared modes 	
	6. Cash allowances, passes, or other public transit subsidies and purchase incentives	
	7. Providing enhanced, frequent bus service	
	8. Implementation of shuttle service	
	9. Establishment of carpool, buspool, or vanpool programs	
	10. Vanpool purchase incentives	
	11. Low emission vehicle purchase incentives/subsidies	
	12. Compliance with a future County VMT/TDM ordinance	
	13. Participation in a future County VMT fee program	
	14. Participate in future VMT exchange or mitigation bank programs	
Impact TRA-3: Implementation of the HEU would not substantially increase hazards due to a geometric design feature or incompatible uses. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact TRA-4: Implementation of the HEU would not result in inadequate emergency access. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact TRA-1.CU: Implementation of the HEU, in combination with past, present, and reasonably foreseeable future development, would not result in a cumulatively considerable contribution to hazards due to geometric design features or incompatible uses, or inadequate emergency access. <i>(Less than Significant)</i>	None required	Less Than Significant
Section 4.16, Utilities and Service Systems		
Impact UTL-1: Implementation of the HEU would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant)	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.16, Utilities and Service Systems (cont.)		
Impact UTL-2: Implementation of the HEU could not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (Significant and Unavoidable with Mitigation)	Mitigation Measure UTL-1: Demonstrate Sufficient Water Supply Availability. Project sponsors shall submit evidence to the County that sufficient water supply is available to serve the projected demand of proposed multifamily housing development prior to the issuance of any approvals.	Significant and Unavoidable
Impact UTL-3: Implementation of the HEU could result in a determination by a wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure UTL-2: Adequate Wastewater Treatment Capacity. Project sponsors shall submit evidence to the County that adequate wastewater treatment capacity is available to serve the projected demand of proposed multifamily housing development prior to the issuance of any approvals.	Significant and Unavoidable
Impact UTL-4: Implementation of the HEU would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact UTL-5: Implementation of the HEU would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact UTL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on utility infrastructure. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact UTL-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on water supply. (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure UTL-1: Demonstrate Sufficient Water Supply Availability. See above.	Significant and Unavoidable
Impact UTL-3.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on wastewater treatment capacity. (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure UTL-2: Adequate Wastewater Treatment Capacity. See above.	Significant and Unavoidable
Impact UTL-4.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on solid waste. (<i>Less than Significant</i>)	None required	Less Than Significant

Impacts	Mitigation Measures	Significance After Incorporation of Mitigation
Section 4.17, Wildfire		
Impact WLF-1: Implementation of the HEU would not substantially impair an adopted emergency response plan or emergency evacuation plan. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact WLF-2: Implementation of the HEU would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact WLF-3: Implementation of the HEU would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (<i>Less than Significant</i>)	None required	Less Than Significant
Impact WLF-4: Implementation of the HEU would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. <i>(Less than Significant)</i>	None required	Less Than Significant
Impact WLF-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, would not result in significant cumulative impacts related to wildfire. (<i>Less than Significant</i>)	None required	Less Than Significant

CHAPTER 3 Project Description

3.1 Introduction

State law requires the County to have and maintain a general plan with specific contents in order to provide a vision for the unincorporated County's future. The general plan informs local decisions about land use and development, including issues such as circulation, conservation, and safety. Napa County's General Plan was comprehensively updated in 2008, and has been amended since then, most notably with adoption of the current Housing Element in 2014, and adoption of an updated Circulation Element in 2019. As a whole, the General Plan includes eight topical chapters or "elements" and an implementation chapter listing implementation action items referenced in other sections of the General Plan.

The County's Housing Element comprises an integral part of the overall plan, providing goals, policies, and programs regarding the preservation and development of housing in the County. The Housing Element was last updated in 2014, and covers the "5th Cycle" housing element planning period from 2014 through 2022. Because this period is drawing to a close, State law [Government Code Section 65588] requires the County to update its Housing Element and provides a deadline of January 31, 2023. In accordance with State law, the planning period for the updated Housing Element will extend to January 31, 2031 and is referred to as the "6th cycle."

Current Contents of the Napa County General Plan*

- 1. Agricultural Preservation and Land Use
- 2. Circulation Element
- 3. Community Character Element
- 4. Conservation Element
- 5. Economic Development Element
- 6. Housing Element
- 7. Recreation and Open Space Element
- 8. Safety Element
- 9. Implementation Plan
- *As amended thru February 2022

Concurrent with the Housing Element update, the County proposes to make any conforming amendments to other elements of the General Plan needed to maintain internal consistency, and to update the Safety Element to comply with recent changes in State Law. The County also proposes to undertake any changes to the County's zoning ordinance and zoning map that are needed to reflect the updated Housing Element and to maintain consistency with the General Plan. These proposed actions are the subject of this Environmental Impact Report (EIR), and are collectively referred to as the Housing Element Update (HEU) or "the Project." The Project is described in this chapter, which also provides background information, project objectives, and describes intended uses of the EIR, including approval actions required.

3.2 Project Location and Setting

Napa County is located in the northern San Francisco Bay area, approximately 50 miles due west of Sacramento, California. The County is bordered by Lake County to the north, Yolo and Solano County to the east, Sonoma County to the west, and San Pablo Bay to the south, as shown in **Figure 3-1**. The planning area for the Housing Element Update is the same planning area that was considered by the 2008 General Plan, which encompasses all unincorporated land in Napa County, as shown in **Figure 3-2**. The unincorporated County includes approximately 9,022 residential dwelling units and comprises 789 square miles.

Unincorporated Napa County is a world famous grape-growing and wine-making region, with a strong agricultural industry and a longstanding commitment to agricultural preservation and open space conservation, evidenced by the County's rural character and development controls directing urban uses to urbanized areas. Incorporated cities (Napa, American Canyon, St. Helena, and Calistoga) and the incorporated town of Yountville contain the vast majority of residential development and community services (e.g. schools, shopping, transit services) and are served by municipal utilities. There are few sections of the unincorporated County that have access to water and wastewater services, with most sections relying on groundwater and septic systems. The southern part of the County is home to the Napa County Airport and a surrounding business park, and the County is currently seeking to revitalize resort areas along the shores of Lake Berryessa in the eastern part of the County.

3.3 Background and Regional Housing Needs Allocation

The County's current General Plan and Housing Element are guiding documents for land use decisions affecting unincorporated Napa County, and the HEU would update the Housing Element and other sections of the General Plan as needed to comply with State law. The current documents and legal requirements are summarized briefly below.

3.3.1 Napa County's Current General Plan and 5th Cycle Housing Element

The County's 5th Cycle Housing Element provides goals, policies, and implementation programs that are primarily intended to facilitate housing affordable to all economic segments of the community. The 5th Cycle Housing Element was adopted in 2014 and applies to the planning period from January 31, 2015 to January 31, 2023. It contains 41 implementation programs that are monitored on an annual basis as part of the County's annual report focusing on housing development (i.e. residential permits issued) in the County.

The 5th Cycle Housing Element was crafted to address the County' 5th Cycle Regional Housing Needs Allocation (RHNA) of 180 units at various levels of affordability, and provides a housing sites inventory with the capacity to greatly exceed this number. Identified sites for multifamily housing include the Napa Pipe site, as well as sites in the unincorporated enclaves of Angwin,



SOURCE: Napa County, 2007

ESA

Napa County Housing Element Update EIR

Figure 3-1 Regional Location Map



^{02000244.00 -} Napa County Housing Element/05 Graphics-GIS-Modeling/II

ESA

Napa County Housing Element Update EIR

Figure 3-2 Project Location Map

SOURCE: Napa County, 2021

Moskowite Corner, and Spanish Flat. With annexation of the Napa Pipe site to the City of Napa, the site is no longer available to the County, however with adoption of SB 235 (Dodd) enacting Government Code Section 65584.08 in 2019, the County may include permits for housing units affordable to lower income households constructed on the Napa Pipe site in its annual report to HCD, despite those permits being issued by the City of Napa, if certain conditions are met.

3.3.2 6th Cycle Regional Housing Needs Allocation

State law requires local jurisdictions to update their housing elements on a regular schedule and to maintain consistency between the housing element and other elements of the general plan. Each city and county in the Bay Area must update their current housing element to the satisfaction of the State Department of Housing and Community Development (HCD) by January 31, 2023 and must plan for a number of new housing units referred to as their Regional Housing Needs Allocation (RHNA), as well as meeting other provisions in the law, such as the requirement to affirmatively further fair housing.

A RHNA is generally assigned to each jurisdiction in the Bay Area by the Association of Bay Area Governments (ABAG) for the eight year planning period and includes housing units at various levels of affordability (very low income, low income, moderate income, and above moderate), which are defined by percentage of Area Median Income (AMI)¹. The County's initial RHNA as of December 2021 totaled 1,014 units and was reduced on March 17, 2022 with ABAG's approval of the County's initial and final RHNA from March 17, 2022 is shown in **Table 3-1**, below.

	Units by Income Group ^b				
	Very Low (0-50% AMI)	Low (51-80% AMI)	Moderate (81-120% AMI)	Above Moderate (>120% AMI)	Total Units
Initial December 2021 RHNA Allocation	369	213	120	312	1,014
% of Total	36%	21%	12%	31%	100%
March 17, 2022 (Final) RHNA Allocation ^a	45	16	14	31	106
% of Total	42%	15%	13%	29%	100%

 TABLE 3-1

 NAPA COUNTY REGIONAL HOUSING NEEDS (RHNA) ALLOCATION AS OF MARCH 17, 20221

NOTES:

a. The RHNA allocation shown here reflects ABAG's March 17, 2022 approval of RHNA transfers pursuant to California Government Code Section 65584.07, which modified the original RHNA adopted in December 2021

b. Units are grouped into categories based on the incomes of households accommodated and their relationship (percentage of) Area Median Income (AMI).

SOURCE: ABAG, March 17, 2022.

¹ In 2021, the County's Area Median Income for a family of four was \$109,200, as published by HCD in Title 25 of the California Code of Regulations section 6932.

The 1,014 total housing units originally included in the County's 6th Cycle RHNA were greater than the 5th Cycle RHNA of 180 units in part because the Bay Area region's overall allocation of 441,176 units from HCD is more than double the last Housing Element cycle's allocation, which was approximately 189,000 units. ABAG's 6th Cycle RHNA allocation also used a different methodology to distribute the overall allocation to individual jurisdictions, emphasizing factors such as access to high opportunity areas, and proximity to jobs.

Over the past 12 years, the County has entered into agreements with the City of American Canyon, the City of Napa, and the City of St. Helena, that allow the County to transfer portions of its RHNA allocation to these jurisdictions pursuant to California Government Code Section 65584.07. These agreements reflect a shared commitment by the County and incorporated jurisdictions to agricultural preservation and urban centered growth, and on February 4, 2022, the County requested ABAG's approval of RHNA transfers on the basis of these agreements.

The County's request for RHNA transfers sought to transfer approximately 90 percent of the County's December 2021 RHNA based on the executed agreements and on factors/circumstances outlined in the request. The requested transfers with the City of Napa, the City of American Canyon, and the City of St. Helena are summarized in **Table 3-2** below, and involved somewhat fewer units than allowed for in the executed agreements with the City of Napa and the City of American Canyon.

	Very Low Income Units	Low Income Units	Moderate Income Units	Above Mod Income Units	Total Units transferred to the City(s)
Transfer Request #1 (City of Napa) ^a	266	153	86	225	730
Transfer Request #2 (City of American Canyon) ¹	57	44	20	55	176
Transfer Request #3 (City of St. Helena)	1	0	0	1	2
Total of Transfers 1+2+3	324	197	106	281	908

 TABLE 3-2

 Requested Transfers from the Cities of Napa, American Canyon, and St. Helena

NOTES:

a. The transfers to the City of Napa and City of American Canyon are somewhat less than the maximum permitted under the terms of agreements executed by the County and the cities. In each case, the distribution of units by income category was crafted to ensure the County's compliance with Government Code Section 65584.07(a)(3).

SOURCE: Napa County, February 4, 2022.

As shown above, the transfer to the City of Napa was for 730 units or 72 percent of the County's RHNA, rather than for 811 units or 80 percent of the County's RHNA as allowed under the agreement between the City and the County. Similarly, the requested transfer to the City of American Canyon, was for 176 units, rather than for 198 units as allowed under the agreements between the City and the County. The requested transfer to the City of St. Helena was for two units, as reflected in the agreement between the City and the County.

The specific numbers included in the requested transfers were arrived at with two primary objectives in mind. First, transfers must meet the requirement in Government Code Section 65584.07(a)(3) which requires transfers of lower income units (i.e. very low and low income units) to be proportional to the transfers of moderate and above moderate units. Second, the County cannot transfer 100 percent of its RHNA and still meet other requirements of State law.

The County's 6th Cycle Housing Element must provide sites sufficient to accommodate its March RHNA plus a buffer. A buffer is particularly important because of "no net loss" provisions in state Planning Law (Gov't Code § 65863). Section 65863 requires that the land inventory and site identification programs in the Housing Element always include sufficient sites to accommodate the unmet RHNA. This means that if a site is identified in the Housing Element as having the potential for housing development that could accommodate lower-income units towards meeting the RHNA but is actually developed with units at a higher income level or fewer units, then the locality must either: 1) identify and rezone, if necessary, an adequate substitute site; or 2) demonstrate that the land inventory in the Housing Element already contains an adequate substitute site. An adequate buffer will be critical to ensuring that the County remains compliant with these provisions without having to identify and rezone sites prior to the end of the cycle.

Also, because the County's RHNA includes units distributed by income category, the sites inventory must include ample sites to meet the requirement for very low and low income households. Typically, housing affordable to these lower income households is constructed with substantial local, state, and federal subsidies, although some affordable units are constructed as accessory dwelling units, and some may be included as a small percentage of market rate projects.

It is important to note that while State law requires the Housing Element to include an inventory of housing sites and requires the County to appropriately zone sites for multifamily housing, the County would not actually develop or construct housing on these sites. Future development on identified sites would be at the discretion of individual property owners and would be largely dependent on market forces and in the case of affordable housing, available funding and other incentives.

3.3.3 Other General Plan Requirements

As noted earlier, State law requires that the County maintain internal consistency between various elements of the General Plan, and that the County's General Plan and zoning ordinance are consistent with each other. As a result, changes to the County's Housing Element may necessitate changes to land use designations, maps, or policy language in the Agricultural Preservation and Land Use Element of the General Plan, and may necessitate changes to the County's zoning map and ordinance.

The Safety Element is also a State-mandated component of a General Plan and recent changes in State law require that it be updated as needed to address fire risk and climate adaptation and resiliency strategies. The Safety Element would be amended to meet these requirements and be proposed for adoption concurrent with the Housing Element Update. In general, the Safety Element focuses on the protection of the community from risks associated with climate change, earthquakes, floods, fires, toxic waste, and other hazards, and is the means by which the County

defines what measures will be undertaken to reduce potential risk of personal injury, property damage, and economic and social dislocation resulting from natural and human-made hazards.

3.4 Project Objectives

CEQA *Guidelines* Section 15124(b) requires the description of the project in an EIR to state the objectives sought by the project.

"A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project."

In keeping with this requirement, the County's project objectives are as follows:

- Update the General Plan's Housing Element to comply with State-mandated housing requirements and to address the maintenance, preservation, improvement, and development of housing in the unincorporated County between 2023 and 2031.
- Include an inventory of housing sites and rezone the sites as necessary to meet the required Regional Housing Needs Allocation and to provide an appropriate buffer of additional housing development capacity.
- Amend other elements of the County's General Plan as needed to maintain internal consistency between the elements and update the Safety Element to ensure consistency with the County's Local Hazard Mitigation Plan and comply with recent changes in State law.
- Make necessary General Plan amendments and zoning changes in a manner that affirmatively furthers fair housing while preserving the rural character of Napa County and perpetuating the safety and welfare of both existing and future residents.

3.5 Project Description

The project analyzed in the EIR would update the County's Housing Element, including goals, objectives, policies, and implementation programs that address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. In addition, the HEU would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law. The project would also include amendments to other elements of the County General Plan in order to maintain internal consistency, to provide consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan*, and to comply with recent changes in State law.

The HEU will be the subject of community outreach and will evolve based on community input and review by HCD before being considered for adoption by the County Board of Supervisors prior to January 31, 2023. Nonetheless, the HEU that is finally adopted would meet all legal requirements and:

1. include an updated housing needs assessment;

- 2. include updated goals, policies, and programs that address the maintenance, preservation, improvement, and development of housing and affirmatively further fair housing;
- 3. include a housing inventory that meets the County's final RHNA following transfers pursuant to Government Code Section 65584.07 and provide a buffer of additional housing development capacity, including sites for multifamily housing development within the unincorporated area;
- 4. require limited amendments to the Agricultural Preservation and Land Use Element of the General Plan as/if needed to acknowledge the housing sites;
- 5. require limited amendments to the County's zoning map and zoning ordinance to rezone the housing site(s); and
- 6. require limited amendments to the Safety Element of the General Plan to provide consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation *Plan* and comply with recent changes in State law.

More information regarding each of these components of the HEU is provided below, with a focus on the identification and potential development of housing inventory sites, which would have the greatest potential to result in physical changes within the geographic areas where sites are identified.

3.5.1 Housing Needs Assessment & Updated Goals, Policies, and Programs

The HEU would adopt updated goals, policies, and programs to address the maintenance, preservation, improvement, and development of housing and to affirmatively further fair housing in the unincorporated County. Proposed updates to the goals, policies, and programs in the 5th Cycle Housing Element were informed by a review of the implementation and effectiveness of that document, as well as updated information on demographic and economic trends, existing housing and market conditions, and special housing needs experienced by farmworkers, disabled persons, elderly households, large family households, single female-headed households, and homeless persons. The proposed goals, policies, and programs were also crafted to address an updated assessment of non-governmental and governmental constraints to the development, conservation, and rehabilitation of housing in the unincorporated County, and to affirmatively further fair housing. The HEU also includes a program to review and revise the County's Density Bonus provisions to align with the new State law. For more information, including the definition of these terms, and the proposed updates to goals, policies, and programs, please see the Public Review Draft Housing Element Update available on the County's Website at: https://www.countyofnapa.org/3250/2022-Housing-Element-Update.

3.5.2 Housing Sites Inventory

The County would use a variety of methods to meet its RHNA requirement and provide a generous buffer, including continued development of single family homes, accessory dwelling units (ADUs), and Junior Accessory Dwelling Units (JADUs), and identification of multifamily housing sites. The Housing Sites Inventory included in the HEU that is ultimately adopted by the

County Board of Supervisors would include all of these components, and would be supported by implementation programs to rezone sites as needed, and to support policies of the HEU, such as those supporting development of farmworker housing.

Single Family Homes, ADUs and JADUs, and Farmworker Housing

The County's General Plan and zoning ordinance permits construction of one single family home on each legal lot, with the exception of areas that are zoned for industrial use. HCD guidance suggests that the County's HEU may assume development of market rate single family homes on currently vacant and buildable parcels, and like the County's 5th Cycle Housing Element, the HEU would plan for development on currently vacant parcels, providing up to 230 single family homes, with the assumption that these homes would provide market rate (rather that affordable) housing.²

The County's zoning also permits one Accessory Dwelling Unit (ADU) and one Junior Accessory Dwelling Unit (JADU) per parcel within residentially and Agricultural Watershed (AW) zoning. One JADU is permitted in Agricultural Preservation (AP) zoning. HCD guidance suggests that the County may assume that ADUs and JADUs continue to develop at the same pace and affordability levels that has occurred over the last three years. As a result, the HEU would plan for development of 72 ADU/JADU units at a range of income levels over the eight year planning period.

The County's zoning ordinance permits development of up to 12 individual farmworker housing units as an allowed use by right on every legal parcel in agricultural zones. The County is seeking to encourage additional development of farmworker units and the HEU would include goals, policies and programs to address this issue with the objective of permitting at least 10 new farmworker housing units during the planning period.

Multifamily Housing Sites

The County proposes to meet the balance of its RHNA and provide a generous "buffer" by identifying sites suitable for development of multifamily housing affordable to lower income households at a minimum density of 20 dwelling units per acre. This is the "default density" considered affordable to lower income households under State law for unincorporated Napa County (Government Code Section 65583.2(c)(3)).

None of the housing sites included in the County's current (5th cycle) housing element would be reused, and in identifying new sites, the County used the following screening criteria:

- 1. Sites must have access to existing or planned water, sewer, and other dry utilities with sufficient capacity available to support housing development; (*Source: State requirement*)
- 2. Sites must generally be between 0.5 and 10 acres in size; (Source: State requirement)

² Given the historic rate of single family home construction in the County, 230 is deemed sufficiently conservative (i.e. large) to accommodate units that may be constructed under SB 9, which would allow some parcels in the County to accommodate up to four dwellings, particularly because the number of eligible parcels represents a small proportion of all parcels in the unincorporated area and the level of property-owner interest in taking advantage of SB 9's provisions is not yet known.

3. Sites must be located outside of areas designated Agricultural Resource or Agriculture, Watershed & Open Space as of September 28, 2007 (the date specified in Measure P, approved by the voters in November 2008). Notwithstanding this requirement, sites within an area designated Agricultural Resource or Agriculture, Watershed & Open Space may be identified for qualifying farmworker housing development and sites identified as an existing commercial establishment on General Plan *Figure AG.LU-2: Location of Parcels Subject to Policy AG/LU-45* may be identified for redevelopment. (Source: Local requirement)

In addition, the County sought to identify sites that are:

- 4. Located outside of high and very high fire severity zones as designated (in State Responsibility Areas) or recommended (in Local Responsibility Areas) by CalFire.
- 5. Located outside of Zones A through D of the applicable Airport Land Use Compatibility Plan.
- 6. Proximate to transit routes and/or employment opportunities and services (e.g. schools, groceries).

Based on analysis of parcels in the unincorporated County meeting criteria 1-3 and addressing items 4-6 to the extent feasible, and based on the input from the County's Housing Element Advisory Committee (HEAC), other stakeholders, and interested members of the public, the HEU proposes to include the sites in the Housing Sites Inventory that are grouped in four distinct geographies: Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road, all of which are described below and illustrated in **Figure 3-3**. Within these geographies, the number and location of sites are subject to adjustment based on further community input and analysis prior to adoption by the Board of Supervisors, and this EIR assumes a number of units that may exceed what is ultimately considered for adoption and/or implementation. In addition, sites in other areas may be considered if/as needed in response to HCD's review of the draft and final HEU.

Spanish Flat

While the unincorporated community of Spanish Flat, immediately west of Lake Berryessa, is located in a mostly Moderate Fire Hazard Severity Zone and burned in the LNU Lightning Complex Fire of 2020, it is also expected to experience revitalization due to redevelopment and reopening of resorts along the lakefront. As a result, the HEU would identify a site in the community as part of the Housing Sites Inventory, and would rezone the site to permit multifamily housing by updating the County's Affordable Housing Combination District (:AHCD) zoning provisions and applying them to the site.

The site would include portions of parcel 019-261-041 that have roadway frontage in the north end of the loop formed by Spanish Flat Loop Road and Berryessa Knoxville Road (see **Figure 3-4**). This portion of the parcel, which is currently zoned Commercial Limited (CL), would be rezoned to require minimum residential densities of 20 du/ac and allow maximum residential densities of 25 du/ac. Standards of the :AHCD zone would be updated, and given the sloping site, the analysis assumes that the site would provide for approximately 100 total units. The site is within the Spanish Flat Water District, which provides water and waste water to residents of the area. Residents would also benefit from services (e.g. restaurants, stores) planned at the nearby resorts along the Lake.



SOURCE: ESRI, 2021; ESA, 2022

Napa County

Figure 3-3 Multi-Family Housing Sites - Overview Map





SOURCE: ESA, 2022

Napa County Housing Element Update

Figure 3-4 Spanish Flat Site

Northeast Napa

The HEU would identify some or all of two parcels in the area of unincorporated Napa County that is northeast of the City of Napa, generally between the City limits and the Silverado Country Club, as part of the Housing Sites Inventory, and would provide incentives for the development of lower income housing by updating the Residential Multiple (RM) zoning district standards and applying them to the sites. Specifically, the RM zoning district would be amended to provide for minimum densities of 20 dwelling units per acre and maximum densities of 25 dwelling units per acre. Consistent with current provisions of the RM zoning district, not less than 40 percent of the lot would be reserved for common use space, and building heights would be limited to 35 feet. The two sites include the following (as shown in **Figure 3-5**):

- A 5-acre portion of a 24.5-acre parcel (APN 039-320-005) at 1806 Monticello Road, which is assumed to provide 100 units accessed from Hedgeside Avenue (also referred to as the "Bishop or Bishop 1" site in this Draft EIR).
- The 5.8-acre parcel (APN 039-320-016) at 1011 Atlas Peak Road, which is assumed to provide 58 units (also referred to as the "Altamura" site in this Draft EIR).

Collectively these sites could provide for 158 units. The sites are not currently served by water and wastewater utilities, but are located within the City of Napa's service area for potable water and are within proximity to infrastructure owned by the Napa Sanitation District (wastewater). Approval of the City, the Local Agency Formation Commission (LAFCO), and the District would be required.

Imola Avenue

The HEU would identify a 5 -acre site owned by the State of California and planned for residential development as part of the Housing Sites Inventory (see **Figure 3-6**). The State has expressed an interest in selling Skyline Park to the County and at the same time, developing workforce housing on the area of Skyline Park immediately adjacent to the Office of Education on Imola Avenue, south and east of the City of Napa and adjacent to the Napa State Hospital. The Department of General Services currently identifies a 20.34-acre site (APN 046-450-041) on the Real Estate Services Division's map of surplus property identified pursuant to Executive Order N-06-19, Affordable Housing Development, and Department staff indicated that a 5-acre portion was likely to be pursued for development of affordable housing within the eight-year planning period.³ Development on the site would not be subject to County review or regulations and while DGS has not identified a density or the number of units to be developed on the site, this EIR assumes the site would provide up to 100 units based on the "default density" of 20 du/ac applicable to the County under Government Code Section 65583.2(c)(3). The development would plan for connections to nearby infrastructure owned by the City of Napa (water) and the Napa Sanitation District (wastewater).

³ Jonathan Hein, Department of General Services, oral communication March 23, 2022.



SOURCE: ESA, 2022

Napa County Housing Element Update

Figure 3-5 Bishop and Altamura Sites



SOURCE: ESA, 2022

Napa County Housing Element Update

Figure 3-6 Imola Avenue Site

Foster Road

The County's General Plan anticipates that lands within the City's Rural Urban Limit (RUL) line will not develop without annexing to the City of Napa. Parcels along Foster Road south of Imola Avenue are within the City's RUL and Sphere of Influence, and will ultimately annex to the City. Nonetheless, the HEU would identify one 5-acre site in this area (a portion of APN 043-062-008 and/or APN 043-102-016), with the recognition that the site would annex to the City of Napa prior to occupancy (see **Figure 3-7**). Crafting applicable development standards and review of specific development proposals on this site(s) would require collaboration between the County and the City.

The City's proposed General Plan Update, *Napa 2040*, published in February 2022, proposes designating this area "Foster Road Mixed Use" with residential densities of up to 10 units per acre and contains a goal of promoting "residential development with supporting commercial uses, integrated with site topography and the natural environments."

The Draft General Plan estimates that the entire area can ultimately accommodate 1,210 homes, and the HEU site(s) would enable substantially smaller "pilot" project(s), providing an opportunity to evaluate policies that are proposed for the area and obtain community input.

The City's Draft General Plan proposes policies that would require a cohesive master plan or specific plan for the area, while recognizing that parcels may be annexed to the City at different times (Policy LUCD 23-1), and would also include:

Policy LUCD 23-2: Ensure development is reflective of environmental constraints, such as geologic faults, slopes/unstable soils, flood hazards and natural resources;

Policy LUCD 23-3: Promote clustered development to minimize grading, preserve landforms, and minimize visual impacts;

Policy LUCD 23-4: Support site planning and design that reflect the location of the area as a gateway to the City and the Napa Valley;

Policy LUCD 23-5: Consider allowing densities and required open spaces to be transferred between willing land owners, with the goal of more cohesive planning;

Policy LUCD 23-6: Encourage retention of the Napa Valley Horsemen's Association with upgraded facilities;

Policy LUCD 23-7: Promote development of an integrated, publicly accessing trails system;

Policy LUCD 23-8: Require development to be within the overall density range for the area, while encouraging a variety of housing types; and

Policy LUCD 23-9: encourage development of supporting non-residential uses to provide residents with easy access to goods and services.

Using the "default density" of 20 du/ac in Government Code Section 65583.2(c)(3), a five-acre site in this area could provide up to 100 units, and could contribute to desired improvements in the area. The development would annex to the City and connect to nearby infrastructure owned by the City of Napa (water) and the Napa Sanitation District (wastewater).



SOURCE: ESA, 2022

Napa County Housing Element Update

Figure 3-7 Foster Road Site

Other Sites and Overall Development Potential

Development and adoption of the HEU is an iterative process involving community input, in depth analysis, review of the draft HEU by HCD, consideration and adoption by the Board of Supervisors following certification of the EIR, and review and certification of the final HEU by HCD. As a result, the multifamily housing sites presented above for inclusion in the Housing Sites Inventory are subject to change. Sites described above may be eliminated and/or new sites may be included within the geographic areas described. In addition, new sites may be identified in other areas of the unincorporated County if necessary.⁴

Recognizing the possibility of changes to the sites described above, this EIR analyzes potential impacts based on increases in development potential in the geographic areas identified. The anticipated development for each area is summarized below, and the County recognizes that the total number of sites and the total number of units likely represent an overstatement of the final Housing Sites Inventory that is likely to be considered for adoption by the Board of Supervisors.

	Number of Units
Single Family Homes	230 units
ADU & JADU	72 units
Spanish Flat	100 units
Northeast Napa	158 units
Imola Avenue	100 units
Foster Road	100 units
Total Units	760 units

TABLE 3-3
HOUSING INVENTORY SITE LOCATIONS AND ANTICIPATED DEVELOPMENT ^a

NOTES:

a. The anticipated development potential is based on the County's assessment of the likely number of units to develop on each individual site, and does not always represent the maximum allowed under the proposed zoning district.

SOURCE: Napa County, March 2022.

As noted earlier, while the County's obligation is to plan for sites sufficient to meet its RHNA allocation, including a generous buffer is critical to avoid the need to identify and rezone additional sites during the eight year planning period. Also, because the County's RHNA includes units distributed by income category, and most privately-owned sites will primarily develop with units affordable to moderate income and above-moderate income households, the sites inventory must include ample sites to meet the requirement for very low and low income households throughout the eight year planning period. Typically, the County cannot require more than 15 or 20 percent of housing to be affordable to lower income households requires substantial local, state, and federal subsidies.

⁴ Any new sites will be evaluated to determine whether related impacts fall within those identified in this EIR.

Also, while State law requires the Housing Element to include an inventory of housing sites and requires the County to appropriately zone sites for multifamily housing, the County would not actually develop or construct housing on these sites. Future development on identified sites would be at the discretion of individual property owners and would be largely dependent on market forces and in the case of affordable housing, on available funding and/or other incentives.

3.5.3 Other General Plan Amendments and Zoning Changes

Sites included in the HEU would be proposed for rezoning to provide for minimum densities of 20 du/ac and maximum densities of 25 du/ac. The Spanish Flat site would be rezoned by applying the Affordable Housing Overlay Zone in Chapter 18.82 of the County's zoning ordinance, and this provision of the zoning ordinance would be amended to include site-specific development standards. The Northeast Napa and Foster Road sites would be rezoned by applying the Residential Multiple (RM) zoning district in Chapter 18.60 of the County's zoning ordinance, and this provision of the zoning ordinance would be amended as needed. Selected sites and HEU implementation programs may also require small adjustments to language or figures included in the Agricultural Preservation and Land Use Element of the General Plan to maintain internal consistency between the elements.

In conjunction with updates to the Housing Element, the project would include targeted updates to the Safety Element of the General Plan to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The updated goals and policies relate to: Emergency Preparedness; Drought; Geology and Seismicity; Disease and Pandemic; Wildfire; Flooding; Severe Weather; and Climate Change Adaptation. Also included is an updated Safety Element Existing Conditions Report (Appendix A of the Safety Element), which provides detailed information on existing hazards, community vulnerabilities, and County capacity to respond to hazards. The information in the report provides the foundation for the update of the Safety Element; no actual development or rezoning of parcels is included as part of the approval. For more information, and the proposed updates to goals, policies, and programs, please see the Public Review Draft Safety Element Update available on the County's Website at:

https://www.countyofnapa.org/589/Planning-Building-Environmental-Services.

3.6 Intended Uses of this EIR

This EIR is a program-level EIR and does not evaluate individual projects that may be allowed under the proposed General Plan and zoning ordinance at a site-specific level. Because the Housing Element establishes policies, goals and guidelines, and describes potential housing development that may or may not be built on any particular site, environmental review will necessarily be general. The CEQA *Guidelines* instruct that environmental review of a planninglevel document need not contain the level of detail required for review of a specific construction project. (CEQA Guidelines, Section 15146 ("[t]he degree of specificity required ... will correspond to the degree of specificity involved in the underlying activity.")

The Housing Element's inventory of sites is a State-mandated requirement to ensure that the County's RHNA can be accommodated. In other words, the Housing Sites Inventory demonstrates that there is enough land zoned at appropriate densities to accommodate the RHNA allocation. However, this Inventory does not include all potential development sites within the unincorporated County, and does not mean that sites in the Inventory will be developed at the allowable densities. In addition, information about the design and placement of buildings on the sites will not be available unless/until a specific development is proposed.

Future development proposals will be reviewed to determine whether their impacts fall within the scope of analysis in this EIR or if additional site-specific environmental review will be required because new potentially significant impacts would result. As provided for in CEQA *Guidelines* Sections 15152 and 15385, any subsequent environmental document that might be required for a development project could "tier" from this EIR and focus its analysis on any new or more severe significant impacts. A future project could be ministerial, requiring no discretionary action or may require review and approval by the Planning Commission and/or the Board of Supervisors, and other agencies as needed.

3.7 Required Approvals

While the County's proposed Housing Element is subject to review and certification by the State's Department of Housing and Community Development (HCD) and the County's Safety Element is subject to review by the California Geological Survey and the Department of Conservation, adoption and implementation of the Project would require a series of interrelated planning and regulatory approvals by the County, as Lead Agency. Specifically, the County would take the following approval actions:

- Certification of the EIR pursuant to CEQA;
- Adoption of a resolution amending the General Plan to update the Housing Element, make corresponding changes to the Agricultural Preservation and Land Use Element required to preserve internal consistency, and to update the Safety Element to comply with recent changes in state law, and ensuring its consistency with the County's Local Hazard Mitigation Plan;
- Adoption of an ordinance (two readings) amending the City's zoning ordinance and the City's zoning map to reflect the location and density of land uses permitted by the General Plan amendment.

All of these proposed actions would require review and recommendation by the Planning Commission, followed by consideration and action by the County Board of Supervisors.

As the Lead Agency and as appropriate under CEQA, the County also intends the EIR to serve as the CEQA-required environmental documentation for consideration of the Project by other Responsible Agencies and Trustee Agencies which may have discretionary approval authority over the HEU. Under the CEQA *Guidelines*, the term "Responsible Agency" includes all public agencies, other than the Lead Agency, which have discretionary approval power over aspects of the project for which the Lead Agency has prepared an EIR (CEQA Guidelines Section 15381); and the term "Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by the project which are held in trust by the people of California (Section 15386). While no Responsible Agencies and Trustee Agencies have been identified with approval actions associated with adoption of the HEU, agencies may use the EIR when considering actions necessary for development on the identified sites. These agencies may include:

- Napa County Local Agency Formation Commission (LAFCo)
- City of Napa
- Napa Sanitation District
- Spanish Flat Water District
- Regional Water Quality Control Board
- California Department of General Services
- California Department of State Hospitals

3.8 References

- Association of Bay Area Governments (ABAG), ABAG Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area 2023-2031, December 2021.
- Association of Bay Area Governments (ABAG), Minutes of March 17, 2022 Executive Board meeting, agenda item 6.a, Napa County Request for Regional Housing Needs Allocation (RHNA) Transfers.
- California Department of General Services, Real Estate Services Division map of surplus property identified pursuant to Executive Order N-06-19, Affordable Housing Development. Accessed 3/22/2022 at https://www.dgs.ca.gov/RESD/Projects/Page-Content/Projects-List-Folder/Executive-Order-N-06-19-Affordable-Housing-Development#@ViewBag.JumpTo.
- California Department of Housing and Community Development (HCD), Revised State Income Limits for 2021, December 31, 2021.
- Napa County, Request for RHNA Transfers Per California Government Code Section 65584.07, February 4, 2022.
- Napa County, Napa County General Plan, Adopted by Board of Supervisors Resolution 08-86, June 3, 2008, as amended through February 2022.

CHAPTER 4 Environmental Setting, Impacts, and Mitigation Measures

4.0 Introduction to the Environmental Analysis

This program environmental impact report (EIR) evaluates and documents the physical environmental effects that would potentially occur with the implementation of the proposed Housing Element Update (project) in accordance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Sections 21000, et seq., and the Guidelines for the California Environmental Quality Act (CEQA Guidelines), California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq.).

Sections 4.1 through 4.17 in this chapter consider the existing conditions, regulatory background, and environmental impacts associated with implementation of the project, as well as mitigation measures to reduce the impact of project-specific and cumulative environmental impacts, and the level of significance of impacts following mitigation.

This EIR is a Program EIR, as provided for in CEQA Guidelines Section 15168 and will allow the County "to consider broad policy alternatives and program wide mitigation measures" as noted in Section 15168(b)(4). Section 15168(a) of the CEQA Guidelines states that a Program EIR is appropriate for projects which are "... a series of actions that can be characterized as one large project and are related either:

- 1. Geographically;
- 2. A logical part in the chain of contemplated actions;
- 3. In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or
- 4. As individual activities carried out under the same authorizing statutory or regulating authority and having generally similar environmental effects which can be mitigated in similar ways."

Future discretionary actions that would be facilitated by the HEU's adoption, particularly those related to the development of housing, would generally require additional assessment to determine consistency with the analysis provided in this Program EIR. The potential future actions would also be subject to the mitigation measures established in this Program EIR, unless superseded by a subsequent environmental document prepared to analyze environmental impacts not foreseen in this Program EIR.

4.0 Introduction to the Environmental Analysis

4.0.1 Definition of Terms Used in this EIR

This EIR uses a number of terms that have specific meaning under CEQA. Among the most important of the terms used in the EIR are those that refer to the significance of environmental impacts. The following terms are used to describe environmental effects of the project:

- Significance Thresholds: A set of standards used by the lead agency to determine whether an impact would be considered significant. (See CEQA Guidelines Section 15064.7.) Standards of significance used in this EIR were derived from Appendix G of the CEQA Guidelines unless otherwise noted. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, State, and local regulations and ordinances.
- **Significant Impact:** A project impact is considered significant if the project would result in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project-related physical changes compared to specified significance thresholds, which may be qualitative or quantitative. A significant impact is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance" (CEQA Guidelines Section 15382).
- Less-than-Significant Impact: A project impact is considered less than significant when the physical change caused by the project would not exceed the applicable significance threshold.
- **Significant and Unavoidable Impact:** A project impact is considered significant and unavoidable if it would result in a substantial adverse physical change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level.
- **Cumulative Impact:** Under CEQA, a cumulative impact refers to "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). A significant cumulative impact is one in which the cumulative adverse physical change would exceed the applicable significance criterion and the project's contribution is "cumulatively considerable" (CEQA Guidelines Section 15130(a)).
- Mitigation Measure: A mitigation measure is an action that could be taken to avoid or reduce the magnitude of a significant impact. Section 15370 of the CEQA Guidelines defines mitigation as:
 - a. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
 - e. Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.

4.0.2 Section Format

Chapter 4 is divided into technical sections (e.g., Section 4.1, *Aesthetics*) that present the physical environmental setting, regulatory setting, significance criteria, methodology and assumptions, and impacts on the environment for each environmental resource issue area. Where required, potentially feasible mitigation measures are identified to lessen or avoid potentially significant impacts. Each section includes an analysis of project-specific and cumulative impacts for each issue area.

The resource topic areas addressed in this EIR chapter are listed below, and the abbreviations for each resource topic that are used in the naming of impact statements and mitigation measures are shown in parentheses:

- Section 4.1: Aesthetics (AES)
- Section 4.2: Agriculture and Forestry Resources (AGR)
- Section 4.3: Air Quality (AIR)
- Section 4.4: Biological Resources (BIO)
- Section 4.5: Cultural Resources and Tribal Cultural Resources (CUL & TCR)
- Section 4.6: Energy (ENE)
- Section 4.7: Geology, Soils, Paleontological and Mineral Resources (GEO)
- Section 4.8: Greenhouse Gas Emissions (GHG)
- Section 4.9: Hazards and Hazardous Materials (HAZ)
- Section 4.10: Hydrology and Water Quality (HYD)
- Section 4.11: Land Use and Planning (LUP)
- Section 4.12: Noise and Vibration (NOI)
- Section 4.13: Population and Housing (POP)
- Section 4.14: Public Services and Recreation (PSR)
- Section 4.15: Transportation and Circulation (TRA)
- Section 4.16: Utilities and Service Systems (UTL)
- Section 4.17: Wildfire (WLF)

The technical environmental sections each begin with a description of the project's **environmental setting** and the **regulatory setting** as it pertains to a particular issue. The environmental setting provides a point of reference for assessing the environmental impacts of the project and project alternatives. The environmental setting discussion addresses the conditions that existed at the time of issuance on the EIR's Notice of Preparation (NOP) in January 2022 and prior to implementation of the project. This setting establishes the baseline by which the project and project alternatives are measured for environmental impacts. The regulatory setting presents relevant information about federal, state, regional, and/or local laws, regulations, plans or policies that pertain to the environmental resources addressed in each section.

4.0 Introduction to the Environmental Analysis

Next, each section presents **significance criteria**, which identify the standards used by the County to determine the significance of the environmental effects of the project.

An **approach to analysis** discussion in each section presents the analytical methods and key assumptions used in the evaluation of effects of the project, and is followed by an **impacts of the project** discussion. The impacts of the project portion of each section includes impact statements, prefaced by a number in bold-faced type. An explanation of each impact is followed by an analysis of its significance. The subsection concludes with a statement that the impact, following implementation of the mitigation measure(s) and/or the continuation of existing policies and regulations, would be reduced to a less-than-significant level or would remain significant and unavoidable.

The analysis of environmental impacts considers potential impacts of the actions described as the "project" in Chapter 3, Project Description, including potential impacts of future construction and occupancy of housing planned for in the HEU. As required by Section 15126.2(a) of the CEQA Guidelines, direct, indirect, short-term, long-term, onsite, and/or off-site impacts are addressed, as appropriate, for the environmental issue area being analyzed. Under CEQA, economic or social changes by themselves are not considered to be significant impacts, but may be considered in linking the implementation of a project to a physical environmental change, or in determining whether the physical change is significant.

Where enforcement exists and compliance can be reasonably anticipated, this EIR assumes that the project would meet the requirements of applicable laws and other regulations.

Mitigation measures pertinent to each individual impact, if available, appear after the impact discussion section. The magnitude of reduction of an impact and the potential effect of that reduction in magnitude on the significance of the impact is also disclosed. An example of the format is shown below using the topic of air quality (AIR).

Impacts and Mitigation Measures

Impact AIR-1: Impact Statement.

A discussion of the potential impact of the project on the resource is introduced in paragraph form. To identify impacts that may be site- or project element-specific, where appropriate, the discussion differentiates between construction effects and operational effects. A statement of the level of significance before application of any mitigation measures is provided in bold.

Mitigation Measure

If the impact is determined to be less than significant, the text will say, "None required." If the impact is determined to be significant or potentially significant, mitigation with be included in the following format:

Mitigation Measure AIR-1: Mitigation Measure Title.

Recommended mitigation measure, numbered in consecutive order.
Where appropriate, one or more potentially feasible mitigation measures are described. A statement of the significance of the impact following implemented mitigation measure(s) is included in **bold**, with an explanation of the measure(s) effectiveness if necessary.

4.0.3 Cumulative Impacts

An analysis of cumulative impacts follows the project-specific impacts and mitigation measures evaluation in each section, and starts by describing the geographic context in which cumulative impacts are analyzed.

A cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other past, present and reasonably foreseeable projects causing related impacts (15355). Per CEQA Guidelines Section 15130(b)(1), cumulative impacts may be analyzed using either a "list of past, present, and probably future projects" or "a summary of projections contained in an adopted local, regional, or statewide plan or related planning document." This EIR primarily uses the projections-based approach, as explained here.

The proposed project is a plan which provides the potential for increased residential development in specific locations across a broad geography. The use of growth projections as a basis for a cumulative analysis is appropriate when the project being analyzed is a proposed plan that involves a broad geography because specific information about development that may occur as a result of the plan is not available and other changes within and outside the planning area cannot be predicted with any specificity. In this case, the amount of development anticipated in the Housing Sites Inventory portion of the HEU is used to analyze Project impacts, but specific information about how and when those sites might develop is not available. Even the precise location of housing inventory sites and densities may evolve based on public outreach and the results of the sites analysis that will be conducted in parallel to preparation of this EIR.

Thus, this EIR analyzes project-related growth in housing combined with other, cumulative growth using projections from *Plan Bay Area 2040*, which was the Bay Area's Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) until *Plan Bay Area 2050* was adopted in October 2021. *Plan Bay Area 2050* is not used because the plan is awaiting CARB's determination and it does not at this point contain growth projections specific to individual jurisdictions. It will likely take up to three years for the regional agencies to develop a detailed growth forecast for *Plan Bay Area 2050* and integrate that forecast into MTC's transportation model, after which updates to each county's transportation model will be required. Thus *Plan Bay Area 2040* represents the best available source of information to form the foundation for long range population, housing and employment projections.

Table 4.0-1 summarizes the levels of housing and employment that is projected with and without adoption of the County's HEU and summarizes 2040 projections for housing units and employment in the County as a whole and the nine-county Bay Area. These projections are inherent in the County transportation model and form the foundation for the cumulative analyses in this EIR.

4.0 Introduction to the Environmental Analysis

	2020	2040	Growth 2020 to 2040		
Dwelling Units - No Napa County HEU					
Unincorporated Napa County per Plan Bay Area 2040	11,260	11,835	575		
Napa County as a Whole per Plan Bay Area 2040	50,365	54,624	4,259		
Bay Area Region	2.88 M	3.43	544,735		
Dwelling Units – With Napa County HEU					
Unincorporated Napa County with the HEU ^a	11,260	12,020	760		
Napa County as a Whole with the HEU	50,365	54,809	4,444		
Bay Area Region	2.88 M	3.43 M	544,735		
Jobs					
Unincorporated Napa County	21,185	21,110	(75)		
Napa County as a Whole	71,905	83,355	11,450		
Bay Area Region	4.14 M jobs	4.70 M jobs	562,185		

 TABLE 4.0-1

 2040 HOUSING AND EMPLOYMENT PROJECTIONS WITH AND WITHOUT THE NAPA COUNTY HEU^a

NOTES:

a. Households in Unincorporated Napa County reflect growth anticipated as a result of the HEU (760 units) rather than projected growth in Plan Bay Area 2040 (575 units). Growth anticipated as a result of the HEU has also been used to adjust the Plan Bay Area 2040 projections for Napa County as a Whole.

SOURCE: Napa County and Metropolitan Transportation Commission/Association of Bay Area Governments, *Plan Bay Area 2040*, Final plan adopted July 26, 2017.

Of course, the County is not the only Bay Area jurisdiction that has received a RHNA allocation and is engaged in updating its housing element. All other local jurisdictions in Napa County are doing the same, as are other local jurisdictions throughout the Bay region. However, based on past experience, it is highly unlikely that all of the units that are planned for in each housing element will be constructed between 2022 and 2040, and therefore using that total RHNA number for the region as the basis for the cumulative effects analysis would substantially overstate the level of impact. For this reason, and to more realistically assess the level of impact that could be reasonably foreseen during the HEUs planning period, for all jurisdictions other than Napa County, this EIR considers the regional projections presented in *Plan Bay Area 2040* as a reasonable estimate of likely new housing construction and population and employment growth through 2040 despite planning efforts underway in other jurisdictions to address their housing needs.

There are, however, a number of ongoing activities that inform the cumulative analysis in this EIR, including efforts to re-establish resorts at Lake Berryessa, the City of Napa's ongoing General Plan update, and County development applications, as described below.

Lake Berryessa Resorts

Napa County, in collaboration with the Bureau of Reclamation and one or more private concessionaires, is seeking to re-establish and reopen a number of resorts along the shores of Lake Berryessa in eastern Napa County that were closed in 2009. The resorts would provide short term accommodations and a range of recreational facilities/services to visitors, as well as providing employment to those living in the area. With limited

services, the Lake area currently averages 450-650 thousand visitors each year, although it welcomed well-over one million visitors annually when the resorts were in full operation.¹ New concession areas would increase visitation and employment, and would be generally consistent with the Bureau's adopted *Visitor Service Plan*, which envisioned concession operations at seven areas, including at Spanish Flat, Markley Cove, Pleasure Cove, Steele Park, Lake Berryessa Marina, Randho Monticello, and Putah Creek. The *Visitor Service Plan* specified the elevations above mean sea level where various facilities could be located and envisioned a mix of day-use occupancy, short-term occupancy, and annual occupancy in certain circumstances.² Because there are not yet specific plans for each of the resorts, the potential increase in visitors and employment are discussed qualitatively where appropriate in the EIR's cumulative analyses.

Napa 2040 General Plan

The City of Napa is in the process of updating its General Plan and the plan area includes the City itself as well as lands that are in the City's Sphere of Influence and within the historic Rural Urban Limit (RUL) Line but outside the City limits. For example, the Foster Road area, which is outside the City but in the SOI/RUL, is anticipated to require development of a cohesive master or specific plan, although various parcels may be annexed at different times (proposed Policy LUCD-23-1). More information is available on the City's website at https://napa2040.com/.

Overall, the City's draft General Plan Update anticipates growth somewhat in excess of *Plan Bay Area 2040*, as shown in **Table 4.0-2** below. However, the City's plan has not been adopted and is subject to change. As a result, and to avoid overstating the cumulative context (and thereby understating the HEU's contribution), this EIR does not generally consider growth attributable to the City's General Plan Update as a cumulative project. Nonetheless, the City's growth forecast has been incorporated into the City's 2020 *Urban Water Management Plan* and Napa Sanitation District's *2021 Master Plan*, both of which are cited in this EIR and are used in the cumulative analysis of water supply and utilities. This approach is appropriate because some of the housing inventory sites included in the HEU would rely on City water and wastewater treatment facilities owned by Napa Sanitation District.

 TABLE 4.0-2

 2040 City of Napa Growth Projections Compared to Plan Bay Area 2040

	Draft Napa 2040 General Plan	Plan Bay Area 2040
Household growth 2020 -2040	7,800	2,595
Job growth 2020 - 2040	11,500	9,240

NOTES:

a. Population and households in Unincorporated Napa County reflect proposed housing inventory sites plus projected growth in Plan Bay Area 2040. All other data presented is from Plan Bay Area 2040.

SOURCE: City of Napa, Napa 2040 General Plan Draft Environmental Impact Report Table 2-3, page 2-7 and Metropolitan Transportation Commission/Association of Bay Area Governments, Plan Bay Area 2040, Final plan adopted July 26, 2017.

Napa County, Lake Berryessa – Napa County, California, Resort Concession Areas Request for Proposals, November 24, 2020.

² Bureau of Reclamation, *Record of Decision, Future Recreation Use and Operations of Lake Berryessa*, June 2, 2006.

Development Projects in Napa County

Napa County has approved or has pending applications on file for a number of small hotels, wineries, warehouses, and vineyards that may be developed in the unincorporated County between now and 2040.³ With very few exceptions, these projects are employment-generating (rather than providing new housing), and are some distance from the housing inventory sites included in the HEU. By relying on the growth projections in *Plan Bay Area 2040*, the cumulative analysis in this EIR assumes that the increases in employment as a result of these projects will be offset by reductions in employment elsewhere in the unincorporated area. Nonetheless, the projections show an increase in employment for the County as a Whole, and thus the broad cumulative context does include increases in employment.

Potential cumulative impacts associated with development within the unincorporated area are discussed broadly (i.e. without reference to specific projects) and qualitatively where relevant in this EIR, most notably in the consideration of potential cumulative impacts related to cultural and natural resources.

As noted above, where a cumulative impact is significant when compared to existing or baseline conditions, the analysis addresses whether the project's contribution to the significant cumulative impact is "considerable." If the contribution of the project is considerable, then the EIR identifies potentially feasible measures that could avoid or reduce the magnitude of the project's contribution to a less-than-considerable level. If the project's contribution is not considerable, it is considered less than significant and no mitigation of the project contribution is required (CEQA Guidelines Section 15130(a)(2).

³ A list of current projects is available at: https://www.countyofnapa.org/2876/Current-Projects-Explorer.

4.1 Aesthetics

4.1.1 Introduction

This section evaluates the potential for the Project to result in substantial adverse effects related to aesthetics. The *Environmental Setting* portion of this section includes descriptions of existing conditions relevant to aesthetics. Existing plans and policies relevant to aesthetics associated with implementation of the Project are provided in the *Regulatory Setting* section. Finally, the impact discussion evaluates potential impacts related to aesthetics that could result from implementation of the Project in the context of existing conditions.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022, and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to aesthetics received during the NOP comment period included concerns related to scenic resources including vineyards and hills off of State Route (SR) 29, located near Foster Road.

4.1.2 Environmental Setting

Regional Setting

Napa County is in the northern portion of the San Francisco Bay Area, set within the California Coastal Range, the mountains of which surround the area to the east, north, and west and run through the County. Napa County's southern boundary is San Pablo Bay, a segment of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary located west of the confluence of the Sacramento and San Joaquin Rivers.

San Francisco, Oakland, San Jose, and the most urbanized areas of the Bay Area are to the southwest of Napa County. Sonoma County and its Pacific Ocean coastline lay further to the west, and beyond the Vaca Mountains and the Blue and Rocky Ridges to the east is the northern half of California's Great Central Valley. To the north of Napa, in Lake County and beyond, northern California becomes progressively rural, the urbanized areas occur less frequently, and the natural areas and public lands more plentiful.

Napa County

Mountainous and sometimes rugged ridgelines frame the eastern and western boundaries of the County, also providing visually distinct valley regions such as the Napa River valley, where vineyards represent the predominant land use. Other valleys also contain vineyards, and some are as densely forested with evergreen trees as to look like north coast redwood groves, while others are dominated by mature oak trees set amid shrub and grasslands. Water is a prominent feature in some parts of the landscape. The marshlands in the southern part of the County are fed by the Napa River and tidal fluctuations of San Pablo Bay, which in turn drains a number of other rivers, streams, and creeks originating in the area's highlands. Residences are scattered about the County, and urbanized areas tend to be concentrated in the cities and town within the County and in relatively few locations, surrounded by agricultural uses, mainly vineyards.

Vistas and Viewsheds

Vistas and viewsheds generally consist of expansive and high-quality views of natural features and landscapes that are visible from public locations. As described in the *Visual Resources/Light and Glare* section of the Napa County General Plan Environmental Impact Report (EIR), within the Napa Valley, viewsheds of the highest visibility are mostly concentrated in the foothills to the east and west of the valley floor, in the area between Zinfandel Road and Oakville Cross Road. This area encompasses Bald Mountain, Mount St. John, the foothills of Sugarloaf Ridge, and the areas surrounding Bear Canyon and Sulphur Canyon on the western side of the valley. On the eastern side of the valley, the area includes the hills above Silverado Trail, south of its intersection with SR 128.

Other notable vistas and viewsheds in and around the Napa Valley floor include:

- The southern slope of Rattlesnake Ridge, generally above the eastern side of the valley floor, between Calistoga and St. Helena.
- The hills to the east of Yountville and the City of Napa, north of SR 121. These viewsheds are also above Silverado Trail and include Castle Peak and the areas around Soda Canyon Road.
- The areas surrounding Redwood Road and Dry Creek just west of the valley floor.
- The general area encompassing Cup and Saucer Hill, east of the City of Napa, in between SR 121 and Coombsville Road.

Very few areas east of the eastern mountains contain any viewsheds visible to more than 10 percent of the County-designated scenic roadways. Exceptions to this are the slopes along the eastern edge of Lake Berryessa and viewsheds in Pope Valley and Wooden Valley.¹

Scenic Roadways

State highway routes and County roads pass through the vineyards in the Napa Valley, twist and turn through several steep and forested hills, and provide access to numerous wineries, historical landmarks, State parks and Lake Berryessa. There are approximately 280 miles of County-designated scenic roadways within Napa County. The majority of these scenic corridors are located in the Napa Valley, with the next largest group located on the western side of the County. Although none of the roads are officially designated as scenic highways by the State of California, segments of Hwy 29, SR 121, and SR 221 are eligible for scenic highway designation. State-eligible and County-designated scenic highways and roadways are discussed further below in the *Regulatory Setting*.

¹ Napa County, 2007. Napa County General Plan Update Draft Environmental Impact Report. February 2007.

Ridgelines

Major ridgelines are prominent on a countywide level, generally above 2,000 feet in elevation and form the entirety of Napa County's eastern boundary. Blue Ridge and Rocky Ridge are the major ridgelines shaping the eastern edge of the County. The majority of the western boundary is also a major ridgeline, from the northern tip of the Napa Valley floor to near SR 12/121 in Carneros. It includes Diamond Mountain, Bald Mountain, and Mount Veeder.

Major ridgelines comprise a substantial portion of the eastern mountains. In the southern extent, the ridgeline extends north from the area surrounding Mount George, to a fork that includes both Atlas Peak and Red Mountain. In the northern extent the ridgeline extends from Howell Mountain, near Angwin, to the slopes of Mount St. Helena located within Napa County. Cedar Roughs also comprise a major ridgeline west of Lake Berryessa. Other major ridgelines exist in the Livermore Ranch Area (including the Calistoga Palisades, Sugarloaf Mountain, and Table Mountain) and the Knoxville Area (including most of Adams Ridge).²

Light and Glare

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare, and if designed incorrectly, could be considered unattractive. Although nighttime light is a common feature of urban areas, spillover light can adversely affect light-sensitive uses, such as residential units at nighttime.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying (*discomfort glare*) or may diminish the ability to see other objects in the darkened environment (*disability glare*). Reflective glare, such as the reflected view of the sun from a window or mirrored surface, can be distracting during the day.

Existing Light and Glare Conditions

At nighttime, Napa County, with its thousands of acres of open space and concentrated urbanization, is a naturally low-light, dark-sky environment. The eastern portions of the County, separated from the cities and towns by distance and ridgelines, afford dark night skies in which stars and other features less visible in urbanized areas can be easily seen. Existing sources of light and glare in urbanized areas of the County are similar to those that would be found in any urbanized area and include streetlamps, parking lot lighting, storefront and signage lighting, security related lighting for nonresidential uses, and car headlamps. The main sources of daytime glare in the County are from sunlight reflecting from structures with reflective surfaces such as windows.

² Napa County, 2007. Napa County General Plan Update Draft Environmental Impact Report. February 2007.

4.1.3 Regulatory Setting

Federal

There are no federal regulations pertaining to aesthetics that are applicable to the Project.

State

Title 24 Outdoor Lighting Standards

As published in Section 6 of the California Code of Regulations, Title 24 is a broad set of requirements for energy conservation, green design, construction and maintenance, fire and life safety, and accessibility that apply to the structural, mechanical, electrical, and plumbing systems in a building. The code applies to all buildings in California. California updates its energy code every three years. Construction projects with permit applications applied for on or after January 1, 2023 must follow the 2022 Energy Code. If a permit is applied for before then, buildings follow the 2019 Building Efficiency Standards. The code includes energy efficiency standards for outdoor lighting for both the public and private sector. The standards regulate lighting characteristics such as, maximum power and brightness, shielding, and sensor controls to turn lighting on and off.

California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 *et seq*. The State Scenic Highway System includes a list of highways that either are eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code.

A highway may be designated scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. A *scenic corridor* is the land generally adjacent to and visible from the highway. A *scenic corridor* is identified using a motorist's line of vision. A reasonable boundary is selected when the view extends to the distant horizon. The corridor protection program does not preclude development, but seeks to encourage quality development that does not degrade the scenic value of the corridor. The jurisdictional boundaries of the nominating agency are also considered. The agency must also adopt ordinances to preserve the scenic quality of the corridor or document the regulations that already exist in various portions of local codes. These ordinances make up the scenic corridor protection program. County roads can also become part of the Scenic Highway System. To receive official designation, the County must follow the same process required for official designation of State scenic highways.

Napa County contains no officially designated State scenic highways.³ However, segments of SR 29, SR 121, and SR 221 are eligible for scenic highway designation. These segments as described below.

- SR 29. From the intersection with SR 37 near Vallejo to the intersection with SR 221 near the City of Napa and from Trancas Street in the City of Napa to the Lake County border.
- SR 121. From the intersection with SR 221, near the Napa State Hospital, to near Trancas Street in the City of Napa.
- SR 221. From the intersection with Soscol Road to the intersection with SR 121 in the City of Napa (the entire duration of SR 221).⁴

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Community Character Element of the Napa County General Plan includes the following goals and policies applicable to the aesthetics evaluation for the proposed Project.

Goal CC-1: Preserve, improve and provide visual access to the beauty of Napa County.

Goal CC-2: Continue to promote the diverse beauty of the entire County since this beauty is intricately linked to the continued economic vitality of the region and benefits residents, businesses and visitors.

Policy CC-1: The County will retain the character and natural beauty of Napa County through the preservation of open space.

Policy CC-4: Consistent with current regulations regarding road setbacks and fences, the County shall preserve the existing significant natural features by requiring all development to retain the visually open, rural character of the County and by allowing solid sound walls only in unique circumstances and where acceptable noise levels are exceeded.

Policy CC-5: Recognizing that vineyards are an accepted and attractive visual feature of Napa County, but that visual changes can cause public concern, the County shall require the retention of trees in strategic locations when approving conversion of existing forested land to vineyards in order to retain landscape characteristics of the site when viewed from public roadways and shall require the retention of trees to screen non-agricultural activities and other proposed developments.

Policy CC-10: Consistent with the County's Viewshed Protection Program, new developments in hillside areas should be designed to minimize their visibility from the County's scenic roadways and discourage new encroachments on natural ridgelines. The County shall continue implementation of the Viewshed Protection Program and shall apply the protective provisions of the program to all public projects.

³ California Department of Transportation (Caltrans). 2022. California State Scenic Highways. Available online: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed April 18, 2022.

⁴ Napa County, 2007. Napa County General Plan Update Draft Environmental Impact Report. February 2007.

Policy CC-13: To the extent allowed by law, telecommunications facilities and transmission lines shall not be located within view of any scenic roadway unless they are sites and designed so as to be virtually invisible to the naked eye from the roadway, are designed to appear as a natural feature of the environment and do not block views or disrupt scenic vistas, or are so well architecturally integrated into an existing building as to effectively be unnoticeable.

Policy CC-14: Adjacent to scenic roadways, utilities shall be placed underground where possible.

Goal CC-6: Preserve and enhance the night environment of the County's rural areas and prevent excessive light and glare.

Policy CC-33: The design of buildings visible from the County's designated scenic roadways shall avoid the use of reflective surfaces which could cause glare.

Policy CC-34: Consistent with Building Code requirements for new construction in rural areas, nighttime lighting associated with new developments shall be designed to limit upward and sidewalks spillover of light. Standards shall be as specific in the most recent update of the "Nonresidential Compliance Manual for California's 2005 Energy Efficiency Standards" or the "Residential Compliance Manual for California's 2005 Energy Efficiency Standards" published by the State of California. Light timers and motion sensors shall be used wherever feasible.

Napa County Code

The Napa County zoning ordinance, Title 18 of the Napa County Code, establishes standards and regulations to implement the policies contained in the General Plan and guides development within the County.

Viewshed Protection Program

The Viewshed Protection Ordinance (Chapter 18.106) was adopted by the Board of Supervisors in December 2001 and amended in 2003 and 2006. Its intent is to preserve the unique scenic quality of Napa County. More specifically, the regulations were adopted to protect the scenic quality of the County both for visitors to the County as well as for its residents by ensuring that future improvements are compatible with existing land forms, particularly County ridgelines and that views of the County's many unique geologic features and the existing landscape fabric of the County's hillside areas are protected and preserved. In short, the ordinance sets forth hillside development standards to minimize the impact of man-made structures and grading on views of existing landscapes and open spaces as seen from designated scenic roadways within the County. Scenic roadways subject to the Viewshed Protection Program are those shown in Figure CC-3 of the Community Character Element of the Napa County General Plan or designated by the Board of Supervisors in the future.

4.1.4 Significance Criteria

The thresholds used to determine the significance of impacts related to aesthetics are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Approach to Analysis

The analysis of potential impacts related to aesthetics in this EIR relies on qualitatively comparing the existing built and natural environment to the future built and natural environment that would result from implementation of the Project. As detailed in Chapter 3, *Project Description*, the Project would update the County's Housing Element, including goals, objectives, policies, and implementation programs that address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. In addition, the Project would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law. While the County is not proposing development on the housing sites and detailed designs are not available for development on the sites, the analysis considers visual changes that could occur if development on the housing sites occurs.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to aesthetics and it is not discussed further in this section.

Issues Not Discussed in Impacts

As described above in Section 4.1.3, *Regulatory Setting*, while segments of SR 29, SR 121, and SR 221 are eligible for State scenic highway designation, Napa County contains no officially designated State scenic highways. For this reason, the second significance criterion listed above is not addressed further in this section of the EIR. Potential effects to County-designated scenic roadways are addressed in Impact AES-1.

4.1.5 Impacts of the Project

Impact AES-1: Implementation of the Project would not have a substantial adverse effect on a scenic vista. (*Less than Significant*)

Napa County, in general, and the Napa Valley specifically is known for its scenic quality. Within the unincorporated areas of the County, ridgelines and hillsides are largely undeveloped which helps to create this scenic quality to the benefit of local residents and visitors alike. For the purposes of this analysis, scenic vistas include views of the unique scenic quality of Napa County, including its ridgelines and hillsides that are visible from public areas. Scenic routes include scenic roadways as identified in the Napa County General Plan. There are no officially-designated State scenic highways in Napa County, although, as discussed above, segments of SR 29, SR 121, and SR 221 are eligible for State scenic highway designation.

As presented in Chapter 3, *Project Description*, the Project would update the County's Housing Element, including goals, objectives, policies, and implementation programs that address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. In addition, the Project would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law.⁵

The County's General Plan and zoning ordinance permits construction of one single-family home on each legal lot, with the exception of areas that are zoned for industrial use. As discussed in Chapter 3, *Project Description*, California Department of Housing and Community Development (HCD) guidance suggests that the County's Housing Element Update (HEU) may assume development of market-rate single-family homes on currently vacant and buildable parcels. Accordingly, the Project would plan for development on currently vacant and buildable parcels (based on slope and roadway access), providing up to 230 single-family homes.

The County's zoning ordinance also permits one Accessory Dwelling Unit (ADU) and one Junior Accessory Dwelling Unit (JADU) per parcel within residentially and Agricultural Watershed (AW) zoning. One JADU is permitted in Agricultural Preservation (AP) zoning. HCD guidance suggests that the County may assume that ADUs and JADUs continue to develop at the same pace that has occurred over the last three years. As a result, the Project would plan for development of 72 ADU/JADU units.

The County's zoning ordinance permits development of up to 12 individual farmworker housing units as an allowed use by right on every legal parcel in agricultural zones. The County is seeking to encourage additional development of farmworker units, and the Project would include goals, policies, and programs to address this issue with the objective of permitting at least 10 new farmworker housing units during the planning period.

⁵ The Project would also include amendments to other elements of the County General Plan in order to maintain internal consistency, to provide consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan, and to comply with recent changes in State law. These actions would not result in noticeable visible changes, so the analysis focuses on the potential increase in housing attributable to the Project.

As discussed in Chapter 3, *Project Description*, the County proposes to meet the balance of its Regional Housing Needs Allocation (RHNA) and provide a generous "buffer" by identifying sites suitable for development of multifamily housing affordable to lower income households at a minimum density of 20 dwelling units per acre. This is the "default density" considered affordable to lower income households under State law for unincorporated Napa County (Government Code Section 65583.2(c)(3)).

Based on analysis of parcels in the unincorporated County meeting applicable screening criteria, and based on the input from the County's Housing Element Advisory Committee (HEAC), other stakeholders, and interested members of the public, the Project proposes to include the sites in the Housing Sites Inventory that are grouped in four distinct geographies: Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road, all of which are described and illustrated in Figure 3-3 in Chapter 3, *Project Description*. These sites are generally on level or gently sloping land and are visible from relatively short distances. One exception is the Spanish Flat site, which includes steep terrain, although housing development would be limited to less steep areas that are adjacent to the road and the area can only be seen from short distances. Another exception is the Foster Road site, which is on relatively level land, but may be visible to drivers on nearby SR 29, as are adjacent, developed areas.

Implementation of the Project could potentially result in the construction of housing in a scenic vista or viewshed visible from one or more of the County's designated scenic routes. However, as noted above, the proposed housing sites are not located in areas where they can be seen from long distances, so they would not impair a scenic vista. Even the Foster Road site, which can be seen from SR 29, is adjacent to other, developed areas, and thus would not represent a noticeable change to views from the highway.

In addition, new construction of single-family homes, ADUs, or farmworker housing on slopes of 15 percent or more, or on any minor or major ridgeline as defined in Section 18.106.020 of the zoning ordinance would be subject to review under the County's Viewshed Protection Program, which would ensure that either criteria in Section 18.106.040 of the zoning ordinance are met, or that the project is subject to public review and findings pursuant to Section 18.106.050 of the zoning ordinance.

Section 18.106.040 (B) of the zoning ordinance sets forth the County's *Visibility Determination* criterion which states that if that director of the planning, building and environmental services department and/or the director's designee determines that the project cannot be viewed from any designated public road, because of its relationship to surrounding topography or existing and building-permit-required future vegetation, then the project will be cleared for further processing pursuant to the code.

Section 18.106.040 (C) *Administrative Criteria* of the zoning ordinance specifies that a project shall be certified and cleared for further processing if the director determines that the highest point of the proposed structure is located more than twenty-five vertical feet below a major or minor ridgeline, the project substantially conforms to the Design Manual, and the project meets all other specified conditions and development standards identified in Section 18.106.040 (C).

Findings in Section 18.106.050 of the zoning ordinance would ensure that if a project does not meet the criteria in Section 18.106.040, the project shall not be cleared for further processing until the findings contained in subsection (B) of Section 18.106.050 to minimize adverse effects on views from designated public roads are made, and a permit is issued by the zoning administrator, or upon referral by the Napa County Planning Commission.

Because development of new multifamily housing allowed by the Project would not be visible from long distances so as to disrupt a scenic vista, and because development would be subject to the provisions of the Viewshed Protection Program, impacts on scenic vistas would be less than significant.

Mitigation: None required.

Impact AES-2: Implementation of the Project could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. (Significant and **Unavoidable with Mitigation**)

As discussed above in Impact AES-1, the Project proposes to include the sites in the Housing Sites Inventory that are grouped in four distinct geographies: Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road, all of which are described and illustrated in Figure 3-3 in Chapter 3, *Project Description.* The Project would also allow for continued construction of single-family homes, ADUs, and farmworker housing in conformance with existing zoning regulations.

As discussed above in Impact AES-1, new construction of single-family homes, ADUs, or farmworker housing on slopes of 15 percent or more, or on any minor or major ridgeline as defined in Section 18.106.020 of the zoning ordinance would be subject to review under the County's Viewshed Protection Program and would therefore not result in a substantial change to the visual character or public views of the affected area. Development on multifamily housing sites included in the Housing Sites Inventory would generally be on relatively flat or gently sloping land that is only visible from nearby streets and public areas. Development on multifamily housing sites would also occur in areas where there is already development (e.g., housing, commercial, or institutional uses) nearby, so while new development would be noticeable to those most familiar with the area, it would not substantially degrade existing visual character. With the possible exception of the Imola site, all sites would be subject to development standards included in Municipal Code Section 18.104.060 (for sites rezoned RM) or Section 18.82.040 (for sites rezoned ACHD), and would therefore be limited to 35 feet in height, the same height limit applied to structures in agricultural and residential areas of the County. Only the Imola site, which may be developed without compliance with the County's Municipal Code because the property is owned by a State agency, could exceed 35 feet in height.

Thus, while the Project could result in development of aesthetically appealing undeveloped pieces of land, future development on all but one of the proposed sites would be subject to existing regulations, and all of the sites are located in areas where there is already development nearby.

Potential visual changes on sites subject to County development standards would not substantially degrade the existing visual character or quality of public views or conflict with applicable zoning and other regulations governing scenic quality. Only the Imola site could be developed without compliance with County zoning regulations. Because the design and orientation of development on the Imola site has not been determined, this analysis conservatively assumes that impacts related to visual character and quality of public views associated with development of the Imola site would be **significant and unavoidable with mitigation**.

Mitigation Measure AES-1: Imola Avenue Design Standards.

The State agency with jurisdiction shall ensure that the design and orientation of housing on the Imola site is in keeping with County development standards to the maximum extent feasible.

Significance after Mitigation: Because Mitigation Measure AES-1 would be within the jurisdiction of a State agency, the County cannot enforce implementation of the mitigation measure and the impact would remain *significant and unavoidable*.

Impact AES-3: Implementation of the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (*Less than Significant*)

Although the Project allows for the construction of new multifamily housing on sites included in the Housing Sites Inventory, the sites are in areas that include nearby development and thus already experience light from other sources. Residential development under the proposed HEU would have outdoor lighting typical of other residential development in the County, including for building entrances, parking lots, and outdoor security. Residential structures would also be composed of similar materials as other residential development in the County, and would not represent a new source of substantial glare. Consequently, future housing constructed under the Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. In addition, development of new housing would be subject to County General Plan policies aimed to prevent excessive light and glare. Policy CC-33 requires the design of buildings visible from the County's designated scenic roadways to avoid the use of reflective surfaces which could cause glare. Policy CC-34 requires new construction in rural areas to be consistent with current Building Code requirements and be designed to limit upward and spillover light. Potential impacts on light or glare are therefore considered to be **less than significant**.

Mitigation: None required.

4.1 Aesthetics

4.1.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future development in the County that could cause cumulatively significant impacts. Significant cumulative impacts related to aesthetics could occur if the incremental impacts of the Project combined with the impacts of cumulative development identified in Section 4.0.3, *Cumulative Impacts*, would result in a significant cumulative impact and if the Project's contribution would be "considerable."

Impact AES-1.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable development, would not have a substantial adverse effect on a scenic vista. (*Less than Significant*)

As discussed above in Impact AES-1, development in hillside areas of the County are subject to review under the County's Viewshed Protection Program, which would ensure that new development does not result in substantial adverse changes to views of hillside areas and ridgelines. In addition, proposed multifamily housing sites are generally on level or gently sloping land and are visible from relatively short distances, so they would not impair a scenic vista. Even the Foster Road site, which can be seen from SR 29, is adjacent to other developed areas and thus would not represent a noticeable change to views from the highway if developed in isolation. If the entire Foster Road area is developed in the context of cumulative development envisioned in the City's Draft General Plan Update, the change would be more noticeable, although the proposed plan envisions additional site planning (LUCD 23-1) and specifies an approach that would "Support site planning and design that reflect the location of the area as a major gateway into the City and Napa Valley. As such, tall, blank retaining or noise barriers are not recommended along the eastern side of the property. A combination of native trees, landscaping, and natural berms should be used to shield freeway noise and to appear bucolic when viewed from the freeway..." (LUCD 23-4).⁶ With this attention to design and the proximity of existing development that is already visible from SR 29, the cumulative impact would be considered less than significant.

Mitigation Measure: None required.

Impact AES-2.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable development, would not substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. (*Less than Significant*)

As discussed above in Impact AES-2, while the Project could result in development of aesthetically appealing undeveloped pieces of land, future development on all but one of the proposed sites would be subject to existing regulations, and all of the sites are located in areas where there is already development nearby. Potential visual changes on sites subject to County development standards would not substantially degrade the existing visual character or quality of

⁶ City of Napa 2040 General Plan, Public Review Draft, February 2022, p. 2-50.

public views or conflict with applicable zoning and other regulations governing scenic quality. Only the Imola site could be developed without compliance with County zoning regulations, and it is conservatively assumed that impacts related to visual character and quality of public views associated with development of the Imola site would be significant and unavoidable with mitigation. Nonetheless, other development in the County would be subject to development standards that would limit visual impacts, and thus would not combine with this project-specific cumulative impact to result in a cumulatively significant impact. Consequently, the cumulative impact would be **less than significant**.

Mitigation Measure: None required.

Impact AES-3.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable development, would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. (*Less than Significant*)

Past, present, and future development in the County is subject to County General Plan policies aimed to prevent excessive light and glare. As discussed above in Impact AES-3, Policy CC-33 requires the design of buildings visible from the County's designated scenic roadways to avoid the use of reflective surfaces which could cause glare. Policy CC-34 requires new construction in rural areas to be consistent with current Building Code requirements and be designed to limit upward and spillover light. Because these policies would apply to cumulative development throughout the County as well as development allowed by the Project, the cumulative impact would be **less than significant**.

Mitigation Measure: None required.

4.1.7 References

- California Department of Transportation (Caltrans). 2022. California State Scenic Highways. Available online: https://dot.ca.gov/programs/design/lap-landscape-architecture-andcommunity-livability/lap-liv-i-scenic-highways. Accessed April 18, 2022.
- Napa County, 2008. *Napa County General Plan*, adopted by Board of Supervisors Resolution 08-86, June 3, 2008, as amended through February 2022.
- Napa County, 2007. Napa County General Plan Update Draft Environmental Impact Report. February 2007.

4.1 Aesthetics

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4.2 Agriculture and Forestry Resources

4.2.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on agriculture and forestry resources. This section first includes a description of the existing environmental setting as it relates to agriculture and forestry resources, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on agriculture and forestry resources.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. No comments relating to agriculture and forestry resources were received during the NOP comment period.

4.2.2 Environmental Setting

Agriculture

Napa County's land characteristics allow for a variety of agricultural uses, including row crops, field crops, orchards, vineyards and grazing land. The highest yielding use in Napa County's agricultural economy is the production of wine grapes (Napa County, 2007).

Some of the sites identified as part of the HEU's housing sites inventory include agricultural use or are located within the vicinity of agricultural uses. The Northeast Napa "Bishop" parcel at 1806 Montecello Road has been used for cattle grazing. Vineyards are also present within the vicinity of the Imola Avenue site.

The County's Zoning Ordinance contains two agricultural zoning designations: the Agricultural Watershed (AW) and Agricultural Preserve (AP) districts. The sites identified as part of the HEU's housing sites inventory include the following existing zoning designations:

- Spanish Flat: Commercial Neighborhood (CN) district.
- Northeast Napa: Residential Country (RC) district (1806 Monticello Road) and Planned Development (PD) district (1011 Atlas Peak Road).
- **Imola Avenue:** Agricultural Watershed (AW) Skyline Wilderness Park Combination (:SWP) district and Planned Development (PD) district.
- Foster Road: AW and Urban Reserve Combination (UR) district.

The County contains land classified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, and Other Land under the California Department of Conservation's (CDOC) Farmland Mapping and Monitoring Program (FMMP) as shown in **Figure 4.2-1** (CDOC, 2021). Definitions of the CDOC's farmland designations are provided in Section 4.2.3, Regulatory Setting. The four geographies of the sites identified as part of the HEU's housing sites inventory include the following FMMP categories:

- Spanish Flat: Urban and Built-Up Land and Grazing Land
- Northeast Napa: Urban and Built-Up Land (both sites), Other Land and Farmland of Local Importance (Bishop site)
- Imola Avenue: Urban and Built-Up Land and Other Land
- Foster Road: Urban and Built-Up Land and Other Land

Forestry Resources

Timber harvesting within Napa County is governed by the California Department of Forestry and Fire Protection (CAL FIRE) Forest Practice Program. The program adheres to the California Forest Practice Rules, described in Section 4.2.3, *Regulatory Setting*. The County currently has approximately 40,500 acres of potential timberland, with the majority of the County's timberland occurring in five areas (in descending order): The Western Mountains, Eastern Mountains, Lower Napa Valley, Pope Valley, and Angwin. Timber harvesting in the County usually involves a one-time cutting of forests and the conversion of timberlands into other uses, such as vineyards. However, a limited amount of sustainable-yield timber harvest also occurs (Napa County, 2007). None of the HEU's proposed housing sites include forested areas.

4.2.3 Regulatory Setting

State

California Farmland Mapping and Monitoring Program

The California Department of Conservation's FMMP provides a classification system for farmland based on technical soil ratings and current land use (CDOC, 2019). The minimum land use mapping unit is 10 acres unless specified; smaller units of land are incorporated into the surrounding map classifications.

For the purposes of this environmental analysis, the term "Farmland" refers to FMMP map categories *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance* (hereafter collectively referred to as "Farmland"). Generally, any conversion of land from one of these categories to a lesser quality category or a non-agricultural use would be considered to be an adverse impact. These map categories are defined as follows (CDOC, 2019):

• **Prime Farmland:** Land which has the best combination of physical and chemical features able to sustain long term agricultural production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.



SOURCE: Napa County; DOC, 2018; OSM; ESRI, 2021; ESA, 2022.

Napa County Housing Element Update EIR

Figure 4.2-1 Napa County Important Farmland (2018)

ESA

4.2 Agriculture and Forestry Resources

- Unique Farmland: Farmland of less quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- *Farmland of Statewide Importance*: Land that is similar to *Prime Farmland* but with minor shortcomings, such as greater slopes or less ability to hold and store moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

A fourth category is *farmland of Local Importance*, which in Napa County includes areas of soils that meet all the characteristics of Prime Farmland or of additional Farmland of Statewide Importance with the exception of irrigation. These farmlands include dryland grains, haylands, and dryland pasture (CDOC, 2018). Farmland of Local Importance is not included in the definition of agriculture within Public Resources Code Section 21060.1; therefore, this category of land is not the focus of the analysis of agriculture and forestry resources impacts.

The FMMP also characterizes land in the County as Grazing Land, Urban and Built-Up Land, and Other Land as defined below. These categories are also not considered Farmland under CEQA.

- *Grazing Land* is land on which the existing vegetation is suited to the grazing of livestock.
- Urban and Built-Up Land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.
- *Other Land* is land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land.

California Public Resources Code

The California Public Resources Code governs forestry, forests, and forest resources, as well as range and forage lands, within the state. "Forest land" is defined by Public Resources Code Section 12220(g) as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined by Public Resources Code Section 4526 as "land, other than land owned by the federal government..., which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees."

California Government Code

Chapter 6.7 of the Government Code (§§51100-51155) regulates timberlands within the state. "Timberland production zone" is defined in Section 51104(g) as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. In this context, "compatible uses" include any use that "does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber" (Gov't Code §51104(h)). With respect to the general plans of cities and counties, "timberland preserve zone" means "timberland production zone."

California Land Conservation Act of 1965

The California Land Conservation Act of 1965 (Williamson Act, Gov't Code §51200 et seq.) preserves open spaces and agricultural land. The Act discourages urban sprawl and prevents landowners from developing their property for the greater land value of commercial and/or residential uses. The Williamson Act is a state program implemented at the county level that allows agricultural landowners to contractually agree to retain land included in an agricultural preserve¹ in agricultural or open space uses for a period of at least 10 years and, in return, to pay reduced property taxes. The term of the contract automatically renews each year unless not renewed or cancelled, so that the contract always has a 10-year period left.

Forest Practice Act

The Z'berg-Nejedly Forest Practice Act (Forest Practice Act) was enacted in 1973 to ensure that logging is conducted in a manner that will preserve and protect fish, wildlife, forests, and streams CAL FIRE has enforcement responsibility for the Forest Practice Act. Additionally, CAL FIRE has enacted Forest Practice Rules. The purpose of the Forest Practice Rules is to implement the provisions of the Forest Practice Act in a manner consistent with other laws, including, but not limited to, the Timberland Productivity Act of 1982, CEQA, the Porter Cologne Water Quality Act, and the California Endangered Species Act. The Forest Practice Rules are implemented by application of Timber Harvest Plans as directed by CAL FIRE.

Local

Napa County Agricultural Preserves and Williamson Act Participation

Napa County began participating in the Williamson Act in 1969 following the establishment of the Napa Valley and Wooden Valley Agricultural Preserves. To qualify for a Williamson Act Contract a parcel must be zoned Agriculture Preserve (AP) or Agricultural Watershed (AW), be at least 40 acres in size for non-prime agricultural land or at least 10 acres in size for prime agricultural land, and contain a bona fide agricultural use. Additionally, the County offers a contract for parcels between 5 and 10 acres provided the agricultural use demonstrates a unique commitment to sustainable farming practices and contributes to the diversity of crops raised in Napa County (i.e. agriculture use other than wine grapes) in addition to other specific conditions.

An agricultural preserve defines the boundary of an area within which a city or county would be willing to enter into Williamson Act contracts with landowners: The boundary is designated by resolution of the city council or board of supervisors with jurisdiction over the property. Agricultural preserves generally must be at least 100 acres in size.

4.2 Agriculture and Forestry Resources

Agricultural contracts are for a 10-year rolling term and renew each year for another term unless they are non-renewed by either the landowner or the County (Napa County, 2022a). As of January 2019, 76,997 acres in the County were covered by contracts representing 870 separate parcels of land (Napa County, 2022b).

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Agricultural Preservation and Land Use Element of the Napa County General Plan includes the following policies related to agriculture and forestry resources (Napa County, 2008).

Goal AG/LU-1: Preserve existing agricultural land uses and plan for agriculture and related activities as the primary land uses in Napa County.

Goal AG/LU-5: With municipalities, other governmental units, and the private sector, plan for commercial, industrial, residential, recreational and public land uses in locations that are compatible with adjacent uses and agriculture.

Policy AG/LU-3: The County's planning concepts and zoning standards shall be designed to minimize conflicts arising from encroachment of urban uses into agricultural areas. Land in proximity to existing urbanized areas currently in mixed agricultural and rural residential uses will be treated as buffer areas and further parcelization of these areas will be discouraged.

Policy AG/LU-4: The County will reserve agricultural lands for agricultural use including lands used for grazing and watershed/open space, except for those lands which are shown on the Land Use Map as planned for urban development.

Policy AG/LU-9: The County shall evaluate discretionary development projects, rezonings and public projects to determine their potential for impacts on farmlands mapped by the State Farmland Mapping and Monitoring Program, while recognizing that the state's farmland terminology and definitions are not always the most relevant to Napa County, and shall avoid converting farmland where feasible.

Where conversion of farmlands mapped by the state cannot be avoided, the County shall require long-term preservation of one acre of existing farm land of equal or higher quality for each acre of state-designated farmland that would be converted to non-agricultural uses. This protection may consist of establishment of farmland easements or other similar mechanism, and the farmland to be preserved shall be located within the County and preserved prior to the proposed conversion. The County shall recommend this measure

for implementation by the cities and town and LAFCO as part of annexations involving state-designated farmlands.

Policy AG/LU-11: Agricultural employee housing shall be permitted in agricultural zoning districts in conformance with state law. Seasonal farm labor housing may be provided in agricultural areas without regard to the location of farm employment in Napa County when the housing is under local public agency ownership or control.

Policy AG/LU-15: The County affirms and shall protect the right of agricultural operators in designated agricultural areas to commence and continue their agricultural practices (a

"right to farm"), even though established urban uses in the general area may foster complaints against those agricultural practices. The "right to farm" shall encompass the processing of agricultural products and other activities inherent in the definition of agriculture provided in Policy AG/LU-2, above.

The existence of this "Right to Farm" policy shall be indicated on all parcel maps approved for location in or adjacent to designated agricultural areas and shall be a required disclosure to buyers of property in Napa County.

Policy AG/LU-17: The County encourages active, sustainable forest management practices, including timely harvesting to preserve existing forests, retaining their health, product, and value. The County also encourages timber plantations for fuel wood and lumber production. (For more policies related to the managed production of resources and forest management practices, please see the Conservation Element.)

Policy AG/LU-18: Timber production areas in the County shall be considered to be those defined in the most recent adopted mapping available from CAL FIRE unless local areas are defined through a public planning process.

The Agricultural Preservation and Land Use Element of the Napa County General Plan designates over 90 percent of the County for agriculture, including lands designated Agricultural Resource (AR) and Agriculture, Watershed and Open Space (AWOS). The Agricultural Preservation and Land Use Element of the Napa County General Plan also contains minimum parcel size restrictions that help to preserve the County's agricultural character. Under Policy AG/LU-20, a minimum parcel size of 160 acres is required for lands designated as Agriculture, Watershed and Open Space. Under Policy AG/LU-21, a minimum parcel size of 40 acres is required for lands designated as Agricultural Resource. These parcel size requirements help to maintain areas of the County in which agriculture is the predominant use and uses incompatible with agriculture are precluded.

Napa County Zoning Ordinance – Agricultural Zoning Districts

Title 18 of the Napa County Code contains two agricultural zoning designations: the Agricultural Watershed (AW) district and the Agricultural Preserve (AP) district. The AW zoning classification is intended for those areas of the County where the predominant use is agriculturally oriented; or where watershed areas, reservoirs and floodplain tributaries are presently located or where development would adversely impact on all such uses; and where the protection of agriculture, watersheds, and floodplain tributaries from fire, pollution, and erosion is essential to the general health, safety and welfare. The AP zoning classification is applied to the fertile valley and foothill areas of Napa County containing existing agriculture and where agriculture should continue to be the predominant land use, where uses incompatible to agriculture should be precluded, and where the development of urban-type uses would be detrimental to the continuance of agriculture and the maintenance of open space. Agricultural zoning provides for a minimum parcel size of 40 acres, with one residence per parcel in the County's AP zone on the Valley floor, and a 160 acre minimum parcel size with one residence per parcel (plus a small second unit) in the agricultural watershed (AW) covering the hillsides.

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The County's General Plan and zoning ordinance permits construction of one single family home on each legal lot, with the exception of areas that are zoned for industrial use. The County's zoning also permits one Accessory Dwelling Unit (ADU) and one Junior Accessory Dwelling Unit (JADU) per parcel within residential and Agricultural Watershed (AW) zoning districts. One JADU is permitted in Agricultural Preservation (AP) zoning. The County's zoning ordinance also permits development of up to 12 individual farmworker housing units as an allowed use by right on every legal parcel in agricultural zones.

Napa County Right to Farm Ordinance

The County Code contains a Right to Farm (Chapter 2.94, County Code) provision, which states that the County has determined that the highest and best use for agricultural land is to develop or preserve lands for the purposes of agricultural operations. The County will not consider the inconveniences or discomforts arising from agricultural operations to be a nuisance if such operations are legal, consistent with accepted customs and standards, and operated in a nonnegligent manner. The County requires that prior to the issuance of a permit, lease, license, certificate, or other entitlement for use of a parcel adjacent to agricultural land that the owner(s) of the property must sign a statement acknowledging that they are aware of the "right to farm" policy of the County. As defined under this ordinance, an "agricultural operation" includes all operations necessary to conduct agriculture including, but not be limited to, preparation, tillage, and maintenance of the soil or other growing medium, the production, irrigation, frost protection, cultivation, growing, raising, breeding, harvesting, or processing of any living organism having value as an agricultural commodity or product, and any commercial practices performed incident to or in conjunction with such operations on the site where the agricultural product is being produced, including preparation for market, delivery to storage or to market, or to carriers for transportation to market.

Napa County Farm Worker Housing and Labor Camp Provisions

The Napa County Code contains provisions for farm worker housing and camps (Sections 18.104.340, 310, 320, and 330). These provisions establish requirements for development of permanent and seasonal housing for farm workers. The requirements include development standards, occupancy limitations, parking standards, affordability provisions, and require compliance with health, safety and building codes.

4.2.4 Significance Criteria

The thresholds used to determine the significance of impacts related to agriculture and forestry resources are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
- Result in the loss of forest land or conversion of forest land to non-forest use.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

Approach to Analysis

Examples of direct effects to Agriculture and Forestry Resources include the conversion of agricultural lands to non-agricultural uses and conflicts with existing zoning or agricultural conservation contracts or easements. Indirect effects may include nuisances or other physical changes that may result in the conversion to non-agricultural use or degradation of off-site agricultural lands. To assess potential impacts on agriculture and farmland, this analysis considers FMMP mapping, the County's Williamson Act data, the County's Zoning Ordinance and General Plan land use designations, and environmental site characteristics.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to agriculture and forestry resources and it is not discussed further in this section.

Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- Conflict with zoning for or rezone forest land, timberland, or timberland zoned Timberland *Production*. Implementation of the policies and programs contained in the HEU would address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. Sites identified as part of the HEU's housing sites inventory are not located within or adjacent to any forest land, timberland, or timberland zoned Timberland Production in the County. Therefore, no impact would occur.
- Loss of forest land or conversion of forest land to non-forest use. Timber harvesting in the County usually involves a one-time cutting of forests and the conversion of timberlands into other uses, such as vineyards. A limited amount of sustainable-yield timber harvest also occurs. Implementation of the policies and programs contained in the HEU would address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. No forest land would be converted, and sites identified as part of the HEU's

4.2 Agriculture and Forestry Resources

housing sites inventory are not located within or adjacent to any Timber Harvest Plans (CAL FIRE, 2021). Therefore, no impact would occur.

4.2.5 Impacts of the Project

Impact AGR-1: Implementation of the HEU would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (*Less than Significant*)

The County contains land classified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-Up Land, and Other Land under the CDOC's FMMP. Implementation of the HEU would plan for development of single family homes, ADUs, and programs supporting farmworker housing as allowed under the County's Zoning Ordinance that could be located within land designated as Farmland by the FMMP. However, such development is not allowed by the County's Zoning Ordinance on a level that would significantly conflict with the sites' use as agricultural land. Of the sites identified as part of the HEU's housing sites inventory, none contain Farmland as shown on the maps prepared pursuant to the FMMP. While the Bishop housing site contains Farmland of Local Importance, as discussed in Section 4.2.3, *Regulatory Setting*, above, Farmland of Local Importance is not included in the definition of agriculture within Public Resources Code Section 21060.1; therefore, this category of land is not the focus of the analysis of agriculture impacts under CEQA. Therefore, the impact of conversion of Farmland to non-agricultural use would be **less than significant**.

Mitigation: None required.

Impact AGR-2: Implementation of the HEU would not conflict with existing zoning for agricultural use, or a Williamson Act contract. (*Less than Significant*)

The County's Zoning Ordinance contains two agricultural zoning designations: the Agricultural Watershed (AW) district and the Agricultural Preserve (AP) district. As described in Section 4.2.3, *Regulatory Setting*, above, single family homes, ADUs and/or JADUs, and farmworker housing are allowed in agricultural zones.² Implementation of the HEU would plan for development of single family homes, ADUs, and programs supporting farmworker housing as allowed under the County's Zoning Ordinance, and as such would not conflict with existing zoning for agricultural use.

Local policies and ordinances, such as Napa County's Right to Farm Ordinance, protect agricultural uses from conflict with adjacent development and residential uses. The Right to Farm Ordinance protects the routine operational activities required to conduct agricultural activities.

² The County's zoning permits one ADU and one JADU per parcel within residential and Agricultural Watershed (AW) zoning districts. One JADU is permitted in Agricultural Preservation (AP) zoning.

Therefore, complaints by residents of any new housing developed under the proposed HEU adjacent to agricultural lands would not preclude agricultural uses from continuing.

Of the sites identified as part of the HEU's housing sites inventory, the Imola Avenue site and the Foster Road site contain existing agricultural zoning of AW:SWP and AW:UR, respectively. With regard to the Imola Avenue site, the site is State-owned and identified on the Real Estate Services Division's map of surplus property identified pursuant to Executive Order N-06-19 by the Department of General Services, and development on the site would not be subject to County review or regulations. Therefore, development as a result of the HEU on the Imola Avenue site would not conflict with existing zoning for agricultural use.

The Foster Road site is within the City of Napa's Rural Urban Limit (RUL), which is an area of the unincorporated County long identified for annexation and development within the City of Napa. The City of Napa's ongoing General Plan Update anticipates this happening over time and proposes policies to govern planning, development, and future annexation. As part of the HEU, the 5-acre site would be rezoned to the Residential Multiple (RM) zoning district, and as such development of multi-family housing on the site would not conflict with zoning for agricultural use.

Williamson Act lands are protected under contract to remain in agricultural use through the duration of the contract. In addition, some Williamson Act contracts preclude the construction of second units. Future development on Williamson Act lands would be subject to contract provisions. As part of the criteria for screening identifying new sites for housing as part of the HEU, parcels were selected such that none of the identified parcels were encumbered by a Williamson Act contract. Therefore, implementation of the HEU would not conflict with existing zoning for agricultural use or a Williamson Act contract, and impacts would be **less than significant**.

Mitigation: None required.

Impact AGR-3: Implementation of the HEU would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use. (*Less than Significant*)

As discussed above, the County includes zones for agricultural use and contains land designated as Farmland. Implementation of the HEU would plan for development of single-family homes, ADUs, and programs supporting farmworker housing as allowed under the County's Zoning Ordinance that could be located within land designated as Farmland by the FMMP or agricultural zones. However, such development is allowed by the County's Zoning Ordinance on a level that would not significantly conflict with the sites' use as agricultural land. The Right to Farm Ordinance and the County Code requirements regarding setbacks between agricultural and residential uses, also protect agricultural uses from conversion to non-agricultural uses and conflict with adjacent development. As discussed under Impact AGR-1 above, none of the multifamily sites identified as part of the HEU's housing sites inventory contain Farmland as shown on the maps prepared pursuant to the FMMP. While the Bishop housing site contains Farmland of Local Importance, as discussed in Section 4.2.3, *Regulatory Setting*, above,

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Farmland of Local Importance is not included in the definition of agriculture within Public Resources Code Section 21060.1; therefore, this category of land is not the focus of the analysis of agriculture impacts under CEQA. Farmland is located in the vicinity of the Northeast Napa and Imola Avenue sites. The Right to Farm Ordinance and the County Code requirements regarding setbacks between agricultural and residential uses, also would protect agricultural uses in the vicinity of these sites from conversion to non-agricultural uses. Therefore, potential indirect impacts related to conversion of Farmland to non-agricultural use would be **less than significant**.

Mitigation: None required.

4.2.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively significant impacts. Significant cumulative impacts related to agriculture and forestry resources could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects would be significant, and if the HEU's contribution would be "considerable."

As discussed above, implementation of the HEU would result in no impact with respect to forestry resources. Therefore, implementation of the HEU could not cause or contribute to any potential significant cumulative impact to these resource areas.

The geographic scope for cumulative effects on agriculture is Countywide.

Impact AGR-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on agriculture. (*Less than Significant*)

The 2007 Napa County General Plan EIR found a significant and unavoidable impact associated with a potential net loss of agricultural land designated on the Napa County General Plan Land Use Map due to potential land use map changes (including changes due to possible annexations by the City of American Canyon), and another significant and unavoidable impact due to the potential for non-agricultural development in areas with existing agricultural zoning or Williamson Act contracts. These findings indicate the potential for a significant cumulative impact.

Implementation of the HEU would plan for development of single-family homes, ADUs, and programs supporting farmworker housing as allowed under the County's Zoning Ordinance. Corresponding development is allowed by the County's Zoning Ordinance on a level that would not significantly conflict with the sites' use as agricultural land. The Right to Farm Ordinance and the County Code requirements regarding setbacks between agricultural and residential uses, also protect agricultural uses from conversion to non-agricultural uses and conflict with adjacent development.

As discussed under Impact AGR-2 above, implementation of the HEU would not conflict with existing zoning for agricultural use or a Williamson Act contract. Of the multifamily housing sites

identified as part of the HEU's housing sites inventory, the Imola Avenue site and the Foster Road site contain existing agricultural zoning. The Imola Avenue site is State-owned and would not be subject to County review or regulations. The Foster Road site is within the City of Napa RUL, which is an area of the unincorporated County long identified for annexation and development within the City of Napa. The City of Napa's ongoing General Plan Update anticipates this happening over time and proposes policies to govern planning, development, and future annexation. By identifying a relatively small site within this larger area for rezoning, the County would provide the property owner with the opportunity to advance plans for housing on a portion of their parcel, construct housing, and pursue annexation in the near term. Since the Foster Road site is within the City of Napa RUL and has been planned for annexation and development, the ultimate rezoning and annexation of the site would not contribute to a cumulative loss in agricultural land. As such, implementation of the HEU would not contribute considerably to a significant cumulative impact on agriculture, and the cumulative impact would be **less than significant**.

Mitigation: None required.

4.2.7 References

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4.2 Agriculture and Forestry Resources

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4.3 Air Quality

4.3.1 Introduction

This section discusses the existing air quality conditions in the project area, identifies the regulatory framework for air quality management, and analyzes the potential for the Project to affect air quality conditions, both regionally and locally, including impacts from emissions generated on a temporary basis from construction activities. The analysis determines whether those emissions are significant under applicable air quality standards and identifies feasible mitigation measures for significant adverse impacts. This section also includes an assessment of potential odor impacts and an analysis of cumulative air quality impacts.

The analysis in this section is based on a review of existing air quality conditions in the Bay Area region and air quality regulations administered by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Bay Area Air Quality Management District (BAAQMD). This analysis includes methodologies identified in the air district's current California Environmental Quality Act (CEQA) Air Quality Guidelines and its companion documentation.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to air quality received during the NOP comment period include concerns related to the DEIR including an air pollutant analysis from the Project.

4.3.2 Environmental Setting

Napa County is one of nine counties in the San Francisco Bay Area Air Basin (SFBAAB) that is managed by the BAAQMD. The SFBAAB consists of nine Bay Area counties, though only the southernmost portions of Sonoma County and Solano Counties are included. The SFBAAB is bordered by the North Coast and Lake County Air Basins to the north, the Sacramento and San Joaquin Valley Air Basins to the east, and the North Central Coast Air Basin to the South.

Topography, Meteorology, and Climate

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains account for about 75 percent of the average annual rainfall. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys (BAAQMD 2017a). The climate is dominated by a semi-permanent, subtropical high-pressure cell that is centered over the Pacific Ocean during the summer months. This results in stable meteorological conditions and a steady northwesterly wind flow (BAAQMD 2017a).

Napa Valley lies within Napa County, an area bordered by relatively high mountains to the east and west. The mountains surrounding the Napa Valley have an average ridgeline height of approximately 2,000 feet, while some peaks approach more than 4,000 feet in elevation. The summer average maximum temperatures are in the low 80s at the southern end of the valley and in the low 90s at the northern end, while winter average maximum temperatures are in the high 50s and low 60s, with minimum temperatures in the high to mid-30s. Due to the climate and terrain of the valley, the potential for air pollution could be high if there were sufficient sources of air contaminants nearby. The summer and fall prevailing winds can transport ozone precursors northward from the Carquinez Strait Region to the Napa Valley, which effectively traps and concentrates pollutants when stable conditions are present. Low wind speed contributes to the buildup of air pollution because there is less dispersion of pollutants. Light winds occur most frequently during periods of low sun and at night. Periods when air pollutant emissions from certain sources are at their peak include early morning commuting traffic and nighttime wood burning. The problem can be compounded in valleys, when weak flows carry the pollutants up valley during the day, and cold air drainage flows move the air mass down valley at night. This restricted movement of trapped air reduces ventilation and leads to buildup of pollutants to potentially unhealthful levels.

Criteria Pollutants and Ambient Air Quality Standards

Both the U.S. EPA and the CARB have established ambient air quality standards for air pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents published by the EPA.

The federal and California state ambient air quality standards are summarized in **Table 4.3-1**. The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health related effects. As a result, the federal and state standards differ in some cases. State standards, which are entirely health-based, are more stringent. This is particularly true for ozone, $PM_{2.5}$ and PM_{10} .

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

The EPA adopted a more stringent standard of 35 μ g/m³ for 24-hour exposures of PM_{2.5}, based on a review of the scientific evidence. At the same time, the EPA revoked the annual PM₁₀ standard due to a lack of scientific evidence correlating long-term exposures of ambient PM₁₀ with health effects.

		State (CAAQS ^a)		Federal (NAAQS ^b)	
Pollutant	Averaging Time	Standard	Attainment Status	Standard	Attainment Status
Ozone	1 hour	0.09 ppm	N	NA	c
	8 hours	0.07 ppm	N ^d	0.070 ppm	N
Carbon monoxide (CO)	1 hour	20 ppm	A	35 ppm	А
	8 hours	9 ppm	A	9 ppm	А
Nitrogen dioxide (NO ₂)	1 hour	0.18 ppm	А	0.100 ppm	U
	Annual	0.030 ppm	NA	0.053 ppm	А
Sulfur dioxide (SO ₂)	1 hour	0.25 ppm	А	0.075	А
	24 hours	0.04 ppm	A	0.14	А
	Annual	NA	NA	0.03 ppm	А
Particulate matter (PM ₁₀)	24 hours	50 µg/m³	N	150 µg/m³	U
	Annual ^e	20 µg/m³	N	NA	NA
Fine particulate matter (PM _{2.5})	24 hours	NA	NA	35 µg/m³	N
	Annual	12 µg/m³	N	12 µg/m³	А
Sulfates	24 hours	25 µg/m³	A	NA	NA
Lead	30 days	1.5 µg/m³	A	NA	NA
	Cal. quarter	NA	NA	1.5 µg/m³	А
	Rolling 3- month average	NA	NA	0.15 µg/m³	А
Hydrogen sulfide	1 hour	0.03 ppm	U	NA	NA
Visibility-reducing particles	8 hours	f	А	NA	NA
Vinyl chloride	24 hours	0.010 ppm (26 µg/m³)	No information available	NA	NA

TABLE 4.3-1 FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

ABBREVIATIONS: A = Attainment; N = Nonattainment; U = Unclassified; NA = Not Applicable, no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter

NOTES:

a. CAAQS= California ambient air quality standards (California). SAAQS for ozone, CO (except Lake Tahoe), SO₂ (one-hour and 24-hour), NO₂, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All other State standards shown are values not to be equaled or exceeded.

- b. NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The eight-hour ozone standard is attained when the three-year average of the fourth highest daily concentration is 0.08 ppm or less. The 24-hour PM₁₀ standard is attained when the three-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour PM_{2.5} standard is attained when the three-year average of the 98th percentile is less than the standard.
- c. The U.S. EPA revoked the national one-hour ozone standard on June 15, 2005.
- d. This state eight-hour ozone standard was approved in April 2005 and became effective in May 2006.
- e. State standard = annual geometric mean; national standard = annual arithmetic mean.
- f. Statewide visibility-reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

SOURCE: Bay Area Air Quality Management District, *Standards and Attainment Status*, 2022a, https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status, accessed April 13, 2022.

Air Pollutants of Concern and Health Effects

The EPA revoked the national 1-hour ozone standard in 2005. For the 8-hour ozone standard, the EPA has classified the SFBAAB as a marginal nonattainment area. The EPA has classified the County as an unclassified/attainment area for the PM_{10} and $PM_{2.5}$ standards. Designations for the new 24-hour national $PM_{2.5}$ were determined in 2012 following EPA's review of air quality criteria and national ambient air quality standards. The CARB has classified the entire SFBAAB as a serious nonattainment area for the 1-hour ozone standard. For the CO standard, the CARB has classified the County as an attainment area. The CARB has classified the SFBAAB as a nonattainment area for the PM_{10} and $PM_{2.5}$ standards. The CORB has classified the SFBAAB as a nonattainment area for the PM_{10} and $PM_{2.5}$ standards. The County's attainment status for each of these pollutants relative to the NAAQS and CAAQS is summarized in **Table 4.3-2**.

Pollutant	Federal	State
1-hour O ₃	Standard revoked in 2005	Serious nonattainment
8-hour O ₃	Nonattainment	Nonattainment
СО	Moderate (\leq 12.7 ppm) maintenance area for the Urbanized Areas (3/29/85, 50 CFR 12540), unclassified/attainment area for rest of the County	Attainment
PM ₁₀	Unclassified/attainment	Nonattainment
PM ₁₀ Annual	Unclassified/attainment	Nonattainment
PM _{2.5} 24-hour	Nonattainment	NA
PM _{2.5} – Annual	Nonattainment	Nonattainment

 TABLE 4.3-2

 2020 NAPA COUNTY ATTAINMENT STATUS FOR STATE AND FEDERAL STANDARDS

NOTES:

µg/m³ = micrograms per cubic meter; Avg. = Average; PM_{2.5} = particulate matter 2.5 microns or less in diameter; PM₁₀ = particulate matter 10 microns or less in diameter; ppb = parts per billion; ppm = parts per million

SOURCE: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, updated January 5, 2017. Available at https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status. Accessed April 25, 2022.

Ozone and NO₂ are generally considered regional pollutants because these pollutants or their precursors affect air quality on a regional scale. Pollutants such as CO, SO₂, and lead are considered local pollutants because they tend to accumulate in the air locally. Particulate matter is considered both a localized pollutant and a regional pollutant.

Napa County is home to many industries, processes, and actions that generate emissions of criteria pollutants. The California Air Resources Board (CARB) compiles an emissions inventory for all sources of emissions within the County. This inventory is used by the BAAQMD and CARB for regional air quality planning purposes and is the basis for the region's air quality plans. The inventory includes such sources as stationary (e.g., landfills, electric utilities, mineral processes); area-wide (e.g., farming operations, construction/demolition activities, residential fuel combustion); and mobile sources (e.g., automobiles, aircraft, off-road equipment). Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter (PM₁₀ and PM_{2.5}), lead, sulfates, hydrogen sulfide, and vinyl chloride, which are criteria air pollutants, are used to indicate the quality of ambient air. Criteria air pollutants are also the most prevalent indicators of how air pollution is detrimental to human health. The health effects of each
criteria air pollutant, as well as source of emissions are summarized in **Table 4.3-3**. Table 4.3-3 contains a comprehensive list of all pollutants for which there are California standards. The impact analysis focuses on the main pollutants of concern for the Project, which are ozone precursors (nitrogen oxides and reactive organic gases) and PM_{10} and $PM_{2.5}$.

Pollutant	Sources	Acute ^a Health Effects	Chronic ^b Health Effects
Ozone (O ₃)	secondary pollutant resulting from reaction of reactive organic gases (ROG) and oxides of nitrogen (NO _x) in presence of sunlight; ROG results from incomplete combustion and evaporation of chemical solvents and fuels; NO _x results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO ₂)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	irritation of upper respiratory tract, increased asthma symptoms	insufficient evidence linking SO ₂ exposure to chronic health impacts
Respirable	fugitive dust, soot, smoke, mobile and	breathing and respiratory symptoms,	alterations to the immune system,
particulate matter	stationary sources, construction, fires and	aggravation of existing respiratory and	carcinogenesis
(PM ₁₀), Fine	natural windblown dust, and formation in the	cardiovascular diseases, premature	
particulate matter (PM _{2.5})	atmosphere by condensation and/ or transformation of SO_2 and ROG	death	
Lead	metal processing	reproductive/developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects
Vinyl Chloride	Creation of polyvinyl chloride plastic and vinyl products	Eye irritation, Dizziness, drowsiness, headaches, and giddiness	Liver damage, numerous nervous system effects, effects of the peripherical nervous system, reproductive and developmental effects, and increased cancer risk
Hydrogen Sulfide	sewage treatment facilities	Headaches, nausea, and	Cognitive function impacts,
	extraction and processing of coal, natural gas, and oil	vomiung	caruiovascular impacts
	petrochemical plants, coke oven plants, and kraft paper mills		
Sulfates	Combustion of sulfur-containing compounds in gasoline and diesel fuels	Acute bronchitis, asthma attacks	Chronic bronchitis, heart and lung-related issues, premature mortality.

TABLE 4.3-3 SOURCES AND HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS

NOTES:

a. Acute refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

b. Chronic refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations. Source: CARB 2022a

SOURCE: BAAQMD 2017a Appendix C; South Coast Air Quality Management District 2017.

Ozone

Ground level ozone, commonly referred to as smog, is greatest on warm, windless, sunny days. Ozone is not emitted directly into the air, but formed through a complex series of chemical reactions between reactive organic gases (ROG) and nitrogen oxides (NO_x). These reactions occur over time in the presence of sunlight. Ground level ozone formation can occur in a matter of hours under ideal conditions. The time required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution concern. Once formed, ozone can remain in the atmosphere for one or two days.

Ozone is also a public health concern because it is a respiratory irritant that increases susceptibility to respiratory infections and diseases, and because it can harm lung tissue at high concentrations. In addition, ozone can cause substantial damage to leaf tissues of crops and natural vegetation and can damage many natural and manmade materials by acting as a chemical oxidizing agent. The principal sources of the ozone precursors (ROG and NO_x) are the combustion of fuels and the evaporation of solvents, paints, and fuels.

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Motor vehicle emissions are the dominant source of CO in the Napa region. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can cause dizziness, headaches, unconsciousness, and even death. CO can also aggravate cardiovascular disease. Relatively low concentrations of CO can significantly affect the amount of oxygen in the bloodstream because CO binds to hemoglobin 220–245 times more strongly than oxygen.

CO emissions and ambient concentrations have decreased significantly in past years. These improvements are due largely to the introduction of cleaner burning motor vehicles and motor vehicle fuels. The Napa region has attained the State and national CO standard. The records from the region's monitoring stations show that the CO standard has not been exceeded since 1991. CO is still a pollutant that must be closely monitored, however, due to its severe effect on human health.

Elevated CO concentrations are usually localized and are often the result of a combination of high traffic volumes and traffic congestion. Elevated CO levels develop primarily during winter periods of light winds or calm conditions combined with the formation of ground- level temperature inversions. CO concentrations are higher in the winter because of reduced dispersion of vehicle emissions and because CO emission rates from motor vehicles increase as temperature decreases.

Carbon Monoxide levels in Napa County are declining. For the CO standard in Napa County, the urbanized areas are classified as a moderate (≤ 12.7 ppm) maintenance area for CO, while the remainder of the County is classified as an unclassified/attainment area. The CARB has classified the County as an attainment area. There have been no violations of the federal or state CO standards recorded at the Jefferson Street Station nor the Napa Valley College Station.

Particulate Matter

Particulate matter can be divided into several size fractions. The two most harmful to human health are those in the 10 micron diameter size, referred to as PM_{10} , and those in the 2.5 micron diameter size, referred to as $PM_{2.5}$. PM_{10} and $PM_{2.5}$ occur primarily from natural processes, such as wind-blown dust or soil, and from human activities including fossil fuel combustion, entrained road dust, and burning activities. Fuel burned in cars and trucks, power plants, factories, fireplaces and wood stoves produces fine particles. The federal and state ambient air quality standard for particulate matter applies to two classes of particulates: PM_{10} and $PM_{2.5}$. State and federal standards are summarized in **Table 4.3-4**.

Exposure to elevated levels of PM_{10} and $PM_{2.5}$ in the air is a public health concern because it can bypass the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. The health effects vary depending on a variety of factors, including the type and size of particles. Research has demonstrated a correlation between high PM_{10} and $PM_{2.5}$ concentrations and increased mortality rates. Elevated PM_{10} and $PM_{2.5}$ concentrations can also aggravate chronic respiratory illnesses such as bronchitis and asthma. In addition to damaging human health, particulates can also slow plant growth (CARB 2022b).

Violations of air quality standards tend to vary seasonally. PM₁₀ exceedances in the County are shown to occur primarily in the winter. However, data obtained from the Jefferson Street monitoring station in 2018, and the Napa Valley College station from 2018-2020 showed that the two measured days that exceeded state 24-hour PM₁₀ standards occurred during the summer months (June and July). Wildfires in the region can also affect recorded levels of PM₁₀. Wood smoke emissions tend to be greatest on fall, winter, and spring days and nights due to wood burning use for heat, and when meteorological conditions are conducive to high PM₁₀ and PM_{2.5} levels. In the late spring, summer, and early fall days and nights, high PM₁₀ and PM_{2.5} levels tend to be due to fires and dust from agricultural activities.

Toxic Air Contaminants (TACs)

In addition to the criteria pollutants discussed above, TACs are another group of pollutants of concern. Unlike criteria pollutants, no safe levels of exposure to TACs have been established. There are many different types of TACs, with varying degrees of toxicity. Sources of TAC's include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, CARB regulates TACs through statutes and regulations that generally require the use of the maximum or best available control technology (MACT and BACT) to limit emissions. The BAAQMD further regulates these sources by requiring health risks assessments for new or modified stationary sources with substantial emissions and only permits these sources if the risks to the public are acceptable.

4.3 Air Quality

TABLE 4.3-4	
AMBIENT AIR QUALITY MONITORING DATA FOR NAPA COUNTY (JEFFERSON/NAPA VALLEY COLLEG	3E)

Pollutant Standards	2018	2019	2020	
Ozone (O ₃)				
Maximum 1-hour concentration (ppm)	.083	.095	.091	
Maximum 8-hour concentration (ppm)	.069	.077	.077	
Number of days standard exceeded ^a				
NAAQS 1-hour (>0.12 ppm)	0	0	0	
CAAQS 1-hour (>0.07 ppm)	0	1	0	
NAAQS 8-hour (>0.07 ppm)	0	2	1	
Carbon Monoxide (CO)			I	
Maximum 8-hour concentration (ppm)	1.1	1	2.7	
Maximum 1-hour concentration (ppm)	1.6	1.3	4.4	
Number of days standard exceeded ^a				
NAAQS 8-hour (>9.0 ppm)	0	0	0	
CAAQS 8-hour (>9.0 ppm)	0	0	0	
NAAQS 1-hour (>35 ppm)	0	0	0	
CAAQS 1-hour (>20 ppm)	0	0	0	
Particulate Matter (PM _{2.5}) ^b				
Maximum 24-hour concentration (µg/m ³)	117.9	21.5	148.5	
Annual average concentration (µg/m ³) ^e	*	5.9	10.3	
Number of days standard exceeded ^a				
NAAQS 24-hour (>150 µg/m³) ^f	12	0	14	
CAAQS 24-hour (>50 µg/m ³) ^f	*	*	*	
Particulate Matter (PM ₁₀) ^b				
Maximum 24-hour concentration (µg/m³)	26	39	125	
Annual average concentration (µg/m ³) ^e	21	21	18	
Number of days standard exceeded ^a				
NAAQS 24-hour (>150 µg/m³) ^f	*	0	0	
CAAQS 24-hour (>50 µg/m³) ^f	0	0	2	

NOTES:

CAAQS = California ambient air quality standards. NAAQS = national ambient air quality standards. Values in bold font indicate an exceedance.

* Insufficient data to determine a value

On March 31st, 2018, the Jefferson Street monitoring station ceased monitoring, and the Napa Valley College monitoring station began monitoring on April 1st. In the 2018 column the higher of the data values taken at the two stations is recorded. All of the values were recorded at the Napa Valley College station, with the exception of the CO 1-hour value, which was recorded at the Jefferson Street station.

a. An exceedance is not necessarily a violation. It should be noted that the federal ozone 1-hour standard has been revoked by EPA.

b. Measurements usually are collected every 6 days.

c. National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

d. State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

e. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

f. Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored.

SOURCES: CARB top 4 Summary and EPA Monitor Value Reports (CARB 2022c)

Sources of TACs associated with the Project would include diesel exhaust from construction equipment and vehicles, further discussed below.

Diesel Exhaust

The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources, such as diesel trucks and buses, are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. CARB estimated average bay area cancer risk from exposure to diesel particulate, based on a population-weighted average ambient diesel particulate concentration, at about 480 in one million as of the year 2000, which is much higher than the risk associated with any other toxic air pollutant routinely measured in the region. The statewide risk from DPM, as determined by CARB, declined from 750 in one million in 1990 to 570 in one million in 1995; by 2000, CARB estimated the average statewide cancer risk from DPM at 540 in one million (CARB 2009).¹

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. Subsequent CARB regulations apply to new trucks and diesel fuel. With new controls and fuel requirements, 60 trucks built in 2007 would have the same particulate exhaust emissions as one truck built in 1988. The regulation is anticipated to result in an 80 percent decrease in statewide diesel health risk in 2020 as compared with the diesel health risk in 2000. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California. Subsequent regulations regarding on-road diesel truck retrofits with particulate matter controls, 2010 or later engine standards, and fleet average emission rate standards to increase turnover have resulted in much lower DPM and PM_{2.5} emissions.

Despite notable emission reductions, CARB recommends that proximity to sources of DPM emissions be considered in the siting of new sensitive land uses. CARB notes that these recommendations are advisory and should not be interpreted as defined "buffer zones," and that local agencies must balance other considerations, including transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, CARB's position is that infill development, mixed-use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level (CARB 2005).

¹ This calculated cancer risk value from ambient air exposure in the bay area can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which is more than 40 percent (based on a sampling of 17 regions nationwide), or greater than 400,000 in one million, according to the American Cancer Society. (American Cancer Society, Lifetime Probability of Developing or Dying from Cancer, last revised July 13, 2009, https://www.cancer.org/cancer/cancer-basics/lifetime-probability-of-developing-or-dying-froM-Cancer.html, accessed July 15, 2021.

Existing Air Quality

The existing air quality conditions in Napa County can be generally characterized by monitoring data collected in the region. The nearest air quality monitoring station in the vicinity of the proposed housing sites is the Napa Valley College monitoring station in the City of Napa. This station began monitoring in April 2018, when the Jefferson Street monitoring station ended monitoring in March 2018.

The Jefferson Street Monitoring Station in Napa County (located at 2552 Jefferson Street) measured ozone (O_3), particulate matter ($PM_{2.5}$), carbon monoxide (CO), nitrogen oxide (NO_x), and toxics. It did not measure PM_{10} . The station was relocated to Napa Valley College in 2018, and the monitoring station at the College now measures O_3 , NO_x , CO, PM_{10} , $PM_{2.5}$, and toxics. Air quality monitoring data from the Jefferson Street and Napa Valley College monitoring stations are summarized in Table 4.3-4. These data represent air quality monitoring data for 2018-2020, for which complete data are available.

If pollutant concentrations monitored in an air basin meet state or federal standards over a designated period of time, the basin is classified as being in attainment for that pollutant. If monitored pollutant concentrations violate the standards, the area is considered a nonattainment area for that pollutant. If data are insufficient to determine whether a pollutant is violating the standard and there is no evidence that the standard would be violated, the area is designated unclassified. The entire SFBAAB is currently in non-attainment for the 1-hour state ozone standard (BAAQMD 2022b). The EPA has classified SFBAAB as an unclassified/attainment area for the PM₁₀ and PM_{2.5} standards. Under state PM standards, SFBAAB is considered a nonattainment area.

Sensitive Receptors

Some groups of people are more affected by air pollution than others. The State has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. Residential areas are located near all of the HEU sites and a school is located close to the Imola Avenue site.

4.3.3 Regulatory Setting

Air quality in the SFBAAB is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies primarily responsible for improving the air quality in Napa County are discussed below along with their individual responsibilities.

Federal

Criteria Pollutants

The EPA is responsible for enforcing the 1990 amendments to the Federal Clean Air Act (CAA) and the national ambient air quality standards (NAAQS) that it establishes. The CAA required EPA to establish national ambient air quality standards (NAAQS). As shown in Table 4.3-1 EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter (PM₁₀ and PM_{2.5}), and lead. The primary standards protect the public health and the secondary standards protect public welfare.

Hazardous Air Pollutants

EPA also regulates hazardous air pollutants (HAPs) through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for TACs to limit emissions. These, in conjunction with additional rules set forth by BAAQMD, described further below, establish the regulatory framework for TACs.

The CAA also required EPA to issue vehicle or fuel standards containing reasonable requirements that control toxic emissions of, at a minimum, benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene.

State

Criteria Pollutants

The CARB, a department of the California Environmental Protection Agency (Cal EPA), oversees air quality planning and control throughout California. It is primarily responsible for establishing emissions standards for and regulating emissions from on-road motor vehicles, off-road equipment and vehicles, and consumer products within the State. CARB has established emission standards for vehicles sold in California and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The CCAA established ambient air quality standards for the state (CAAQS) and a legal mandate to achieve these standards by the earliest practical date. These standards apply to the same six criteria pollutants as the Federal CAA, and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride. They are equal to or more stringent than the federal standards.

Toxic Air Contaminants

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted EPA's list of HAPs as TACs. In 1998, diesel PM was added to the CARB list of TACs.

Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Programs include the low-sulfur diesel fuel requirement and stricter emissions standards for heavy-duty diesel trucks (effective in 2007 and subsequent model years) and off-road diesel equipment (2011) (CARB 2022d). Over time, replacing older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) in California have been reduced substantially over the last decade; such emissions will be reduced further through a progression of regulatory measures (e.g., low emission vehicles/clean fuels and Phase II reformulated-gasoline regulations) and control technologies.

Regional

BAAQMD

The Bay Area Air Quality Management District (BAAQMD) coordinates the work of government agencies, businesses, and private citizens to achieve and maintain healthy air quality for the Bay Area. The BAAQMD develops programs to reduce emissions associated with stationary sources, processes permits, determines whether the permit conditions have been met, ensures compliance with BAAQMD rules and regulations, and conducts long-term planning related to air quality.

On April 19, 2017, the BAAQMD adopted the Spare the Air: Cool The Climate Final 2017 Clean Air Plan (2017 Clean Air Plan) (BAAQMD 2017b). The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the 2017 Clean Air Plan includes all feasible measures to reduce emissions of O₃ precursors (ROG and NO_x) and reduce O₃ transport to neighboring air basins. In addition, the 2017 Clean Air Plan builds on BAAQMD efforts to reduce PM_{2.5} and TACs. BAAQMD establishes and administers a program of rules and regulations to attain and maintain the CAAQS and NAAQS and regulations related to TACs. The rules and regulations that may apply to the Project include the following:

- **Regulation 2, Rule 1 Permits.** This rule specifies the requirements for authorities to construct and permits.
- **Regulation 6, Rule 1 General Requirements.** This rule limits the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions, and opacity.
- **Regulation 6, Rule 3 Wood-Burning Devices.** This rule limits the emissions of particulate matter and visible emissions from wood-burning devices used for primary heat, supplemental heat or ambiance.
- **Regulation 6, Rule 6 Prohibition of Trackout.** This rule addresses fugitive road dust emissions associated with trackout of solid materials onto paved public roads outside the

boundaries of large bulk material sites, large construction sites and large disturbed surface sites (sites of 1-acre or more), and large disturbed surface sites.

- **Regulation 8, Rule 1 General Provisions.** This rule limits the emission of organic compounds into the atmosphere.
- **Regulation 8, Rule 3 Architectural Coatings.** This rule limits the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the BAAQMD.
- **Regulation 8, Rule 15 Emulsified and Liquid Asphalts.** This rule limits the emissions of VOCs caused by the use of emulsified and liquid asphalt in paving materials and paving and maintenance operations.

Buffer Zones

The BAAQMD recommends that General Plans include buffer zones to separate sensitive receptors from sources of air toxic contaminants and odors. In April 2005, the CARB released the final version of the Air Quality and Land Use Handbook, which is intended to encourage local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors (e.g., homes or daycare centers) near sources of air pollution. Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits, but could create air quality problems. The primary purpose of the document is to highlight the potential health impacts associated with proximity to common air pollution sources, so that those issues are considered in the planning process. CARB makes recommendations regarding the siting of new sensitive land uses near freeways, truck distribution centers, dry cleaners, gasoline dispensing stations, and other air pollution sources. These "advisory" recommendations, summarized in Table 4.3-5, are based primarily on modeling information and may not be entirely reflective of conditions in Napa County. Siting of new sensitive land uses within these recommendation distances may be possible, but only after sitespecific studies are conducted to identify the actual health risks. CARB acknowledges that land use agencies have to balance other siting considerations such as housing and transportation needs, economic development priorities and other quality of life issues.

 TABLE 4.3-5

 CARB RECOMMENDED SETBACK DISTANCES FOR COMMON SOURCES OF TOXIC AIR CONTAMINANTS

Source Type	Recommended Buffer Distance
Freeways and busy arterial roadways	500 feet
Distribution Centers with 100 or more daily truck trips or 40 daily truck trips that use refrigeration units	1,000 feet
Dry cleaners (onsite dry cleaning)	300 feet for any dry cleaning operation At least 500 feet for operations with 2 or more machines
Large gasoline stations	50 feet for typical gas stations Up to 300 feet for large gas stations
SOURCE: CARB 2005	

Local

At the local county level, air quality is managed through land use and development planning practices. These practices are implemented in Napa County through the general planning process (i.e., Napa County General Plan). At the regional level, the BAAQMD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws.

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation Element of the Napa County General Plan includes the following policies related to air quality (Napa County, 2009).

Goal CON-17: Reduce air pollution and reduce local contributions to regional air quality problems, achieving and maintaining air quality in Napa County which meets or exceeds state and federal standards.

Policy CON-77: All new discretionary projects shall be evaluated to determine potential significant project-specific air quality impacts and shall be required to incorporate appropriate design, construction, and operational features to reduce emissions of criteria pollutants regulated by the state and federal governments below the applicable significance standard(s) or implement alternate and equally effective mitigation strategies consistent with BAAQMD's air quality improvement programs to reduce emissions.

Policy CON-80e: The County shall seek to reduce particulate emissions and avoid exceedances of state particulate matter (PM) standards by requiring implementation of dust control measures during construction and grading activities and enforcing winter grading deadlines.

Policy CON-81: The County shall require dust control measures to be applied to construction projects consistent with measures recommended for use by the BAAQMD.

Policy CON-84: The County shall require the establishment and maintenance of adequate buffer distances or filters or other equipment modifications for new sources of toxic air contaminants (TACs) and odors near proposed or existing sensitive receptors consistent with local and state regulatory requirements and guidelines. [Implemented by Action Item CON CPSP-6].

Policy CON-85: The County shall utilize construction emission control measures required by CARB or BAAQMD that are appropriate for the specifics of the project (e.g., length of time of construction and distance from sensitive receptors). These measures shall be made conditions of approval and/or adopted as mitigation to ensure implementation. [Implemented by Action Item CON CPSP-6].

4.3.4 Significance Criteria

The thresholds used to determine the significance of impacts related to air quality are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Approach to Analysis

The following analysis is based on guidance from the BAAQMD provided in the 2017 BAAQMD CEQA Air Quality Guidelines (BAAQMD, 2017a), Chapter 9. The air district's guidelines identify different approaches to analyzing plans versus projects. The discussion below presents a plan-level analysis to address implementation of the HEU.

Long range plans (e.g., general plans) present unique challenges for assessing impacts. Due to the SFBAAB's nonattainment status for ozone and PM, and the cumulative impacts of growth on air quality, many of the plan-level impacts to air quality will be significant and unavoidable, without sufficient data on subsequent development project in order to conduct a project-level analysis that shows otherwise.

The impacts discussion in this chapter applies to program-level planning activities, and in that context, also considers potential impacts of subsequent development projects that would be allowed by the HEU. Air quality impacts from subsequent development can be divided into construction-related impacts and operational-related impacts. Construction-related impacts are associated with construction activities likely to occur in conjunction with future development. Operational-related impacts are associated with continued and future operation of developed land uses, including increased vehicle trips and energy use.

To meet the BAAQMD's *Threshold of Significance* for operational-related criteria air pollutant impacts for plans, a proposed plan must satisfy the following criteria:

- Consistency with current air quality plan (AQP) control measures, and
- A proposed plan's projected VMT or vehicle trips (VT) increase is less than or equal to its projected population increase.

This section starts with an assessment of consistency with the current air quality plan, the BAAQMD 2017 Clean Air Plan, by comparing the HEU's consistency with the Clean Air Plan's control measures. This section then evaluates criteria pollutants by comparing vehicle miles traveled (VMT) increase to population increase, and by considering potential impacts of subsequent development projects.

For health risk, the plan level analysis first describes the BAAQMD's guidance, which requires consideration of the proximity of new sensitive receptors to existing and planned sources of

TACs, including stationary sources, high-traffic roadways, and railways. This calls for examining the impact of the environment on the project (i.e. how would existing sources of TAC and $PM_{2.5}$ affect new residents), and is no longer the focus of CEQA, which considers impacts of the project on the environment.² A qualitative discussion of health risks that may result from construction and operation of specific projects is also provided. The analysis also assesses the addition of any odor sources anticipated as part of the plan.

While the exact timing of development under the HEU is unknown and will ultimately be market driven, this analysis is based on the assumption that the projected development will occur by the year 2040. This analysis is based on projected land uses, traffic trips, and associated VMT information provided in the transportation analysis prepared by Fehr & Peers (see also Section 4.14 of this EIR, *Transportation,* and Appendix D).

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to air quality and it is not discussed further in this section.

4.3.5 Impacts of the Project

Impact AIR-1: Implementation of the HEU would not conflict with or obstruct implementation of the applicable air quality plan. (*Less than Significant*)

The most recently adopted air quality plan for the SFBAAB is the 2017 Clean Air Plan (BAAQMD, 2017d) (Clean Air Plan). The Clean Air Plan is a road map that demonstrates how the SFBAAB will implement all feasible measures to reduce ozone precursors (ROG and NO_X) and reduce transport of ozone and its precursors to neighboring air basins, in accordance with the requirements of the California Clean Air Act. It also provides a control strategy to reduce PM, air toxics, and GHGs. In determining consistency with the Clean Air Plan, this analysis considers whether the project would include applicable control measures from the Clean Air Plan and would avoid disrupting or hindering implementation of control measures identified in the Clean Air Plan.

Consistency with Clean Air Plan Control Measures

The primary goals of the Clean Air Plan are to protect air quality and public health at the regional and local scale and protect the climate by reducing regional criteria air pollutant emissions and reducing local air quality-related health risks (by meeting state and national ambient air quality standards). To meet these goals, the Clean Air Plan includes 85 control measures aimed at reducing air pollutants in the SFBAAB (BAAQMD, 2017d). These control measures are grouped into the following sectors: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, and waste management. The vast majority of the control

² This is pursuant to the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015.

measures included in the Clean Air Plan do not apply directly to the HEU because they target facilities or land uses that are not relevant to the HEU (e.g., energy generation, waste management); vehicles that would not be employed in residential areas of the County area (e.g., airplanes); and/or involve rulemaking or other actions under the jurisdiction of agencies not directly involved with design and approval of the HEU and its related actions. In addition, 40 of these measures address stationary sources (such as oil refineries and cement kilns, and large boilers used in commercial and industrial facilities) and will be implemented by the air district using its permit authority and are therefore not suited to implementation through local planning efforts.

The Clean Air Plan control measures that would be pertinent to the HEU include energy control (EN), new building design features (BL), and waste management and control (WA) and are listed below:

- TR 10: Land Use Strategies
- EN 1: Decarbonize Electricity Production
- EN 2: Decrease Electricity Demand
- BL 1: Green Buildings
- BL 2: Decarbonize Buildings
- WA 3: Green Waste Diversion
- WA 4: Recycling and Waste Reduction
- WR 2: Support Water Conservation

The Land Use Strategies measure encourages development consistent with *Plan Bay Area*, which emphasizes, among other things, infill development rather than suburban sprawl, and jobshousing balance to put residents closer to employment, which reduces VMT.

The focus of the Energy Control Measures included in the Clean Air Plan is decreasing the amount of electricity consumed in the SFBAAB, as well as decreasing the carbon intensity of the electricity used. The Clean Air Plan includes four Buildings Control Measures to improve the energy efficiency of existing buildings, promote the use of electricity and on-site renewable energy in existing and new buildings, and to ensure that new construction is designed to achieve zero net GHG emissions (which also decreases criteria pollutant emissions). The Waste Management Control Measures are meant to reduce or capture a variety of emissions from landfills and composting facilities, divert organic materials from landfills, and increase waste diversion rates through efforts to reduce, reuse, and recycle. The HEU's features that are consistent with these Clean Air Plan control measures are discussed below.

The HEU would maintain policies contained in the most recent Napa County General Plan Conservation Element (2009), that will support minimizing pollutant emissions. For example, new development would include some higher density, multi-family residential properties and affordable housing. This is consistent with Conservation Element policy CON-66, to increase the supply of affordable and workforce housing to encourage local workers to live in the County, minimize commuting, and thereby reducing pollutant emissions. Furthermore, the HEU would adhere to sustainable environmental practices, including energy use (Policy CON-67), solid waste generation (Policy CON-87), and construction practices to minimize emissions and recycle waste (Policies CON-66 and CON-85) (Napa County 2009).³ Policy CON-66 and Policy CON-67, along with actions in support of these policies, are described in Section 4.8 Greenhouse Gases. Policy CON-87 and the actions that support it are described in Section 4.16 Utilities. Actions in support of Policy CON-85 are described above under Section 4.3.3, *Local*. The supporting actions of these policies would lead to a reduction in pollutant emissions because they would reduce energy use associated with new buildings and with handling of construction waste. Development as part of the HEU would be compliant with "green building" design, Title 24, and LEED standards. In addition, construction of development as part of the HEU would be required to minimize construction waste, as well as comply with BAAQMD and CARB emissions reduction measures.

Together, these land use and sustainability policies will lessen the severity of growth-oriented criteria pollutants. In addition, development of some sites in proximity to the City of Napa would be near transit and would allow future residents and those who commute to work easier access to quality public transit, thereby reducing single-occupancy vehicle trips and VMT and their associated criteria pollutant emissions.

Disrupt or Hinder Implementation of 2017 Clean Air Plan Control Measures

Examples of how a project may cause the disruption or delay of control measures include a project that precludes an extension of a transit line or bike path, or proposes excessive parking beyond parking requirements (BAAQMD 2017d). The HEU would not preclude any transit line or bike path construction or improvements, nor would it construct excessive parking as part of the development sites. These types of projects are provided as examples because they would prohibit design features that are intended to reduce air pollutant emissions through reduction in VMT. The HEU would encourage features that reduce VMT, such as bike paths, proximity to transit, and limiting parking to only what is necessary. Therefore, it would not conflict with, disrupt, or hinder the Clean Air Plan control measures.

Summary

As discussed above, the Project would adhere to policies in the Napa County General Plan that would foster sustainable development practices and would not cause the disruption, delay, or otherwise hinder implementation of any applicable control measure from the 2017 Clean Air Plan. Rather, the Project would support and facilitate their implementation. For example, by complying with existing General Plan policies, the Project would encourage sustainability measures such as use of promotion of sustainable building design and landscaped design and support alternative modes of transportation such as transit, walking, and bicycling.

³ Napa County General Plan 2008; Conservation Element updated June 2009. Available at https://www.countyofnapa.org/1760/General-Plan, accessed April 13, 2022.

In conclusion, the Project would incorporate applicable control measures of the 2017 Clean Air Plan and would not disrupt or hinder implementation of any of these control measures, and the impact would the *less than significant*.

Mitigation: None required.

Impact AIR-2: Implementation of the HEU would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. (*Significant and Unavoidable with Mitigation*)

The significance of a plan's emissions of criteria air pollutants is based on an evaluation of population growth and growth in VMT. For a proposed plan to result in less-than-significant criteria air pollutants impact, an analysis must demonstrate that the plan's growth in VMT would not exceed the plan's population growth. This analysis is presented below, followed by a discussion regarding the likelihood that subsequent development projects allowed by the HEU could exceed project-specific emission thresholds during construction and/or operation.

Growth in Vehicle Miles Traveled Compared to Growth in Population

As discussed in Section 4.13, *Population and Housing*, population growth projected for the HEU is 1,900 residents. This assumption is based on the Solano Transportation Authority and Napa Valley Transportation Authority Solano Napa Activity-Based model (SNABM). The population of Napa County would increase approximately 1.2 percent, from the 2040 No Project scenario to the 2040 HEU at full buildout, as shown in **Table 4.3-6**.

	2040 No Project	2040 HEU	Difference between No Project and HEU	% Increase
Population	158,038 ^c	159,938	1,900 ^b	1.2%
VMT ^a	8,476,178	8,514,878	40,728	0.5%

	TABLE 4.3-6
HEU VMT	VERSUS POPULATION GROWTH

NOTES:

a. VMT data provided by Fehr & Peers, and represents VMT on all County roads.

b. Population increase based on the SNABM model.

c. Data for the County and the Region are based on the SNABM model.

Based on the output from the travel demand model, daily VMT associated with the HEU would increase by approximately 38,700 VMT from the 2040 No Project scenario of approximately 8,476,178, as shown in Table 4.2-6. This represents a growth of approximately 0.5 percent attributable to the HEU. Because the growth in VMT would be less than the growth in population, the HEU would result in a **less-than-significant** impact with respect to regional criteria air pollutants.

Criteria Pollutants from HEU Future Development Projects

Construction and operation of future development projects allowed by the HEU would result in criteria air pollutant emissions which cannot be quantified without project-specific information (e.g. about construction equipment and the construction schedule). However, it is clear that construction of new residential buildings would generate fugitive dust from earthmoving and truck travel over unpaved surfaces. In addition, heavy construction equipment and trucks would emit exhaust pollutants. This would be a temporary impact, but would have the potential to exceed significant emissions thresholds.

Most development projects' operational emissions are not anticipated to exceed the thresholds of significance. This is because the majority of operational emissions from residential development are from gasoline-powered passenger vehicles, which do not emit a substantial amount of NO_X. Also, while some VOCs would be emitted from personal product and solvent use (i.e., consumer products), these emissions typically do not exceed thresholds for small and mid-size projects similar in scale to development anticipated as a result of the HEU.

To ensure that criteria pollutant emissions from construction of multifamily development projects allowed by the HEU do not result in significant criteria pollutant emissions, **Mitigation Measure AIR-1: Best Management Practices** would require the use of best management practices to reduce fugitive dust. **Mitigation Measure AIR-2: Emission Reduction Measures for Projects Exceeding the Significance Thresholds for Criteria Pollutants**, would require each multifamily residential development project that exceeds the screening sizes included in the BAAQMD's CEQA Air Quality Guidelines (Table 3-1) to prepare a quantitative analysis to determine if criteria air pollutant emissions are below significance thresholds for criteria pollutants pollutants are exceeded.

Conclusion

Implementation of the HEU would result in growth in VMT that would be less than the growth in service population and would result in a less-than-significant impact with respect to regional criteria air pollutants. Future development projects would have the potential to emit pollutants during construction and operation and would be required to implement mitigation measures to reduce emissions to less than significant if the BAAQMD significant emissions thresholds are exceeded.

While implementation of Mitigation Measure AIR-1 and AIR-2 would reduce project emissions below the significance threshold, resulting a less than significant impact, the Imola Avenue housing site is in the jurisdiction of another agency, and the County cannot be certain that the mitigation would be implemented effectively. For this reason, implementation of the HEU would result in a **significant and unavoidable** impact with respect to regional emissions of criteria air pollutants associated with the Imola Avenue site.

Mitigation Measure AIR-1: Best Management Practices.

All multifamily housing development projects resulting from adoption of the HEU, regardless of size, shall implement best management practices to reduce construction impacts, particularly fugitive dust, to a less-than-significant level. Specifically, the

project sponsor shall require all construction plans to specify implementation of the following best management practices:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the County regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AIR-2: Emission Reduction Measures for Subsequent Projects Exceeding the Significance Thresholds for Criteria Pollutants.

Project sponsors proposing multifamily residential development projects that exceed BAAQMD screening levels shall prepare a project-level criteria air pollutant assessment of construction and operational emissions at the time the project is proposed. The projectlevel assessment could include a comparison of the project with other similar projects where a quantitative analysis has been conducted, or a project-specific criteria air pollutant analysis to determine whether the project exceeds the air district's criteria air pollutant thresholds.

While some projects may be below the screening levels, some aspects of the project that are not known at this time (such as an extensive amount of site preparation or demolition) could cause an exceedance of the significant emissions threshold.

In the event that a project-specific analysis finds that the project could result in significant construction and/or operational criteria air pollutant emissions that exceed significance thresholds, the project sponsor shall implement the following emission reduction measures to the degree necessary to reduce the impact to less than significance thresholds, and shall implement other feasible measures as needed to reduce the impact to less than the significance thresholds.

Clean Construction Equipment.

 Diesel off-road equipment shall have engines that meet the Tier 4 Final off-road emission standards, as certified by CARB, as required to reduce the emissions to less than the thresholds of significance shown in Table 2-1 of the BAAQMD CEQA Guidelines (BAAQMD 2017b). This requirement shall be verified through submittal of an equipment inventory that includes the following information: (1) Type of Equipment, (2) Engine Year and Age, (3) Number of Years Since Rebuild of Engine (if applicable), (4) Type of Fuel Used, (5) Engine HP, (6) Verified Diesel Emission Control Strategy (VDECS) information if applicable and other related equipment data. A Certification Statement is also required to be made by the Contractor for documentation of compliance and for future review by the air district as necessary. The Certification Statement must state that the Contractor agrees to compliance and acknowledges that a violation of this requirement shall constitute a material breach of contract.

The County may waive the equipment requirement above only under the following unusual circumstances: if a particular piece of off-road equipment with Tier 4 Final standards is technically not feasible or not commercially available; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or there is a compelling emergency need to use other alternate off-road equipment. If the County grants the waiver, the contractor shall use the next cleanest piece of off-road equipment available.

2) The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than 2 minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the 2-minute idling limit.

Significance After Mitigation: With implementation of Mitigation Measure AIR1, construction dust impacts of subsequent projects would be reduced to less than significant with mitigation by incorporating best management practices promulgated by the BAAQMD. Similarly, with implementation of Mitigation Measure AIR2, criteria pollutant emissions associated with construction of multifamily development projects would be reduced to below the significance threshold and would be less than significant. However, because the County can only monitor and enforce mitigation measures within its jurisdiction, emissions resulting from the Imola Avenue housing site, which is owned by a State agency, could remain *significant and unavoidable*.

The identification of this significant and unavoidable impact does not preclude the finding of a less-than-significant or less-than-significant-with-mitigation impact for the subsequent Imola Avenue project if it is shown to be below the criteria air pollutant thresholds of significance with implementation of Mitigation Measure AIR-1 and AIR-2.

Significance after Mitigation: Significant and Unavoidable.

Impact AIR-3: Implementation of the HEU would expose sensitive receptors to substantial pollutant concentrations. (*Significant and Unavoidable with Mitigation*)

The BAAQMD significance criteria for exposure to sensitive receptors from health risks due to emissions of TAC and PM_{2.5} resulting from adoption of a plan considers the following:

- Presence of sensitive receptors around existing and planned sources of TACs (including adopted Risk Reduction Plan areas) and;
- Presence of sensitive receptors within 500 feet from all freeways and high volume roadways

According to these criteria, impacts would be significant if the HEU would introduce sensitive receptors in the vicinity of existing and planned sources of TACs, such as freeways and high volume roadways. However, in the *California Building Industry Association v. Bay Area Air Quality Management District* case decided in 2015, the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a project's users or residents. Nonetheless, this analysis considers the potential for new receptors to be exposed to TAC emissions from existing TAC sources for informational purposes.

The only sites that would place new sensitive receptors near an existing source of TACs would be the Foster Road, Bishop, and Altamura sites: State Route 121 is approximately 100 feet to the east of the Foster Road site and the south sides of both Northeast Napa sites border State Route 121. Health risk data developed by BAAQMD from major roadways and highways was obtained to characterize the risk from State Route 121 at the closest location of one of these new receptors at the Altamura site to State Route 121, which is assumed to be approximately 50 feet from the roadway. This was done to illustrate the likely highest health risks that would occur at either of these sites from State Route 121. The cancer risk and annual PM_{2.5} concentration at this point 50 feet from State Route 121 are as follows:

- Cancer risk = 3.9 in one million
- Annual PM_{2.5} concentration = $0.08 \ \mu g/m^3$

For the Foster Road site, the health risk value at approximately 420 feet west of State Route 121 are as follows:

- Cancer risk = 8.4 in one million
- Annual PM_{2.5} concentration = $0.16 \ \mu g/m^3$

Therefore, residential development for the Foster Road site closer than 420 feet from State Route 121 has the potential to expose new sensitive receptors to significant health risk levels from an existing source of TACs, which is the consideration in the second bullet point above.

See **Appendix B** for the values at these locations. The values for the Altamura site are below BAAQMD health risk significance criteria of 10 in one million cancer risk and 0.3 μ g/m3 annual PM_{2.5} concentration (BAAQMD 2017a), State Route 121 would not represent a significant source

of risk near which the residences would be built. However, State Route 121 could represent a significant source of risk for residences closer than approximately 420 feet.

Health Risks from HEU Future Development Projects

Construction and operation of individual sites that are part of the HEU could expose existing sensitive receptors near the sites to levels of TACs and PM_{2.5} that could lead to potentially significant health risk impacts.

As discussed under Impact AIR-2, projects that are below the BAAQMD screening sizes are not expected to have a significant impact from criteria pollutant emissions. However, for health risks, the severity of the impact depends on the proximity of the emissions-generating activity to sensitive receptors, the meteorological conditions, and the duration of exposure. Therefore, to evaluate the significance of the impacts from construction of individual development projects, a health risk assessment would be required to determine whether health risk levels would exceed significance thresholds of 10 in one million cancer risk and $0.3 \mu g/m3$ annual PM_{2.5} concentrations.

Operational emissions would be predominantly generated by new vehicle trips, expected to be mainly gasoline-powered passenger vehicles, which do not emit a substantial amount of TACs. However, vehicles emitting fugitive PM_{2.5} in the form of road dust, brake wear, and tire wear, could exceed BAAQMD's PM_{2.5} concentration significance threshold. In general, only a large volume of traffic on a roadway adjacent to residences would have the potential to exceed the annual PM_{2.5} concentration threshold. Because subsequent projects under the HEU could exceed the health risk significance thresholds, **Mitigation Measure AIR-3**, presented below would require subsequent projects within 1,000 feet of sensitive receptors to undergo a project-level assessment at the time the project is proposed.

Mitigation Measure AIR-3: Emission Reduction Measures for Subsequent Projects Exceeding the Significance Thresholds for Health Risks associated with TAC Emissions.

Project sponsors proposing multifamily development projects within 1,000 feet of sensitive receptors, including residences, schools, day care centers, and hospitals, shall prepare a project-level health risk assessment at the time the project is proposed. The project-level assessment could include a comparison of the project with other similar sized projects located a similar distance from receptors where a quantitative analysis has been conducted, or a project-specific analysis to determine whether the project exceeds the air district's health risk thresholds.

In the event that a project-specific analysis finds that the project could result in health risks that exceed significance thresholds, the project sponsor shall implement the clean construction equipment requirement of Mitigation Measure AIR2 to the degree necessary to reduce the impact to less than significance thresholds, and shall implement other feasible measures as needed to reduce the impact to less than the significant thresholds.

Significance After Mitigation: Significant and Unavoidable.

Mitigation measure AIR3 would reduce TAC emissions from off-road, diesel construction equipment. Tier 4 Final off-road engines emit 80 to 90 percent less DPM than Tier 2

engines. This mitigation measure would be implemented to the extent necessary (e.g. all Tier 4 final construction equipment) to reduce construction health risk impacts associated with all subsequent development projects to less-than-significant levels and would require additional emission reduction measures if necessary. However, because the County can only monitor and enforce mitigation measures within its jurisdiction, health risk impacts resulting from the Imola Avenue housing site, which is owned by a State agency, could remain *significant and unavoidable*.

The identification of this significant and unavoidable impact does not preclude the finding of a less-than-significant or less-than-significant-with-mitigation impact for the subsequent Imola Avenue project if it is shown to be below the thresholds of significance with implementation of Mitigation Measure AIR-3.

Impact AIR-4: Implementation of the HEU would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less than Significant*)

During construction of the developments that may occur as a result of the HEU, the use of dieselpowered vehicles and equipment that could temporarily generate localized odors, however these odors would cease upon completion of construction, and would therefore not result in a significant odor impact. The BAAQMD CEQA Guidelines identifies land uses that have potential to generate continuous odorous impacts and odor complaints during operation. These land uses include wastewater treatment plants, landfills, confined animal facilities, composing stations, food manufacturing plants, refineries, and chemical plants (BAAQMD, 2017b). Development under the HEU would be residential and would not include land uses that are identified by the BAAQMD as common odor sources. Therefore, the HEU would have a **less-than-significant** impact with respect to odor sources.

Mitigation: None required.

4.3.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts. Significant cumulative impacts related to air quality could occur if the incremental impacts of the HEU combined with the incremental impacts of cumulative development are significant and if the HEU's contribution would be considerable.

The geographic scope for cumulative effects on air quality is the SFBAAB.

The SFBAAB is a nonattainment area for both the federal and state ozone standards; therefore, a cumulative air quality impact already exists. Additional emissions of ozone precursors NO_X or ROG over threshold amounts would further degrade air quality related to ozone. Impact AIR-2 evaluates whether the HEU's contribution to this significant impact would be considerable and

concludes that the impact would be significant and unavoidable after mitigation because the Imola Avenue housing site is outside the County's jurisdiction. For this reason, no further analysis of cumulative criteria pollutants is necessary.

Impact AIR-1.CU: The HEU, in conjunction with cumulative sources, would not result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and TACs under cumulative conditions. (*Less than Significant Impact*)

The largest, existing source of TACs and $PM_{2.5}$ near any of the HEU sites is SR-121. Cancer risk and $PM_{2.5}$ levels from SR-121 at the Altamura site are 3.9 in one million and 0.08 µg/m³, respectively, as shown under impact AIR-3. BAAQMD cumulative risk thresholds for cancer risk and annual $PM_{2.5}$ concentrations are 100 in one million and 0.8 µg/m³, respectively (BAAQMD 2017a). With future development under the HEU, these levels are not expected to rise substantially. Based on the 2020 to 2040 growth shown in Table 4.0-1 in Section 4.0, there would be an approximate eight percent growth due to the HEU. With this amount of added traffic to SR-121, health risks would not increase to a level of significance.

Health risk impacts from construction of residences at this HEU site would not combine with risks from SR-121 to exceed the BAAQMD risk thresholds. Further, this impact would be temporary and cease when construction of the development is complete. Therefore, this impact would be less than significant.

Mitigation: None required.

Impact AIR-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not combine with other sources of odors that would adversely affect a substantial number of people. (*Less than Significant*)

Impact AIR-4 describes the potential of odorous emissions from the HEU. Development under either of the HEU scenarios would be residential and would not include land uses that are identified by the BAAQMD as common odor sources. Therefore, operation of either of the HEU scenarios would not generate odors and there is no potential for the HEU to combine with cumulative projects to result in a significant cumulative odor impact, as there are no major sources of odors in the vicinity. Therefore, this impact would be less than significant.

Mitigation: None required.

4.3.7 References

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4.3 Air Quality

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4.4 Biological Resources

4.4.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on biological resources. This section first includes a description of the existing environmental setting as it relates to biological resources, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on biological resources.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to biological resources received during the NOP comment period by the California Department of Fish and Wildlife (CDFW) included concerns related to disclosure of special-status species and habitat regulatory requirements, sensitive natural communities, potential for impacts to biological resources, and mitigation measures.

The primary information sources used to prepare this section include the following:

- Historic and current aerial imagery available on Google Earth (2022).
- Subscription-based biological resource databases including the CDFW California Natural Diversity Database (CNDDB) (CDFW, 2022), CNPS Rare Plant Inventory (CNPS, 2022), and a U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation Official Species List (2022).
- Napa County General Plan (2008).
- Napa County General Plan EIR (2007).
- Napa County Housing Element Update Draft EIR: Biological Resources (2009).

4.4.2 Environmental Setting

Regional Setting

The Project is located in the southeastern portion of the Northwestern California Bioregion within Napa County; specifically, within the Inner Coast Ranges District, which is bordered by Lake County to the north, Yolo and Solano County to the east, Sonoma County to the west, and San Pablo Bay to the south. The district is characterized by low rainfall and hot, dry summers, as well as by chaparral, and pine and oak woodlands (Jepson, 2021).

Local Setting

Napa County has rich diversity of biological communities and contains six distinct biological communities: oak woodlands, grasslands, mixed serpentine chaparral, mixed willow riparian forests, redwood forests and vernal pools. Oak woodlands are Napa's most significant biological

community, spanning over 167,450 acres, or 33 percent of the entire County (Napa County, 2009). Napa County has a wide variety of topography consisting of high peaks, low valleys, rolling hills, numerous microclimates, and many creeks, streams, and rivers creating a very biologically diverse County for several types of flora and fauna.

The multiple Project sites are located within the Napa River watershed (i.e., Northeast Napa, Imola Avenue, and Foster Road sites) and Putah Creek Watershed (i.e., Spanish Flat site). The Napa River travels 55 miles from the headwaters of Mt. St. Helena to the delta feeding San Pablo Bay through varied landscapes of forested mountain slopes, vineyards, urban areas, open pasture, grasslands, industrial zones, and marshes. The Napa River watershed lies almost entirely within the boundaries of Napa County and consists of approximately 245,724 acres. Contained by Mt. St. Helena to the north, the Mayacamas Mountains to the west, Howell Mountains, Atlas Peak, and Mt. George to the east, and the Napa-Sonoma Marsh to the south, the Napa River drains a 426-square-mile watershed that discharges to the San Pablo Bay. The Putah Creek Watershed is approximately 231,358 acres and encompasses lands in four counties, but the majority of the watershed lies within Napa County. Putah Creek's water source consists mainly in Lake County and then passes through Napa County and Solano County before entering the Sacramento River. Lake Berryessa, a major surface water basin in Napa County, is also within the Putah Creek Watershed and serves several municipal water districts such as the Spanish Flat Water District.

Vegetation Communities and Associated Wildlife Species

A vegetation community is a recognizable collection of plant species that interact with each other and the elements of their environment and are distinct from adjacent vegetation communities (Holland, 1986). The terrestrial plant community classification presented in this assessment is based on a review of aerial imagery on Google Earth and the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland, 1986). Plant communities generally correlate with wildlife habitat types. Wildlife habitats are typically classified and evaluated using A Guide to Wildlife Habitats of California (Mayer and Laudenslayer, 1988). Vegetation communities in the HEU project sites include:

- Developed / Urban
- California annual grassland
- Oak woodland

The following subsections describes the characteristics of these communities on the HEU sites. Vegetation communities and habitat types that occur near, but outside of the Project sites, such as vineyards and agricultural uses, are not described below.

Developed/Urban

Developed/Urban habitat is present throughout the Foster Road, Imola Avenue, and Northeastern Napa sites, and comprise a small area within the Spanish Flat site. This habitat is not a natural vegetation community per se, as it lacks natural vegetation, and the terms are used in this analysis to describe areas that cannot be classified as vegetation communities. Such areas are composed of developed urban land and previously disturbed and cleared areas that are surrounded by existing buildings, paved streets, sidewalks, and parking lots interspersed with landscape plantings, including street and parking lot trees, residential landscaping, agricultural plots, and public parks.

Developed/urban areas provide minimal habitat opportunities for most sensitive plants and wildlife; however, common wildlife such as striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*) could use these areas to forage for human food waste, shelter from predators and weather, or move to and from patches of higher quality habitat, such as Silverado Springs, Milliken Creek, Napa River, Camille Creek, and open space areas within the City of Napa. Landscaped areas in an otherwise urban environment can provide cover, foraging, and nesting habitat for a variety of bird species, as well as reptiles and small mammals, especially those that are tolerant of disturbance and human presence. Birds commonly found in such areas include non-native species, such as house sparrow (*Passer domesticus*) and rock pigeon (*Columba livia*), and birds native to the area, including American robin (*Turdus migratorius*), house finch (*Haemorhous mexicanus*), dark-eyed junco (*Junco hyemalis*), California scrub jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), and Anna's hummingbird (*Calypte anna*). When present, reptiles and small mammals using this type of habitat often include western fence lizard (*Sceloporus occidentalis*) and northern alligator lizard (*Elgaria multicarinata*), and house mouse (*Mus musculus*).

California Annual Grassland

Non-native annual grasslands occur within the Foster Road, Imola Avenue, Northeastern Napa, and Spanish Flat sites. This community includes a dense cover of introduced annual grasses and ruderal (weedy) forbs (broad-leaved plants) adapted to colonizing and persisting in disturbed upland habitats. Non-native grasses typical of this vegetative community include barley (*Hordeum vulgare*), soft chess (*Bromus hordeaceus*), foxtail barley (*Hordeum murinum ssp. leporinum*), red brome (*Bromus madritensis ssp. rubens*), medusahead (*Elymus caput-medusae*), and slender wild oat (*Avena barbata*) and an array of associated annual and perennial forbs.

This grassland community can provide cover, foraging, and nesting habitat for a variety of bird species, as well as reptiles and small mammals. Common reptiles inhabiting this community may include western fence lizard (*Sceloporus occidentalis*), San Francisco alligator lizard (*Elgaria coerulea coerulea*), and Pacific gopher snake (*Pituophis catenifer catenifer*). Common birds that may use California annual grassland include red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), barn swallow (*Hirundo rustica*), western meadowlark (*Sturnella neglecta*), and western bluebird (*Sialia mexicana*). Mammals common to annual grasslands include California ground squirrel (*Spermophilus beecheyi*), black-tailed jack rabbit (*Lepus californicus*), and Botta's pocket gopher (*Thomomys bottae*).

Oak Woodland

Oak woodland is the most prominent habitat type in Napa County and is present predominantly surrounding the Spanish Flat site and present within Skyline Wilderness Park just southeast of the Imola site. Prior to the LNU Lightning Complex Fire that burned the Spanish Flat community in late 2020, the Spanish Flat site supported approximately 15.5 acres of valley oak (*Quercus*)

lobata) woodland and mixed oak woodland habitat. The fire burned every tree on the site and few large oaks survived.

Oak woodland typically consists of one or more oak species (*Quercus* spp.) reaching 30 to 50 feet in height. Where these woodland canopies form a dense canopy, the understory is often restricted to a few poison oak or ferns; the total understory cover in such circumstances may drop to less than one percent.

Oak woodland provides wildlife habitat to a number of species. Common amphibians such as California slender salamander (*Batrachoseps attenuatus*) and arboreal salamander (*Aneides lugubris*) are known to use coastal oak woodlands. Reptiles that use this habitat include Pacific gopher snake, common kingsnake (*Lampropeltis getulus*) and San Francisco alligator lizard. Bird species common to oak woodland include oak titmouse (*Baeolophus inornatus*), acorn woodpecker (*Melanerpes formicivorus*), chestnut-backed chickadee (*Poecile rufescens*), western screech owl (*Otus kennicottii*) and California quail (*Callipepla californica*). Mammalian species typical of oak woodlands include pallid bat (*Antrozous pallidus*), California ground squirrel, brush rabbit (*Sylvilagus bachmani*), and Columbian black-tailed deer (*Odocoileus hemionus ssp. columbianus*).

Special-Status and Protected Species

The term "special-status species" refers to plant and wildlife species that are considered sufficiently rare that they require special consideration and/or protection and should be, or currently are, listed as rare, threatened, or endangered by the federal and/or state governments. Such species are legally protected under the federal and/or state Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the regulatory and scientific community to qualify for protection. For this analysis, special-status species include the following:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) (Code of Federal Regulations Title 50, Section 17.12 [listed plants] and Section 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under the FESA (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations Title 14, Section 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code [CFGC] Section 1900 et seq.);
- Species formerly designated by CDFW as California Species of Special Concern (SSC);
- Animals fully protected under the CFGC (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);

- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (CEQA Guidelines Section 15380); and
- Plants considered by CDFW and the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (California Rare Plant Rank 1A, 1B, and 2).

A list of special-status plant and wildlife species that may occur at the HEU sites was created by reviewing the resources cited in Section 4.4.1. The CNDDB (CDFW, 2022) and CNPS (2022) Rare Plant Inventory were queried based on a search of a 5-mile radius from each project site and associated 7.5-minute U.S. Geological Survey quadrangles, respectively. The USFWS Official List of Federal Endangered and Threatened Species that Occur in or May Be Affected by the Projects (USFWS, 2022a) was queried based on a 5-mile radius of the project sites. No critical habitat occurs within the HEU sites (USFWS, 2022b). These queries formed the basis to examine the potential for various special-status plant and wildlife species to occur in the study areas. Based on this analysis and available habitat in the HEU study area, special-status plant species that were considered for portions of the HEU study area include Narrow-anthered brodiaea (Brodiaea leptandra), Napa bluecurls (Trichostema ruygtii), and Greene's narrow-leaved daisy (Erigeron greenei). Special-status wildlife species that were identified with at least a moderate potential to occur in portions of the HEU project area include western pond turtle (*Emys* marmorata), white-tailed kite (Elanus leucurus), osprey (Pandion haliaetus), American badger (Taxidea taxus), western red bat (Lasiurus blossevillii), Yuma myotis (Myotis yumanensis), and Townsend's big-eared bat (Corynorhinus townsendii) (Table 4.4-1).

Sensitive Natural Communities

Sensitive natural communities are designated by various resource agencies such as CDFW, or in local policies and regulations; are generally considered to have important functions or values for wildlife and/or recognized as declining in extent or distribution; and are considered threatened enough to warrant some level of protection. CDFW tracks communities of conservation concern through its California Sensitive Natural Community List (CDFW, 2019). Natural communities with ranks of S1 and S3 are considered sensitive natural communities, to be addressed in the environmental review processes of CEQA and its equivalents.

The LNU Lightning Complex Fire in fall 2020 burned approximately 15.5 acres of valley oak woodland on the Spanish Flat site. While valley oak woodland is considered a Sensitive Natural Community by CDFW, most of this natural community was either lost to the fire, or dead trees removed for safety reasons shortly thereafter. This is discussed further under Impact 4.4-2.

Critical Habitat

USFWS can designate critical habitat for species that have been listed as threatened or endangered. Critical habitat is defined in FESA Section 3(5)(A) as those lands (or waters) within a listed species' current range that contain the physical or biological features that are considered essential to its conservation. There is no critical habitat in the HEU project sites (USFWS, 2022).

4.4 Biological Resources

TABLE 4.4-1 Special-Status Species with a Moderate or High Potential to Occur in the Project Study Areas

Common Name Scientific Name	Listed Status USFWS/CDF W/Other	Habitat Description	Potential to Occur in HEU Areas
Fish			
Steelhead – Central California Coast DPS	FT/	Requires cold, freshwater streams with suitable gravel for spawning. Rears in rivers and tributaries to the	Absent. No suitable or potentially suitable freshwater habitat would be present within any of the HEU sites.
Oncorhynchus mykiss		San Francisco Bay.	
Longfin smelt	FC/ST	Open water estuaries, can be found	Absent. No suitable or potentially
Spirinchus thaleichthys		in both saltwater and freshwater in the San Francisco Bay.	suitable freshwater habitat would be present within any of the HEU sites.
Reptiles			
Western pond turtle	/SSC/	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation <6,000' in elevation.	High. Reported in pond habitat approximately 1,000 feet southeast of the Imola site (CNDDB occ. #1338).
Actinemys marmorata		Require basking area and upland habitat for egg laying (sandy banks and open, grassy fields)	
Birds			
Osprey	/WL/	Riparian forests, open water,	Moderate. Potential nesting habitat in
Pandion haliaetus		freshwater lakes, and larger streams	oak woodlands near the Spanish Flat site.
White-tailed kite	/FP/	Nests in shrubs and trees adjacent to grasslands, forages over	Moderate. Suitable habitat and likely forages over agricultural land ponds
Elanus leucurus		grasslands and agricultural lands	and nearby the Napa Golf course at Kennedy Park near the Imola site.
Mammals			
American badger	/SSC/	Herbaceous, shrub, and open stages of most babitats with dry	Moderate. Suitable dry grassland
Taxidea taxus		friable soils.	
Western red bat	/SSC/ WBWG High	Forages over a wide variety of	Moderate. Potential roosting habitat in
Lasiurus blossevillii	WBWG High	fractional forests and croplands. Roost alone in leaves of trees and leaf litter in the winter.	Flat site.
Yuma myotis	//WBWG	Occurs within a wide variety of	Moderate. Potential roosting habitat in
Myotis yumanensis	Low-Medium	habitats are open forests and woodlands with sources of water over which to feed. Usually roost in buildings, under bridges, and in caves and mines.	Flat site.
Townsend's big- eared bat	/SSC/ WBWG High	Oak and coniferous woodland and arid grasslands. Roosts in caves	Moderate. Potential roosting habitat in oak woodlands in and near the Spanish
Corynorhinus townsendii		ana bullulliys, etc.	ו ומו טונל.

4.4 Biological Resources

TABLE 4.4-1 (CONTINUED) SPECIAL-STATUS SPECIES WITH A MODERATE OR HIGH POTENTIAL TO OCCUR IN THE PROJECT STUDY AREAS

Common Name Scientific Name	Listed Status USFWS/CDF W/Other	Habitat Description	Potential to Occur in HEU Areas	
Plants				
Greene's narrow- leaved daisy	//1B.2	Chaparral, serpentine and volcanic substrates, generally in shrubby	Moderate. Suitable habitat occurs in Skyline Wilderness Park, with limited	
Erigeron greenei		vegetation. 90-835 meters	Populations also identified approximately 1 mile west of the Spanish Flat site, which provides marginal, non-scrub habitat.	
Contra Costa goldfields	FE//1B.1	Valley and foothill grassland, vernal pools, alkaline playas, and	Low. Suitable habitat is not present on any of the HEU project sites.	
Lasthenia conjugens		cismontane woodlands. 1-450 meters.		
Napa bluecurls	//1B.2	Chaparral, cismontane woodland,	Moderate. Suitable open grassland habitat is present within the Northeast Napa project sites. CNDDB occurrence approximately 0.7 miles north of the 1806 Monticello Road site (occurrence #16).	
Trichostema ruygti		valley and foothill grassland, vernal pool, wetland. Often in open, sunny areas. 30-680 meters.		
Narrow-anthered brodiaea	//1B.2	Broadleafed upland forest, chaparral, cismontane woodland,	Moderate. Suitable habitat occurs in Skyline Wilderness Park. CNDDB	
Brodiaea leptandra		valley and foothill grassland. Volcanic substrate. 30-590 meters.	records at the park include the project site, but locations were not provided.	

NOTES:

Status Codes:

USFWS (U.S. Fish and Wildlife Service)

FE = Listed as Endangered by the Federal Government

FT = Listed as Threatened by the Federal Government.

SE = Listed as Endangered by the State of California

ST = Listed as Threatened by the State of California

CT = Candidate Threatened by the State of California

CFP = California Fully Protected species

SSC = Species of Special Concern

WBWG = Western Bat Working Group

Potential to Occur Categories:

California Native Plant Society:

List 1A=Plants presumed extinct in California

- List 1B=Plants rare, Threatened, or Endangered in California and elsewhere
- List 2= Plants rare, Threatened, or Endangered in California but more common elsewhere
- An extension reflecting the level of threat to each species is
 - appended to each rarity category as follows: .1 Seriously endangered in California

 - .2 Fairly endangered in California
 - .3 Not very endangered in California

Absent/Not Expected = The Project and/or immediate vicinity does not support suitable habitat for a particular species. Study Area may be outside of the species' known range.

Low Potential = The Project and/or immediate vicinity only provides limited habitat. In addition, the species' known range may be outside of the Study Area.

Moderate Potential = The Project and/or immediate vicinity provides suitable habitat.

High Potential = The Project and/or immediate vicinity provides ideal habitat conditions or the species has been observed. Present = Species has been recorded within the Study Area or immediate vicinity.

SOURCES: CDFW, 2022; CNPS, 2022. USFWS, 2022

4.4.3 Regulatory Setting

Federal

The FESA and MBTA, and Magnuson-Stevens Fishery Conservation and Management Act are the primary federal planning, treatment, and review mechanisms for biological resources in the study areas. Each is summarized below.

Endangered Species Act

USFWS and the National Marine Fisheries Service (NMFS) are the designated federal agencies responsible for administering the FESA. The FESA defines species as "endangered" and "threatened" and provides regulatory protection for any species thus designated. FESA Section 9 prohibits the "take" of species listed by USFWS as threatened or endangered. As defined in the FESA, taking means "... to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." Recognizing that take cannot always be avoided, FESA Section 10(a) includes provisions for takings that are incidental to, but not the purpose of, otherwise lawful activities.

FESA Section 7(a)(2) requires all federal agencies, including USFWS, to evaluate projects authorized, funded, or carried out by federal agencies with respect to any species proposed for listing or already listed as endangered or threatened and the species' critical habitat, if any is proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined in the FESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding." No federally listed species are expected in the project area.

Migratory Bird Treaty Act

The MBTA is the domestic law that affirms and implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. Unless and except as permitted by regulations, the MBTA makes it unlawful at any time, by any means, or in any manner to intentionally pursue, hunt, take, capture, or kill migratory birds anywhere in the United States. The law also applies to the intentional disturbance and removal of nests occupied by migratory birds or their eggs during the breeding season.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Act of 1976 (U.S. Code Title 16, Sections 1801–1884 [16 USC 1804– 1884]), as amended in 1996 and reauthorized in 2007, is intended to protect fisheries resources and fishing activities within 200 miles of shore. Conservation and management of U.S. fisheries, development of domestic fisheries, and phasing out of foreign fishing activities are the main objectives of the Magnuson-Stevens Act. The Magnuson-Stevens Act provided NMFS with legislative authority to regulate U.S. fisheries in the area between 3 and 200 miles offshore and established eight regional fishery management councils that manage the harvest of the fish and shellfish resources in these waters.

The Magnuson-Stevens Act defines essential fish habitat (EFH) as those waters and substrate that support fish spawning, breeding, feeding, or maturation. The Magnuson-Stevens Act requires that NMFS, the regional fishery management councils, and federal agencies taking an action that may affect managed fish species covered under the Magnuson-Stevens Act identify EFH and protect important marine and anadromous fish habitat.

The regional fishery management councils, with assistance from NMFS, are required to develop and implement Fishery Management Plans. These plans delineate EFH and management goals for all managed fish species, including some fish species that are not protected under the Magnuson-Stevens Act. Federal agency actions that fund, permit, or carry out activities that may adversely affect EFH are required under Magnuson-Stevens Act Section 305(b), in conjunction with required Section 7 consultation under FESA, to consult with NMFS regarding potential adverse effects of their actions on EFH and to respond in writing to NMFS's recommendations.

The HEU project sites do not support any fish species covered under the Pacific Coast Salmon Fishery Management Plan, which is designed to protect habitat for commercially important salmonid species (NOAA, 2021; PFMC, 2016).

State

In addition to CEQA, the primary state planning, treatment, and review mechanisms for biological resources in the study areas are the CESA, CFGC Sections 1600–1603 and 3503, 3503.5, and 3511. Each is summarized below.

California Endangered Species Act

The CESA closely parallels the conditions of the FESA; however, it is administered by CDFW. CESA prohibits the take of plant and animal species that the California Fish and Game Commission has designated as either threatened or endangered in California. "Take" in the context of this regulation means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill a listed species (CFGC section 86). The take prohibitions also apply to candidates for listing under CESA. However, section 2081 of the act allows the department to issue permits for the minor and incidental take of species by an individual or permitted activity listed under the act. Unlike FESA, species that are candidates for state listing are granted the same protections as listed species under CESA.

In accordance with the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present in the study areas. The agency also must determine whether the project could have a potentially significant impact on such species. In addition, the department encourages informal consultation on any project that could affect a candidate species.

No state listed species are expected in the HEU project area.

California Fish and Game Code Sections 1600–1603

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports fish or wildlife resources are subject to the regulatory authority of CDFW under CFGC Sections 1600–1603. Under the CFGC, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. Specifically, CFGC Section 1603 governs private-party individuals, and CFGC Section 1601 governs public projects.

CDFW jurisdiction in altered or artificial waterways is based on the value of those waterways to fish and wildlife. CDFW must be contacted by the public or private party for a streambed alteration agreement for any project that might substantially affect a streambed or wetland. CDFW has maintained a "no net loss" policy regarding potential impacts and has required replacement of lost habitats.

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation Element of the Napa County General Plan includes the following policies related to the conservation of natural and biological resources (Napa County, 2008).

Goal CON-2: Maintain and enhance the existing level of biodiversity.

Goal CON-3: Protect the continued presence of special-status species, including specialstatus plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.

Goal CON-4: Conserve, protect, and improve plant, wildlife, and fishery habitats for all native species in Napa County.

Goal CON-5: Protect connectivity and continuous habitat areas for wildlife movement.

Goal CON-6: Preserve, sustain, and restore forests, woodlands, and commercial timberland for their economic, environmental, recreation, and open space values.

Policy CON-10: The County shall conserve and improve fisheries and wildlife habitat in cooperation with governmental agencies, private associations, and individuals in Napa County.

Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species
cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to:

- a) Maintain the following essentials for fish and wildlife resources:
 - 1) Sufficient dissolved oxygen in the water.
 - 2) Adequate amounts of proper food.
 - 3) Adequate amounts of feeding, escape, and nesting habitat.
 - 4) Proper temperature through maintenance and enhancement of streamside vegetation, volume of flows, and velocity of water.
- b) Ensure that water development projects provide an adequate release flow of water to preserve fish populations.
- c) Employ supplemental planting and maintenance of grasses, shrubs and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially stream side areas, in good condition.
- d) Provide protection for habitat supporting special-status species through buffering or other means.
- e) Provide replacement habitat of like quantity and quality on- or off-site for specialstatus species to mitigate impacts to special-status species.
- f) Enhance existing habitat values, particularly for special-status species, through restoration and replanting of native plant species as part of discretionary permit review and approval.
- g) Require temporary or permanent buffers of adequate size (based on the requirements of the subject special-status species) to avoid nest abandonment by birds and raptors associated with construction and site development activities.
- h) Demonstrate compliance with applicable provisions and regulations of recovery plans for federally listed species.

[Implemented by Action Item CON NR-2 and 4]

Policy CON-15: The County shall establish and update management plans protecting and enhancing the County's biodiversity and identify threats to biological resources within appropriate evaluations areas, and shall use those plans to create programs to protect and enhance biological resources and to inform mitigation measures resulting from development projects. [Implemented by Action Item CON NR-2]

Policy CON-16: The County shall require a biological resources evaluation for discretionary projects in areas identified to contain or potentially contain special-status species based upon data provided in the Baseline Data Report (BDR), California Natural Diversity Database (CNDDB), or other technical materials. This evaluation shall be conducted prior to the approval of any earthmoving activities. The County shall also encourage the development of programs to protect special-status species and disseminate updated information to state and federal resource agencies. [Implemented by Action Item CON NR-5]

Policy CON-17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards: a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to specialstatus animal species. b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible. c) Promote protection from overgrazing and other destructive activities. d) Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species. e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats. (Also see Policies CON-30 regarding wetlands, and Policy CON-26 regarding riparian and aquatic habitats.)

Policy CON-18: To reduce impacts on habitat conservation and connectivity:

- a) In sensitive domestic water supply drainages where new development is required to retain between 40 and 60 percent of the existing (as of June 16, 1993) vegetation onsite, the vegetation selected for retention should be in areas designed to maximize habitat value and connectivity. Note to the Reader: Please also see Water Resources section of this Element, Policies CON-42 and -63, Action Items CON WR-2 and -5, and Climate Protection and Sustainable Practices for Environmental Health Policy 73. June 23, 2009 Napa County General Plan CON–29 CONSERVATION
- b) Outside of sensitive domestic water supply drainages, streamlined permitting procedures should be instituted for new vineyard projects that voluntarily retain valuable habitat and connectivity, including generous setbacks from streams and buffers around ecologically sensitive areas.
- c) Preservation of habitat and connectivity of adequate size, quality, and configuration to support special-status species should be required within the project area. The size of habitat and connectivity to be preserved shall be determined based on the specifics needs of the species.
- d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat.
- e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing installed on or after February 16, 2007 to offset the impact caused by the new vineyard development.
- f) The County shall disseminate information about impacts that fencing has on wildlife movement in wild land areas of the County and encourage property owners to use permeable fencing.

- g) The County shall develop a program to improve and continually update its database of biological information, including identifying threats to wildlife habitat and barriers to wildlife movement.
- h) Support public acquisition, conservation easements, in-lieu fees where on-site mitigation is infeasible, and/or other measures to ensure long-term protection of wildlife movement areas.

Policy CON-19: The County shall encourage the preservation of critical habitat areas and habitat connectivity through the use of conservation easements or other methods as well as through continued implementation of the Napa County Conservation Regulations associated with vegetation retention and setbacks from waterways.

Policy CON-20: The County shall monitor biodiversity and habitat connectivity throughout the County and apply appropriate adaptive management practices as necessary to achieve applicable Natural Resources Goals. Changing conditions may include external forces such as changing state or federal requirements, or changes in species diversity, distribution, etc. [Implemented by Action Item CON NR-5]

Policy CON-21: The County shall initiate and support efforts relating to the identification, quantification, and monitoring of species biodiversity and habitat connectivity throughout Napa County. [Implemented by Action Item CON NR-5]

Policy CON-22: The County shall encourage the protection and enhancement of natural habitats which provide ecological and other scientific purposes. As areas are identified, they should be delineated on environmental constraints maps so that appropriate steps can be taken to appropriately manage and protect them.

Policy CON-24: Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:

- a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agricultural projects.
- b) Comply with the Oak Woodlands Preservation Act (PRC Section 21083.4) regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of residential, commercial, and industrial approvals.
- c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.
- d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil protection, and soil production be left standing.
- e) Maintain, to the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black, canyon, live, and brewer oaks as well as blue, white, scrub, and live oaks are common associations.

 f) Encourage and support the County Agricultural Commission's enforcement of state and federal regulations concerning Sudden Oak Death and similar future threats to woodlands. [Implemented by Action Item CON NR-7]

Policy CON-30: All public and private projects shall avoid impacts to wetlands to the extent feasible. If avoidance is not feasible, projects shall mitigate impacts to wetlands consistent with state and federal policies providing for no net loss of wetland function.

Conservation Regulations Chapter 18.108.025 (Napa County Code of Ordinances)

The County's conservation regulations (Napa County Code of Ordinances, Chapter 18.108, 1997) require development setbacks for earthmoving, grading, agricultural uses, and removal of vegetation. Setbacks vary from 35 feet to 150 feet from streams depending on size and slope as listed in the table listed in Chapter 18.108.025 of the Napa County Code of Ordinances. The appropriate County decision-making body can grant exceptions to the Conservation Regulations upon determining that the project or improvement has been designated so as to avoid excessive grading; maintain, restore, or otherwise minimize removal of existing vegetation; protect water quality; and minimize disturbance to streams and sensitive habitat.

4.4.4 Significance Criteria

The thresholds used to determine the significance of impacts related to biological resources are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Issues Not Discussed in Impacts

There are no adopted or approve local, regional, or state habitat conservation plans applicable to the HEU planning area; therefore, the following significance threshold does not apply to the HEU and is not discussed further:

• Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

There are no state or federally protected wetlands, marshes, vernal pools, or coastal areas located within any of the HEU sites; therefore, the following significance threshold does not apply to the HEU and is not discussed further:

• Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Approach to Analysis

This impact analysis is based on the resources, references, and data collection methods identified in Section 4.4.1, *Introduction*. The analysis addresses potential direct and indirect impacts from construction or operation of the residential projects that could be constructed if the HEU is implemented, defined as follows:

- *Direct impacts* are those that could occur at the same time and place as project implementation, such as the removal of habitat as result of ground disturbance.
- *Indirect impacts* are those that could occur either at a later time or at a distance from the project areas, but that are reasonably foreseeable, such as the loss of an aquatic species as a result of upstream effects on water quality or quantity.

Direct and indirect impacts on biological resource may vary in duration; they may be temporary, short term, or long term.

The analysis considers the potential impacts of the HEU's implementation and the development of multi-family housing on suitable habitat, special-status species, sensitive natural communities, wetlands, and wildlife corridors, using the significance criteria listed above. Mitigation measures are identified, as necessary, to reduce impacts to less-than-significant levels.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to biological resources and it is not discussed further in this section.

4.4.5 Impacts of the Project

Impact BIO-1: Implementation of the HEU would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. (Less than Significant with Mitigation)

Portions of the HEU project sites include suitable habitat for the following species and are within the species' known range: Greene's narrow-leaved daisy, Napa bluecurls, Narrow-anthered brodiaea, each of which has a CNPS California Rare Plant Rank of 1B.2 (rare, threatened, or endangered throughout the species' range); western pond turtle which is a CDFW California Species of Special Concern: osprey and white-tailed kite, which are protected by CFGC 3503 and the MBTA; American badger which a CDFW California Species of Special Concern; western red bat and Townsend's big eared bat, which are both Species of Special Concern and ranked as "high" species within the Western Bat Working Group (WBWG); and Yuma myotis which is ranked as "low-medium" species by the WBWG. All species mentioned above meet the definition for rare and endangered species under CEQA and have a potential to occur within or near portions of the HEU project sites.

Rare Plant Species

Construction

Potential habitat for Greene's narrow-leaved daisy and narrow-anthered brodiaea is present in grassland habitat within and adjacent to the Imola Avenue site in Skyline Wilderness Park. Potential habitat for Napa bluecurls is present along Atlas Peak Road west of Silverado Country Club. The Spanish Flat site and Foster Road site may also contain special-status plant species, which, if present may be negatively affected by housing development. Construction within these potential HEU sites could result in direct temporary or permanent impacts to rare plant species, if present. If clearing and grubbing, ground disturbance, site access, or construction staging were to remove or otherwise damage individuals of these species, this would be a potentially significant impact.

Mitigation Measure BIO-1: Avoid and Minimize Impacts on Special-Status Plant Species would reduce construction-related impacts to less than significant.

Mitigation Measure BIO-1: Avoid and Minimize Impacts on Special-Status Plant Species.

To ensure protection of special-status plants, the following measures will be implemented.

a) Prior to the start of earth-disturbing activities (i.e., clearing and grubbing) in the Imola Avenue, Atlas Peak Road, Foster Road, and Spanish Flat sites, a qualified biologist shall conduct a properly timed special-status plant survey for rare plant species within the project work limits. The survey will follow the CDFW Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFW, 2018). If special-status plant species occur within the project work limits and can be avoided, then the biologist will establish an adequate buffer area for each plant population to exclude activities that directly remove or alter the habitat of, or result in indirect adverse impacts on, the specialstatus plant species. A qualified biologist will oversee installation of a temporary, plastic mesh-type construction fence (Tensor Polygrid or equivalent) at least 4 feet (1.2 meters) tall around any established buffer areas to prevent encroachment by construction vehicles and personnel. The qualified biologist will determine the exact location of the fencing. The fencing will be strung tightly on posts set at maximum intervals of 10 feet (3 meters) and will be checked and maintained weekly until all construction is complete. The buffer zone established by the fencing will be marked by a sign stating:

- "This is habitat of [list rare plant(s)] and must not be disturbed. This species is protected by [the Endangered Species Act of 1973, as amended/CESA/California Native Plant Protection Act]."
- b) If direct impacts cannot be avoided, the biologist shall prepare a plan for minimizing the impacts by one or more of the following methods: 1) salvage and replant plants at the same location following construction; 2) salvage and relocate the plants to a suitable off-site location with long-term assurance of site protection; 3) collect seeds or other propagules for reintroduction at the site or elsewhere; or 4) payment of compensatory mitigation, e.g., to a mitigation bank.
- c) The success criterion for any seeded, planted, and/or relocated plants shall be full replacement at a minimum 1:1 ratio (acreage based) after five years. Monitoring surveys of the seeded, planted, or transplanted individuals shall be conducted for a minimum of five years, to ensure that the success criterion can be achieved at year 5. If it appears the success criterion would not be met after five years, contingency measures may be applied. Such measures shall include, but not be limited to additional seeding and planting; altering or implementing weed management activities; or introducing or altering other management activities.
- d) Special-status plant observations will be reported to the California Natural Diversity Database.

Significance After Mitigation: Implementation of Mitigation Measure BIO-1 would reduce construction-related impacts to special-status plants by conducting surveys to determine if special-status plants are present in the project area and, if so, demarcating their location so that they can be avoided; establishing a plan for minimizing direct impacts cannot be avoided, including replanting at the project area to compensate for temporary impacts, or requiring off-site relocation or compensatory mitigation for permanent impacts; establishing success criteria; and, monitoring replanting or relocation sites to assure success criteria are met. Therefore, implementation of this mitigation measure would reduce potential impacts on special-status plants to less than significant with mitigation. While the County does not have regulatory authority over the Imola Avenue site and cannot require that the above mitigation be implemented on that site, the site is under State jurisdiction and the State, like the County, is obligated to avoid or reduce impacts to special-status species. Thus, the State agency overseeing development of the site would be required to undertake measures similar to CDFW survey protocol, minimization, collection, replanting, and acreage based success criterion for specialstatus species specified above, resulting in a less than significant impact.

4.4 Biological Resources

Operations

No operational activities associated with the HEU project sites are expected to impact specialstatus plants since plant species are not directly impacted by development once construction has concluded; therefore, operational impacts would be **less than significant**.

Mitigation: None required.

Nesting Birds

Construction

Construction within the HEU project sites could result in direct or indirect impacts to nesting birds protected by the MBTA, including but not limited to common bird species, osprey and white-tailed kite. Direct impacts to nesting birds could result from the removal of trees and vegetation and/or demolition of buildings while an active bird nest is present. In addition, earth moving, operation of heavy equipment, and increased human presence could result in noise, vibration, and visual disturbance. These conditions could indirectly result in nest failure (disturbance, avoidance, or abandonment that leads to unsuccessful reproduction), or could cause flight behavior that would expose an adult or its young to predators. These activities could cause birds that have established a nest before the start of construction to change their behavior or even abandon an active nest, putting their eggs and nestlings at risk for mortality.

Impacts during the non-breeding season generally are not considered significant, primarily because of the birds' mobility and ability to access other comparable foraging habitat in the region. However, impacts during the breeding season would be a **potentially significant impact**.

Mitigation Measure Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds would reduce construction-related impacts to less than significant.

Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds.

Adequate measures shall be taken to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in active use. This shall be accomplished by taking the following steps.

- a) If construction is proposed within 500 feet of areas of well-developed riparian or oak woodlands during the nesting season (February 15 to August 31), a pre-construction survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 7 days prior to the onset of vegetation removal or construction, to identify any active nests on the project site and in the vicinity of proposed construction. Surveys shall be performed for the project area, vehicle and equipment staging areas, and suitable habitat within 250 feet to locate any active passerine (e.g., songbird) nests and within 500 feet to locate any active raptor (bird of prey) nests. If ground disturbance activities are delayed following a survey, then an additional preconstruction survey shall be conducted such that no more than two weeks will have elapsed between the last survey and the commencement of ground disturbance activities.
- b) If no active nests are identified during the survey period, or if development is initiated during the non-breeding season (September 1 to February 14), construction may proceed with no restrictions.

- c) If bird nests are found, an adequate no-disturbance buffer (e.g., 100 to 250 feet) shall be established around the nest location and construction activities restricted within the buffer until the qualified biologist has confirmed that any young birds have fledged and are able to leave the construction area. Required setback distances for the no-disturbance zone shall be established by the qualified biologist and may vary depending on species, line-of-sight between the nest and the construction activity, and the birds' sensitivity to disturbance. As necessary, the no-disturbance zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the development site.
- d) Any birds that begin nesting within the project area and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby being to show disturbance associated with construction activities, no-disturbance buffers shall be established as determined by the qualified wildlife biologist.
- e) Any work that must occur within established no-disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to project work within the buffer are observed and could compromise the nest's success, work within the no-disturbance buffer shall halt until the nest occupants have fledged.
- f) A report of findings shall be prepared by the qualified biologist and submitted to the County for review and approval prior to initiation of construction within the nodisturbance zone during the nesting season. The report shall either confirm absence of any active nests or shall confirm that any young within a designated nodisturbance zone and construction can proceed.

Significance After Mitigation: Implementation of **Mitigation Measure BIO-2** would reduce construction-related impacts by limiting construction to the non-nesting season when feasible or, if avoiding the nesting season is not feasible, conducting preconstruction surveys for nesting birds and establishing no-disturbance buffers around any active nests until birds have fledged and are able to leave the construction area; and reporting findings to the County prior to initiation of construction. Therefore, implementation of this mitigation measure would reduce potential impacts on nesting birds to *less than significant with mitigation*. While the County does not have regulatory authority over the Imola Avenue site and cannot require that the above mitigation be implemented on that site, the site is under State jurisdiction and the State, like the County, is obligated to avoid or reduce impacts to nesting birds protected by the MBTA. Thus, the State agency overseeing development of the site would be required to undertake measures similar to the surveying, buffer distances, and reporting requirements specified above, resulting in a less than significant impact.

Operations

Operational activities associated with the HEU project sites are unlikely to indirectly impact nesting birds due to the baseline level of human disturbance already occurring in and adjacent to the study area. Birds nesting in these areas are assumed to be habituated to such disturbance, and therefore, the impacts of human disturbance would be **less than significant**.

Mitigation: None required.

4.4 Biological Resources

Special-Status Roosting Bats

Construction

Project construction could result in impacts to roosting western red bat, Yuma myotis, and/or Townsend's big-eared bat, if present. These species have the potential to roost in tree foliage or bark in woodlands and in isolated trees within the HEU project sites, which could result in impacts to bats during daytime construction hours. Construction activities could result in direct impacts to roosting bats if they were disturbed, killed, or injured by removal or trimming of a tree in which they were roosting. If roosting bats are present, construction noise could result in indirect impacts due to disturbance, avoidance, or abandonment of roosts. If tree removal were to occur during periods of winter torpor or maternity roosting, any bats present would likely not survive the disturbance. This would be a potentially significant impact, but implementation of **Mitigation Measure Mitigation Measure BIO-3** would reduce construction-related impacts to **less than significant**.

Mitigation Measure BIO-3: Avoid and Minimize Impacts on Roosting Bats.

A qualified biologist¹ who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to demolition or building relocation activities or tree work to conduct a pre-construction habitat assessment of the project area (focusing on buildings to be demolished or relocated) to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify bat habitat or signs of potentially active bat roosts within the project area (e.g., guano, urine staining, dead bats, etc.).

- The following measures shall be implemented should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished or relocated, or in trees adjacent to construction activities that could be trimmed or removed within the study area for the HEU project sites:
 - a) In areas identified as potential roosting habitat during the habitat assessment, initial building demolition, relocation, and any tree work (trimming or removal) shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid the bat maternity roosting season and period of winter torpor.²
 - b) Depending on temporal guidance as defined below, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition or relocation, or any tree trimming or removal.
 - c) If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition and relocation or tree work, the qualified biologist shall determine, if possible, the type of roost and species. A nodisturbance buffer shall be established around roost sites until the qualified biologist determines they are no longer active. The size of the no-disturbance

¹ CDFW defines credentials of a qualified biologist within permits or authorizations issued for a project. Typical qualifications include a minimum of four years of academic training leading to a degree and a minimum of 2 years of experience conducting surveys for each species that may be present within the project area.

² Torpor refers to a state of decreased physiological activity with reduced body temperature and metabolic rate.

buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site.

- d) If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist in coordination with CDFW. Such measures may include postponing the removal of buildings or structures, establishing exclusionary work buffers while the roost is active (e.g., 100-foot no-disturbance buffer), or other compensatory mitigation.
- e) The qualified biologist shall be present during building demolition, relocation, or tree work if potential bat roosting habitat or active bat roosts are present. Buildings and trees with active roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.
- f) The demolition or relocation of buildings containing or suspected to contain bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.
- g) Trimming or removal of existing trees with potential bat roosting habitat or active (non-maternity or hibernation) bat roost sites shall follow a two-step removal process (which shall occur during the time of year when bats are active, according to a) above and, depending on the type of roost and species present, according to c) above).
- h) On the first day and under supervision of the qualified biologist, tree branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws.
- i) On the following day and under the supervision of the qualified biologist, the remainder of the tree may be trimmed or removed, either using chainsaws or other equipment (e.g., excavator or backhoe).
- j) All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.

Significance After Mitigation: Implementation of **Mitigation Measure BIO-3** would reduce construction-related impacts by requiring pre-construction surveys to identify active bat roosts; establishment of protective buffers until roosts are no longer in use; and, limiting the removal of trees or structures with potential bat roosting habitat to the time of year when bats are active to avoid disturbing bats during the maternity roosting season or months of winter torpor. Therefore, implementation of this mitigation measure would reduce potential impacts on roosting bats to *less than significant with mitigation*.

4.4 Biological Resources

While the County does not have regulatory authority over the Imola Avenue site and cannot require that the above mitigation be implemented on that site, the site does not contain trees or buildings that would be demolished, so roosting bats are unlikely to be present and impacts at this site would therefore be less than significant without implementation of the mitigation measure.

Operations

Operational activities associated with the HEU project sites are unlikely to indirectly impact roosting bats due to the baseline level of human disturbance already occurring in or adjacent to roadways, riparian corridors, and public parks. Thus, operational impacts would be **less than significant**.

Mitigation: None required.

Western Pond Turtle

Construction

Construction at the Imola site and Northeast Napa site could directly affect known western pond turtle (WPT) populations and upland habitat for this species. Managed ponds directly southeast (approximately 1,000 feet) of the Imola site are known to support pond turtles, but pond turtle habitat would not be directly affected by the project. If WPT occur on-site, they could be subject to harm from construction activities. Given that much of the Imola site is subject to recreational use, it is unlikely that WPT would be encountered away from aquatic habitat. However, if any construction activities or heavy machinery were to harm any WPT that could stray onsite, this would result in a **potentially significant impact**.

Mitigation Measure BIO-4: Avoid and Minimize Impacts to Western Pond Turtle.

Before construction activities begin, a qualified biologist³ shall conduct western pond turtle surveys at the Imola site. Upland areas shall be examined for evidence of nests as well as individual turtles. The project biologist shall be responsible for the survey and for the relocation of turtles, if needed. Construction shall not proceed until a reasonable effort has been made to identify and relocate turtles, if present, a biologist with the appropriate authorization and prior approval from CDFW shall move turtles and/or eggs to a suitable location or facility for incubation, and release hatchlings into the creek system the following autumn.

Significance after Mitigation: Implementation of Mitigation Measure BIO-4 would reduce construction-related impacts to western pond turtles by conducting surveys to determine if the special-status species is present in the project area and if so, removing and/or relocating the species to a safe and secure area. Therefore, implementation of this mitigation measure would reduce potential impacts to western pond turtles to *less than significant with mitigation* during construction. While the County does not have regulatory authority over the Imola Avenue site and cannot require that the above

³ The term "qualified biologist" refers to an individual who has at least a minimum education and qualifications that may include a 4-year degree in a biological sciences or other specific field and training and/or experience surveying, identifying, and handling the subject species. This individual differs from a "Service-approved biologist" in that the qualified biologist may only handle species that are not listed as threatened or endangered by the USFWS. The Service-approved biologist is authorized to relocate such species.

mitigation be implemented on that site, the site is under State jurisdiction and the State, like the County, is obligated to avoid or reduce impacts to western pond turtles. Thus, the State agency overseeing development of the site would be required to undertake similar measures to surveying and relocation methods described above, resulting in a less than significant impact.

Operations

No operational activities associated with the HEU project sites are expected to western pond turtles and are not directly impacted by development once construction has concluded; therefore, operational impacts would be **less than significant**.

Mitigation: None required.

Impact BIO-2: Implementation of the HEU would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. (*Less than Significant with Mitigation*)

Riparian Habitat

No riparian habitat occurs within the HEU sites. Hence, riparian habitat would not be impacted during construction or operations.

Other Sensitive Natural Communities

Construction

The majority of HEU project sites (i.e. Northeast Napa sites, Imola Avenue site, Foster Road site) would occur on parcels that are already predominantly developed, where sensitive habitats are less likely to occur. However, the Spanish Flat site was identified to contain sensitive natural communities as it contains valley oak woodland. Prior to 2020, valley oak woodlands covered most of the site; however, the extent of this vegetation community was substantially reduced by the LNU Lightning Complex Fire. Considering the effects of catastrophic fire on tree viability, the amount of valley oak woodland habitat on the project site remains to be determined. Any construction on the Spanish Flat site that would require clearing, grubbing, grading, or removal of surviving oak woodland habitat, would be considered a **potentially significant impact**.

To reduce the potentially significant impact on sensitive natural communities, construction on the Spanish Flat site would implement the following mitigation measure, in which a botanist would determine whether a sensitive natural community is present in the study area as part of the protocol rare plant survey described in the following measure, as prescribed previously under Impact 4.3-1:

Mitigation Measure BIO-1, Avoid and Mitigate Impacts on Special-Status Plants. (See Impact BIO-1 above)

The implementation of **Mitigation Measure BIO-5**, **Sensitive Natural Community Mitigation** would reduce construction-related impacts to sensitive natural communities to less than significant.

Mitigation Measure BIO-5: Sensitive Natural Community Mitigation.

Prior to issuance of a building permit for development on the Spanish Flat site, the property owner or developer shall retain a qualified biologist to accurately map locations supporting Valley oak woodlands, so that the development can avoid and retain viable oak trees where feasible. Downed and dead trees and former woodlands where trees are removed for safety considerations are not considered a sensitive natural community.

Consistent with Policy CON-24, where temporary construction impacts to valley oak woodlands cannot be avoided, revegetation and restoration measures will be developed as part of a revegetation plan approved by Napa County. The revegetation plan will include specific actions for the revegetation and restoration of impacted valley oak woodlands. Revegetation will include a 2:1 replacement ratio (or ratio otherwise identified by the County) of the acreage of woodland lost and for all trees lost as result of the Project. The following success criteria will apply to revegetated areas:

- 1. Success criteria for replanting will be less than 20 percent mortality annually over a period of 5 years.
- 2. Replanting will be conducted each year that plantings exceed 20 percent mortality, such that at least 80 percent-plant survival is maintained each year of the 5-year monitoring period.
- 3. Cover provided by invasive, non-native plant species shall not exceed 5 percent during each year of the 5-year monitoring period.
- 4. A qualified biologist shall monitor the mitigation site for a minimum of five years to ascertain if the mitigation is successful.
- 5. Annual reports will be submitted to the County by December 31 of each monitoring year (or as otherwise identified by Napa County), describing the results of the monitoring and any remedial actions needed to achieve the specified habitat replacement ratio, or equivalent for permanent impacts on sensitive natural communities.

Significance After Mitigation: Implementation of **Mitigation Measures BIO-5** would reduce construction-related impacts to oak woodlands potentially present on the Spanish Flat site by requiring pre-construction surveys to demarcate sensitive natural communities, and provide mitigation consistent with the General Plan Policy CON-24 and the California Oak Woodlands Preservation Act. Therefore, implementation of these mitigation measures would reduce potential impacts to *less than significant with mitigation*.

Operations

Operational activities associated with new housing are limited would not directly involve any adverse changes to sensitive natural communities. Additionally, all policies in the Napa County General Plan's Conservation Element would reduce the likelihood of any impacts to sensitive

habitats or communities from occurring from development of housing under the HEU program. Therefore, operational impacts would be **less than significant**.

Impact BIO-3: Implementation of the HEU would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant*)

Native Wildlife Nursery Sites

Native wildlife nursery sites in the study area would primarily include sites that house communally roosting birds and bats, or individual nesting birds and roosting bats. Potential construction- and operations-related impacts and mitigation measures on individual nesting birds and bats and communally roosting bats are discussed above under Impact BIO-1. Project impacts on native wildlife nursery sites within the HEU project sites would be **less than significant**.

Native Wildlife Movement Corridors

The 2007 Napa County General Plan Update (General Plan) identifies three major wildlife movement corridors, or areas, in Napa County: 1) Napa River, 2) Blue Ridge-Berryessa Natural Area West, and 3) Blue Ridge-Berryessa Natural Area East. These are displayed in Figure 4.5-6 in the General Plan. No HEU project sites are located within any of these three designated wildlife movement corridors and planned development would not substantially interfere or impede movement of any native resident or migratory species.

The HEU sites encompasses portions of riparian habitat corridors such as Milliken Creek and Camille Creek; however, such areas would not be developed. Daylighted sections of these creeks have mature riparian canopies that could provide cover and forage for urban-adapted wildlife species. These urban riparian corridors are adjacent to existing development, including residential and commercial buildings, city parks, well-used pedestrian paths, and wildlife using these corridors are assumed to be habituated to a moderate to high level of baseline noise and human activity. No anadromous fish species are present in the portion of the watershed within the study area for the HEU project sites due to downstream obstacles to fish passage. Riparian corridors, even those in an urban setting, offer natural cover, food, water, and nest sites for a variety of common birds and mammals, and riparian vegetation maintains temperatures for terrestrial and aquatic habitats. Although wildlife in riparian corridors within the HEU project sties is habituated to a certain level of light and noise, construction-related increases in artificial night lighting and noise or a change in adjacent uses could impact wildlife in the riparian corridor by disrupting their circadian rhythms,⁴ increasing stress, or masking natural sounds. These changes to baseline conditions could cause animals to temporarily avoid lighted or noisy areas that previously provided suitable resting, dispersal, or feeding habitat, or could cause them to miss auditory cues about predators and/or prey.

⁴ A *circadian rhythm* is a natural, internal process that regulates the sleep-wake cycle in animals over an approximately 24-hour period. These rhythms can become altered by external cues such as light.

4.4 Biological Resources

Because of the existing high density of residential development adjacent to the riparian corridors in the HEU project study area, most, if not all, construction activity in the vicinity of the riparian corridor would be conducted during daylight hours (7 a.m. to 7 p.m.). If construction were to occur outside of daylight hours, increases in artificial night lighting during construction could temporarily impact wildlife using limited sections of the riparian corridor at night; however, wildlife could continue to use the remainder of the riparian corridor during the construction period. This impact would be **less than significant**.

During building construction, noise would be generated by construction crews, haul trucks, and heavy equipment accessing the construction site via existing primary roadways, and by the operation of construction equipment such as pile drivers, compactors, excavators, concrete trucks, and other heavy equipment. As described in Section 4.12, *Noise and Vibration*, this equipment typically generates noise levels of 82 (dBA) 50 feet from the noise source. This would be a noticeable but temporary increase in baseline noise levels (excluding construction projects) in residential and commercial areas of Napa County, which are limited at 75 dBA during daytime hours (Napa County, 2022). Similar to nighttime lighting, construction noise could temporarily impact wildlife using limited sections of the riparian corridor; however, wildlife could continue to use the remainder of the riparian corridor during the construction period. This impact would be **less than significant**.

Mitigation: None required.

Impact BIO-4: Implementation of the HEU would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*Less than Significant*)

Local goals and policies relevant to the biological resources present, or with potential to occur, at the HEU project sites are included in the Napa County General Plan and Conservation Regulations in the Napa County Code of Ordinances. The removal of burned or downed trees on the Spanish Flat site would not conflict with local policies or ordinances; and the removal of other oak trees to the site would be performed consistent with County requirements. The HEU is consistent with the goals and policies of the Conservation Element in the General Plan to preserve and protect biological resources, such as woodlands, riparian habitat, wetlands, migratory corridors, and special-status species. The HEU project would also be in compliance with Section 18.108.025 of the Conservation Regulations outlined within the Napa County Code of Ordinances. Under these conditions, and the implementation of **Mitigation Measures BIO-1** through **BIO-5** to ensure avoidance and minimization of impacts to biological resources mentioned in the General Plan, the impact would be **less than significant**.

Mitigation: None required.

4.4.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively significant impacts. Significant cumulative impacts related to biological resources could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects are significant and if the HEU's contribution is considerable.

The geographic scope for cumulative effects on biological resources encompasses the HEU planning areas and biologically linked areas that include the Napa River and Putah Creek watersheds in Napa County.

As previously discussed, the project would have no impact on any adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Additionally, no state or federally protected wetlands, marshes, vernal pools, or coastal areas would be located within any of the HEU sites and would be considered no impact. Therefore, there is no potential for a cumulative impact to occur with respect to any local, regional, state habitat conservation plans, or state and federally protected wetlands.

Significant cumulative impacts related to biological resources could occur if the incremental impacts of the project combined with the incremental impacts of cumulative development described in Section 4.0.3, Cumulative Impacts, would cause a significant impact on any special-status plant and wildlife species, migratory birds, sensitive and natural communities, or any other biological resources discusses above. This analysis then considers whether the incremental contribution of the HEU's implementation to this cumulative impact would be considerable. Both conditions must apply for a project's cumulative effects to be significant.

Impact BIO-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, would not contribute considerably to cumulative impacts on biological resources. (*Less than Significant with Mitigation*)

The cumulative development identified in Section 4.0 of this EIR, *Introduction to Environmental Analysis* include growth projections within the County as a whole, and this section also describes efforts to re-establish resorts at Lake Berryessa, updating the City of Napa General Plan, and the potential for continued development of development projects such as hotels, wineries, warehouses, and vineyards that may be developed in the unincorporated County between now and 2040.

The smaller development projects (i.e. hotels, wineries, warehouses) proposed to be constructed between now and 2040 would most likely result in minimal, dispersed, and incremental impacts on biological resources, particularly since most would be constructed in already developed areas. These cumulative projects as well as any new vineyards proposed in the same time period would be required to comply with the County's Conservation Regulations and all other applicable regulatory requirements that are protective of biological resources, as well as any project-specific mitigation measures (where applicable). As these projects would be dispersed throughout the entirety of Napa County for the next 20 years, the incremental changes and likelihood that these 4.4 Biological Resources

development projects would be proposed within the same vicinity and temporal scope as the HEU would be minimal, resulting in a cumulative impact that would be less than significant.

The re-establishment of resorts located around Lake Berryessa could contribute cumulatively to impacts described above from the Spanish Flat site. The proposal to reopen a number of resorts along the shores of Lake Berryesssa that were closed in 2009 could include up to seven envisioned concession operations areas, including one within proximity to the Spanish Flat HEU site. If these projects were to occur at the same time and within the same vicinity, construction and operation impacts could result in a significant impact. Impacts to the Spanish Flat site from the HEU project included potential impacts to nesting birds, roosting bats, special-status plants, and sensitive natural communities (i.e. valley oak woodland). However, implementation of Mitigation Measures BIO-1, Avoid and Mitigate Impacts on Special-Status Plants; Mitigation Measure BIO-2, Avoid and Minimize Impacts on Nesting Birds; BIO-3, Avoid and Minimize Impacts on Roosting Bats; Mitigation Measure BIO-5, Sensitive Natural Community Mitigation would avoid and minimize impacts to special-status plant species, nesting birds, roosting bats, sensitive valley oak woodland communities located at the Spanish Flat site. If construction activities at the Lake Berryessa resort closest to the Spanish Flat site were to remove valley oak woodland, the HEU project would not considerably contribute to a significant cumulative impact to sensitive natural communities because implementation of Mitigation Measure BIO-5, Sensitive Natural Community Mitigation would avoid and retain viable oak trees where feasible and that all other areas with tree cover would remain valley oak woodlands following development of the HEU, resulting in a less than significant impact with mitigation.

Mitigation Measures BIO-1: Avoid and Mitigate Impacts on Special-Status Plants. (See Impact BIO-1 above)

Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds. (See Impact BIO-1 above)

Mitigation MeasureBIO-3: Avoid and Minimize Impacts on Roosting Bats. (See Impact BIO-1 above)

Mitigation Measure BIO-5: Sensitive Natural Community Mitigation. (See Impact BIO-2 above)

Significance After Mitigation: Less than Significant.

4.4.7 References

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4.4 Biological Resources

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4.5.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on cultural resources, including historic architectural resources, historic-era and pre-contact archaeological resources, and human remains as well as tribal cultural resources. This section first includes a description of the existing environmental setting as it relates to cultural resources and tribal cultural resources, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on cultural resources and tribal cultural resources.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022, and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. The County received scoping comments from the Native American Heritage Commission (NAHC) which recommended, pursuant to PRC Section 21080.3.1(b), that the County conduct consultation with tribes that are affiliated with Napa County. The NAHC also recommended that the County conduct a cultural resources records search of the California Historical Resources Information System (CHRIS) and that an archaeological inventory survey report be prepared along with a search of the NAHC's Sacred Lands File (SLF).

4.5.2 Environmental Setting

Pre-Contact Setting

Based largely upon the work of Heizer (1953) and his students as well as other cultural resources investigations in the Bay Area, Fredrickson (1973, 1974) and Bennyhoff and Fredrickson (1969, in Hughes, 1994) developed a cultural sequence for the North Coast Ranges. The cultural sequence separates cultural and temporal dimensions of change. As proposed by Fredrickson (1973, 1974), the sequence of temporal change consists of four major chronological periods: the Early Lithic Period, the Paleo-Indian Period, the Archaic Period, and the Emergent Period. The Archaic and Emergent Periods are further subdivided. The Archaic Period consists of a Lower, Middle, and Upper, and the Emergent Period consists of a Lower and Upper. With the exception of the Early Lithic Period, each period is distinguished by at least one corresponding cultural pattern. Cultural materials from the Early Lithic Period have yet to be identified in California. This period was created by Fredrickson (1973:113) as a hypothetical precursor to the Paleo-Indian Period.

Paleo-Indian Period

Within the North Coast Ranges, the first demonstrated entry of humans was during the Paleo-Indian Period (12,000 to 8,000 years before present [BP]). The Paleo-Indian Period in the North Coast Ranges is associated with the Post Pattern, which was named after Chester C. Post, the amateur collector who brought the Borax Lake Site to the attention of archaeologists. There is no known local variant of this pattern for the Napa Valley. The Post Pattern is characterized by

Borax Lake fluted projectile points, flaked crescent points, and single-shoulder points (Fredrickson, 1973:191; Meighan and Haynes, 1970: Figure 5). Due to the paucity of sites and artifacts associated with the Post Pattern, little inference can be made about the culture. However, from the lithic assemblage, it is likely that the dart and atlatl were used for hunting game and crescent points may have been used as transverse projectile points for the hunting birds.

Lower Archaic Period

The Paleo-Indian Period was followed by the Lower Archaic Period (8,000 to 5,000 BP). During this period, the ancient lakes, which had been the subsistence base during the Paleo-Indian Period, began to dry up as a result of climate change. An increased emphasis on plant foods can be inferred by the abundant appearance of milling stones. The appearance of milling technology may also indicate less emphasis on hunting as individuals became more familiar with the local plant resources. The Lower Archaic Period in the North Coast Ranges is associated with the Borax Lake Pattern. Fredrickson (1973:207-208) initially identified Borax Lake Pattern components at the Hultman Site (CA-NAP-131). Due to the low occurrence of sites associated with the Borax Lake Pattern, it remains difficult to characterize this culture. However, milling stones and handstones are prevalent. These artifacts are often found in association with concavebase and stemless projectile points. Wide-stemmed points occur in smaller numbers.

Middle Archaic Period

While the Paleo-Indian and the Lower Archaic Periods are poorly understood at this time, the Middle Archaic Period (5,000 to 2,500 BP) is represented by better chronologically-controlled assemblages that allow for more inferences concerning pre-contact lifeways. This period is characterized by the introduction of the mortar and pestle, which has been used to infer the development of an acorn-based economy. Increased sedentism developed during this period and was accompanied by population growth and expansion. In the periodization used by some archaeologists (Bennyhoff and Hughes, 1987; Cartier et al., 1993; Elsasser, 1985; Milliken and Bennyhoff, 1993), the Middle Archaic Period is termed the "Early Period" or "Early Horizon".

Population growth and expansion during the Middle Archaic Period was accompanied by increasing cultural complexity and interaction. In the North Coast Ranges, two distinct cultural patterns emerge during this period: the Berkeley Pattern and the Mendocino Pattern. In the Napa Valley, the period is associated with both the Houx Aspect of the Berkeley Pattern and the Hultman Aspect of the Mendocino Pattern. The relationship between these cultural patterns is not fully understood. However, White and Fredrickson (1992:85; White et al., 2002) have argued that the Houx Aspect of the Berkeley Pattern was an indigenous development in the Clear Lake Basin whereas the Mendocino Pattern was intrusive to the region.

Upper Archaic Period

The general trend towards increasing population growth and the expansion of settlement continued into the Upper Archaic Period (2,500 to 1,100 BP), which has also been termed the "Middle Period" or the "Middle Horizon" (Bennyhoff and Hughes, 1987; Cartier et al., 1993; Elsasser, 1985; Milliken and Bennyhoff, 1993). Fredrickson (1974:48) suggested that the Upper

Archaic Period "seems to have been marked by ever increasing socio-political complexity, a growth of status distinctions based on wealth, the emergence of group-oriented religious activities, and greater complexity of the exchange systems". Yet, territorial boundaries do not seem to have been firmly established in this period.

In the ensuing Emergent Period (1,100 to 200 BP), pre-contact cultures in California "reached levels of sociocultural complexity usually considered correlates of agricultural societies" (Fredrickson, 1973:38). The cultural manifestation of the Emergent Period was the Augustine Pattern. While the Augustine Pattern was prevalent throughout the entire San Francisco Bay and North Coast Ranges, the particular variant of the pattern in the Napa Valley was the St. Helena Aspect. The St. Helena Aspect is distinguished by the use of small, serrated projectile points with either parallel or corner-notched stems. Corner-notched points without serrations became more common towards the historic-era. Well-shaped mortars and pestles are prevalent. Larger shouldered bifaces, bipoints, and leaf-shaped points are absent. Bone awls are common and probably indicate increased production of basketry. Associated with basketry, the hopper mortar became more prevalent. Tubular tobacco pipes are also quite common. There is also an increase in beads and ornaments made from shell, stone, and bone. This coincides with an increase in trade items from greater distances.

Ethnographic Setting

Napa County has been the home of many indigenous tribes. Ethnographically, the Patwin occupied the central and eastern portion of the County, the Wappo occupied the western and northwest portion of the County, and the Coast Miwok were mostly located in Sonoma and Marin Counties, but partially overlapped in the southeastern portion of Napa County.

Patwin (Wintun)

Patwin Indians historically inhabited portions of Napa County. The Patwin territory was an extensive region within north-central California and included the lower portion of the west side of the Sacramento Valley west of the Sacramento River from about the location of the town of Princeton in the north to Benicia in the south (Kroeber, 1925). The Patwin were bounded to the north, northeast, and east by other Penutian-speaking peoples (the Nomlaki, Wintu, and Maidu, respectively), and to the west by the Pomo and other coastal groups. Within this large territory, the Patwin have traditionally been divided into River, Hill and Southern Patwin groups, although in actuality a more complex set of linguistic and cultural differences existed than is indicated by these three geographic divisions.

The onslaught of Euro-American culture negatively impacted Patwin culture and peoples. By 1871–72, when Stephen Powers surveyed the state gathering ethnographic information, the Patwin culture appeared to him to be virtually extinct.

Euro-American influences within Patwin territory increased dramatically as ranching and farming became popular in the area. Euro-American settlers, especially within the Sacramento Valley, quickly made inroads into lands occupied by Native Americans. Conflicts grew in number, and Patwin populations continued to decline from military skirmishes, vigilante raids, and other

causes. In 1972, the Bureau of Indian Affairs listed only 11 remaining Patwin descendants (Johnson, 1978:352). Despite the massive decline in population, the Patwin still reside in Napa County and many intermarried with the Wintu (Johnson, 1978:352).

Wappo

Napa County is within the ethnographic territory of the Wappo, a population of Yukian speaking, hunter-gatherer people with their own unique dialect and language, who occupied the northern Napa Valley and portions of the north and eastern Russian River Valley, within the Santa Rosa Plain. Geographically, the territorial area occupied by the Wappo stretched in a northwesterly direction from just north of the present-day cities of Napa and Sonoma to include the cities of Geyser, Cloverdale and Middletown at its northern extent (Kroeber, 1925:218–219, Plate 27; Barrett, 1908:264). This territory included the broad northwest-southeast trending river valleys and associated tributaries, as well as the flanking mountains of the Coastal Range and a small enclave along the southern shore of Clear Lake called *Lile'ek* by the Pomo, their neighbors to the west (Kroeber, 1925:219). Isolated from other Yukian-speaking peoples this group was bound on all sides by other native groups, the Lake Miwok to the north, the Patwin (Wintun) to the south and east, the Pomo to the north and west, and the Coast Miwok to the southwest (Heizer and Whipple, 1971: Map 1).

The name *Wappo* is a version of the Spanish term "guapo" which means handsome or brave, a title given to this group during the time of the Missions as a result of their "stubborn resistance to the military adjuncts of the Franciscan establishments" (Kroeber, 1925:217). Stephen Powers recognized the original name for these peoples as *Ashochimi* and noted that the use of the term "*Wappo* – The Unconquerable" by this population, in reference to itself, was common practice (Powers, 1975:196).

It is surmised that the population of the Wappo prior to European contact may have exceeded 1,000 persons before falling drastically to 40 persons by 1908. During Spanish occupation, the Wappo were notably resistant to all attempts of subjugation, from which they obtained their title. Despite this resistance, this native population was eventually brought under the control of the Mission at Sonoma, between 1823 and 1834. The remaining population was eventually moved to a reservation in Mendocino, where the majority perished, eventually leading to the closure of the reservation in 1867 (Kroeber, 1925: 221; Sawyer, 1978:258–259).

Today the Wappo people are represented by the Mishewal Wappo Tribe of Alexander Valley. The tribe has 340 living members and is currently seeking federal recognition from the U.S. government.

Lake Miwok

The Lake Miwok peoples inhabited the area between the creeks that lead from the southeastern end of Clear Lake, Cobb Mountain, and Pope Valley, which intersects with the northern edge of Napa County and parts of Lake County. The Lake Miwok language is closely related to that of the Coast Miwok, although they were separated from these peoples by territory occupied by the Pomo, who occupied the Clear Lake shoreline. The main Lake Miwok settlements were located along the creeks near Lower Lake, Middletown, Lake Guenoc, and in Pope Valley (Callaghan, 1979).

The Lake Miwok were a small group, Kroeber estimated that prior to European contact the tribe consisted of no more than 500 individuals (1925:275). Like with many tribes in California, the introduction of Europeans to the area decimated the Lake Miwok population. Records from the missions in San Rafael, Sonoma, and San José show that Lake Miwok were forcibly converted and became part of the neophyte population at these missions. Today Lake Miwok peoples are represented by the Middletown Rancheria, which is comprised of both Lake Miwok and Pomo peoples. Middletown Rancheria was established in 1910 on 108 acres of land and is a federally recognized tribe comprised of over 200 members.

Historic Period

Spanish and Mexican Period

The area was first explored by Euroamericans in 1823 by Father José Altamira and Alfred José Sanchez. Fearing Russian encroachment they headed north from San Francisco, passing through San Rafael and Olompali, exploring the Sonoma, Napa, and Suisun Plains for potential sites for new missions (Beck and Haase, 1974:18).

The historic alignment of the Napa River formed the dividing line between Rancho Napa and Rancho Yajome, with the former to the west and the latter to the east. Rancho Yajome was a 6,652-acre area granted to Mexican soldier Damaso Antonio Rodríguez in 1841, though Rodríguez appears to have never lived on the land, and the claim to the land was eventually granted to Salvador Vallejo in 1852. Soon thereafter, Vallejo constructed an adobe house, destroyed in a fire in 1970, on Rancho Yajome, just north of Napa. Rancho Napa was a 22,718-acre area granted to Salvador Vallejo and his wife María de la Cruz Carrillo by Mexican Governor Alvarado in 1838. The grant encompassed the majority of Napa Valley between approximately the current town of Napa and just north of the current town of Rutherford (Hoover et al., 2002).

The first non-Spanish American settler to the Napa Valley area was George C. Yount (1794-1865). Yount was a trapper in William Wolfskill's party from New Mexico and came to California in 1831. Originally intending to travel to the Pacific Ocean to trap otter, Yount instead remained inland to work as a carpenter for General Mariano Vallejo. In 1836, Yount received the 11,814-acre Rancho Caymus land grant, and in 1842 applied for and received the Rancho La Jota land grant on Howell Mountain (Hoover et al., 2002). Nearby Yountville was eventually named for him. In 1836, Yount constructed a log blockhouse along the west bank of the Napa River. The following year, Yount built an adobe house nearby, and sometime between the construction of his blockhouse and 1845, Yount built both a grist mill and sawmill in the same area. Yount is also known as the first person to plant grapes in Napa Valley, which he did in 1839, and he is often considered the father of Napa's now famous wine industry.

American Period

The following is an excerpt of the Baseline Data Report prepared by Jones & Stokes for Napa County in 2005:

Napa County was created in 1850. It was named after Napa Valley. The word napa is of Indian derivation and has been variously translated as "grizzly bear," "house," "motherland," or "fish." Of the many explanations of the name's origin, the most plausible seems to be that it is derived from the Patwin word napo, meaning house.

On January 4, 1850, a committee of California's first constitutional convention, chaired by General Vallejo, recommended the creation of 18 counties: Benicia, Butte, Fremont, Los Angeles, Mariposa, Monterey, Mount Diablo, Oro, Redding, Sacramento, San Diego, San Francisco, San Joaquin, San Jose, San Luis Obispo, Santa Barbara, Sonoma, and Sutter.

In the 1830s, the Napa Valley became one of the first in California to be settled by American farmers. When California was granted statehood in 1850, the Napa Valley was in the territory of California, district of Sonoma. In 1850, when counties were first being organized, Napa became one of the original 27 counties of California with Napa City (later shortened to Napa) as the County seat.

By 1870, Euro-Americans had inhabited the Napa Valley and the Native Americans who once roamed freely were wiped out by smallpox and other introduced diseases. In 1848, Nathan Coombs laid out Napa City on property he acquired from Nicholas Higuera's Rancho Entre-Napa, an 1836 Mexican land grant.

The Gold Rush of the early 1850s caused Napa City to grow. After the first severe winter in the gold fields, miners sought warmer refuge in the young city. There was plenty of work on the cattle ranches and in the lumber industry. Sawmills in the valley were cutting timber that was hauled by horse team to Napa City, where it was then shipped out via the Napa River to Benicia and San Francisco.

The Napa Valley is now known mostly for its premier wines. At the start of the industry, Euro-American settlers planted vineyards with cuttings supplied by Catholic priests from Sonoma and San Rafael. In 1861, Riesling cuttings were introduced to the valley. From these small beginnings, the Napa Valley has become noted as one of the premier winemaking regions of the world.

George Yount planted the first grapes in the Napa Valley in 1839. Soon after, other pioneers, such as John Patchett and Hamilton Walker Crabb, helped introduce the first *Vitis vinifera* grapes to the area. Charles Krug is credited with establishing Napa Valley's first commercial winery in 1861. His success sparked a wave of new growth in the wine industry, and by 1889 there were more than 140 wineries in operation in the Valley.

Previously Identified Cultural Resources

For the purposes of this section, cultural resources are defined as physical evidence or a place of past human activity, including sites, objects, landscapes, or structures of significance to a group of people traditionally associated with it. Archaeological resources can be both pre-contact and

historic-era and consist of cultural resources which are on the surface or in the subsurface. Historic resources are historic-age (i.e., 45 years old or older) buildings or structures that have been determined as significant and eligible for, or listed on, the National Register of Historic Places (National Register) and/or California Register of Historical Resources (California Register) and/or on the Napa County Historical Society's Historic Resources Inventory (HRI) (local register). The Historical Society has HRIs for Napa, St. Helena, Yountville, Calistoga, and Unincorporated Napa County.

As part of the Baseline Data Report prepared by Jones & Stokes (2005) for Napa County, three maps were prepared that identified: archaeological resource locations, architectural resource locations, and a sensitivity analysis map was prepared that is used by the County to determine if project should have additional cultural review (see *Napa County General Plan* below). This sensitivity map shows that the multifamily housing sites proposed by the HEU at Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road all include areas that were identified as having very high sensitivity for cultural resources.

ESA completed a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System on March 22, 2022 (File No. 21-1574). The review included the entirety of unincorporated Napa County but focused on the proposed Housing Inventory Site locations. Previous surveys, studies, and site records were accessed. Records were also reviewed in the Built Environment Resources Directory for Napa County, which contains information on places of recognized historical significance including those evaluated for listing in the National Register, the California Register, the California Inventory of Historical Resources, California Historical Landmarks, and California Points of Historical Interest. The purpose of the records search was to (1) determine whether known cultural resources have been recorded within the Project vicinity; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and preliminary evaluation of cultural resources.

Within the entirety of unincorporated Napa County, there are 2,403 previously documented cultural resources that include: 1,000 pre-contact Native American cultural resources, 1,305 historic-era resources (946 of which have architectural elements), and 98 multi-component resources with both pre-contact and historic-era components. This does not include the resources previously recorded within the incorporated cities in Napa County.

Previously Identified Historic Resources

In the Baseline Data Report for Napa County prepared by Jones & Stokes (2005), 1,635 historic architectural features were identified as being recorded within the entirety of Napa County. This dataset was not verified, in that Jones & Stokes did not determine which of these 1,635 were determined eligible, listed on one of the registers, or simply recorded but not evaluated. The following provides a list of previously identified historic resources based on information from the NWIC records search and the Napa County Historical Society. While some of these resources may also be on the Baseline Data Report's list of 1,635 resources, ESA also did not review this data or field check any potential resources outside of the Housing Inventory Sites.

Name of Resource	Location	Source	Housing Inventory Site Location
Aetna Springs Resort	1621 Aetna Springs Road	NCHS HRI	n/a
Aetna Springs Dining Hall	1621 Aetna Springs Road	NCHS HRI	n/a
Aetna Springs Frances Marion Cottage	1621 Aetna Springs Road	NCHS HRI	n/a
Aetna Springs Social Hall	1621 Aetna Springs Road	NCHS HRI	n/a
Aetna Springs Soda Fountain & Bar	1621 Aetna Springs Road	NCHS HRI	n/a
Aetna Springs Winship Building	1621 Aetna Springs Road	NCHS HRI	n/a
Barnett House	Barnett Road	NCHS HRI	n/a
Blue Ridge Toll Road	Berryessa-Knoxville Road	NCHS HRI	n/a
Knoxville Mine Store	Berryessa-Knoxville Road	NCHS HRI	n/a
Zem Zem Resort	Berryessa-Knoxville Road	NCHS HRI	n/a
William Pratt House	751 Crystal Springs Road	NCHS HRI	n/a
Olandt Place	2035 Cuttings Wharf Road	NCHS HRI	n/a
Greenwood Mansion	Devlin Road (formerly on South Kelly Road)	NCHS HRI	n/a
Barth Winery	1029 Dry Creek Road	NCHS HRI	n/a
Harmony School	1005 Fourth Avenue	NCHS HRI	n/a
Elmshaven Watertower	125 Glass Mountain Lane	NCHS HRI	n/a
Pratt-Coolidge-White House/Elmshaven	125 Glass Mountain Lane	NCHS HRI	n/a
Bergstrom Ranch	1225 Hagen Road	NCHS HRI	n/a
Mt. George Farm Center	3275 Hagen Road	NCHS HRI	n/a
St. Helena Highway – Trubody Eucalyptus Trees	Hwy 29 between North and South Traffic Lanes	NCHS HRI	n/a
Capell Valley School	1191 Highway 128	NCHS HRI	n/a
Raney Rock/ "Sleeping Lady"		NCHS HRI	n/a
T.B. McClure House	2874 Las Amigas Road	NCHS HRI	n/a
Fisher Winery/ "Mt. Veeder Vineyards"	1155 Lokoya Road	NCHS HRI	n/a
Lokoya Redwood/ "Hangman's Tree"	Lokoya Road	NCHS HRI	n/a
Near the Summit of Mt. Veeder	Lokoya Road	NCHS HRI	n/a
Castle Rock/White Rock Vineyards	1115 Loma Vista Dr.	NCHS HRI	n/a
Windy Flat	3701 Monticello Road	NCHS HRI	n/a
"Old Man With a Pipe"	Monticello Road	NCHS HRI	n/a
Mt. Veeder School	2207 Mt. Veeder Road	NCHS HRI	n/a
Devlin Ranch Road	669 Napa-Vallejo Highway	NCHS HRI	n/a
Eschol Winery/ Trefethen Family Vineyards	1160 Oak Knoll Avenue	NCHS HRI	n/a
Sam Haus Winery	6613 Pope Valley Road	NCHS HRI	n/a
Lito Damonte's Place (Lito's Hubcab Ranch)	6654 Pope Valley Road	NCHS HRI	n/a

 TABLE 4.5-1

 PREVIOUSLY IDENTIFIED HISTORIC RESOURCES

Name of Resource	Location	Source	Housing Inventory Site Location
Henry Haus Blacksmith and Wagonmaker Shop	Pope Valley & Howell Mountain Roads	NCHS HRI	n/a
Pope Valley Store	Pope Valley & Howell Mountain Roads	NCHS HRI	n/a
Old Ridge Road	Along the Ridge Line of Mt. Veeder	NCHS HRI	n/a
Theodore Gier Winery	4411 Redwood Road	NCHS HRI	n/a
Crochat Place/Brown Estate Vineyards	3233 Sage Canyon Road	NCHS HRI	n/a
Deer Park	500 Sanitarium Road	NCHS HRI	n/a
Occidental Wine Cellar	5548 Silverado Trail	NCHS HRI	n/a
Norem Barn	1220 Soda Canyon Road	NCHS HRI	n/a
Napa Soda Springs	Soda Canyon Road	NCHS HRI	n/a
Napa Soda Springs Rotunda	Soda Canyon Road	NCHS HRI	n/a
Soda Hole	Soda Canyon Road	NCHS HRI	n/a
Soscol House	1011 Soscol Ferry Road	NCHS HRI	n/a
Stanly Lane	Stanly Lane	NCHS HRI	n/a
Stanly House	South end of Stanly Lane	NCHS HRI	n/a
Noveau Medoc Winery/ Howell Mountain Winery	150 White Cottage Road	NCHS HRI	n/a
Withers House	4175 Withers Road	NCHS HRI	n/a
Site of Chiles Mill	Bank of Chiles Creek (no address)	NCHS HRI	n/a
S.FClearlake Railroad Grade	Conn Valley-Conn Creek Canyon (no address)	NCHS HRI	n/a
Samuels Springs	South of the Junction of Trout Creek & Pope Creek (no address)	NCHS HRI	n/a
Distillery/P-28-001270	Monticello Road (APN 039-320-016)	NWIC	Bishop & Altamura
Napa State Hospital/ P-28-001630	Highway 29 and Imola Road	NWIC	Imola Avenue

TABLE 4.5-1 (CONTINUED) PREVIOUSLY IDENTIFIED HISTORIC RESOURCES

SOURCE: Napa County Historical Society, napahistory.org/research-library/resources/historic-resources-inventories/unincorporated-hris/, accessed April 6, 2022; ParcelQuest, 2022; NWIC Records Search, 2022.

Identified Archaeological Resources

The NWIC records search indicated that no archaeological resources are recorded within the Housing Inventory Sites. However, there are also pre-contact resources adjacent (within 500 feet) to several Housing Inventory Sites.

Identified Tribal Cultural Resource

Native American Consultation

In accordance with the requirements of Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52; PRC Section 21074(a)), County staff conducted Native American outreach and consultation efforts. On March 4, 2022, the County sent tribal outreach letters to three Native American tribes who have previously requested that the County consult with them according to the requirements of PRC Section 21080.3.1(b). On March 30, 2022, the County received a request from Yocha Dehe Wintun

Nation (Yocha Dehe) to be consulted with regarding the Project. On May 2, 2022, in response to the NAHC's letter regarding the County's Local Government Tribal Consultation List Request, the County sent tribal outreach letters to five additional Native American tribes identified by the NAHC as having traditional lands or cultural places located within the boundaries of the County. On May 16, 2022, the County received a letter from the Colusa Indian Community Council Cachil Dehe Band of Wintun Indians, thanking the County for the consultation notification, informing the County they did not have the capacity to respond at this time, and deferring all correspondence to the Yocha Dehe Wintun Nation. No additional responses were received as of August 23, 2022.

The County held an initial consultation meeting with Yocha Dehe on May 2, 2022. In attendance was Trevor Hawkes from Napa County, Laverne Bill from Yocha Dehe, and Heidi Koenig and Robin Hoffman from ESA. During this meeting Yocha Dehe requested revisions to the drafted mitigation to provide for earlier tribal review of the preliminary cultural resources inventory document as part of the cultural resources review process as required by **Mitigation Measure CUL-2**. The Mitigation Measures were revised as requested and these revised measures were sent to Yocha Dehe on June 15, 2022 for review. No further changes were requested as of August 23, 2022.

4.5.3 Regulatory Setting

Federal

Under federal law, historical and archaeological resources are considered through the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. 306108), and its implementing regulations. Before an "undertaking" (e.g., federal funding or issuance of a federal permit) is implemented, Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties (i.e., properties listed in or eligible for listing in the National Register) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register. Under the NHPA, a property is considered significant if it meets the National Register listing criteria A through D, at 36 Code of Federal Regulations 60.4, as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:

- a) Are associated with events that have made a significant contribution to the broad patterns of our history, or
- b) Are associated with the lives of persons significant in our past, or
- c) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
- d) Have yielded, or may be likely to yield, information important in prehistory or history.

For a resource to be eligible for the National Register, it must also retain enough integrity to be recognizable as a historic property and to convey its significance. Resources that are less than 50 years old are generally not considered eligible for the National Register.

Federal review of the effects of undertakings on significant cultural resources is carried out under Section 106 of the NHPA and is often referred to as "Section 106 review." This process is the responsibility of the federal lead agency and occurs when an undertaking involves federal funding or a federal approval action. Section 106 review typically involves a four-step procedure, which is described in detail in the implementing regulations of the NHPA (36 Code of Federal Regulations 800):

- Define the Area of Potential Effects in which an undertaking could directly or indirectly affect historic properties;
- Identify historic properties in consultation with the State Historic Preservation Office and interested parties;
- Assess the significance of effects of the undertaking on historic properties; and
- Consult with the State Historic Preservation Officer, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation and proceed with the project according to the conditions of the agreement.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act of 1978 protects the rights of Native Americans to freedom of expression of traditional religions (24 U.S.C. Section 1996). This act established "the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions... including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites."

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act provides for increased involvement of Native Americans in archaeology and historic preservation. The Native American Graves Protection and Repatriation Act addresses the rights of lineal descendants and Indian tribes to recover Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony that are held by the federal government (25 U.S.C. Section 3001). These parties are to be consulted when such items are inadvertently discovered or intentionally excavated on federal or tribal lands.

State

The State of California implements the NHPA of 1966, as amended, through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation, as an office of the California Department of Parks and Recreation, implements the policies of the preservation act on a statewide level. The Office of Historic

Preservation also maintains the California Historical Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the state's jurisdictions.

CEQA and the California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). Certain resources are determined by the statute to be automatically included in the California Register, including those formally determined eligible for or listed in the National Register (PRC 5024.1[d][1]). These resources are termed "historical resources."

Based on Section 15064.5(a) of the CEQA Guidelines, historical resources include, but are not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant or that is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered by a lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register (PRC Section 5024.1), or qualifies as a "unique historical resource" (PRC Section 21083.2).

To be eligible for the California Register, a cultural resource must meet one or more of the following criteria:

- 1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- 2. Is associated with the lives of persons important in our past;
- 3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- 4. Has yielded, or may be likely to yield, information important in prehistory or history.

For a resource to be eligible for the California Register, it must also retain enough integrity of location, design, setting, materials, workmanship, feeling, and association to be recognizable as a historical resource and to convey its significance. Resources that are less than 45 years old are generally not considered eligible for the California Register.

Impact assessment under CEQA considers only historically significant cultural resources; that is, resources that meet CEQA criteria for eligibility to the California Register (historical resources) or qualify as unique archaeological resources, as detailed below. Impacts on resources that do not meet these criteria are not considered in impact assessment under CEQA. Similarly, for projects with federal involvement, only resources that meet the criteria of eligibility for the National Register receive further consideration in impact analysis.

CEQA considers archaeological resources as an intrinsic part of the physical environment and thus requires that, for any project, the potential of the project to adversely affect archaeological resources be analyzed (CEQA Section 21083.2). For a project that may have an adverse effect on a significant archaeological resource, CEQA requires preparation of an environmental impact report (CEQA Section 21083.2 and CEQA Guidelines Section 15065). CEQA recognizes two different categories of significant archaeological resources: "unique" archaeological resource (CEQA Section 21083.2) and an archaeological resource that qualifies as a "historical resource" under CEQA (CEQA Section 21084.1 and CEQA Guidelines Section 15064.5).

PRC Section 21074 (AB 52)

AB 52, enacted in September 2014, amended CEQA to explicitly recognize that California Native American tribes have expertise with regard to their tribal history and practices. AB 52 established a new category of cultural resources known as tribal cultural resources in order to consider tribal cultural values when determining impacts on cultural resources. PRC Section 21074(a) defines a tribal cultural resource as any of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - included or determined to be eligible for inclusion in the California Register; or
 - included in a local register of historical resources, as defined in PRC Section 5020.1(k).¹
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c).² In applying these criteria, the lead agency would consider the significance of the resource to a California Native American tribe.
- A cultural landscape that meets the criteria of CEQA Section 21074(a)³ also is a tribal cultural resource if the landscape is geographically defined in terms of the size and scope.
- An historical resource as described in CEQA Section 21084.1,⁴ a unique archaeological resource as defined in CEQA Section 21083.2,⁵ or a non-unique archaeological resource as

¹ PRC Section 5020.1(k) defines "local register of historical resources" as "a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution."

² The criteria set forth in PRC Section 5024.1(c) include whether a resource: "(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. (2) Is associated with the lives of persons important in our past. (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. (4) Has yielded, or may be likely to yield, information important in prehistory or history."

³ A cultural landscape meets the criteria of PRC Section 21074(a) if it either is "included or determined to be eligible for inclusion in the California Register of Historical Resources" or is "included in a local register of historical resources" pursuant to Section 5020.1(k).

⁴ PRC Section 21084.1 defines an "historical resource" as "a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources."

⁵ PRC Section 21083.2(g) defines "unique archaeological resource" as "an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information. (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type. (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person."

defined in CEQA Section 21083.2⁶ may also be a tribal cultural resource if it meets the criteria of CEQA Section 21074(a).

AB 52 requires lead agencies to analyze project impacts on "tribal cultural resources" separately from archaeological resources (PRC Sections 21074, 21083.09), in recognition that archaeological resources have cultural values beyond their ability to yield data important to prehistory or history. AB 52 also defines "tribal cultural resources" in PRC Section 21074 (see above), and requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, 21082.3).

Assembly Bill 168 – Tribal Consultation under Streamlined Ministerial Approval Process (SB 35)

Assembly Bill 168 (AB 168), enacted in September 2020, amended the Government Code Sections 65400, 65913.4, and 65941.1, to add tribal consultation requirements to housing projects which would otherwise qualify for a streamlined ministerial approval process which was mandated by Senate Bill 35 (SB 35) in 2017. SB 35 requires cities who are not meeting their demand for housing (as per the Regional Housing Needs Assessments) to allow developers to avoid the requirement of a CEQA document if the proposed housing meeting specific requirements, such as the number of units, zoning, affordability, and avoidance of specific environmental impacts. AB 168 added a requirement to SB 35 prescribes that developers must submit a preliminary application with information about the project and the local government must conduct tribal consultation with tribes, similar to what is required by CEQA and AB 52, to identify if there are tribal cultural resources that may be impacted by the project. If impacts to tribal cultural resources are identified, the project is ineligible for SB 35 streamlining and is subject to CEQA.

Senate Bill 18

Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places.

Native American Heritage Commission

The Native American Heritage Commission (NAHC) identifies and manages a catalog of places of special religious or social significance to Native Americans. This database, known as the Sacred Lands File, is a compilation of information on known graves and cemeteries of Native Americans on private lands and other places of cultural or religious significance to the Native American community. The NAHC also performs other duties regarding the preservation and accessibility of sacred sites and burials and the disposition of Native American human remains and burial items.

⁶ PRC Section 21083.2(h) defines "nonunique archaeological resource" as "an archaeological artifact, object, or site which does not meet the criteria in subdivision (g)."

PRC Sections 5097.9 through 5097.991 describe the duties and role of the NAHC and requires the cooperation of State and local agencies in carrying out their duties with respect to Native American resources.

California PRC and California Health and Safety Code Provisions Regarding Human Remains

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterring, disturbing, or removing of human remains from any location other than a dedicated cemetery. PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) also identify steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. Health and Safety Code Section 7052 states that the disturbance of Native American, or any other, human remains is a felony, unless the disturbance has been lawfully authorized.

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Community Character and Recreation and Open Space elements of the Napa County General Plan includes the following policies related to cultural resources and tribal cultural resources (Napa County, 2008).

Goal CC-4: Identify and preserve Napa County's irreplaceable cultural and historic resources for present and future generations to appreciate and enjoy.

Goal CC-5: Encourage the use of historic buildings by providing incentives for their rehabilitation and reuse.

Policy CC-17: Significant cultural resources are sites that are listed in or eligible for listing in either the National Register of Historic Places or the California Register of Historical Resources due to their potential to yield new information regarding prehistoric or historic people and events or due to their intrinsic or traditional cultural value.

Policy CC-18: Significant historical resources are buildings, structures, districts, and cultural landscapes that are designated Napa County Landmarks or listed in or eligible for listing in either the National Register of Historic Places or the California Register of Historical Resources. Owner consent is a prerequisite for designation as a County Landmark

Policy CC-19: The County supports the identification and preservation of resources from the County's historic and prehistoric periods.

Action Item CC-19.1: In partnership with interested historic preservation organizations, seek funding to undertake a comprehensive inventory of the County's significant cultural and historic resources using the highest standard of professional practices.

Action Item CC-19.2: Consider amendments to the County zoning and building codes to improve the procedures and standards for property owner-initiated designation of County Landmarks, to provide for the preservation and appropriate rehabilitation of significant resources, and to incorporate incentives for historic preservation.

Policy CC-20: The County shall support and strengthen public awareness of cultural and historic preservation through education, public outreach, and partnerships with public and private groups involved in historic preservation. Example programs include:

- Providing information to the public on historic preservation efforts and financial incentive programs.
- Creating a historic preservation page on the County's Web site with links to federal and state historic preservation programs and financial incentive programs.
- Distributing pamphlets that outline and discus historic preservation programs available to property owners.
- Keeping handouts and applications on federal and state incentive programs at the Planning and Building public counters.
- Partnering with local non-profits to place plaques or other identification at designated historic buildings and sites.
- Coordinating with open space/land conservation organizations to preserve historic buildings and sites on land set aside for conservation, whether for public or private use.

Policy CC-21: Rock walls constructed prior to 1920 are important reminders of the County's agricultural past. Those walls which follow property lines or designated scenic roadways shall be retained to the extent feasible and modified only to permit required repairs and allow for openings necessary to provide for access.

Policy CC-22: The County supports efforts to recognize and perpetuate historic vineyard uses and should consider ways to provide formal recognition of "heritage" landscapes, trees, and other landscape features with owner consent.

Policy CC-23: The County supports continued research into and documentation of the county's history and prehistory, and shall protect significant cultural resources from inadvertent damage during grading, excavation, and construction activities.

Action Item CC-23.1: In areas identified in the Baseline Data Report as having a significant potential for containing significant archaeological resources, require completion of an archival study and, if warranted by the archival study, a detailed onsite survey or other work as part of the environmental review process for discretionary projects.

Action Item CC-23.2: Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources:

- "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or paleontologic artifact is uncovered during construction. All construction must stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action."
- "All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California's Health and
Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed."

Policy CC-24: Promote the County's historic and cultural resources as a means to enhance the County's identity as the nation's premier wine country and a top tourist destination, recognizing that "heritage tourism" allows tourists to have an authentic experience and makes good business sense.

Policy CC-25: Promote the use of recreational trails following historic alignments such as the Oat Hill Mine Road, and make every effort to include historical information at all trail heads and in trail maps and brochures. Also provide historical information about roads that follow historic trails where feasible, such as Silverado Trail, Old Sonoma Road, Glass Mountain Road, and others. Provide access for the elderly and disabled to interpretive information, trail segments, and trail heads as required by law.

Policy CC-26: Projects which follow the Secretary of the Interior's Standards for Preservation Projects shall be considered to have mitigated their impact on the historic resource.

Policy CC-26.5: When discretionary projects involve potential historic architectural resources, the County shall require an evaluation of the eligibility of the potential resources for inclusion in the National Register and the California Register by a qualified architectural historia. When historic architectural resources that are either listed in or determined eligible for inclusion in the National Register or the California Register are proposed for demolition or modification, the County shall require an evaluation of the proposal by a qualified preservation architect to determine whether it complies with the Secretary of the Interior's Standards for Preservation Projects. In the event that the proposal is determined not to comply with the Secretary of the Interior's Standards, the preservation architect shall recommend modifications to the project design for consideration by the County and for consideration and possible implementation by the project proponent. These recommendations may include modification of the design, reuse of the structure, or avoidance of the structure.

Policy CC-27: Offer incentives for the appropriate rehabilitation and reuse of historic buildings and disseminate information regarding incentives available at the state and federal level. Such incentives shall include but are not limited to the following:

- a. Apply the State Historical Building Code when building modifications are proposed.
- b. Reduce County building permit fees when qualified preservation professionals are retained by applicants to verify conformance with the SHBC and the Secretary of the Interior's Standards.
- c. Use of the federal historic preservation tax credit for qualified rehabilitation projects.
- d. Income tax deductions for qualified donations of historic preservation easements.

Policy CC-28: As an additional incentive for historic preservation, owners of existing buildings within agricultural areas of the County that are either designated as Napa County Landmarks or listed in the California Register of Historic Resources or the National Register of Historic Places may apply for permission to reuse these buildings for their historic use or a compatible new use regardless of the land uses that would otherwise be permitted in the area so long as the use is compatible with agriculture,

provided that the historic building is rehabilitated and maintained in conformance with the U.S. Secretary of the Interior's Standards for Preservation Projects.

This policy recognizes that, due to the small number of existing historic buildings in the County and the requirement that their historic reuse be compatible with agriculture, such limited development will not be detrimental to the Agriculture, Watershed or Open Space policies of the General Plan. Therefore such development is consistent with all of the goals and policies of the General Plan.

Action Item CC-28.1: Amend the Zoning Ordinance to provide a discretionary process such as a use permit by which property owners may seek approval consistent with PolicyCC-28, for an additional incentive for historic preservation. The process shall preclude reuse of buildings which have lost their historic integrity and prohibit new uses that are incompatible with the historic building or that require inappropriate new construction.

Policy CC-29: Significant historic resources that are damaged by flood, fire, neglect, earthquake, or other natural disaster should be carefully evaluated by a structural engineer with preservation experience before they are determined to be beyond repair and destroyed.

Policy CC-30: Because the County encourages preservation of historic buildings and structures in place and those buildings and structure must retain "integrity" to be considered historically significant, the County shall discourage scavenging of materials from pre-1920 walls and other structures unless they are beyond repair.

Goal ROS-1: To ensure an extensive landscape of open spaces in which recreation, the protection of natural, cultural, and archaeological resources, agricultural production, and private property are mutually supportive and complementary.

Goal ROS-3: To make recreation, cultural, interpretive, and environmental education opportunities available to all county residents.

Policy ROS-28: Opportunities for the public to visit, learn about, and enjoy significant and representative historical, archaeological, and cultural resources should be provided. The County shall coordinate with and support the Napa County Regional Park and Open Space District in making recreational, cultural, interpretive, and environmental education opportunities available to all County residents.

Policy ROS-31: A clear, attractive, and comprehensive roadside signage system, together with other forms of public information, should be designed, installed, and distributed to facilitate the public's use of enjoyment of parks and historical, archaeological, and cultural resources.

4.5.4 Significance Criteria

The thresholds used to determine the significance of impacts related to cultural resources and tribal cultural resources are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

• Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of dedicated cemeteries.
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Approach to Analysis

This is a program-level EIR that considers the potential impacts from implementing the HEU. While the HEU would be applicable Countywide, special focus was given to those areas where multifamily housing development is planned. Impacts on cultural resources and tribal cultural resources are evaluated using the criteria listed above and based on information included in the *Napa County General Plan* (2008). Impacts to architectural historic resources were also informed by a reconnaissance survey of the multi-family Housing Inventory Sites conducted in April and August of 2022 under the supervision of a qualified architectural historian.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to cultural resources or tribal cultural resources and it is not discussed further in this section.

4.5.5 Impacts of the Project

Impact CUL-1: Implementation of the HEU could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. (*Significant and Unavoidable with Mitigation*)

The primary purpose of the HEU is to comply with the requirements of State law by updating goals, policies, objectives, and implementation programs for the preservation, improvement, and development of housing, and providing a list of viable development sites to meet the County's RHNA requirement plus a buffer. The County has identified the Housing Inventory Sites discussed above as potential locations for new housing. As described above in the *Environmental*

Setting, archival research identified known and potential architectural historic resources throughout the unincorporated County are present on the Housing Inventory Sites. Potentially eligible historic resources are those that are historic-age but have not yet been evaluated.

Archival research and a reconnaissance survey revealed the following known or potential historic resources within the boundaries of the Housing Inventory Sites.

Name of Resource	Housing Inventory Site Name	Location	Area	Date of Construction	Historic Status/ Notes
	Spanish Flat	4322 Berryessa Knoxville Road (APN 019-261-041)	Spanish Flat	unknown	Survey notes – vacant site, buildings at 4310 and 4338 Berryessa Knoxville Road
	Bishop	1806 Monticello Road (APN 039-320-005)	Northeast Napa	1941	Survey notes – not visible from right-of-way
Distillery	Altamura	1011 Atlas Peak Road/Monticello Road (APN 039-320-016)	Northeast Napa	Pre-1948	Status unknown/ recorded in 2004 by Tom Origer & Associates. Survey notes – building present.
	Foster Road	2005 Golden Gate Drive (APN 043-102-016) and 1298 Foster Road (043- 062-008)	Foster Road	1920	Survey notes – buildings and structures visible from the right-of-way that could be historic-age
	Imola Avenue	2121 Imola Avenue (APN 046-450-041)	Imola Avenue	Post-1968	Survey notes – appear to be a contemporary building (not historic-age)

 TABLE 4.5-2

 POTENTIAL HISTORIC RESOURCES IDENTIFIED ON HOUSING INVENTORY SITES

SOURCE: Parcelquest, 2022; NWIC Records Search, 2022; ESA Survey, 2022.

There are no previously identified or listed historic resources in the Spanish Flat or Imola Avenue Housing Inventory Sites. One previously identified site, the Distillery, is located at the Altamura housing site. According to archival research conducted by ESA there are five additional sites that have historic-age buildings and structures in the Spanish Flat, Northeast Napa, Foster Road, and on or near Imola Avenue Housing Inventory Sites that have not been previously evaluated. A reconnaissance survey was conducted from the right-of-way by ESA, which determined that two of the five sites were vacant or occupied by contemporary building(s) (not historic-age). None of the four sites with historic-age buildings have been evaluated; therefore, the remaining three are considered potential historic resources.

Modification or demolition of buildings associated with physical development that could occur under the HEU could result in damage to or destruction of architectural historic resources, which would constitute a significant impact.

As detailed in the *Regulatory Setting* above, there are a number of federal, state, and local regulations in place to protect architectural historic resources. CEQA requires lead agencies to determine, prior to approval, if a project would have a significant adverse effect on historical resources and requires the lead agency to prescribe any feasible mitigation measures that would reduce significant impacts.

In addition, the General Plan includes policies and implementation programs designed to identify and protect architectural historic resources. For example, General Plan Policy CC-26.5 requires that when discretionary projects involve potential historic architectural resources an evaluation of the eligibility of the potential resources for inclusion in the National Register and the California Register be completed by a qualified architectural historian. Listed or eligible resources require an evaluation of the proposal by a qualified preservation architect to determine compliance with the Secretary of the Interior's Standards (SOIS). If the project does not comply with the Secretary of the Interior's Standards, modifications to the project design are developed for consideration.

While the aforementioned regulations and policies to protect architectural historic resources are aimed at protecting resources by requiring projects to identify and mitigate impacts to potential architectural historic resources, there remains the potential for construction activities to damage or destroy architectural historic resources.

Housing Inventory Sites

Housing Inventory Sites have been specifically identified as the target for future housing development. While some of these properties are vacant, devoid of any buildings or structures, there may be currently unknown architectural historic resources within the Atlas Peak/Monticello Road and Foster Road Housing Inventory Sites as there are historic-age buildings that have not been evaluated. While the aforementioned regulations and policies to protect architectural historic resources are aimed at protecting resources by requiring projects to identify and mitigate impacts to potential architectural historic resources. For this reason, this impact is considered **potentially significant**.

Mitigation Measure CUL-1: Document Architectural Historic Resources Prior to Demolition or Alteration.

Prior to any demolition work or significant alterations initiated of a known historical resource or a resource identified, the County shall ensure that a qualified architectural historian who meets the Secretary of the Interior's Professional Qualification Standards thoroughly documents each building and associated landscaping and setting. Documentation shall include still photography and a written documentary record of the building to the National Park Service's standards of the Historic American Buildings Survey (HABS) or the Historic American Engineering Record (HAER), including accurate scaled mapping and architectural descriptions. If available, scaled architectural plans will also be included. Photos include large-format (4"x5") black-and-white negatives and 8"x10" enlargements. Digital photography may be substituted for large-format negative photography if archived locally. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site-specific and comparative archival research and oral history collection as appropriate. Copies of the records shall be submitted to the Northwest Information Center at Sonoma State University.

Significance after Mitigation: Significant and Unavoidable.

Implementation of Mitigation Measures CUL-1 would document historical resources prior to any construction, but would not prevent significant alterations or demolition that

would result a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. Therefore, while the impact would be reduced, the impact would remain **significant and unavoidable**.

Impact CUL-2: Implementation of the HEU may cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. (*Less than Significant with Mitigation*)

As described above in the *Environmental Setting*, a records search identified previously recorded pre-contact Native American archaeological resources in the multifamily housing sites and identified all of these areas as having a high sensitivity for cultural resources. Given the long history of pre-contact and historic-era human occupation, the County is considered sensitive for the presence of subsurface pre-contact, Native American, and historic-era archaeological resources.

Archaeological resources have the potential to contain intact deposits of artifacts, associated features, and burials that could contribute to the regional pre-contact or historic record and be of substantial importance to members of the local and regional community. Ground disturbance associated with physical development that could occur under the HEU could result in damage to or destruction of these resources, which would constitute a significant impact.

As detailed in the *Regulatory Setting* above, there are federal, state, and local regulations in place to protect archaeological resources and human remains. CEQA requires lead agencies to determine, prior to approval, if a project would have a significant adverse effect on historical or unique archaeological resources and requires the lead agency to make provisions for handling the inadvertent discovery of historical or unique archaeological resources during construction.

As described previously in this section, SB 18 requires local governments to consult with tribes prior to making certain planning decisions and provides California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to cultural places. In accordance with the requirements of SB 18, Napa County staff conducted Native American outreach and consultation efforts. As a part the SB 18 process for the proposed HEU, County staff sent tribal outreach letters to representatives of the three Native American tribes that are on the County's AB 52 list, to consult on the HEU. The County received one response, on March 30, 2022, from Yocha Dehe, who requested to be consulted with regarding the Project (Yocha Dehe, 2022). On May 2, 2022, in response to the NAHC's letter regarding the County's Local Government Tribal Consultation List Request, the County sent tribal outreach letters to five additional Native American tribes identified by the NAHC as having traditional lands or cultural places located within the boundaries of the County. On May 16, 2022, the County received a letter from the Colusa Indian Community Council Cachil Dehe Band of Wintun Indians, thanking the County for the consultation notification, informing the County they did not have the capacity to respond at this time, and deferring all correspondence to the Yocha Dehe Wintun Nation. No other responses were received within 90 days of receipt of the initial consultation letters, and no responses have been received as of August 23, 2022, the filing date of the DEIR.

The County held an initial consultation meeting with Yocha Dehe on May 2, 2022. In attendance was Trevor Hawkes from Napa County, Laverne Bill from Yocha Dehe, and Heidi Koenig and Robin Hoffman from ESA. During this meeting Yocha Dehe requested revisions to the drafted mitigation to provide for earlier tribal review of the preliminary cultural resources inventory document as part of the cultural resources review process as required by **Mitigation Measure CUL-2**. The Mitigation Measures were revised as requested and these revised measures were sent to Yocha Dehe on June 15, 2022 for review. No further changes were requested as of August 23, 2022.

In addition, the proposed HEU and associated General Plan includes policies and implementation programs designed to identify and protect archaeological resources that could be adversely affected by development activities. For example, Action Item CC-23.3 requires that an archival study be conducted for discretionary projects located in areas identified by the Baseline Data Report as having a potential to contain significant archaeological resources (Jones & Stokes, 2005). In addition, Action Item CC-23.2 requires that if archaeological material is identified during project construction, work must halt, the Planning Department shall be notified, and an archaeological investigation must be undertaken by a qualified archaeologist to evaluate the find and recommend treatment.

While the aforementioned regulations and policies proposed under the HEU to protect archaeological resources are substantially protective and require projects to identify and mitigate impacts to potential archaeological resources prior to ground disturbance for areas previously identified as sensitive, there remains the potential for ground-disturbing construction activities to inadvertently damage or destroy archaeological resources. For example, these policies and programs do not establish a project review process for cultural resources, do not include a policy to train construction personnel on what to do if cultural resources are identified during construction, and do not address tribal involvement during the inadvertent discovery of precontact Native American resources during project construction.

Mitigation Measure CUL-2. Cultural Resources Review Requirements.

For all discretionary and ministerial projects that require ground disturbance (i.e. excavation, trenching, grading, etc.) within areas identified in the Baseline Data Report Map 14-3 (Jones & Stokes, 2005) as having a sensitivity of 13 or higher (moderate to high), a records search shall be completed at the Northwest Information Center (NWIC) of the California Historical Resources Information System for the project area. To receive project approval, an archaeologist meeting the U.S. Secretary of the Interior's Standards (SOIS) for Archeology, must review the results and identify if the project would potentially impact cultural resources. If the archaeologist determines that known cultural resources or potential archaeologically sensitive areas may be impacted by the project, a pedestrian survey must be conducted under the supervision of a SOIS-qualified archaeologist of all accessible portions of the project area, if one has not been completed within the previous five years.

In addition, California Native American tribes identified by the Native American Heritage Commission (NAHC) to be affiliated with Napa County for the purposes of tribal consultation under Chapter 905, California Statutes of 2004 (culturally-affiliated Native American tribes) shall be notified of the proposed project and provided the

preliminary findings of the records search and survey results. Following collaboration with the culturally-affiliated Native American tribe(s) and the County, a SOIS-qualified archaeologist shall prepare a cultural resources inventory report to submit to the County and the culturally-affiliated Native American tribe(s) for review. The report shall include the results of the background research and survey, and recommend additional actions, as needed, including subsurface testing, a cultural resources awareness training, and/or monitoring during construction.

If the County determines that a cultural resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4, with a preference for preservation in place. In coordination with a SOIS-qualified archaeologist and the culturally-affiliated Native American tribe(s), preservation in place may include, but is not limited to: (1) planning construction to avoid archaeological sites, (2) deeding archaeological sites with a layer of soil before building on the sites, and (4) planning parks, greenspace, or other open space to incorporate archaeological sites.

If avoidance is not feasible, the County shall consult with the culturally-affiliated Native American tribe(s) (if the resource is Native American-related) to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2 and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Mitigation Measure CUL-3. Inadvertent Discovery of Cultural Resources.

If pre-contact or historic-era cultural resources are encountered during project construction and implementation, all construction activities within 100 feet shall halt and the County shall be notified. Pre-contact cultural materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-era cultural materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. An archaeologist meeting the U.S. Secretary of the Interior's Standards (SOIS) for Archeology shall inspect the find within 24 hours of discovery. Work shall be stopped within 100 feet of the potential cultural resource until the material is either determined by the archaeologist to not be a cultural resource or appropriate treatment has been enacted, in coordination with the culturally-affiliated Native American tribe(s) (if the resource is Native American-related).

If the County determines that a cultural resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4, with a preference for preservation in place. In coordination with the SOIS-qualified archaeologist and the culturally-affiliated Native American tribe(s), preservation in place may include,

but is not limited to: (1) planning construction to avoid archaeological sites, (2) deeding archaeological sites into permanent conservation easements, (3) capping or covering archaeological sites with a layer of soil before building on the sites, and (4) planning parks, greenspace, or other open space to incorporate archaeological sites.

If avoidance is not feasible, the County shall consult with the culturally-affiliated Native American tribes (if the resource is Native American-related) to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2 and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

Significance after Mitigation: Less than Significant.

Implementation of Mitigation Measures CUL-2 and CUL-3 would reduce the potential impact to a *less-than-significant* level because all projects with ground-disturbance in areas designated as having a moderate to high cultural resources sensitivity would be reviewed by an SOIS-qualified archaeologist, in collaboration with culturally-affiliated Native American tribes, and any potential cultural resources identified, that may also be considered tribal cultural resources, would be evaluated and treated appropriately. While the County does not have regulatory authority over the Imola Avenue site and cannot require that the above mitigation be implemented on that site, the site is under State jurisdiction and the State, like the County, is subject to requirements of AB 52 and SB 18. Thus, the State agency overseeing development of the Imola Avenue site would be required to consult with tribes and undertake measures similar to those specified here, resulting in a less than significant impact.

Impact CUL-3: Implementation of the HEU may disturb any human remains, including those interred outside of dedicated cemeteries. *(Less than Significant)*

As described above, Napa County is sensitive for pre-contact Native American cultural resources, some of which may include human remains. In the event that human remains are discovered, including those interred outside of formal cemeteries, the human remains could be inadvertently damaged, which would be a significant impact. Implementation of Action Item CC-23.2 would require that construction be stopped in the event of the identification of human remains, and the County Coroner be notified as per Section 7050.5 of the Health and Safety Code. If the human remains are determined by the Coroner to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed.

Implementation of this Action Item would ensure that any human remains encountered are appropriately addressed, thus reducing any potential impacts to a **less-than-significant level**.

Mitigation: None required.

Impact TCR-1: Implementation of the HEU may cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074. (*Less than Significant with Mitigation*)

The results of the records search found that unincorporated Napa County contains 1,000 known pre-contact archaeological resources and there is the potential for previously unknown pre-contact archaeological resources to be present in unincorporated Napa County.

As detailed in the *Regulatory Setting* above, there are federal, state, and local regulations in place to protect tribal cultural resources, including archaeological resources and human remains. CEQA requires lead agencies to determine, prior to approval, if a project would have a significant adverse effect on historical resources, tribal cultural resources, or unique archaeological resources and requires the lead agency to make provisions for the inadvertent discovery of historical or unique archaeological resources.

As described previously in this section, SB 18 requires local governments to consult with tribes prior to making certain planning decisions and provides California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to cultural places. In accordance with the requirements of SB 18 and AB 52 Napa County staff conducted Native American outreach and consultation efforts. County staff sent tribal outreach letters to the three Native American tribes are listed on the County's AB 52 consultation list. One tribe, Yocha Dehe responded and requested to be consulted with regarding the project. On May 2, 2022, in response to the NAHC's letter regarding the County's Local Government Tribal Consultation List Request, the County sent tribal outreach letters to five additional Native American tribes identified by the NAHC as having traditional lands or cultural places located within the boundaries of the County. On May 16, 2022, the County received a letter from the Colusa Indian Community Council Cachil Dehe Band of Wintun Indians, thanking the County for the consultation notification, informing the County they did not have the capacity to respond at this time, and deferring all correspondence to the Yocha Dehe Wintun Nation. No additional responses were received within 90 days of receipt of the initial consultation letters, and no responses have been received as of August 23, 2022.

The County held an initial consultation meeting with Yocha Dehe on May 2, 2022. In attendance was Trevor Hawkes from Napa County, Laverne Bill from Yocha Dehe, and Heidi Koenig and Robin Hoffman from ESA. During this meeting Yocha Dehe requested revisions to the drafted mitigation to provide for earlier tribal review of the preliminary cultural resources inventory document as part of the cultural resources review process as required by **Mitigation Measure CUL-2**. The Mitigation Measures were revised as requested and these revised measures were sent to Yocha Dehe on June 15, 2022 for review. No further changes were requested as of August 23, 2022.

In addition, the proposed HEU and associated General Plan includes policies and implementation programs designed to identify and protect archaeological resources and human remains that could also be tribal cultural resources and could be adversely affected by development activities. For example, Action Item CC-23.2 requires that if archaeological material is identified during project construction, work must halt, the Planning Department shall be notified, and an archaeological

investigation must be undertaken by a qualified archaeologist to evaluate the find and recommend treatment. This action item also states that if human remains are identified, the County Coroner must be notified and the appropriate laws in California's Health and Safety Code as well as in CEQA be followed, if the remains are found to be Native American.

While the aforementioned regulations and policies proposed under the HEU and established through the General Plan protect are protective of archaeological resources, if identified during project construction, they do not provide for Native American participation in the event of precontact Native American archaeological discovery that does not include Native American human remains. Therefore, there remains the potential for ground-disturbing construction activities to inadvertently damage or destroy archaeological resources that may also be tribal cultural resources. Therefore, the impact of the HEU to tribal cultural resources is potentially significant.

Mitigation Measure CUL-2: Cultural Resources Review Requirements. (See Impact CUL-2 above)

Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources. (See Impact CUL-2 above)

Significance After Mitigation: Implementation of Measures CUL-2 and CUL-3 would establish protocol to identify, evaluate, and address any potential impacts to previously unknown tribal cultural resources. With implementation of these mitigation measures, any potential impacts to tribal cultural resources would be reduced to a *less than significant* level. As noted earlier, the County does not have regulatory authority over the Imola Avenue site and cannot require that the above mitigation be implemented on that site. The site is under State jurisdiction and the State, like the County, is subject to requirements of AB 52 and SB 18. Thus, the State agency overseeing development of the site would be required to consult with tribes and undertake measures similar to those specified in Mitigation Measures CUL-2 and CUL-3, resulting in a less than significant impact.

4.5.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts. Significant cumulative impacts related to cultural resources and tribal cultural resources could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects result in significant impacts and if the HEU's contribution is considerable.

The geographic scope for cumulative effects on cultural resources and tribal cultural resources is Napa County.

Impact CUL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, could contribute considerably to cumulative impacts on architectural historic resources pursuant to CEQA Guidelines Section 15064.5. (*Significant and Unavoidable Impact with Mitigation*)

Future development under the HEU as well as other development within Napa County as a whole could potentially impact architectural historic resources that may be present. The cumulative effect of this future development is the continued loss of significant architectural historic resources. Potential future development increases the likelihood that additional architectural historic resources could be lost. It is therefore possible that cumulative development could result in the demolition or destruction of significant architectural historic resources. The loss of these resources would result in a significant impact, and impacts associated with the HEU would be considered cumulatively considerable, resulting in a **significant impact**.

Implementation of Measures CUL-1, which would require documentation of those significant historic resources that would be altered or demolished, would reduce the severity of impacts associated with the HEU, but they would remain significant. As a result, the significant impact would be considered cumulatively considerable and a significant cumulative effect.

Mitigation Measure CUL-1: Document Architectural Historic Resources Prior to Demolition or Alteration. (See Impact CUL-1 above)

Significance After Mitigation: Because demolition or significant alteration of potential historical resources could result in a substantial adverse change in the significance of historical resources, no measures would fully mitigate these actions to a less-than-significant level. Therefore, even with implementation of Measure CUL-1 the impact would be *significant and unavoidable*.

Impact CUL-2.CU: Implementation of the HEU, in combination with other cumulative development, would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5 or could disturb human remains, including those interred outside of formal cemeteries. (*Less than Significant Impact with Mitigation*)

Future development in the County under the HEU could include excavation and grading that could potentially impact archaeological resources and human remains that may be present. The cumulative effect of this future development is the continued loss of cultural remains. Excavations in the Napa County have uncovered evidence of indigenous cultural presence throughout the County. Potential future development increases the likelihood that additional archaeological resources could be uncovered. It is therefore possible that cumulative development could result in the demolition or destruction of unique archaeological resources, which could contribute to the erosion of the pre-contact record of the region. The loss of these resources would result in a potentially significant cumulative impact, and the project's contribution would be cumulatively considerable prior to mitigation.

Though archaeological resources can sometimes be preserved when discovered during excavation, there is no guarantee that these resources can be protected and preserved. The HEU would contribute a negligible **less than significant** impact after the implementation of Measures CUL-2 and CUL-3, which would require a SOIS qualified archaeologist to conduct a review of discretionary projects, or projects near known cultural resources, or within archaeological sensitivity areas, prior to construction, the cessation of activities in the vicinity of finds, and tribal consultation when indigenous resources are inadvertently identified during project construction. As a result, the less-than-significant incremental impact of other projects in the cumulative scenario to cause a significant cumulative effect.

Mitigation Measure CUL-2: Cultural Resources Review Requirements. (See Impact CUL-2 above)

Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources and/or Human Remains. (See Impact CUL-2 above)

Significance After Mitigation: Less than Significant.

Impact TCR-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, could contribute considerably to cumulative impacts on tribal cultural resources. (*Less than Significant with Mitigation*)

The geographic scope for cumulative impacts to tribal cultural resources comprises the entire Napa County. This geographic scope of analysis is appropriate because the archaeological and tribal cultural resources within this radius are expected to be similar to those that occur on the HEU multifamily housing sites because their proximity, similar environments, landforms, and hydrology are expected to have resulted in similar land-uses over time. Based on the tribal consultation, the professional experience of the Draft EIR preparers, research, and the pre-contact context, the area within this area of analysis may contain tribal cultural resources that have not been documented or recorded. Therefore, this analysis conservatively assumes that the land within this area contains tribal cultural resources that are not yet known.

In this context, the incremental impacts of the HEU could combine with similar incremental impacts of other projects in the cumulative scenario to cause or contribute to a significant cumulative impact.

However, the HEU would contribute a negligible **less-than-significant** incremental impact after the implementation of Measures CUL-2 and CUL-3, which would require an SOIS qualified archaeologist conduct a review of the project prior to construction, the cessation of activities and buffering of finds, and tribal consultation when indigenous resources are unexpectedly discovered during project construction. As a result, the project's incremental impact would not be cumulatively considerable and would not result in a significant cumulative effect.

Mitigation Measure CUL-2: Cultural Resources Review Requirements. (See Impact CUL-2 above)

Mitigation Measure CUL-3: Inadvertent Discovery of Cultural Resources and/or Human Remains. (See Impact CUL-2 above)

Significance After Mitigation: Less than Significant.

4.5.7 References

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4.6 Energy

4.6.1 Introduction

This section assesses the potential for the HEU to result in significant adverse impacts on energy use and conservation. The Environmental Setting portion of this section summarizes the types of energy used and provides most recent consumption data available. Existing plans and policies relevant to energy at the federal, state and local levels applicable to the implementation of the HEU are provided in the Regulatory Setting section. Finally, the impact discussion evaluates potential impacts to energy that could result from implementation of the HEU in the context of existing conditions.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. No comments relating to energy were received during the NOP comment period.

The information in this section has been prepared in accordance with Public Resources Code (PRC) Section 21100(b)(3), CEQA Guidelines Section 15126.2(b), and CEQA Guidelines Appendix F. CEQA Guidelines Section 15126.2(b) and Appendix F provide that an EIR should evaluate potential impacts of a proposed project as a result of the demand for energy during the project's construction and operational phases and encourage measures to avoid or reduce inefficient, wasteful, or unnecessary consumption of energy.

4.6.2 Environmental Setting

State Energy Profile

In 2019, total energy usage in California was 7,802 trillion British thermal units (Btu) (the most recent year for which these specific data are available), which equates to an average of 198 million Btu per capita per year. These figures place California second among the 50 states in total energy use and 50th in per-capita consumption. Of California's total energy usage, the breakdown by sector is roughly 39.4 percent transportation, 23.1 percent industrial, 18.8 percent commercial, and 18.7 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleumbased fuel consumption is generally accounted for by transportation-related energy use (United States Energy Information Administration [USEIA], 2022).

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, coal, and nuclear gas generation resources. Approximately 70 percent of the electrical power needed to meet California's demand is produced in the state; the balance, approximately 30 percent, is imported from the Pacific Northwest and the Southwest. In 2020, California's in-state electricity use was derived from natural gas (48 percent); coal (< 1 percent); large hydroelectric resources (9 percent); nuclear sources (9 percent); renewable resources that include geothermal, biomass, small hydroelectric resources, wind, and solar (33 percent) (CEC, 2022a).

Regional Setting

Electricity

Electricity, as a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of resources—including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources—into useable energy. The delivery of electricity involves several system components for distribution and use. Electricity is distributed through a network of transmission and distribution lines commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours. For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on would be 100 watt-hours. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 watt-hours or 1 kilowatt-hour. On a utility scale, the capacity of a generator is typically rated in megawatts (MW), which is 1 million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours, which is one billion watt-hours.

Pacific Gas and Electric Company (PG&E) provides electrical and natural gas services to approximately 16 million people throughout its 70,000-square-mile service area in northern and central California, from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east (PG&E, 2022a). PG&E produces and purchases energy from a mix of conventional and renewable generating sources. Approximately 31 percent of PG&E's 2020 electricity purchases were from renewable sources (PG&E, 2022b). Refer to **Table 4.6-1** for a summary of electricity use in the state and PG&E service area.

Source	Amount			
Electricity (State/PG&E) ^a	279,510 GWh / 78,519 GWh			
Natural Gas (State/PG&E) ^a	1,232,858,394 MMBtu / 450,746,500 MMBtu			
Gasoline (Statewide/Napa County) ^b	12,572 million gallons / 44 million gallons			
Diesel (Statewide/ Napa County) ^b	4,254 million gallons / 12 million gallons			
NOTES: MMBtu = million British thermal units; MWh = megawatt- SOURCES: ^a CEC, 2022b; ^b CEC, 2020a	hours; PG&E = Pacific Gas and Electric Company.			

TABLE 4.6-1 EXISTING ANNUAL STATE AND REGIONAL ENERGY USE

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of California's total energy requirements and is measured in terms of both cubic feet and Btu.

PG&E provides natural gas transportation services to "core" customers and to "non-core" customers (industrial, large commercial, and natural gas–fired electric generation facilities) that

are connected to its gas system in its service territory. Core customers can purchase natural gas procurement service (natural gas supply) from either PG&E or non-utility third-party gas procurement service providers (referred to as "core transport agents"). When core customers purchase gas supply from a core transport agent, PG&E still provides gas delivery, metering, and billing services to those customers. When PG&E provides both transportation and procurement services, PG&E refers to the combined service as "bundled" natural gas service.

PG&E does not provide procurement service to non-core customers, who must purchase their gas supplies from third-party suppliers. PG&E offers backbone gas transmission, gas delivery (local transmission and distribution), and gas storage services as separate and distinct services to its non-core customers. Access to PG&E's backbone gas transmission system is available for all natural gas marketers and shippers, as well as non-core customers. PG&E also delivers gas to off-system customers (i.e., outside of PG&E's service territory) and to third-party natural gas storage customers. 2020 natural gas usage for the state and the PG&E service region are also shown in Table 4.6-1.

Transportation Energy

In 2021, 11.5 billion gallons of gasoline and 2.6 billion gallons of diesel fuel were consumed in California (CDTFA, 2022a, 2022b). Petroleum-based fuels currently account for more than 85 percent of ground transportation fuel use in California (USEIA, 2021).

The State is now working on developing flexible strategies to reduce petroleum used. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, total gasoline consumption in California has declined According to fuel sales data from the California Energy Commission (CEC), fuel consumption in Napa County was approximately 44 million gallons of gasoline and 12 million gallons of diesel fuel in 2020 (CEC, 2020a). Refer to Table 4.6-1 for a summary of statewide fossil fuel consumption in 2020.

Local Setting

PG&E provides natural gas service to Napa County, while electricity is provided by both PG&E and Marin Clean Energy (MCE). MCE was launched in 2010 as a not-for-profit public agency and provides clean renewable energy at stable rates, significantly reducing energy-related GHG emissions and reinvesting millions of dollars in local energy programs. MCE provides electricity service and energy programs to more than one million residents and businesses in 37 member communities across four Bay Area counties: Contra Costa, Marin, Napa, and Solano.

Residents and businesses in Napa County have the option to choose between PG&E or Marin Clean Energy (MCE) as a provider to supply their power. By default, consumers are enrolled in MCE's "light green" power supply, which is made up of 60-percent renewable power. MCE customers can also choose to opt-up to MCE's "deep green" 100 percent renewable option or MCE's "local sol" 100 percent local solar option (MCE, 2022). Consumers can also opt to keep PG&E as their energy provider, whose energy clicks in at about 31 percent renewables currently.

4.6.3 Regulatory Setting

Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act (NECPA) serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, NECPA has been regularly updated and amended by subsequent laws and regulations. This law is the foundation of most federal energy requirements. NECPA established energy-efficiency standards for consumer products and includes a residential program for low-income weatherization assistance, grants, and loan guarantees for energy conservation in schools and hospitals, and energy-efficiency standards for new construction. New and continuing initiatives in these areas are ongoing.

Energy Policy Act of 1992

The Energy Policy Act of 1992 was enacted to reduce U.S. dependence on foreign petroleum and improve air quality. This law includes several provisions intended to build an inventory of alternative-fueled vehicles in large, centrally-fueled fleets in metropolitan areas. The Energy Policy Act of 1992 requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty alternative fuel vehicles capable of running on alternative fuels each year. Financial incentives are also included. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of alternative fuel vehicles. The Energy Policy Act of 1992 also requires states to consider a variety of incentive programs to help promote alternative-fuel vehicles.

Energy Policy Act of 2005

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Executive Order 13423 (Strengthening Federal Environmental, Energy, and Transportation Management), signed in 2007, strengthens the key energy management goals for the federal government and sets more challenging goals than the Energy Policy Act of 2005. The energy reduction and environmental performance requirements of Executive Order 13423 were expanded upon in Executive Order 13514 (Federal Leadership in Environmental, Energy, and Economic Performance), which was signed in 2009.

Influence of the U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency on Transportation Energy

At the federal level, the U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency (EPA) have substantial influence over energy policies related to fuel consumption in transportation. Generally, federal agencies influence transportation energy consumption by establishing and enforcing fuel economy standards for automobiles and

light trucks, and by funding projects for energy-related research and development for transportation infrastructure.

Corporate Average Fuel Economy Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model years 2017 through 2025 for passenger cars and light-duty trucks. According to U.S. EPA, a model year 2025 vehicle would emit half the GHG emissions of a model year 2010 vehicle (USEPA, 2012). Notably, the State of California harmonized its vehicle efficiency standards through 2025 with the federal standards at this time (see *Advanced Clean Cars Program* below).

In August 2018, U.S. EPA and the NHTSA proposed maintaining the 2020 corporate average fuel economy (CAFE) and CO₂ standards for model years 2021 through 2026. The estimated CAFE and CO₂ standards for model year 2020 are 43.7 miles per gallon (mpg) and 204 grams of CO₂ per mile for passenger cars and 31.3 mpg and 284 grams of CO₂ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In September 2019, U.S. EPA finalized the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program and announced its decision to withdraw the Clean Air Act preemption waiver granted to the State of California in 2013 (USEPA & NHTSA, 2019). However, on March 9, 2022, U.S. EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and zero emission vehicle (ZEV) sales mandate (USEPA, 2022).

State

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is a state agency created by a constitutional amendment to regulate privately owned utilities providing telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation services, and in-state moving companies. The CPUC is responsible for assuring that California utility customers have safe, reliable utility services at reasonable rates, while protecting utility customers from fraud. The CPUC regulates the planning and approval for the physical construction of electric generation, transmission, and distribution facilities, and the local distribution pipelines for natural gas.

California Energy Commission

The CEC is the primary energy policy and planning agency in California. Created by the California Legislature in 1974, the CEC has five major responsibilities: (1) forecast future energy needs and keep historical energy data; (2) license thermal power plants 50 MW or larger; (3) promote energy efficiency through appliance and building standards; (4) develop energy technologies and support renewable energy; and (5) plan for and direct the state response to energy emergencies.

Senate Bill 1389

Senate Bill (SB) 1389 (PRC Sections 25300–25323) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the electricity, natural gas, and transportation fuel sectors in California, and to provide policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state economy; and protect public health and safety (PRC Section 25301(a)).

The 2019 Integrated Energy Policy Report provides the results of CEC assessments on a variety of energy issues facing California:

- Energy efficiency;
- Strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan;
- Building energy efficiency standards;
- The impact of drought on California's energy system;
- Achieving 50 percent renewables by 2030;
- The California Energy Demand Forecast;
- The Natural Gas Outlook;
- The Transportation Energy Demand Forecast;
- Alternative and Renewable Fuel and Vehicle Technology Program benefits updates;
- An update on electricity infrastructure in Southern California;
- An update on trends in California sources of crude oil;
- An update on California nuclear plants; and
- Other energy issues.

California Global Warming Solutions Act of 2006

In 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (codified in the California Health and Safety Code, Division 25.5), which focused on reducing GHG emissions in California to 1990 levels by 2020. Under Health and Safety Code Division 25.5, the California Air Resources Board (CARB) has the primary responsibility for reducing GHG emissions in California; however, AB 32 also tasked the CEC and CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, Governor Jerry Brown signed SB 32 and its companion bill, AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5 and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions to ensure that the benefits of state climate policies reach into disadvantaged communities. Refer to Section 4.8, *Greenhouse Gas Emissions*, for additional details regarding these statutes.

Senate Bills 1078, 107, and 100, and Executive Order S-14-08

The State of California adopted standards to increase the percentage of electricity that retail sellers, including investor-owned utilities and community choice aggregators, must provide from renewable resources. The standards are referred to as the Renewables Portfolio Standard (RPS). The reduces use of non-renewable energy sources, thereby reducing GHG emissions and other negative impacts that are associated with use of non-renewable, finite energy sources. The legislation requires utilities to increase the percentage of electricity obtained from renewable sources to 33 percent by 2020 and 50 percent by 2030.

On September 10, 2018, Governor Brown signed SB 100, which further increased the California RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030. SB 100 also specifies that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

CPUC and the CEC jointly implement the RPS program. The responsibilities of the CPUC are to: (1) determine annual procurement targets and enforce compliance; (2) review and approve the renewable energy procurement plan of each investor-owned utility; (3) review contracts for RPS-eligible energy; and (4) establish the standard terms and conditions used in contracts for eligible renewable energy (CPUC, 2022).

Assembly Bill 117 and Senate Bill 790

In 2002, the State of California passed AB 117, enabling public agencies and joint power authorities to form a Community Choice Aggregation (CCA). SB 790 strengthened it by creating a "code of conduct" that the incumbent utilities must adhere to in their activities relative to CCAs. CCAs allow a city, county, or group of cities and counties to pool electricity demand and purchase/generate power on behalf of customers within their jurisdictions in order to provide local choice. CCAs work with PG&E to deliver power to its service area. The CCA is responsible for the electric generation (procure or develop power) while PG&E is responsible for electric delivery, power line maintenance, and monthly billing.

California Building Standards Code (Title 24, Parts 6 and 11)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR] Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020. These standards include requirements for solar photovoltaic systems in all new homes, requirements for newly constructed healthcare facilities that were previously not included, the encouragement of demand response and light-emitting diode (LED) technology for both residential and nonresidential buildings, and the use of more efficient air filters to trap hazardous particulates (CEC, 2020b).

The current (2019) version of the California Green Building Standards Code (CCR Title 24, Part 11) is commonly referred to as the CALGreen Code. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality (California Buildings Standards Commission, 2019). The 2019 Energy Code includes provisions for smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The 2019 Energy Code aims to reduce energy use in new homes by requiring that all new homes include individual or community solar photovoltaic systems or community shared battery storage systems that achieve equivalent time-dependent value energy use reduction.

On August 11, 2021, the CEC adopted the 2022 Energy Code. In December, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for or after January 1, 2023, must comply with the 2022 Energy Code.

Assembly Bill 1493

In 2019, the transportation sector accounted for approximately 40 percent of carbon dioxide equivalent (CO₂e) emissions in California (CARB, 2021a). AB 1493 (commonly referred to as the Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emissions standards for new passenger vehicles, light-duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017–2025 (CARB, 2013; USEPA, 2012). Refer to Section 4.8, *Greenhouse Gas Emissions*, for additional details regarding this regulation.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to diesel particulate matter emissions (13 CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

Airborne Toxic Control Measure for Stationary Compression Ignition Engines

In 2004, CARB adopted an Airborne Toxic Control Measure to reduce public exposure to emissions of diesel particulate matter and criteria pollutants from stationary diesel-fueled

compression ignition engines (17 CCR Section 93115). The measure applies to any person who owns or operates a stationary compression ignition engine in California with a rated brake horsepower greater than 50, or to anyone who either sells, offers for sale, leases, or purchases a stationary compression ignition engine. This measure outlines fuel and fuel additive requirements; emissions standards; recordkeeping, reporting and monitoring requirements; and compliance schedules for compression ignition engines.

Truck and Bus Regulation

In addition to limiting exhaust from idling trucks, in 2008 CARB approved the Truck and Bus Regulation to reduce the emissions of oxides of nitrogen and particulate matter from existing diesel vehicles operating in California (13 CCR Section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models. This regulation will be implemented in phases, with full implementation by 2023.

CARB also promulgated emissions standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007, aims to reduce emissions by installing diesel soot filters and encouraging the retirement, replacement, or repowering of older, dirtier engines with newer emissions-controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

California Air Resources Board Advanced Clean Trucks Program

On June 25, 2020, CARB adopted the Advanced Clean Trucks rule, which requires truck manufacturers to transition from diesel vehicles to electric zero-emission vehicles beginning in 2024, with the goal of reaching 100 percent zero-emission vehicles by 2045. The goal of the legislation is to help California meet its climate targets of a 40 percent reduction in GHG emissions and a 50 percent reduction in petroleum use by 2030, and an 80 percent reduction in GHG emissions by 2050.

Truck manufacturers will be required to sell zero-emission vehicles as an increasing percentage of their annual sales from 2024 through 2035. Companies with large distribution fleets (50 or more trucks) will be required to report information about their existing fleet operations in an effort to identify future strategies for increasing zero-emission fleets statewide (CARB, 2021b).

Zero-emission vehicles are two to five times more energy efficient than diesel vehicles, and the Advanced Clean Trucks rule will reduce GHG emissions with the co-benefit of reducing dependence on petroleum fuels.

California Air Resources Board Advanced Clean Car Program

The Advanced Clean Cars emissions-control program, approved by CARB in 2012, is closely associated with the Pavley regulations (CARB, 2013). The program requires a greater number of zero-emissions vehicle models for years 2015 through 2025, to control smog, soot, and GHG

emissions. This program includes the Low-Emissions Vehicle regulations to reduce emissions of criteria air pollutants and GHGs from light- and medium-duty vehicles; and the Zero-Emissions Vehicle regulations, which require manufacturers to produce an increasing number of pure zero-emissions vehicles (battery and fuel cell electric vehicles) and include the provision to produce plug-in hybrid electric vehicles between 2018 and 2025. The increase in low- and zero-emissions vehicles will result in a decrease in the consumption of non-renewable fuels such as gasoline and diesel.

California Environmental Quality Act

Under CEQA (PRC Section 21100(b)(3)), EIRs are required to discuss the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. If the analysis of a proposed project shows that the project may result in significant environmental effects due to the wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, then the EIR must identify mitigation measures to address that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include project size, location, orientation, equipment use, and any renewable energy features that could be incorporated into the project (CEQA Guidelines Section 15126.2(b)).

CEQA Guidelines Appendix F lists the energy-related topics that should be analyzed in the EIR, and more specifically identifies the following topics for consideration in the evaluation of energy impacts in an EIR, to the extent the topics are applicable or relevant to the proposed project:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.¹

The effects of the project relevant to each of these issues are addressed in this section.

¹ CEQA Guidelines Appendix F(II)(C).

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation Element of the Napa County General Plan includes the following policies related to energy (Napa County, 2008).

Goal CON-16: Promote the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally.

Policy CON-67: The County shall promote and encourage "green building" design, development, and construction through the achievement of Leadership in Energy and Environmental Design (LEED) standards set by the U.S. Green Building Council, the Green Point Rated system standards set by Builditgreen.org, or equivalent programs. Actions in support of this policy shall include:

- a. Audit current County practices to assess opportunities and barriers to implementation of current sustainable practices.
- b. Amend the County Code as necessary to remove barriers to and encourage "green" construction.
- c. Develop new County buildings as "green buildings," utilizing sustainable construction and practices.
- d. Encourage all new large development projects and major renovation of existing facilities to be based on Green Building Council standards utilizing sustainable construction and practices to achieve a minimum LEED rating of Silver, or comparable level on the Green Point Rated system per standards set by Builditgreen.org or other comparable updated rating systems.
- e. Support state and federal incentive programs that offer rebates and cost sharing related to the implementation of "green building" standards and LEED certification.

Policy CON-68: The County shall promote research and the development and use of advanced and renewable energy technology through the following actions:

- a. Use expedited permit processing or other incentives as promotion mechanisms.
- b. Assist in securing grants to support the implementation of photovoltaic, wind, and other renewable energy technologies to provide a portion of the County's energy needs.
- c. Encourage the use of renewable energy resources in residential, commercial, industrial, and agricultural projects and uses.

Policy CON-69: The County shall provide incentives and opportunities for the use of energy-efficient forms of transportation such as public transit, carpooling, walking, and bicycling. This shall include the provision and/or the extension of transit to urban areas where development densities (residential and nonresidential) would support transit use, as well as bus turnouts/access, bicycle storage, and carpool/vanpool parking where appropriate.

Policy CON-70: The County shall seek to increase the amount of energy produced through locally available energy sources, including establishing incentives for, and removing barriers to, renewable and alternative energy resources (solar, wind) where they are compatible with the maintenance and preservation of environmental quality.

Policy CON-71: The County shall encourage the use of bio-fuels and geothermal resources where feasible and environmentally sustainable.

Policy CON-72: The County shall seek to reduce the energy impacts from new buildings by applying Title 24 energy standards as required by law and providing information to the public and builders on available energy conservation techniques, products, and methods available to exceed those standards by 15 percent or more.

Policy CON-74: The County shall evaluate new technologies for energy generation and conservation and solid waste disposal as they become available, and shall pursue their implementation as appropriate in a manner consistent with the principle of adaptive management. This evaluation shall include review of promising technological advances which may be useful in decreasing County greenhouse gas (GHG) emissions, increase in renewable energy that is generated locally, and review of the County's success in meeting targets for GHG emission reductions.

4.6.4 Significance Criteria

The thresholds used to determine the significance of impacts related to energy are based on Appendix G of the *CEQA Guidelines*. Implementation of the HEU could have a significant impact on the environment if it would:

- Result in wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Approach to Analysis

This analysis considers the State CEQA Guidelines Appendix G thresholds, as described above, in determining whether the HEU's implementation would result in the inefficient, wasteful, or unnecessary use of energy. The evaluation is based on a review of regulations and determining their applicability to the HEU. As discussed earlier, there are several plans and policies at the federal, state and local levels to increase energy conservation and the use of renewable energy. Consistency of the HEU with these regulations would also ensure that the HEU would not result in the inefficient, wasteful, or unnecessary use of energy.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to energy and it is not discussed further in this section.

4.6.5 Impacts of the Project

Impact ENE-1: Implementation of the HEU would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (*Less than Significant*)

The project consists of updating the County's General Plan Housing Element, and no actual development is proposed at this point that would produce environmental impacts. Implementation of the HEU would result in the development of housing required to meet the County's RHNA allocation. Construction and operation of the housing facilitated by the HEU's implementation and the rezoning of parcels to allow for greater densities than currently allowed would increase energy consumption within the County. Future development facilitated by the HEU would be subject to project-level environmental review and approval of permits prior to construction and operation of new housing.

Development of housing proposed under the HEU would consume energy during both construction and operation. Operational energy use would primarily include building energy use and transportation use, with a smaller contribution from area sources.

Construction Equipment and Vehicles

Energy use during future housing construction would primarily occur in association with fuel use in construction equipment and vehicles. Energy use would vary throughout the construction period of projects based on the construction activities being performed and would cease upon completion of construction. Fuels used for construction would typically include diesel and gasoline; use of natural gas and electricity would be minimal.

Heavy-duty equipment associated with construction during development allowed for by the HEU would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the individual construction sites and haul trucks exporting demolition material or other materials off site. Construction workers would travel to and from each of the parcels within the rezoning program throughout the duration of construction. Construction worker trips in light-duty vehicles would primarily be gasoline-powered.

All development proposed under the HEU would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements.

Construction activities would use fuel-efficient equipment consistent with federal and state regulations, such as fuel efficiency regulations in CARB's Pavley Phase II standards; the antiidling regulation in 13 CCR Section 2485; and fuel requirements for stationary equipment in 17 CCR Section 93115 (concerning the Airborne Toxic Control Measures). In accordance with 13 CCR Sections 2485 and 2449, idling by commercial vehicles over 10,000 pounds and off-road equipment over 25 horsepower would be limited to a maximum of five minutes. The intent of these regulations is to reduce construction emissions; however, compliance with the anti-idling and emission reduction regulations discussed above would also result in fuel savings from the more efficient use of equipment.

The diesel and gasoline use for construction activities would be temporary and constitute a small fraction of the regional usage; therefore, the construction energy demand of the HEU would be within the supply and infrastructure service capabilities of PG&E and MCE and would not require additional local or regional capacity.

Overall, construction activities that would be required as part of implementation of the HEU would not be unusual as compared to overall local and regional demand for energy resources and would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state. Therefore, the HEU would not result in the inefficient, wasteful, or unnecessary consumption of energy during construction. Therefore, impacts would be less than significant, and no mitigation is required.

Operational Building Efficiency

Future housing development would require electricity for building operation (e.g., appliances, lighting, air conditioning) and natural gas for various purposes including but not limited to, space heating, water heating and in cooking appliances. Prior to development at individual parcel sites, applicants would be required to ensure that proposed development would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. Title 24 reduces energy use in residential and commercial buildings through progressive updates to both the Green Building Standards Code (Title 24, Part 11) and the Energy Efficiency Standards (Title 24, Part 6). Title 24 standards are updated periodically (every 3 years). Provisions added to Title 24 over the years include consideration and incorporation of new energy efficiency technologies and methods for building features such as space conditioning, water heating, and lighting, as well as construction waste diversion goals. Additionally, some standards focus on larger energy-saving concepts such as reducing loads at peak periods and seasons, improving the quality of energy-saving installations, and performing energy system inspections.

Past updates to the Title 24 standards have proven very effective in reducing building energy use; the 2013 update to the energy efficiency standards was estimated to reduce energy consumption in residential buildings by 25 percent relative to the 2008 standards (CEC, 2012). The current 2019 Title 24 standards further reduce energy use compared to the 2016 standards, with single-family residential savings of 79 percent for electricity and 9 percent for natural gas. For low-rise multifamily buildings, savings are 79 percent for electricity and 5 percent for natural gas by requiring photovoltaic (PV) systems for new low-rise residential buildings under three stories (CEC, 2018). Implementation of housing proposed under the HEU would occur between 2023 and 2040. Thus, further energy use reductions beyond the current 2019 standards can be anticipated from future Title 24 code revision cycles, as building permits are issued at future dates corresponding to those code updates. Goals and policies encouraged by the County, including those set forth in the County's General Plan also support increased energy conservation in new development, such as that which would occur under the HEU. These requirements would decrease the amount of energy required for building operation and ensure that building energy use related to development facilitated by the HEU would not be inefficient or wasteful.

In addition, as part of the RPS program detailed earlier, electric utilities including investor-owned utilities and community choice aggregators are required to increase the percentage of electricity provided from renewable resources. Though the RPS program does not necessarily increase energy efficiency, implementation of this program reduces use of non-renewable energy sources. The legislation requires utilities to increase the percentage of electricity obtained from renewable sources to 33 percent by 2020 and 50 percent by 2030. SB 100 furthered these standards to require electric utilities to procure eligible renewable electricity for 44 percent of retail sales by 2024, 52 percent by 2027, and 60 percent by December 2030. SB 100 also specifies that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. CPUC and the CEC jointly implement the RPS program and PG&E and MCE, electric utility providers to Napa County are required to adhere to these standards and deadlines. Therefore, housing developed as part of the HEU would be consistent with these regulations.

Transportation

Vehicle trips generated by housing developed pursuant to the HEU would increase use of transportation fuels, primarily gasoline and diesel. Enhanced fuel economies realized pursuant to federal and state regulatory actions such as increasingly stringent CAFE/Pavley standards for vehicle fuel efficiency, and transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would decrease future gasoline fuel demands per VMT. Additionally, the location of the parcels identified for development by the HEU proximate to existing development served by urban services reduces VMT within the region, acting to also reduce regional vehicle energy demands. Five of the six sites are adjacent to the City of Napa and already developed residential neighborhoods. The Spanish Flat site, though remote, is expected to meet the projected demand for workforce housing in the Lake Berryessa area. Furthermore, approval of the HEU itself, as a policy document update, would not change these regulations and would not provide any goals, policies, or programs that would result in transportation energy consumption. Therefore, transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and the HEU would be consistent with regulations to reduce transportation energy use.

Considering these requirements, energy use associated with the construction and operation of housing facilitated by the HEU would not be considered unnecessary and wasteful and would be consistent with all applicable plans, policies and regulations developed to encourage energy conservation and renewable energy use. Therefore, impacts would be **less than significant**.

Though this would be a less than significant impact, Mitigation Measure GHG-1, presented in Section 4.8, *Greenhouse Gas Emissions*, of this EIR, would further help increase the amount of renewable energy used by the HEU by reducing the consumption of non-renewable fuels such as natural gas in buildings and petroleum based transportation fuels. Mitigation Measure GHG-1a, would require housing development proposed as part of the HEU to be all electric construction with no natural gas infrastructure. Mitigation GHG-1b would require that future development under the HEU provide EV charging infrastructure consistent with Tier 2 requirements in the CALGreen Code applicable at the time of project review. While implementation of Mitigation Measures GHG-1a and GHG-1b would increase the electricity use associated with the development, the increasing percentage of electricity from renewable sources provided by PG&E and MCE in response to RPS standards would result in a transition from the use of non-renewable energy to cleaner, renewable energy sources. Mitigation Measure GHG-1c would require all future development projects proposed as part of the HEU to implement a Transportation Demand Management Plan to reduce both the number of trips and VMT generated, which would also lead to a reduction in transportation energy use.

In addition, Mitigation Measure AIR-2, presented in Section 4.3, *Air Quality*, of this EIR requires the use of cleaner construction equipment meeting the U.S. EPA's Tier 4 Final standards if subsequent projects proposed as part of the HEU are found to generate construction emissions in excess of the BAAQMD's project-level construction thresholds. Newer equipment meeting the Tier 4 Final standards would also be energy efficient when compared to older equipment, which would further reduce energy use during construction.

Mitigation: None required.

4.6.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to energy could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects.

Cumulative impacts of the HEU related to the wasteful, inefficient, or unnecessary consumption of energy during construction and operation and the potential to conflict with or obstruct adopted energy conservation plans or violate energy efficiency standards would be the same as discussed under Impact ENE1. Energy consumption effects related to individual projects are localized and would not combine with similar effects in other locations. However, continued growth in Napa County and throughout PG&E and MCE's service areas could contribute to ongoing increases in demand for electricity and natural gas.

Impact ENE-1.CU: Implementation of the HEU would not result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction and operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (*Less than Significant Impact*)

The HEU, in conjunction with cumulative development in the City, would increase housing in an already developed area and result in increased energy consumption. Potential impacts to energy resources from future housing development that is facilitated by the HEU would be site-specific and would require applications for development permits that would be evaluated on a case-by-case basis. Each cumulative project would require separate discretionary approval and evaluation under CEQA, which would address potential energy consumption impacts, if any, and identify necessary mitigation measures, where appropriate. Additionally, any future housing development facilitated by the HEU would be subject to compliance with all federal, state, and local requirements for energy efficiency, including the California Energy Code Building Energy Efficiency Standards (CCR Title 24, Part 6), the CALGreen Code (CCR Title 24, Part 11), and SB 743. Consequently, future housing development facilitated by the HEU would not result in significant environmental impacts from the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation; and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the HEU's contribution to the cumulative energy impact would be **less than significant**.

Mitigation: None required.

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4.6 Energy

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4.7.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on Geology, Soils, Paleontological, and Mineral Resources. This section first includes a description of the existing environmental setting as it relates to Geology, Soils, Paleontological, and Mineral Resources, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on Geology, Soils, Paleontological, and Mineral Resources.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. No comments relating to Geology, Soils, Paleontological, and Mineral Resources were received during the NOP comment period.

4.7.2 Environmental Setting

Regional and Local Geology

Geologic mapping by Wagner & Gutierrez (2017), Graymer et al. (2007), and Wagner & Bortugno (1982) indicates a diverse geologic setting dominated by Holocene and Pleistocene-age alluvial deposits in the valley areas and the igneous and metamorphic deposits of the Pliocene to Miocene-age Sonoma Volcanics bordering the valley to the east and the sedimentary deposits of the Jurassic-age Great Valley Sequence to the west. The Altamura, Bishop 1, Foster Road, and Imola Avenue sites are all within the Pleistocene-age alluvial deposits. However, sites located in the more urban areas may also be located on fill materials of undetermined composition. The Spanish Flat area (along the southern coast of Lake Berryessa) is within Upper Cretaceous-Lower Jurassic sandstone, shale, and conglomerate¹ generally west of Knoxville Road and ultramafic² rocks, mostly serpentine, to the east of Knoxville Road.

Soils

Expansive Soils

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape

Conglomerate is a coarse-grained sedimentary rock composed of rounded fragments within a matrix of finergrained material

² Ultramafic rocks are igneous and metamorphosed igneous rocks with a very low silica content, and are composed of usually greater than 90% of minerals with high magnesium and iron content.

irrigation, utility leakage, roof drainage, and/or perched groundwater.³ This cyclical change in soil volume is measured using the coefficient of linear extensibility (COLE) (NRCS, 2017). The Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to building, roads, and other structures (NRCS, 2017). Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

Soil expansion generally occurs in fine-grained clayey sediments, which could be present within Napa County. The NRCS Web Soil Survey data is generally useful at a large scale (meaning when evaluating an area in more detail). As such, Web Soil Survey expansive soil data is not available at a regional scale. The varying geology of the area is indicative of varying soil conditions across the County. As discussed above, expansive soils generally occur in fine-grained clayey sediments, which could be present throughout the County, although less likely at the Spanish Flat housing site. In addition, the housing sites located in the more urban areas may also be located on fill materials of undetermined composition and unknown potential for expansive soils.

Geologic Hazards

Faulting

There are three Holocene-active⁴ faults within Napa County: the West Napa fault (Napa County Airport section and Browns Valley section), the Huntington Creek-Berryessa fault system (Lake Berryessa section), and the Green Valley fault system have had surface rupture within the last 11,700 years, as shown on **Figure 4.7-1**, **Active Faults**. None of the proposed housing sites are located on an active fault.

In particular, the West Napa fault has experienced very recent movement. The Magnitude (M_w) 6.0 South Napa earthquake, which occurred in August of 2014, was the largest earthquake to strike the San Francisco Bay since the M_w 1989 Loma Prieta earthquake (Brocher et al., 2015). The South Napa earthquake was the first earthquake since the 1906 San Francisco earthquake to produce a significant surface rupture. The earthquake produced very strong ground shaking and was felt as far away as Sacramento and Santa Cruz (USGS, 2015). Surface rupture and ground shaking resulted in extensive damage to foundations and structures in the City of Napa and surrounding communities (USGS, 2015).

There were few observations of liquefaction, landslides, and other ground failures during reconnaissance surveys following the earthquake; this could be a result—in part—of the low groundwater table at the time, as the earthquake occurred in the dry season during drought conditions (Brocher et al., 2015).

³ Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

⁴ Holocene-active faults show evidence of displacement within the Holocene Epoch, or the last 11,700 years are considered active (CGS 2008).



SOURCE: ESRI, 2021; ESA, 2022; USGS, 2010

Napa County

Figure 4.7-1 Active Faults



Surface Fault Rupture

The State Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across active fault traces. Under this Act, the California Geological Survey (CGS) has established "Zones of Required Investigation" on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as Earthquake Fault Zones (EFZs) and are shown on official maps published by the CGS. Surface rupture occurs when the ground surface is broken due to a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

As discussed above, there are three Holocene-active faults within Napa County, all of which have produced surface rupture. The most recent South Napa earthquake produced a surface rupture that extended approximately 7.7 miles northwest from the town of Cuttings Wharf in the south to north of Alston Park in the City of Napa (Brocher et al., 2015). Following the event ongoing fault movement occurred for several months, which caused further damage.

Seismic Ground Shaking

Ground shaking occurs due to a seismic event and can cause extensive damage to life and property and may affect areas hundreds of miles away from the earthquake's epicenter. The extent of the damage varies by event and is determined by several factors, including (but not limited to) magnitude and depth of the earthquake, distance from epicenter, duration and intensity of the shaking, underlying soil and rock types, and integrity of structures.

The entire San Francisco Bay Area, including Napa County, could be subject to strong groundshaking during earthquakes. The 2014 Working Group on California Earthquake Probabilities (WGCEP)⁵ concluded that there is a 72 percent probability that a magnitude (M_W) 6.7 earthquake or higher could occur in the San Francisco Bay Area over the next 30 years (WGCEP, 2015). Further, the Hayward fault zone is considered to have a 32 percent probability of a Mw 6.7 earthquake or higher over the next 30 years.

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due to the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

⁵ Also referred to as WGCEP 2014, this is a working group comprised of seismologists from the U.S. Geological Survey (USGS), California Geological Survey (CGS), Southern California Earthquake Center (SCEC), and California Earthquake Authority (CEA).

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

According to the Napa County General Plan, the County has varying degrees of liquefaction susceptibility, with high to very high susceptibility along the Napa River from Calistoga to the San Pablo Bay. In particular, housing sites with a depth to groundwater of less than 50 feet are more susceptible to liquefaction.

Landslides

Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move down slope depends on multiple factors including the type of material, water content, and steepness of terrain. Generally, earthquake-induced landslides occur within deposits of a moderate to high landslide potential when ground shaking triggers slope failures during or as a result of a nearby earthquake.

According to the Safety Element of the Napa County General Plan, there is a varying degree of landslide susceptibility throughout the County, ranging from low to high susceptibility. The areas of high landslide susceptibility are concentrated in the areas of steep hillsides and mountain areas. Wildfire can significantly exacerbate an areas landslide susceptibility. After vegetation and root systems are removed by fire, the slopes become unstable and allows sediments to move downhill (Napa County, 2022). Additionally, geologic mapping indicates that there are several mapped areas of previous landslides in Napa County, mainly concentrated within the mountain areas bordering the valley (Wagner & Gutierrez, 2017). No landslides are mapped on any of the housing sites.

Paleontological Resources

Paleontological resources are the mineralized (fossilized) remains of prehistoric plants and animals, including body fossils, such as bones, bark or wood, and shell, as well as trace fossils, such as shell, leaf, skin, or feather impressions, footprints, burrows, or other evidence of an organism's life or activity. These resources are located within sedimentary rocks or alluvium and are considered to be nonrenewable.

The Society of Vertebrate Paleontology (SVP) has established standard guidelines that outline professional protocols and practices for conducting paleontological resource assessments and surveys; monitoring and mitigation; data and fossil recovery; sampling procedures; and specimen preparation, identification, analysis, and curation (SVP, 2010). Most practicing professional

vertebrate paleontologists adhere closely to the SVP's assessment, mitigation, and monitoring requirements as provided in its standard guidelines.

The SVP (SVP, 2010: 11) defines a significant fossil resource as:

fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).

Based on the significance definitions of SVP (2010), all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely would a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment,⁶ and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

Paleontological sensitivity is defined as the potential for a geologic formation to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Non-renewable Paleontologic Resources*, the SVP (2010:1–2) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential:

- *High Potential*: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources.
- *Low Potential*: Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule.
- *Undetermined Potential*: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment.
- *No Potential*: Rock units like high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites) that will not preserve fossil resources.

⁶ A paleoenvironment is the past environment of an area during a given time period in the past.

As indicated by geologic mapping, the surficial geology within Napa County is composed of Holocene and Pleistocene-age alluvium in the valley, with the igneous and metamorphic deposits of the Sonoma Volcanics generally east of the valley and sedimentary deposits of the Great Valley Sequence to the west of the valley (Wagner & Bortugno, 1982; Graymer et al., 2007; Wagner & Gutierrez, 2017). The sandstone, shale, and conglomerate deposits of the Great Valley Sequence surround Lake Berryessa, including the Spanish Flat site.

As discussed, in general, Holocene-age alluvial deposits are considered to have a low potential to contain significant paleontological resources, based on the relatively recent age of the deposits (SVP, 2010); the youngest Holocene-age deposits (i.e., younger than 5,000 radiocarbon years) have a particularly low potential. Deposits that date to the middle Holocene (i.e., older than 5,000 radiocarbon years) have a potential that increases as the depth into the deposits increases. In the case of Napa County, it is almost entirely underlain by Holocene-age alluvial deposits, however, older, Pleistocene-age deposits are mapped in the County and are inferred to be present beneath the Holocene deposits. In general, Pleistocene-age sedimentary deposits are considered to have a high potential to contain significant paleontological resources, as is evident by the numerous fossil discoveries throughout California (UCMP, 2021a; Sub Terra Consulting, 2017). Records that are available through the UCMP online fossil localities database indicate there are 140 individual invertebrate fossil localities throughout Napa County; there are only two vertebrate fossil specimens within the County, from within the volcanic tuffs—inferred to be associated with the Sonoma Volcanics (UCMP, 2022b). None of the housing sites are located within volcanic tuffs.

Within Napa County there are records of two invertebrate fossil localities (bivalves) from undisclosed locations along Zim Zim Creek (UCMP, 2022c); these localities are from the same Great Valley Sequence deposits that occur at the Spanish Flat site, although these localities are at least 15.5 miles north of the Spanish Flat site. Outside of Napa County the sedimentary deposits of the Great Valley Sequence have yielded significant invertebrate and vertebrate fossils, although a majority of them are from the younger deposits of the Great Valley Sequence (Elder & Miller, 1990; Hilton, 2003).

In summary, the surficial Holocene-age alluvial deposits are considered to have a low potential to contain significant paleontological resources, with the potential increasing to high within the deeper layers of the unit; any Pleistocene-age deposits encountered in the subsurface are considered to have a high potential to encounter significant paleontological resources. For the housing sites located in more urban areas (essentially all multi-family housing sites except for Spanish Flat), these sites are located in urban areas with likely highly disturbed fill. The disturbed surficial fill materials would have a very low potential for paleontological resources. However, the extent of disturbance is unknown for these sites. While sedimentary deposits of the Great Valley Sequence have yielded significant invertebrate and vertebrate fossils, these fossiliferous deposits are from the younger layers of the Great Valley Sequence that do occur at the Spanish Flat; the sedimentary deposits of the Great Valley Sequence that do occur at the Spanish Flat site have produced common invertebrate fossils (bivalves) and would be considered to have a low potential to contain significant paleontological resources.

Mineral Resources

Mineral resource mapping published by the CGS indicates that there are scattered areas of mineral resources throughout Napa County (Miller & Busch, 2013). According to the mapping, these areas are considered regionally significant. The Napa County General Plan indicates that there are locally-important mineral resources throughout the County as well (Napa County, 2009). However, none of the housing sites are located in known mineral resources sites.

4.7.3 Regulatory Setting

Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (USEPA), was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The purpose of the CWA is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies. The CWA gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. In California, implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) program is conducted through the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The CWA also sets water quality standards for surface waters and established the NPDES program to protect water quality through various sections of the CWA, including Sections 401 through 404 and 303(d) that are implemented and regulated by the SWRCB and the nine RWQCBs. Section 402 of the CWA would apply to the Project because construction at the housing sites would be required to control discharges of pollutants from point sources, as discussed below.

Section 402

The 1972 amendments to the Federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402[p]). The USEPA has granted the SWRCB primacy in administering and enforcing the provisions of CWA and NPDES through the local RWQCBs. NPDES is the primary federal program that regulates point-source and non-point-source discharges to waters of the United States.

The SWRCB issues both general and individual permits for discharges to surface waters, including for both point-source and non-point-source discharges. In response to the 1987 amendments, the US EPA developed the Phase I NPDES Storm Water Program for cities with populations larger than 100,000, and Phase II for smaller cities. In California, the SWRCB has drafted the General Permit for Discharges of Storm Water from Municipal Separate Storm Sewer Systems (MS4 General Permit). The Project site would be under the Phase II MS4 permit, discussed further below.

National Pollutant Discharge Elimination System (NPDES) Permit

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the U.S. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Section 402 of the CWA contain general requirements regarding NPDES permits.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and non-structural Best Management Practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds). The NPDES permits that apply to activities in Napa County are described under State and local regulations below.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to protect structures for human occupancy from the hazard of surface faulting. In accordance with the act, the State Geologist has established regulatory zones—called earthquake fault zones—around the surface traces of active faults and has published maps showing these zones. Buildings for human occupancy cannot be constructed across surface traces of faults that are determined to be active. Because many active faults are complex and consist of more than one branch that may experience ground surface rupture, earthquake fault zones extend approximately 200 to 500 feet on either side of the mapped fault trace.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and other local permitting agencies to regulate certain development projects within these zones. For projects that would locate structures for human occupancy within designated Zones of Required Investigation, the Seismic Hazards Mapping Act requires project applicants to perform a site specific geotechnical investigation to identify the potential site-specific seismic hazards and corrective measures, as appropriate, prior to receiving building permits. The CGS Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A) provides guidance for evaluating and mitigating seismic hazards (CGS 2008).

California Building Code

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2019 edition of the CBC is based on the 2018 International Building Code (IBC) published by the International Code Council, which replaced the Uniform Building Code (UBC). The code is updated triennially, and the 2019 edition of the CBC was published by the California Building Standards Commission on July 1, 2019, and took effect starting January 1, 2020. The 2019 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. Seismic design provisions of the building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of the dead and live loads of the structure, which the structure then must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces that would be associated with a major earthquake. Consequently, structures should be able to (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage but with some nonstructural damage; and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a structure designed in accordance with the seismic requirements of the CBC should not collapse in a major earthquake.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a seismic design category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site; SDC ranges from A (very small seismic vulnerability) to E/F (very high seismic vulnerability and near a major fault). Seismic design specifications are determined according to the SDC in accordance with CBC Chapter 16. CBC Chapter 18 covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills (Section 1804), load-bearing of soils (Section 1806), as well as foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810). For Seismic Design Categories D, E, and F, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss,

and lateral movement or reduction in foundation soil-bearing capacity. It also addresses measures to be considered in structural design, which may include ground stabilization, selecting appropriate foundation type and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions.

Requirements for geotechnical investigations are included in Appendix J, CBC Section J104, Engineered Grading Requirements. As outlined in Section J104, applications for a grading permit are required to be accompanied by plans, specifications, and supporting data consisting of a soils engineering report and engineering geology report. Additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953 to 17955 and in 2013 CBC Section 1802. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

The design of the proposed homes and associated infrastructure would be required to comply with CBC requirements, which would make the Project consistent with the CBC.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Construction associated with the Project would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the U.S. The Project would, therefore, be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

• Effluent standards;

- Good site management "housekeeping;"
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before the construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

In the Project area, the Construction General Permit is implemented and enforced by the San Francisco Bay Regional Water Quality Control Board, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this Construction General Permit. Dischargers are to notify the San Francisco Bay Regional Water Quality Control Board of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person, who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit.

Municipal Separate Storm Sewer Systems (MS4s)

As discussed, the Clean Water Act mandates controls on discharges from municipal separate storm sewer systems (MS4s). Acting under the Federal mandate and the California Water Code, California Water Boards require cities, towns, and counties to regulate activities that may result in pollutants entering storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use BMPs to minimize the amount of pollutants in runoff. To enforce prohibitions and to promote the use of BMPs, the municipalities inspect businesses and construction sites, conduct public education and outreach, sweep streets, and clean storm drains. In addition, municipalities actively support projects to assess, monitor, and restore local creeks and wetlands.

Napa County, along with Town of Yountville, and cities of Napa, St. Helena, Calistoga and American Canyon) are co-permittees to the Phase II Small MS4 General Permit (Water Quality Order No. 2013-0001- DWQ General Permit Number CAS000004). On February 5, 2013, California's State Water Resources Control Board reissued the Phase II Stormwater National Pollutant Discharge Elimination System (NPDES) Permit for small MS4s, including Provision E.12, *Post-Construction Stormwater Management Program*. This provision mandates municipalities to require specified features and facilities to control pollutant sources, control runoff volumes, rates, and durations, and to treat runoff before discharge from the site. The provision also requires that these measures be included in development plans as conditions of issuing approvals and permits. The MS4 permit is discussed further in Section 4.10, *Hydrology and Water Quality*.

Public Resources Code Section 5097.5 and Section 30244

State requirements for management of paleontological resources are included in Public Resources Code (PRC) Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts on paleontological resources from developments on public (state, county, city, district) lands.

Local

Napa County Municipal Code

Stormwater Management and Discharge Control Ordinance

Chapter 16.28 of the Napa County Municipal Code contains the Napa County Stormwater Management and Discharge Control Ordinance, the purposes of which are to protect the health, safety and general welfare of Napa County residents; to protect water resources and to improve water quality; to protect and enhance watercourses, fish, and wildlife habitat; to cause the use of management practices that will reduce the adverse effects of polluted runoff discharges; to secure 4. Environmental Setting, Impacts, and Mitigation Measures

4.7 Geology, Soils, Paleontological and Mineral Resources

benefits from the use of stormwater as a resource; and to ensure the county is compliant with applicable state and federal law. The Ordinance enables Napa County to establish controls on the volume and rate of stormwater runoff from any developments or construction projects as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. These controls may include limits on impervious area dimensions, quantities or locations, and/or provisions for detention and retention of runoff on-site.

The County may require, as a condition of project approval, permanent structural controls designed for the removal of sediment and other pollutants and for control on the volume and rate of stormwater runoff from the project's added or replaced impervious surfaces. The selection and design of such controls shall be in accordance with criteria established or recommended by federal, state, local agencies, and where required, the BASMAA Post Construction Manual or any other standards as adopted by resolution of the Napa County Board of Supervisors. Where physical and safety conditions allow, the preferred control measure is to retain drainageways above ground and in as natural a state as possible, or other biological methods such as bioretention areas.

Chapter 16.28 also requires any person performing construction activities to implement appropriate BMPs to prevent the discharge of construction wastes or contaminants from construction materials, tools and equipment from entering a storm drain or watercourse. The combination of BMPs used, and their execution in the field, must be customized to the site using up-to-date standards and practices, such as the California Stormwater Quality Association's Construction BMP Handbook or other standards and practices as established by resolution of the board of supervisors. Erosion and Sediment Control Plans are required for any project subject to a grading permit, or subject to another county permit such as projects within fifty feet of a storm drain, projects disturbing ten thousand square feet of soil or more, or any other project required by the County.

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation Element of the Napa County General Plan includes the following policies related to paleontological and mineral resources (Napa County, 2009). The Safety Element and Community Character Element of the Napa County General Plan includes the following policies related to geology and soils (Napa, County, 2009).

Goal CON-1: The County of Napa will conserve resources by determining the most appropriate use of land, matching land uses and activities to the land's natural suitability, and minimizing conflicts with the natural environment and the agriculture it supports.

Policy CON-6: The Count shall impose conditions on discretionary projects which limit development in environmentally sensitive areas such as those adjacent to rivers or streamside areas and physically hazardous areas such as floodplains, steep slopes, high fire risk areas, and geologically hazardous areas.

Goal CON-7: Identify and conserve areas containing significant mineral deposits for future use and promote the reasonable, safe, and orderly operation of mining and extraction and management activities, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately addressed.

Policy CON-37: The County shall identify, improve, and conserve mineral and aggregate resources and ensure the long-term production and supply as follows:

- a) The County shall request that the State Department of Conservation conduct a countrywide study to assess the location and value of mineral and aggregate resources.
- b) Identify known mineral resources on the General Plan Land Use Map or in the Baseline Data Report, based on mapping prepared by the State of California.
- c) Apply zoning for mineral resource areas and appropriate surrounding areas to allow for resource management and future resource availability.
- d) Fulfill the County's responsibilities under the Surface Mining and Reclamation Act (SMARA).
- e) Encourage compatible use of resource areas such as low-density recreation, wildlife habitat, or agriculture and protect resource areas from incompatible use.
- f) Continue to enforce established policy on geothermal energy exploration and development (Napa County Code Title 16), considering the potential adverse environmental effects such as noise pollution, air pollution, water pollution, and poorly located transmission lines that can accompany improper geothermal development.

Policy CON-38: The County shall identify, improve, and conserve Napa County's sand and gravel resources, preventing removal of streambed sand and gravel in any manner that would cause adverse effects on water quality, fisheries, riparian vegetation, or flooding.

Policy CON-39: Resource extraction activities (e.g., mining and geothermal development) shall fully address environmental implications, such as air pollution, visual distractions, siltation of nearby streams, increase in surface runoff, removal of underground water by pumping, increase in erosion or landslide hazard, disposal of chemical wastes, creation of impervious layers and surface compaction, extent of vegetation removal, and site rehabilitation procedures.

Policy CON-40: Encourage the ongoing reclamation of sand and gravel mining areas through the implementation of reclamation plans. In conformance with state law, all mining operations shall have up-to-date reclamation plans and adequate financial assurances to the satisfaction of the County.

Goal CON-13: Promote the development of additional water resources to improve water supply reliability and sustainability in Napa County, including imported water supplies and recycled water projects.

Policy CON-48: Proposed developments shall implement project-specific sediment and erosion control measures (e.g., erosion plans and/or stormwater pollution prevention plans) that maintain pre-development sediment erosion conditions or at minimum comply with state water quality pollution control (i.e., Basin Plan) requirements and are protective of the County's sensitive domestic supply watersheds. Technical reports and/or erosion control plans that recommended site-specific erosion control measures shall meet the requirements of the County Code and provide detailed information regarding site-specific geologic, soil, and hydrologic conditions and how the proposed measure will function.

Policy CON-49: The County shall develop and implement a water quality monitoring program (or program) to track the effectiveness of temporary and permanent Best Management Practices to control soil erosion and sedimentation within watershed areas and employ corrective actions for identified water quality issues (in violation of Basin Plans and/or associated TMDLs) identified during monitoring.

Action Item CC-23.2: Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources:

- "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or paleontologic artifact is uncovered during construction. All construction must stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action."
- "All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed."

4.7.4 Significance Criteria

The thresholds used to determine the significance of impacts related to geology, soils, paleontological, and mineral resources are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
 - ii) Strong seismic ground shaking;
 - iii) Seismic-related ground failure, including liquefaction; or
 - iv) Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- Be located on expansive soil creating substantial direct or indirect risks to life or property.⁷

⁷ The CBC, based on the International Building Code and the now defunct Uniform Building Code, no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soils.

- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state.
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Approach to Analysis

This environmental analysis of the potential impacts related to geology, soils, and paleontological and mineral resources is based on a review of the results of the review of literature and database research (geologic, seismic, and soils, and paleontological resources reports and maps), and the Napa County General Plan.

The Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.7.3, *Regulatory Setting*. Compliance by the Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

After considering the implementation of the Project described in Chapter 3, *Project Description*, and compliance with the required regulatory requirements, the environmental analysis below identifies if the defined significance thresholds are exceeded and, therefore, a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to the extent feasible to reduce the identified impacts.

The structural elements of the Project would undergo appropriate design-level geotechnical evaluations prior to final design and construction. Implementing the regulatory requirements in the CBC and County ordinances and ensuring that all buildings and structures constructed in compliance with the law is the responsibility of the Project engineers and building officials. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CBC and local codes while applying standard engineering practice and the appropriate standard of care for the particular region in California, which, in the case of the Project, is Napa County.⁸ The California Professional Engineers Act (Building and Professions Code Sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provides the basis for regulating and enforcing engineering practice in California. The local Building Officials are typically with

⁸ A geotechnical engineer (GE) specializes in structural behavior of soil and rocks. GEs conduct soil investigations, determine soil and rock characteristics, provide input to structural engineers, and provide recommendations to address problematic soils.

the local jurisdiction (i.e. Napa County) and are responsible for inspections and ensuring CBC compliance prior to approval of the building permit.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to geology, soils, and mineral resources, rather the updates to the Safety Element are intended to improve policies associated with geologic and seismic risks (e.g., slope stability and earthquake preparedness for new and existing structures). As such, it is not discussed further in this section.

Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- *Location on an active fault*. As discussed in Section 4.7.2, *Environmental Setting, Faulting*, none of the proposed housing sites are located on an active fault. Therefore, this significance criterion is not applicable to the project and is not discussed further.
- *Mineral Resources*. As discussed in Section 4.7.2, *Environmental Setting, Mineral Resources*, none of the proposed housing sites are located on known mineral resources. Therefore, this significance criterion is not applicable to the project and is not discussed further.

4.7.5 Impacts of the Project

Impact GEO-1: Implementation of the HEU would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. (*Less than Significant*)

None of the proposed housing sites are located on an active fault. However, due to the proximity to the West Napa fault, and the Huntington Creek-Berryessa and Green Valley fault systems, new developments proposed under the HEU would be subject to strong seismic ground shaking in the event of an earthquake originating from one of the previously mentioned fault zones. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the magnitude, the duration of shaking, and the nature of the geologic materials on which the Project components would be constructed. Intense groundshaking and high ground accelerations would affect the entire Project site, including the proposed houses, foundations, and associated utilities. The primary and secondary effects of groundshaking and seismically induced ground failures such as landslides could damage structural foundations, distort or break pipelines, and place people at risk of injury or death. Strong seismic ground shaking has historically caused damage, injury, and loss of life; these hazards could potentially result in damage to new developments, resulting in loss, injury, or death.

As required by California law, any new developments would be subject to the seismic design criteria of the California Building Code (CBC) and County building codes, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. Each new development would be required to obtain a site-specific geotechnical report prior to the issuance of individual grading permits; each new development would be required to retain a licensed geotechnical engineer to design new structures to withstand probable seismically induced ground shaking. The CBC standards and County codes require all new developments to be designed consistent with a site-specific, design-level geotechnical report, which would be fully compliant with the seismic recommendations of a California-registered professional geotechnical engineer. While the Imola Avenue housing site is State-owned and the County cannot impose requirements on its development, development of the site would be required to comply with CBC standards and seismic design criteria, which would ensure that improvements would be constructed to withstand anticipated ground shaking from regional fault sources. Adherence to the applicable CBC requirements and County codes would ensure that the proposed Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

Mitigation: None required.

Impact GEO-2: Implementation of the HEU would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. (*Less than Significant*)

Based on the available data (i.e., geologic mapping, liquefaction susceptibility mapping, and groundwater data), any new development under the HEU could be subject to moderate soil liquefaction, depending on the soil conditions at the particular site. New developments under the proposed Project could be subjected to the damaging effects of liquefaction in the event of an earthquake in the region.

As required by California law, any new developments would be subject to the seismic design criteria of the CBC and County building codes, which require that all improvements be constructed to withstand any anticipated seismic-related ground failures, including liquefaction and lateral spreading, due to ground shaking from an earthquake. Each new development would be required to obtain a site-specific geotechnical report prior to the issuance of individual grading permits; each new development would be required to retain a licensed geotechnical engineer to investigate and evaluate each new development site and design new structures to withstand probable seismic-related ground failures, such as liquefaction and lateral spreading. The CBC standards and County codes require all new developments to be designed consistent with a site-specific, design-level geotechnical report, which would be fully compliant with the seismic recommendations of a California-registered professional geotechnical engineer. Liquefaction hazards can generally be addressed through site preparation measures or foundation design measures such as removal and replacement of liquefiable soils, densification of these soils, or specific foundation design recommendations. Implementation of these measures in accordance with building code requirements can effectively reduce the hazard to minimize any potential for

substantive damage. While the Imola Avenue housing site is State-owned and the County cannot impose requirements on its development, development of the site would be required to comply with CBC standards and seismic design criteria, which would ensure that improvements would be constructed to withstand any anticipated seismic-related ground failures, including liquefaction and lateral spreading, due to ground shaking from an earthquake.

Compliance with all applicable CBC and County Code requirements would ensure that the proposed Project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, impacts would be **less than significant**.

Mitigation: None required.

Impact GEO-3: Implementation of the HEU would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. (*Less than Significant*)

There are several areas throughout the County that have a high to moderate landslide susceptibility. Only the proposed Spanish Flat housing site is located in an area with nearby slopes; all other housing sites are in flat areas. As previously stated, all new developments would be required to have geotechnical investigations performed prior to construction of any new structures. Each specific final, design-level geotechnical report would include specific design requirements that would inform the structural and geotechnical engineering as it related to slope stability, as required by the CBC and County codes. Implementation of these geotechnical design requirements can effectively reduce any potential hazard associated with earthquake-induced landslides.

Compliance with CBC and County code requirements, including implementation of recommendations provided in site-specific geotechnical reports would reduce or avoid impacts related to landslides. Project construction would not directly or indirectly result in adverse effects related to landslides, and the impact would be less than significant.

Mitigation: None required.

Impact GEO-4: Implementation of the HEU would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)

New developments under the HEU would include ground disturbance activities, such as grading, grubbing, or mass excavation that could contribute to substantial soil erosion or the loss of topsoil. Any new development that would require the disturbance of one or more acres during construction would be subject to the requirements of the NPDES General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities (Construction General Permit), discussed in Section 4.7.3, *Regulatory Setting, Construction General Permit*. The Construction General Permit requires the preparation and implementation of a SWPPP, which

would include BMPs designed to control and reduce soil erosion. The BMPs may include dewatering procedures, storm water runoff quality control measures, watering for dust control, and the construction of silt fences, as needed. Compliance with this independently enforceable existing requirement, and implementation of these soil and erosion control measures would ensure that impacts related to erosion and soil loss would be **less than significant**.

Once constructed and as discussed above in Section 4.7.3, *Regulatory Setting, Municipal Separate Storm Sewer Systems (MS4s)*, the MS4 permit would require that the design of Projects include recommendations for managing runoff from completed projects to reduce the potential for erosion that could result in ground failures. Compliance with this independently enforceable existing requirement to control runoff would ensure that impacts related to erosion and soil loss would be **less than significant**.

Mitigation: None required.

Impact GEO-5: Implementation of the HEU would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. (*Less than Significant*)

As discussed above, areas within Napa County could be subject to the potential effects of unstable soils. Any new developments that are proposed in areas determined to be susceptible to unstable geologic or soil conditions would be subject to the damaging effects of these hazards.

As previously discussed above in Impacts GEO-1, GEO-2, and GEO-3, all new developments would be subject to the requirements of the CBC and County building codes, which would include conducting geotechnical investigations to analyze potential unstable soil conditions at a site. If unstable soil conditions are determined to be present at a given site, the geotechnical report specific to that site would include site-specific design requirements to implement to reduce or avoid adverse effects associated with unstable soils. While the Imola Avenue housing site is State-owned and the County cannot impose requirements on its development, development of the site would be required to comply with CBC standards, which would ensure that the geotechnical report specific to the Imola Avenue site would include site-specific design requirements to implement to reduce or avoid adverse effects associated with unstable soils.

Compliance with CBC and County code requirements, including implementation of recommendations provided in site-specific geotechnical reports would reduce or avoid impacts related to unstable soils to **less than significant**.

Mitigation: None required.

Impact GEO-6: Implementation of the HEU would not be located on expansive soil, creating substantial direct or indirect risks to life or property. (*Less than Significant*)

As discussed, soil expansion generally occurs in fine-grained clayey sediments, which could be present at housing sites within Napa County. Analysis of expansive and soils is standard during geotechnical investigations, as the CBC outlines specific soil engineering parameters to identify and mitigate for expansive soils. If expansive soils are detected during the geotechnical investigation, further laboratory testing would be required to determine the nature and extent of the affected soils, followed by recommendations to remove or treat the expansive soils.

Compliance with the CBC and County codes requirement to determine the potential for expansive soils for each individual new development under the proposed Project would ensure that all problematic soils are identified, and soil engineering requirements are implemented. Soil engineering is used to adjust the existing problematic properties of certain soils so that they are suitable for new developments. Adherence to the requirements of the CBC and County codes, and geotechnical investigation would avoid impacts resulting from potentially expansive soils. Compliance with CBC and County code requirements, including implementation of recommendations provided in site-specific geotechnical reports would reduce or avoid impacts related to expansive soils and impacts would be **less than significant**.

Mitigation: None required.

Impact GEO-7: Implementation of the HEU would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. (*Less than Significant*)

As discussed in Section 3.5.2, *Housing Sites Inventory*, all multi-family housing sites must have access to existing or planned water, sewer, and other dry utilities with sufficient capacity available to support housing development and would have no impact with regard to adequate soils for supporting septic tanks or alternative wastewater disposal systems. There are few sections of the unincorporated County that have access to water and wastewater services, with most sections relying on groundwater and septic systems. As such, single family homes or ADU/JADUs developed as a result of the HEU could utilize septic systems or other means of wastewater disposal. In the event that a septic tank or alternative wastewater disposal system installation is proposed, there is a permitting process that would be completed prior to installation.

Any new development that would include the utilization of a septic tank or alternative wastewater disposal system, would be regulated by the Napa County Division of Environmental Health. Obtaining a permit would be required prior to the construction of any septic tank or alternative wastewater disposal system, and each system would be constructed within the parameters of the Napa County, as well as the Contra Onsite Wastewater Treatment Systems (OWTS) Technical Standards. As this procedure would be required prior to construction of any and all septic tanks and alternative wastewater disposal systems, all new developments would be subject to these state and local requirements. Proper soils are essential for installation and maintenance of septic tank

and alternative wastewater disposal systems; compliance with these state and local requirements would ensure that impacts related to adequate soils for supporting such systems is **less than significant**.

Mitigation: None required.

Impact GEO-8: Implementation of the HEU would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant with Mitigation*)

Geologic mapping indicates that the surficial deposits within Napa County are composed of Holocene and Pleistocene-age alluvial deposits, igneous and metamorphic deposits associated with the Pliocene- to late Miocene-age Sonoma Volcanics, and deposits from the early Cretaceous to late Jurassic-age Great Valley Sequence. The Holocene-age alluvium has a low potential to contain significant paleontological resources near the surface, but the potential increases in the deeper, older layers of these deposits. A review of the UCMP online fossil localities database indicates that there are records of 140 invertebrate fossil localities throughout Napa County, and just two vertebrate fossil specimens from volcanic tuff—assumed to be associated with the Sonoma Volcanics. There are also records of two invertebrate fossil localities from the Great Valley Sequence in Napa County. While sedimentary deposits of the Great Valley Sequence have yielded significant invertebrate and vertebrate fossils, these fossiliferous deposits are from the younger layers of the Great Valley Sequence—which do not occur at Spanish Flat; the sedimentary deposits of the Great Valley Sequence that do occur at the Spanish Flat site have produced common invertebrate fossils (bivalves) and would be considered to have a low potential to contain significant paleontological resources.

The addition of new developments under the HEU would require grading and excavation during the construction phases of housing projects. Paleontological resources may be encountered in deeper excavations (generally, approximately 6 or more feet, depending on site-specific information) into previously undisturbed Holocene-age alluvial deposits (where Pleistocene-age sediments are present), and excavation at any depth in Pleistocene-age alluvial deposits (i.e. all multi-family housing sites except for the Spanish Flat site). If significant paleontological resources are encountered and inadvertently destroyed during construction of new developments, that would constitute a potentially significant impact.

Compliance with Action Item CC-23.2 in the Community Character Element of the Napa County General Plan is required for developments in areas of significant potential to encounter paleontological resources. Under Action Item CC-23.2, if paleontological resources are encountered during construction the Planning Department is to be notified and all construction activities must stop until the find can be evaluated for significance. Action Item CC-23.2 specifies that a qualified archeologist would be retained to determine significant of the find, however, this would be inappropriate in the event of a paleontological find as the qualifications for archeologist and paleontologist is very different. As Action Item CC-23.2 is lacking the appropriate requirements, to ensure potential impacts to significant paleontological resources are less than significant,

Mitigation Measure GEO-1: Determination of Paleontological Potential would be required to ensure that Action Item CC-23.2 is implemented and additional procedures are followed.

Mitigation Measure GEO-1 requires that each new development under the HEU will undergo a site-specific CEQA analysis to determine the paleontological potential of a site. In the event that a site is determined to have a high paleontological potential, Action Item CC-23.2 would be triggered. Action Item CC-23.2 requires that all construction activities stop if a paleontological resource is encountered and that the Planning Department be notified. Upon notification, the Planning Department would retain a qualified paleontologist (meeting the Society of Vertebrate Paleontology [SVP] standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources).

Mitigation Measure GEO-1: Determination of Paleontological Potential.

Prior to issuance of a grading permit for any discretionary projects that require ground disturbance (i.e., excavation, grading, trenching, etc.) below 5 feet in previously undisturbed Holocene-age alluvial deposits or at any depth in previously undisturbed Pleistocene-age alluvial deposits (i.e. all multi-family housing sites except for the Spanish Flat site), the project shall undergo an analysis to determine the potential for a project to encounter significant paleontological resources, based on a review of sitespecific geology and the extent of ground disturbance associated with each project. The analysis shall include, but would not be limited to: 1) a paleontological records search, 2) geologic map review, and 3) peer-reviewed scientific literature review. If it is determined that a site has the potential to encounter significant paleontological resources, County General Plan Action Item CC-23.2 would be triggered. Action Item CC-23.2 requires that all construction activities stop if a paleontological resource is encountered and that the Planning Department be notified. Upon notification, the Planning Department would retain a qualified paleontologist (meeting the Society of Vertebrate Paleontology [SVP] standards as set forth in the "Definitions" section of Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources) to evaluate the discovery and determine its significance.

If the discovery is determined to be significant and the potential exists for a project to encounter and destroy significant paleontological resources, the appropriate steps will be followed to ensure that a professional paleontologist is retained to prepare a paleontological resource management plan (or similar), which will include appropriate mitigation recommendations. Such recommendations could include, but would not be limited to: 1) preconstruction worker awareness training, 2) paleontological resource monitoring, and 3) salvage of significant paleontological resources.

Significance After Mitigation: Implementation of Mitigation Measure GEO-1 would ensure that a thorough analysis of the potential to encounter significant paleontological resources is performed in accordance with SVP standard guidelines. If it is determined that the potential exists for a project to encounter and destroy significant paleontological resources, Action Item CC-23.2 would be required and the appropriate steps will be followed to ensure that a professional paleontologist is retained to prepare a paleontological resource management plan (or similar), which will include appropriate mitigation recommendations to avoid a potentially significant impact. Compliance with Mitigation Measure GEO-1 will reduce impacts to less than significant. While the County does not have regulatory authority over the Imola Avenue site and cannot require that the above mitigation be implemented on that site, the site is under State jurisdiction and the State, like the County, is subject to requirements of PRC Section 5097.5 and Section 30244. Thus, the State agency overseeing development of the site would be required to enforce reasonable mitigation of adverse impacts on paleontological resources from developments on public land and undertake measures similar to those specified here, resulting in a less than significant impact.

4.7.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to geology, soils, paleontological, and mineral resources could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects.

As previously discussed, the Project would have no impact with respect to fault rupture or mineral resources. Accordingly, the Project could not contribute to cumulative impacts related to these topics and are not discussed further.

The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative geologic impacts encompasses and is limited to the Project site and its immediately adjacent area. This is because impacts relative to geologic hazards are generally site-specific. For example, the effect of erosion would tend to be limited to the localized area of a project and could only be cumulative if erosion occurred as the result of two or more adjacent projects that spatially overlapped.

The timeframe during which Project could contribute to cumulative geologic hazards includes the construction and operations phases. For the Project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to geologic hazards are generally time-specific. Geologic hazards could only be cumulative if two or more geologic hazards occurred at the same time, while also overlapping at the same location.

Impact GEO-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on geology, soils, paleontological, or mineral resources. (*Less than Significant*)

Seismically induced groundshaking, liquefaction and lateral spreading, and expansive soils could cause structural damage or pipeline leaks or ruptures. Inadequate design of stormwater control features could result in erosion.

The state Construction General Permit would require each project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. Through compliance with this requirement, the potential for erosion impacts would be reduced. The Construction General Permit has been developed to address cumulative conditions arising from

construction throughout the state, and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would be required to implement BMPs to reduce and control the release of sediment and/or other pollutants in any runoff leaving their respective sites. The runoff water from both sites would be required to achieve the same action levels, measured as a maximum amount of sediment or pollutant allowed per unit volume of runoff water. Thus, even if the runoff waters were to combine after leaving the sites, the sediments and/or pollutants in the combined runoff would still be at concentrations (amount of sediment or pollutants per volume of runoff water) below action levels and would not be cumulatively considerable (**less than significant**).

State and local building regulations and standards, described in the Section 4.7.3, *Regulatory Setting*, have been established to address seismic and unstable geologic unit and soils conditions. The Project and cumulative projects would be required to comply with applicable provisions of the CBC and County codes. Through compliance with these requirements, the potential for impacts would be reduced. As explained in the Regulatory Framework, the purpose of the CBC and County codes is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction; by design, it is intended to reduce the cumulative risks from buildings and structures. Therefore, based on compliance with these requirements, the incremental impacts of the Project combined with impacts of other projects in the area would not cause a significant cumulative impact related to seismically induced groundshaking, liquefaction and lateral spreading, expansive soils, or erosion, and the Project's contribution to cumulative effects would not be cumulatively considerable and this impact would be **less than significant**.

Additionally, as other cumulative project would also undergo a CEQA analysis, it would be determined at the time of analysis of an area has the potential to contain significant paleontological resources. As such, other cumulative projects would be subject to mitigation measures like Mitigation Measure GEO-1, as needed. As the HEU and other projects happening simultaneously would be subject to project-specific mitigation measures designed to protect significant paleontological resources, the Project would not cause or contribute to a cumulative considerable impact and would be **less than significant**.

Mitigation: None required.

4.7.7 References

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4.8 Greenhouse Gas Emissions

4.8.1 Introduction

This section assesses the potential for the implementation of the HEU to result in significant adverse impacts on greenhouse gases (GHGs) and climate change. This section first includes a description of the existing environmental setting as it relates to GHGs, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the HEU's GHG emissions on the environment.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. No comments relating to GHGs and climate change were received during the NOP comment period.

4.8.2 Environmental Setting

Climate Science

"Global warming" and "climate change" are common terms used to describe the increase in the average temperature of the earth's near-surface air and oceans since the mid-20th century. Natural processes and human actions have been identified as affecting the climate. The Intergovernmental Panel on Climate Change (IPCC) has concluded that variations in natural phenomena such as solar radiation and volcanoes produced most of the warming from pre-industrial times to 1950 and had a small cooling effect afterward.

However, increasing GHG concentrations in the atmosphere resulting from human activity since the 19th century, such as fossil fuel combustion, deforestation, and other activities, are believed to be a major factor in climate change. GHGs in the atmosphere naturally trap heat by impeding the exit of solar radiation that has hit the earth and is reflected back into space—a phenomenon referred to as the "greenhouse effect." Some GHGs occur naturally and are necessary for keeping the Earth's surface habitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have trapped solar radiation and decreased the amount that is reflected into space, intensifying the natural greenhouse effect, and resulting in the increase of global average temperature.

Carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are the principal GHGs. When concentrations of these gases exceed historical concentrations in the atmosphere, the greenhouse effect is intensified. CO₂, methane, and nitrous oxide occur naturally and are also generated through human activity. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane results from off-gassing, natural gas leaks from pipelines and industrial processes, and incomplete combustion associated with agricultural practices, landfills, energy providers, and other industrial facilities. Nitrous oxide emissions are also largely attributable to agricultural practices and soil management. CO₂ sinks include vegetation and 4.8 Greenhouse Gas Emissions

the ocean, which absorb CO_2 through sequestration and dissolution, and are two of the largest reservoirs of CO_2 sequestration. Other human-generated GHGs include fluorinated gases such as hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which have much higher heat-absorption potential than CO_2 and are byproducts of certain industrial processes.

CO₂ is the reference gas for climate change, as it is the GHG emitted in the highest volume. The effect that each of the GHGs have on global warming is the product of the mass of their emissions and their global warming potential (GWP). GWP indicates how much a gas is predicted to contribute to global warming relative to how much warming would be predicted to be caused by the same mass of CO₂. For example, methane and nitrous oxide are substantially more potent GHGs than CO₂, with GWPs of 25 and 298 times that of CO₂ respectively, which has a GWP of 1 (CARB, 2022).

In emissions inventories, GHG emissions are typically reported as metric tons of CO_2 equivalent (MTCO₂e). CO_2e is calculated as the product of the mass emitted of a given GHG and its specific GWP. While methane and nitrous oxide have much higher GWPs than CO_2 , CO_2 is emitted in higher quantities and it accounts for the majority of GHG emissions in CO_2e , both from commercial developments and human activity in general.

Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of and inability to accurately model the Earth's climate system, the uncertainty surrounding climate change may never be eliminated completely. Nonetheless, the IPCC's AR5 states that is extremely likely that the dominant cause of the observed warming since the mid-20th century is the anthropogenic increase in GHG concentrations (IPCC, 2014). The National Academies of Science from 80 countries have issued statements endorsing the consensus position that humans are the dominant cause for global warming since the mid-20th century (Cook et al., 2016).

The Fourth California Climate Change Assessment (Fourth Assessment), published in 2018, found that the potential impacts in California due to global climate change include: loss in snow pack; sea-level rise; more extreme heat days per year; more high ozone days; more extreme forest fires; more severe droughts punctuated by extreme precipitation events; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation (California Office of Planning and Research [OPR], California Energy Commission [CEC] & California Natural Resources Agency [CNRA], 2018). The Fourth Assessment's findings are consistent with climate change studies published by the CNRA since 2009, starting with the *California Climate Adaptation Strategy* (CNRA, 2009) as a response to the Governor's Executive Order S-13-2008. In 2014, the CNRA rebranded the first update of the 2009 adaptation strategy as the *Safeguarding California Plan*

(CNRA, 2014). The 2018 update to *Safeguarding California Plan* identifies hundreds of ongoing actions and next steps state agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations (CNRA, 2018).

In 2016, the CNRA released *Safeguarding California: Implementation Action Plans* in accordance with Executive Order B-30-15, identifying a lead agency to lead adaptation efforts in each sector (CNRA, 2016). In accordance with the 2009 *California Climate Adaptation Strategy*, the CEC was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011. The information provided on the Cal-Adapt website represents a projection of potential future climate scenarios comprised of local average values for temperature, sea-level rise, snowpack and other data representative of a variety of models and scenarios, including potential social and economic factors. Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change.

Temperature Increase

The primary effect of adding GHGs to the atmosphere has been a rise in the average global temperature. The impact of human activities on global temperature is readily apparent in the observational record. Since 1895, the contiguous US has observed an average temperature increase of 1.5°F per century (National Oceanic and Atmospheric Association [NOAA], 2019). The 5-year period from 2014–2018 was the warmest on record for the contiguous U.S. (NOAA, 2019); of the top 10 hottest years on record in the U.S., seven have occurred since the year 2000, with the top six years all occurring since 2012 (Climate Central, 2022). The Fourth Assessment indicates that average temperatures in California cold rise 5.6°F to 8.8°F by the end of the century, depending on the global trajectory of GHG emissions (OPR, CEC & CNRA, 2018). According to the Cal-Adapt website, Napa County could experience an increase in annual average maximum temperature of approximately 5.5° to 8.3°F by 2070–2090, compared to the baseline period of 1961–1990 (Cal Adapt, 2022).

With climate change, extreme heat conditions and heat waves are predicted to impact larger areas, last longer, and have higher temperatures. Heat waves, defined as three or more days with temperatures above 90°F, are projected to occur more frequently by the end of the century. Extreme heat days and heat waves can negatively impact human health. Heat-related illnesses include a spectrum of illnesses ranging from heat cramps to severe heat exhaustion and life-threatening heat stroke (Red Cross Red Climate Crescent Center [RCCC], 2019).

Wildfires

The hotter and dryer conditions expected with climate change will make forests more susceptible to extreme wildfires. The Fourth Assessment found that if GHG emissions continue to rise, the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent, and the average area burned statewide each year would increase by 77 percent, by the year 2100. In the areas that have the highest fire risk, wildfire insurance is estimated to see costs rise by 18 percent by 2055 and the fraction of property insured would decrease (Westerling, 2018).

4.8 Greenhouse Gas Emissions

Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California and make it more difficult for the state to achieve air quality standards. Climate change may increase the concentration of ground-level ozone, which can cause breathing problems, aggravate lung diseases such as asthma, emphysema, chronic bronchitis, and cause chronic obstructive pulmonary disease, but the magnitude of the effect, and therefore, its indirect effects, are uncertain. Emissions from wildfires can lead to excessive levels of particulate matter, ozone, and volatile organic compounds (NOAA, 2022). Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (RCCC, 2019).

Precipitation and Water Supply

There is a high degree of uncertainty with respect to the overall impact of global climate change on future water supplies in California. Studies indicate considerable variability in predicting precise impacts of climate change on California's hydrology and water resources. Increasing uncertainty in the timing and intensity of precipitation will challenge the operational flexibility of California's water management systems. Warmer and wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge (CNRA, 2018).

Hydrology and Sea-Level Rise

As discussed above, climate changes could potentially affect: the amount of snowfall, rainfall and snowpack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea-level rise and coastal flooding; coastal erosion; and the potential for saltwater intrusion. Sea-level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Sea level has risen eight to nine inches (21–24 centimeters) since 1880. In 2020, global sea level set a new record high of 91.3 mm (3.6 inches) above 1993 levels. The rate of sea level rise is accelerating; it has more than doubled from 0.06 inches (1.4 millimeters) per year throughout most of the twentieth century to 0.14 inches (3.6 millimeters) per year from 2006–2015. In many locations along the U.S. coastline, high-tide flooding is now 300 percent to more than 900 percent more frequent than it was 50 years ago. Sea level could rise as much as 8.2 feet (2.5 meters) above 2000 levels by 2100 (NOAA, 2021). Rising seas could impact transportation infrastructure, utilities, and regional industries.

Agriculture

California has a massive agricultural industry that represents over 13 percent of total U.S. agricultural revenue (California Department of Food and Agriculture [CDFA], 2020). Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However, a changing climate presents significant risks to agriculture due to changes in maximum and

minimum temperatures, reduction of winter chill hours, extreme heat leading to additional costs for livestock cooling and losses in production, and declines in water quality, groundwater security, soil health, and pollinator species, and increased pest pressures (CNRA, 2018).

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increased concentrations of GHGs are likely to accelerate the rate of climate change. As stated in the Safeguarding California Plan, "species and ecosystems in California are valued both for their intrinsic worth and for the services they provide to society. Air purification, water filtration, flood attenuation, food provision, recreational opportunities such as fishing, hunting, wildlife viewing, and more are all services provided by ecosystems. These services can only be maintained if ecosystems are healthy and robust, and continue to function properly under the impacts of climate change. A recent study examined the vulnerability of all vegetation communities statewide in California and found that 16 of 29 were highly or nearly highly vulnerable to climate change, including Western North American freshwater marsh, Rocky Mountain subalpine and high montane conifer forest, North American Pacific coastal salt marsh, and more." Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. With climate change, ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement in response to changing climatic conditions, direct impacts to species health, and mismatches in timing between seasonal life-cycle events such as species migration and food availability (CNRA, 2018).

GHG Emissions Inventories

U.S. GHG Emissions

In 2019, the United States emitted about 6,558 million metric tons of CO₂e (MMTCO₂e), with 76 percent of those emissions coming from fossil fuel combustion for electricity, heat and transportation. Of the major sectors nationwide, transportation accounts for the highest volume of GHG emissions (approximately 29 percent), followed by electricity (25 percent), industry (23 percent), commercial and residential (13 percent), and agriculture (10 percent). Between 1990 and 2019, total U.S. GHG emissions have increased by 1.8 percent, but emissions have generally decreased since peaking in 2007 (U.S. EPA, 2021).

State of California GHG Emissions

The California Air Resources Board (CARB) compiles GHG inventories for the state. Based on the 2019 GHG inventory data (i.e., the latest year for which data are available from CARB), emissions from GHG emitting activities statewide were 418.1 MMTCO₂e (CARB, 2021a). Between 1990 and 2021, the population of California grew by approximately 10 million from 29.6 to 39.5 million (California Department of Finance [CDF], 2022a). This represents an increase of approximately 34 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from \$773 billion in 1990 to \$3.14 trillion in 2019, representing an increase of approximately 306 percent (more than three times the 1990 gross state product) in today's dollars (CDF, 2022b).

4.8 Greenhouse Gas Emissions

Despite the population and economic growth, CARB's 2019 statewide inventory indicated that California's net GHG emissions in 2019 were 13 MMTCO₂e below 1990 levels, which is the 2020 GHG reduction target codified in California Health and Safety Code Division 25.5, also known as the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32). **Table 4.8-1** identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2019. As shown in the table, the transportation sector is the largest contributor to statewide GHG emissions at approximately 39.7 percent in 2019.

Category	Total 1990 Emissions using IPCC SAR (MMTCO ₂ e)	Percent of Total 1990 Emissions ^e SAR/AR4	Total 2019 Emissions using IPCC AR4 (MMTCO₂e)	Percent of Total 2019 Emissions
Transportation	150.7	35%/35%	166.1	39.7%
Electric Power	110.6	26%/26%	58.8	14.1%
Commercial & Residential Fuel Use	44.1	10%/10%	43.8	10.5%
Industrial	103.0	24%/24%	88.2	21.1%
Recycling and Waste ^a	_	_	8.9	2.1%
High GWP/Non-Specified ^b	1.3	<1%/<1%	20.6	4.9%
Agriculture/Forestry	23.6	6%/5%	31.8	7.6%
Forestry Sinks	-6.7		c	
Net Total (IPCC SAR)	426.6	100%°		
Net Total (IPCC AR4) ^d	431	100%	418.2	100%

 TABLE 4.8-1

 STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS

NOTES: IPCC = Intergovernmental Panel on Climate Change; SAR = Second Assessment Report; AR4 = Fourth Assessment Report.

a. Included in other categories for the 1990 emissions inventory.

b. High global warming potential (GWP) gases are not specifically called out in the 1990 emissions inventory.

c. Revised methodology under development (not reported for 2019).

d. CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

e. Values may not total to 100% due to rounding

SOURCES: CARB, 2007; CARB, 2021a.

Bay Area GHG Emissions

Based on 2015 data, in the nine-county San Francisco Bay Area, GHG emissions from the transportation sector represented the largest source of GHG emissions at 41 percent, followed by the stationary industrial sources at 26 percent, electricity generation and co-generation at 14 percent, and fuel use (primarily natural gas) by buildings at 10 percent. The remaining 8 percent of emissions is composed of fluorinated gas emissions and emissions from solid waste and agriculture. According to the Bay Area Air Quality Management District (BAAQMD), of the total transportation emissions in 2015, on-road sources accounted for approximately 87 percent, while off-road sources accounted for the remainder (BAAQMD, 2017a).

Napa County GHG Emissions

The most recent GHG emissions inventory data available for unincorporated Napa County is from 2014. In 2014, communitywide activities in the County accounted for 484,283 MTCO2e.

Most emissions were due to building energy use and on-road vehicle activity. Thirty-one percent of these emissions were due to energy used in buildings for heating, cooling, and powering devices, equipment, and other energy loads. Emissions from gasoline and diesel consumption related to vehicles and trucks on local and regional roads accounted for another 26 percent of the County's emissions in 2014. Table 4.8-2 below shows the breakdown of Napa County's GHG emissions 2014.

	2014 GHG Emissions		
Sector	MTCO ₂ e	Percent of Total	
Building Energy Use	148,338	31	
On-Road Vehicles	125,711	26	
Solid Waste	83,086	17	
Agriculture	52,198	11	
Off-Road Vehicles	42,508	9	
High-GWP gases	13,481	3	
Wastewater	11,189	2	
Land Use Change	7,684	1	
Imported Water Conveyance	88	<1	
Total	484,283	100	

TABLE 4.8-2 UNINCORPORATED NAPA COUNTY GHG EMISSIONS BY SECTOR

NOTES:

MTCO₂e = metric tons of carbon dioxide equivalents

SOURCE: Napa County, 2018.

4.8.3 Regulatory Setting

Federal

Vehicle Emissions Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model years 2017 through 2025 for passenger cars and light-duty trucks. According to EPA, a model year 2025 vehicle would emit half the GHG emissions of a model year 2010 vehicle (USEPA and NHTSA, 2010). Notably, the State of California harmonized its vehicle efficiency standards through 2025 with the federal standards at this time (see Advanced Clean Cars Program below).

In August 2018, EPA and the NHTSA proposed maintaining the 2020 corporate average fuel economy (CAFE) and CO₂ standards for model years 2021 through 2026. The estimated CAFE and CO₂ standards for model year 2020 are 43.7 miles per gallon (mpg) and 204 grams of CO₂

4.8 Greenhouse Gas Emissions

per mile for passenger cars and 31.3 mpg and 284 grams of CO₂ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In September 2019, EPA finalized the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program and announced its decision to withdraw the Clean Air Act preemption waiver granted to the State of California in 2013 (USEPA & NHTSA, 2019).

State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs within the State. The major components of California's climate protection initiative are reviewed below.

CARB is the agency with regulatory authority over air quality issues in California. CARB adopts regulations designed to reduce criteria pollutants, toxic air contaminants, and GHG emissions; and establishes vehicle emission standards. As discussed earlier, CARB is responsible for preparing, adopting, and updating California's GHG inventory. Additional responsibilities of CARB with respect to specific State mandates are discussed below.

CEQA Guidelines

The CEQA Guidelines are embodied in the California Code of Regulations (CCR), Title 14, beginning with Section 15000. The current CEQA Guidelines Section 15064.4 states that "a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project." Section 15064.4 further states:

A lead agency should consider the following factors, when determining the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see e.g., section 15183.5(b)).

The CEQA Guidelines also state that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of GHG emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located (CEQA Guidelines Section 15064(h)(3)).

The CEQA Guidelines do not require or recommend a specific analytical method or provide quantitative criteria for determining the significance of GHG emissions, nor do they set a numerical threshold of significance for GHG emissions. Section 15064.7(c) clarifies that "when adopting or
using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

When GHG emissions are found to be significant, CEQA Guidelines Section 15126.4(c) includes the following direction on measures to mitigate GHG emissions:

Consistent with Section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:

- (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision.
- (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures.
- (3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions.
- (4) Measures that sequester greenhouse gases.
- (5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.

State of California Executive Orders

Executive Order B-16-12

In March 2012, then-Governor Jerry Brown issued an executive order establishing a goal of 1.5 million zero-emission vehicles (ZEVs) on California roads by 2025. In addition to the ZEV goal, Executive Order B-16-12 stipulated that by 2015 all major cities in California will have adequate infrastructure and be "zero-emission vehicle ready"; that by 2020 the state will have established adequate infrastructure to support 1 million ZEVs; that by 2050, virtually all personal transportation in the state will be based on ZEVs; and that GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

Executive Order B-30-15

Governor Brown signed Executive Order B-30-15 on April 29, 2015, which:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030;
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets; and

• Directed CARB to update the Climate Change Scoping Plan (Scoping Plan) to express the 2030 target in terms of MMTCO₂e.

Executive Order B-48-18

On January 26, 2018, Governor Brown issued an executive order establishing a goal of 5 million ZEVs on California roads by 2030.

Executive Order B-55-18

On September 10, 2018, Governor Brown signed Executive Order B-55-18, committing California to total, economy-wide carbon neutrality by 2045. Executive Order B-55-18 directs CARB to work with relevant state agencies to develop a framework to implement and accounting to track progress toward this goal.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed Executive Order N-79-20, which sets new statewide goals for phasing out gasoline-powered cars and trucks in California. EO N-79-20 requires that 100 percent of in-state sales of new passenger cars and trucks are to be zero-emission by 2035; 100 percent of in-state sales of medium- and heavy-duty trucks and busses are to be zero-emission by 2045 where feasible; and 100 percent of off-road vehicles and equipment sales are to be zero-emission by 2035 where feasible.

State of California Policy and Legislation

Assembly Bill 117 and Senate Bill 790

In 2002, the State of California passed AB 117, enabling public agencies and joint power authorities to form a Community Choice Aggregation (CCA). SB 790 strengthened it by creating a "code of conduct" that the incumbent utilities must adhere to in their activities relative to CCAs. CCAs allow a city, county, or group of cities and counties to pool electricity demand and purchase/generate power on behalf of customers within their jurisdictions in order to provide local choice. CCAs work with PG&E to deliver power to its service area. The CCA is responsible for the electric generation (procure or develop power) while PG&E is responsible for electric delivery, power line maintenance, and monthly billing.

Senate Bills 1078 and 107

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investorowned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Assembly Bill 32 and Senate Bill 32

As discussed in the DTPP Final EIR, the California Global Warming Solutions Act of 2006 (AB 32) required that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction was to be accomplished by enforcing a statewide cap on GHG emissions that would be phased in starting in 2012.

In 2016, SB 32 and its companion bill AB 197 amended Health and Safety Code Division 25.5, establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030, and included provisions to ensure that the benefits of state climate policies reach disadvantaged communities.

Climate Change Scoping Plan

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020. CARB developed and approved the initial scoping plan in 2008, outlining the regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs that would be needed to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives (CARB, 2008).

CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update) in December 2017. The 2017 Scoping Plan Update outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels (CARB, 2017). Through a combination of data synthesis and modeling, CARB determined that the target statewide 2030 emissions limit is 260 MMTCO₂e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO₂e beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the cap-and-trade program to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2030 limit set forth by Executive Order B-30-15.

In the 2017 Scoping Plan Update, CARB recommends statewide targets of no more than 6 MTCO₂e per capita by 2030 and no more than 2 MTCO₂e per capita by 2050. CARB acknowledges that because the statewide per-capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the state, it is appropriate for local jurisdictions to derive evidence-based local per-capita goals based on local emissions sectors and growth projections.

To demonstrate how a local jurisdiction can achieve its long-term GHG goals at the community plan level, CARB recommends developing a geographically specific GHG reduction plan (i.e., climate action plan) consistent with the requirements of CEQA Section 15183.5(b). A so-called "CEQA-qualified" GHG reduction plan, once adopted, can provide local governments with a streamlining tool for project-level environmental review of GHG emissions, provided there are adequate performance metrics for determining project consistency with the plan. Absent conformity with such a plan, CARB recommends "that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." While acknowledging that recent land use development projects in California have demonstrated the feasibility to achieve zero net additional GHG emissions (e.g., Newhall Ranch Resource Management and Development Plan), the 2017 Scoping Plan Update states that:

Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability

of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science...To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT [vehicle miles traveled], and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.

Cap-and-Trade Program

Initially authorized by AB 32 and extended through the year 2030 with the passage of AB 398 (2017), the California Cap-and-Trade Program is a core strategy that the state is using to meet its GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. CARB designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from "covered entities"¹ (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 MTCO₂e per year), setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve reductions.² Under the Cap-and-Trade Program, an overall limit is established for GHG emissions from capped sectors. The statewide cap for GHG emissions from the capped sectors commenced in 2013. The cap declines over time. Facilities subject to the cap can trade offsets and allowances to emit GHGs.³

Senate Bill 375

Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations. The target reductions for the Bay Area are a regional reduction of per-capita GHG emissions from cars and light-duty trucks by 7 percent by 2020 and by 15 percent by 2035, compared to a 2005 baseline.

The Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) address these goals in *Plan Bay Area 2040*, which identifies Priority Development Areas (PDAs) near transit options to reduce the use of on-road vehicles. By focusing and incentivizing future growth in PDAs, *Plan Bay Area 2040* demonstrates how the nine-county Bay Area can reduce per-capita CO₂ emissions by 16 percent by 2035 (MTC & ABAG, 2017). In a March 2018 hearing, CARB approved revised targets: to reduce per-capita emissions 10 percent by 2020 and 19 percent by 2035 (CARB, 2018a). MTC and ABAG adopted *Plan Bay Area 2050* in October 2021, but CARB has not made a determination yet on whether the plan achieves the required targets. As such, the currently applicable plan is still *Plan Bay Area 2040*.

¹ "Covered entity" means an entity in California that has one or more of the processes or operations and has a compliance obligation as specified in Sub article 7 of the Cap-and-Trade Regulation; and that has emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level specified in section 95812(a) of the Regulation.

² 17 CCR 95800–96023.

³ See generally 17 CCR 95811 and 95812.

California Renewables Portfolio Standard (RPS)

Senate Bills 1078 and 107

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investorowned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Senate Bill X 1-2

SB X 1-2, signed by Governor Brown in April 2011, enacted the California Renewable Energy Resources Act. The law obligated all California electricity providers, including investor-owned and publicly owned utilities, to obtain at least 33 percent of their energy from renewable resources by the year 2020.

Senate Bill 350

SB 350, the Clean Energy and Pollution Reduction Act of 2015 (Chapter 547, Statutes of 2015), was approved by Governor Brown on October 7, 2015. SB 350 increased the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased from 33 percent to 50 percent by December 31, 2030. The act requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in existing electricity and natural gas final end uses of retail customers by January 1, 2030.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the RPS goals that were established by SB 350 in 2015. Specifically, the law increases the percentage of energy that both investor-owned utilities and publicly owned utilities must obtain from renewable sources from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. The updated RPS goals are considered achievable, because many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

Advanced Clean Cars Program

In January 2012, pursuant to Recommended Measures T-1 and T-4 of the Scoping Plan, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZEVs. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

In response to a midterm review of the standards in March 2017, CARB directed staff to begin working on post-2025 model year vehicle regulations (Advanced Clean Cars II) to research

additional measures to reduce air pollution from light-duty and medium-duty vehicles. Additionally, as described earlier, in September 2020, Governor Newsom signed Executive Order N-79-20 that established a goal that 100 percent of California sales of new passenger car and trucks be zero-emission by 2035 and directed CARB to develop and propose regulations toward this goal. The primary mechanism for achieving these targets for passenger cars and light trucks is the Advanced Clean Cars II Program.

Mobile Source Strategy

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the state can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next 15 years. The strategy promotes a transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of VMT. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. The strategy also calls for more-stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero emission trucks primarily for class 3–7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions from mobile sources and a 50 percent reduction in the consumption of petroleum-based fuels (CARB, 2016).

Similar to the 2016 Mobile Source Strategy, the 2020 Strategy is a framework that identifies the levels of cleaner technologies necessary to meet the many goals and high-level regulatory concepts that would allow the State to achieve the levels of cleaner technology. The 2020 Strategy will inform the development of other planning efforts including the State Implementation Plan (SIP) which will translate the concepts included into concrete measures and commitments for specific levels of emissions reductions, the 2022 Climate Change Scoping Plan (2022 Scoping Plan Update), and Community Emissions Reduction Plans (CERPs) required for communities selected as a part of CARB's Community Air Protection Program. Central to all of these planning efforts, and CARB actions on mobile sources going forward, will be environmental justice as CARB strives to address longstanding environmental and health inequities from elevated levels of toxics, criteria pollutants, and secondary impacts of climate change (CARB, 2021b). The 2020 Mobile Source Strategy illustrates that an aggressive deployment of ZEVs will be needed for the State to meet federal air quality requirements and the State's climate change targets.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to diesel particulate matter emissions (13 CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than 5 minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in GHG reduction and energy savings in the form of reduced fuel consumption from unnecessary idling.

Airborne Toxic Control Measure for Stationary Compression Ignition Engines

In 2004, CARB adopted an Airborne Toxic Control Measure to reduce public exposure to emissions of diesel particulate matter and criteria pollutants from stationary diesel-fueled compression ignition engines (17 CCR Section 93115). The measure applies to any person who owns or operates a stationary compression ignition engine in California with a rated brake horsepower greater than 50, or to anyone who either sells, offers for sale, leases, or purchases a stationary compression ignition engine. This measure outlines fuel and fuel additive requirements; emissions standards; recordkeeping, reporting and monitoring requirements; and compliance schedules for compression ignition engines.

Truck and Bus Regulation

In addition to limiting exhaust from idling trucks, in 2008 CARB approved the Truck and Bus Regulation to reduce the emissions of oxides of nitrogen and particulate matter from existing diesel vehicles operating in California (13 CCR Section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models. This regulation will be implemented in phases, with full implementation by 2023.

CARB also promulgated emissions standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007, aims to reduce emissions by installing diesel soot filters and encouraging the retirement, replacement, or repowering of older, dirtier engines with newer emissions-controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

Advanced Clean Trucks Program

On June 25, 2020, CARB adopted the Advanced Clean Trucks rule, which requires truck manufacturers to transition from diesel vehicles to electric ZEVs beginning in 2024, with the goal of reaching 100 percent ZEVs by 2045. The goal of the legislation is to help California meet its climate targets of a 40 percent reduction in GHG emissions and a 50 percent reduction in petroleum use by 2030, and an 80 percent reduction in GHG emissions by 2050.

Truck manufacturers will be required to sell ZEVs as an increasing percentage of their annual sales from 2024 through 2035. Companies with large distribution fleets (50 or more trucks) will be required to report information about their existing fleet operations in an effort to identify future strategies for increasing zero-emission fleets statewide (CARB, 2021b).

ZEVs are two to five times more energy efficient than diesel vehicles, and the Advanced Clean Trucks rule will reduce GHG emissions with the co-benefit of reducing dependence on petroleum fuels.

Senate Bill 743

In 2013, Governor Brown signed SB 743, which added Public Resources Code Section 21099 to CEQA. SB 743 changed the way that transportation impacts are analyzed under CEQA, better

aligning local environmental review with statewide objectives to reduce GHG emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl development, and reduce VMT in California.

As required under SB 743, OPR developed potential metrics to measure transportation impacts that may include, but are not limited to, VMT, VMT per capita, automobile trip generation rates, or automobile trips generated. The new VMT metric is intended to replace the use of automobile delay and level of service as the metric to analyze transportation impacts under CEQA.

In its 2018 *Technical Advisory on Evaluating Transportation Impacts in CEQA*, OPR recommends different thresholds of significance for projects depending on land use types (OPR, 2018).

Senate Bill 1383 (Short-Lived Climate Pollutants)

SB 1383, enacted in 2016, requires statewide reductions in short-lived climate pollutants across various industry sectors. The climate pollutants covered under SB 1383 include methane, fluorinated gases, and black carbon—all GHGs with a much higher warming impact than CO₂ and with the potential to have detrimental effects on human health. SB 1383 requires CARB to adopt a strategy to reduce methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The methane emissions reduction goals include a 75 percent reduction in the level of statewide disposal of organic waste from 2014 levels by 2025.

Assembly Bill 341

AB 341, which became law in 2011, established a new statewide goal of 75 percent recycling through source reduction, recycling, and composting by 2020. The new law changed the way that the state measures progress toward the 75 percent recycling goal, focusing on source reduction, recycling, and composting. AB 341 also requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The purpose of the law is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and expand the opportunity for additional recycling services and recycling manufacturing facilities in California (California Department of Resources Recycling and Recovery, 2020).

Assembly Bill 1826

AB 1826, known as the Commercial Organic Waste Recycling Law, became effective on January 1, 2016, and requires businesses and multi-family complexes (with five units or more) that generate specified amounts of organic waste (compost) to arrange for organics collection services. The law phases in the requirements on businesses with full implementation realized in 2019:

- **First Tier:** Commenced in April 2016, the first tier of affected businesses included those that generate 8 or more cubic yards of organic materials per week.
- Second Tier: In January 2017, the affected businesses expanded to include those that generate 4 or more cubic yards of organic materials per week.
- Third Tier: In January 2019, the affected businesses expanded further to include those that generate 4 or more cubic yards of commercial solid waste per week.

State of California Building Codes

California Building and Energy Efficiency Standards (Title 24)

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although the standards were not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and non-residential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The current Title 24, Part 6 standards (2019 standards; CEC, 2018) were made effective on January 1, 2020.

On August 11, 2021, the CEC adopted the 2022 Energy Code and was approved by the California Building Standards Commission for inclusion into the California Building Standards Code (CEC, 2021). The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for or after January 1, 2023, must comply with the 2022 Energy Code. The 2022 Update includes measures that will reduce energy use in single family, multifamily, and nonresidential buildings.

The 2022 Energy Code focuses on four key areas in newly constructed homes and businesses:

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Establishing efficiency measures for lighting, building envelope, HVAC, and ventilation for indoor air quality.
- Making improvements to reduce the energy loads of certain equipment covered by (i.e., subject to the requirements of) the Energy Code that perform a commercial process that is not related to the occupant needs in the building (such as refrigeration equipment in refrigerated warehouses, or air conditioning for computer equipment in data processing centers).

California Green Building Standards Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution-emitting substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment. CALGreen covers a number of fields, with regulations encompassing energy efficiency, water conservation, sustainable building materials, site design, and air quality.

Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code is reviewed and updated on a three-year cycle.

The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the new measures took effect on January 1, 2020 (California Building Standards Commission [CBSC], 2019). The 2019 standards prescribe EV charging requirements for residential and non-residential buildings.

The 2022 CALGreen update simplifies the code and its application in several ways. It offers new voluntary prerequisites for builders to choose from, such as battery storage system controls and heat pump space, and water heating, to encourage building electrification. While the 2019 CALGreen Code only requires provision of EV Capable spaces with no requirement for chargers to be installed at multifamily dwellings, the 2022 CALGreen code mandates chargers (California Housing and Community Development, n.d).

Regional

The BAAQMD is the regional government agency that regulates stationary sources of air pollution in the nine San Francisco Bay Area counties. BAAQMD regulates GHG emissions through the following plans, programs, and guidelines.

BAAQMD Clean Air Plan

BAAQMD and other air districts prepare clean air plans in accordance with the federal and state Clean Air Acts. On April 19, 2017, the BAAQMD Board of Directors adopted the 2017 *Clean Air Plan: Spare the Air, Cool the Climate*, an update to the 2010 Clean Air Plan (BAAQMD, 2017a). The 2017 Clean Air Plan is a comprehensive plan that focuses on the closely related goals of protecting public health and protecting the climate. Consistent with the State's GHG reduction targets, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

BAAQMD Climate Protection Program

BAAQMD established a climate protection program (Program) to reduce pollutants that contribute to global climate change and affect air quality in the San Francisco Bay Area Air Basin. The Program is focused on meeting the 2050 target, as the 2017 Clean Air Plan discussed above is focused on the interim 2030 target. The Program includes measures that promote energy efficiency, reduce VMT, and develop alternative sources of energy, all of which assist in reducing GHG emissions and reducing air pollutants that affect the health of residents. BAAQMD also seeks to support other climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

BAAQMD CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of air quality impacts of projects and plans proposed in the Bay Area. The guidelines also include recommended assessment methodologies for air toxics, odors, and GHG emissions. In June 2010, BAAQMD's Board of Directors adopted CEQA thresholds of significance and an update of the BAAQMD CEQA Guidelines, which included significance thresholds for GHG emissions based on the emission reduction goals for 2020 articulated by the California Legislature in AB 32. The first threshold, 1,100 MTCO₂e per year, is a numeric emissions level below which a project's contribution to global climate change would be less than cumulatively considerable. For larger and mixed-use projects, the guidelines state that emissions would be less than cumulatively significant if the project as a whole would result in an efficiency of 4.6 MTCO₂e per service population or better. Because these thresholds are based on a 2020 GHG target they are no longer relevant for current and future projects. Under the current BAAQMD Air Quality Guidelines, a local government may prepare a qualified GHG reduction strategy that is consistent with AB 32 goals. If a project is consistent with an adopted qualified GHG reduction strategy and general plan that addresses the project's GHG emissions, it can be presumed that the project will not have significant GHG emissions under CEQA (BAAQMD, 2017b).

In April 2022, in response to SB 32 and 2017 Scoping Plan Update targets for 2030 and EO B-15 target for carbon neutrality no later than 2045, the BAAQMD adopted updated CEQA significance thresholds for GHGs and published its Draft Justification Report (BAAQMD, 2022).

Plan Bay Area

The MTC is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area, which includes Napa County. On July 18, 2013, Plan Bay Area was jointly approved by ABAG's Executive Board and the MTC. The plan includes the region's Sustainable Communities Strategy, as required under SB 375, and the 2040 Regional Transportation Plan. The Sustainable Communities Strategy lays out how the region will meet GHG reduction targets set by CARB. CARB's current targets call for the region to reduce per-capita vehicular GHG emissions 10 percent by 2020 and 19 percent by 2035 from a 2005 baseline (CARB, 2018b).

A central GHG reduction strategy of Plan Bay Area is the concentration of future growth in PDAs and Transit Priority Areas (TPAs). To be eligible for PDA designation, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service and planned for more housing. A TPA is an area within 0.5 miles of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes (MTC, 2013).

On July 26, 2017, MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning

assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted (MTC & ABAG, 2017).

On October 21, 2021, the MTC and the Executive Board of the ABAG jointly adopted *Plan Bay Area 2050* and its related supplemental reports. *Plan Bay Area 2050* connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. In the short-term, the plan's Implementation Plan identifies more than 80 specific actions for MTC, ABAG and partner organizations to take over the next five years to make headway on each of the 35 strategies (MTC & ABAG, 2021). It will be several years before the regional transportation model and county transportation models are updated to reflect Plan Bay Area 2050 (the models currently incorporate data from Plan Bay Area 2040).

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation Element of the Napa County General Plan includes the following policies related to GHGs, climate protection and sustainable practices for environmental health (Napa County, 2008).

Goal CON-14: Promote policies to ensure the long-term sustainability of Napa County, including its environment, economy, and social equity.

Goal CON-15: Reduce emissions of local greenhouse gases that contribute to climate change.

Goal CON-16: Promote the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally.

Goal CON-17: Reduce air pollution and reduce local contributions to regional air quality problems, achieving and maintaining air quality in Napa County which meets or exceeds state and federal standards.

Goal CON-18: Provide sufficient long-term solid waste disposal capacity for the County consistent with California Integrated Waste Management Act (Public Resources Code section 40000, et seq.) requirements.

Policy CON-65: The County shall support efforts to reduce and offset greenhouse gas (GHG) emissions and strive to maintain and enhance the County's current level of carbon sequestration functions through the following measures:

- a. Study the County's natural, agricultural, and urban ecosystems to determine their value as carbon sequesters and how they may potentially increase.
- b. Preserve and enhance the values of Napa County's plant life as carbon sequestration systems to recycle greenhouse gases.

- c. Perpetuate policies in support of urban-centered growth and agricultural preservation preventing sprawl.
- d. Perpetuate policies in support of alternative modes of transportation, including transit, paratransit, walking, and biking.
- e. Consider GHG emissions in the review of discretionary projects. Consideration may include an inventory of GHG emissions produced by the traffic expected to be generated by the project, any changes in carbon sequestration capacities caused by the project, and anticipated fuel needs generated by building heating, cooling, lighting systems, manufacturing, or commercial activities on the premises. Projects shall consider methods to reduce GHG emissions and incorporate permanent and verifiable emission offsets.
- f. Establish partnerships with experts, trade associations, non-governmental associations, and community and business leaders to support and participate in programs related to global climate change.

Policy CON-66: The County shall promote the implementation of sustainable practices and green technology in agriculture, commercial, industrial, and residential development through the following actions:

- a. Project Construction
 - 1. Utilize recycled, low-carbon, and otherwise climate-friendly building materials such as salvaged and recycled content materials for buildings, hard surfaces, and landscaping materials.
 - 2. Minimize, reuse, and recycle construction-related waste.
 - 3. Utilize alternative fuels in construction equipment and require construction equipment to utilize the best available technology to reduce emissions.
- b. Education and Outreach
 - 1. Assure that County staff is trained to provide guidance, if requested, to residents and agricultural, commercial, and industrial users on sustainable practices and green technology.
 - 2. Cooperate with and develop partnerships with public, private, and non-profit groups to further the knowledge and implementation of sustainable practices.
 - 3. Encourage residential, commercial, industrial, processing, and agricultural projects to develop methods to reduce and capture CO₂ produced and emitted and to sequester that which is captured.
- c. Residential Development
 - 1. Increase the supply of affordable and workforce housing to encourage local workers to live in the County, minimize commuting and reduce greenhouse gas emissions.
 - 2. Consistent with policies in the Agriculture Preservation and Land Use Element, residential development shall be focused in urbanized areas.

Policy CON-67: The County shall promote and encourage "green building" design, development, and construction through the achievement of Leadership in Energy and Environmental Design (LEED) standards set by the U.S. Green Building Council, the Green Point Rated system standards set by Builditgreen.org, or equivalent programs. Actions in support of this policy shall include:

- a. Audit current County practices to assess opportunities and barriers to implementation of current sustainable practices.
- b. Amend the County Code as necessary to remove barriers to and encourage "green" construction.
- c. Develop new County buildings as "green buildings," utilizing sustainable construction and practices.
- d. Encourage all new large development projects and major renovation of existing facilities to be based on Green Building Council standards utilizing sustainable construction and practices to achieve a minimum LEED rating of Silver, or comparable level on the Green Point Rated system per standards set by Builditgreen.org or other comparable updated rating systems.
- e. Support state and federal incentive programs that offer rebates and cost sharing related to the implementation of "green building" standards and LEED certification.

Policy CON-68: The County shall promote research and the development and use of advanced and renewable energy technology through the following actions:

- a. Use expedited permit processing or other incentives as promotion mechanisms.
- b. Assist in securing grants to support the implementation of photovoltaic, wind, and other renewable energy technologies to provide a portion of the County's energy needs.
- c. Encourage the use of renewable energy resources in residential, commercial, industrial, and agricultural projects and uses.

Policy CON-69: The County shall provide incentives and opportunities for the use of energy-efficient forms of transportation such as public transit, carpooling, walking, and bicycling. This shall include the provision and/or the extension of transit to urban areas where development densities (residential and nonresidential) would support transit use, as well as bus turnouts/access, bicycle storage, and carpool/vanpool parking where appropriate.

Policy CON-70: The County shall seek to increase the amount of energy produced through locally available energy sources, including establishing incentives for, and removing barriers to, renewable and alternative energy resources (solar, wind) where they are compatible with the maintenance and preservation of environmental quality.

Policy CON-71: The County shall encourage the use of bio-fuels and geothermal resources where feasible and environmentally sustainable.

Policy CON-72: The County shall seek to reduce the energy impacts from new buildings by applying Title 24 energy standards as required by law and providing information to the public and builders on available energy conservation techniques, products, and methods available to exceed those standards by 15 percent or more.

Policy CON-73: The County shall monitor the ecological effects of climate change in Napa County over time, including sea level rise, effects on water resources, local microclimates, native vegetation, agriculture, and the economy. Consistent with the principle of adaptive management, the County shall adapt policies and operations to address identified effects as feasible.

Policy CON-74: The County shall evaluate new technologies for energy generation and conservation and solid waste disposal as they become available, and shall pursue their implementation as appropriate in a manner consistent with the principle of adaptive management. This evaluation shall include review of promising technological advances which may be useful in decreasing County greenhouse gas (GHG) emissions, increase in renewable energy that is generated locally, and review of the County's success in meeting targets for GHG emission reductions.

Policy CON-75: The County shall work to implement all applicable local, state, and federal air pollution standards, including those related to reductions in GHG emissions.

Revised Draft Napa County Climate Action Plan

Napa County is in the process of developing a Climate Action Plan (CAP) to implement 2008 General Plan Action Item CON SPSP-2 and to be consistent with State legislation and policies that are aimed at reducing statewide GHG emissions including AB 32, which established a target of reducing statewide GHG levels to 1990 levels by 2020; SB 32, which establishes a mid-term target of reducing statewide GHG levels to 40 percent below 1990 levels by 2030; and Executive Order (EO) S-3-05, which recommends a 2050 statewide longer-term GHG reduction goal of reducing GHG emissions 80 percent below 1990 levels. The most recent draft of the plan (Napa County, 2018) was prepared in July 2018, but was not adopted. The draft CAP identified GHG reduction targets and goals for the County consistent with guidance provided in the 2017 Scoping Plan for plan-level, and includes communitywide GHG reduction analysis and target-setting that aligns with methods used to develop the State's goals. To achieve GHG reduction targets, the draft CAP accounts for actions taken by State and Federal agencies that will reduce emissions in the County (also known as "legislative reductions") and identifies several sector-based strategies and GHG reduction measures that can be adopted and implemented locally by the County or others.

The draft CAP covers only the unincorporated areas of the County, excluding the Cities of Napa, American Canyon, Yountville, St. Helena, and Calistoga. As mentioned earlier, the County has not adopted the draft CAP and is now working with the cities and municipalities in the County to prepare a CAP through a coordinated Countywide effort.

4.8.4 Significance Criteria

The thresholds used to determine the significance of impacts related to GHGs are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

• Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

• Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Approach to Analysis

GHG emissions and global climate change represent cumulative impacts from human activities and development projects locally, regionally, statewide, nationally, and worldwide. GHG emissions from all of these sources cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature; instead, the combination of GHG emissions from past, present, and future projects around the world have contributed and will continue to contribute to global climate change and its associated environmental impacts. There are currently no established thresholds for assessing whether the GHG emissions of a project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA, 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA. The method for evaluating GHG impacts in this EIR uses a qualitative consistency determination of the proposed HEU with the BAAQMD's project-level GHG thresholds as discussed below. This evaluation is considered in a cumulative context because the analysis of GHG emissions is only relevant in a cumulative context.

The CEQA Guidelines do not prescribe specific methods for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methods and thresholds of significance consistent with various factors prescribed by CEQA Guideline 15064.4. The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled *Discussion Draft CEQA and Climate Change Advisory* (OPR, 2018), states that:

[N]either the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for perming an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

GHG Emissions

On April 20, 2022, the BAAQMD adopted the following new significance thresholds that address the State's SB 32 GHG reduction goals and carbon neutrality goal for 2045, as stipulated in Executive Order B-55-18 (BAAQMD, 2022):

The recommended <u>plan-level</u> GHG thresholds adopted by the BAAQMD are as follows:

- A. Meet State's goals to achieve emissions 40 percent below 1990 levels by 2030, and carbon neutrality by 2045; OR
- B. Be consistent with a local GHG Reduction Strategy that meets the criteria under CEQA Guidelines section 15183.5(b).

The recommended project-level GHG thresholds adopted by the BAAQMD are as follows:

- A. Projects must include, at a minimum, the following project design elements:
 - 1. Buildings
 - a. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development)
 - b. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
 - 2. Transportation
 - a. Achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2
 - b. Achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent)

OR

Meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:

- i. Residential projects: 15 percent below the existing VMT per capita
- ii. Office projects: 15 percent below the existing VMT per employee
- iii. Retail projects: no net increase in existing VMT

OR

B. Be consistent with a local GHG Reduction Strategy that meets the criteria under the CEQA Guidelines section 15183.5(b).

The BAAQMD's new plan-level thresholds consider planning documents to have a less-thansignificant climate impact if they demonstrate that GHG emissions from the jurisdiction will decline in accordance with California's GHG reduction targets of 40 percent below 1990 levels 4. Environmental Setting, Impacts, and Mitigation Measures

4.8 Greenhouse Gas Emissions

by 2030 and carbon neutrality by 2045 with the full implementation of the plan. However, this threshold merely reiterates the GHG reduction and carbon neutrality goals adopted by the State and does not provide a mechanism or metrics for plans to evaluate consistency with these goals. As discussed under the Regulatory Setting, Napa County does not have an adopted qualified Climate Action Plan that can be used for evaluation under the CEQA Guidelines section 15183.5(b). As lead agency, the County has discretion to choose thresholds of significance, including thresholds adopted or recommended by other agencies or recommended by experts, such as those recommended by the BAAQMD, provided the lead agency's decision to use such thresholds is supported by substantial evidence (OPR, 2018). Given absence of specific metrics from the BAAQMD to evaluate plan-level consistency with the State's GHG reduction goals and given the absence of a qualified Climate Action Plan for the County, the GHG impacts of the proposed HEU are evaluated in this EIR based on the BAAQMD's project-level significance thresholds for GHG emissions that were recently adopted as part of their CEQA Guidelines Update.

Specifically, option (A) of the BAAQMD's project-level thresholds (inclusion of project design elements) is used as the significance threshold in this EIR. Applying the BAAQMD's recommended project-level thresholds to the HEU in this analysis evaluates the capacity for all future projects proposed for development under the HEU to contribute their fair share GHG emission reductions to achieving the State's goals to achieve emissions 40 percent below 1990 levels by 2030 and carbon neutrality by 2045, as stipulated in BAAQMD's plan-level threshold (A). This is the same logic that the BAAQMD is employing to determine the significance of project-level GHG emissions. In other words, if all future projects proposed for development under the HEU consume no natural gas (1)(a), avoid wasteful, inefficient, or unnecessary electrical usage (1)(b), comply with EV requirements in CALGreen Tier 2 (2)(a), and achieve the SB 743 target of 15 percent reduction in VMT per capita below the regional average (2)(b), then collectively all projects would a have less-than-significant impact on climate change and would be consistent with the statewide targets for 2030 and 2045. The BAAQMD has provided the required substantial evidence for this argument in their justification report (BAAQMD, 2022). To summarize,

If a project is designed and built to incorporate these design elements, then it will contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and an agency reviewing the project under CEQA can conclude that the project will not make a cumulatively considerable contribution to global climate change. If the project does not incorporate these design elements, then it should be found to make a significant climate impact because it will hinder California's efforts to address climate change.

Thus, the HEU itself would a have less-than-significant impact on climate change.

In summary, for purposes of this analysis, a significant GHG impact would be identified if housing development allowed under the HEU does not incorporate the following performance standards adopted by the BAAQMD:

- 1. No natural gas to all projects proposed for development under the HEU;
- Avoid wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines;

- 3. Compliance with EV requirements in the most recently adopted version of CALGreen Tier 2; and
- 4. Consistency with the SB 743 target of at least 15 percent reduction in VMT per capita below regional average. This amounts to 13.6 miles per resident, which is 85 percent of the Bay Area 9-county average of 16.0 miles per resident.

Consistency with Plans, Policies, and Regulations for GHG Reduction

Further, the analysis also evaluates consistency with CEQA Guidelines Section 15064.4(b)(2) by considering whether the HEU would conflict with plan, policies and regulations adopted at the state, regional and local levels, adopted for the purpose of reducing GHG emissions, including but not limited to, the 2017 Scoping Plan Update, SB 37 and E-3-05, Plan Bay Area 2040, and the CALGreen Code.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to GHG emissions, rather the updates to the Safety Element are intended to improve policies associated with reducing hazards caused by climate change, with climate change adaptation. As such, it is not discussed further in this section.

4.8.5 Impacts of the Project

Impact GHG-1: Implementation of the HEU would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. *(Significant and Unavoidable with Mitigation)*

GHG emissions from housing development proposed as part of the HEU would result in both direct and indirect emissions from construction and operational activities. Direct GHG emissions would be generated during construction would include emissions from the combustion of fuel (e.g., gasoline and diesel) in construction equipment and vehicles. Upon completion of construction, development projects would generate direct GHG emissions from natural gas use for space and water heating, on-road motor vehicle trips, as well as area sources (such as landscaping equipment). Indirect operational GHG emissions would be generated from electricity use associated with building energy use along with water and wastewater treatment and conveyance.

For the evaluation of GHG impacts, the BAAQMD's GHG thresholds address the two main direct sources of GHG emissions in land use development projects: building energy use and motor vehicle trips.

1. Compliance with No Natural Gas Requirement

Roughly a quarter of the state's GHG emissions come from buildings, the largest share of which (about half) come from burning natural gas (Energy+Environmental Economics, Inc. [E3], 2019).

Combustion of natural gas and petroleum products for heating and cooking needs represent 80 percent of the direct fossil fuel CO₂ emissions from the residential and commercial sectors in 2019.

The current (2019) Title 24 Building Energy Efficiency Standards (Energy Code) which went into effect on January 1, 2020 require that all newly constructed buildings with three stories or fewer have solar panels. The standards are updated every three years. The 2022 Update to the Energy Code was adopted by the CEC in August 2021 and was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code, which goes into effect on January 1, 2023, encourages efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, and strengthen ventilation standards to improve indoor air quality (CEC, 2022). Buildings whose permit applications are applied for or after January 1, 2023, must comply with the 2022 Energy Code. Though the 2022 update does not explicitly ban natural gas in new construction, it requires the installation of solar and energy storage systems in most new commercial buildings and requires single-family homes to be built "electric ready" to support electric vehicles and appliances. "Electric ready" homes must have an electric plug installed within 3 feet of any stoves, furnaces, dryers and other appliances that run on natural gas, and the home's electrical panel is required to include capacity for the future installation of electric appliances if not already installed during construction. In a resolution to update its Indoor Air Quality Program in 2020, CARB also voted to support all-electric building policies, based on research showing that indoor air pollution from stoves and other gas appliances can contribute to health problems, including asthma and heart disease (CARB, 2020).

Though the 2022 Energy Code stops short of explicitly banning natural gas in new construction, many jurisdictions across California have moved to adopt ordinances requiring all-electric buildings and banning natural gas in new construction as part of their efforts to meet the State's GHG reduction goals for 2030 and beyond. Napa County has not implemented an ordinance prohibiting natural gas in new construction. Further, the HEU does not include a requirement that all future projects proposed for development under the HEU be all-electric with no natural gas appliances or infrastructure. Therefore, development proposed under the HEU would include natural gas infrastructure to the housing units and would therefore be inconsistent with the BAAQMD's draft proposed GHG thresholds.

2. Avoid wasteful, inefficient, or unnecessary electrical usage

As discussed under Impact ENE-1 in Chapter 4.6, Energy, development proposed as part of the HEU would not result in wasteful, inefficient, or unnecessary use of electricity. All development under the HEU would be required to comply with the most recent Title 24 and CALGreen standards to reduce energy consumption and encourage sustainable energy use.

Future development proposed as part of the HEU would be served by MCE, a CCA that provides electricity with at least 60 percent (Light Green service) and up to 100 percent (Deep Green service) from renewable resources. Electricity supplied as part of MCE's Deep Green service would also be GHG-free power from wind and solar sources in California. Although using a CCA does not affect the amount of electricity used, the purpose of this requirement is to reduce

electricity-related GHG emissions, which a CCA would lessen or avoid independent of the amount of electricity consumed.

3. Compliance with Tier 2 EV Requirements in CALGreen

The 2019 California Green Building Standards Code ("CALGreen", Title 24, Part 11) requires that new construction and major alterations include "EV Capable" parking spaces which have electrical panel capacity, a dedicated branch circuit, and a raceway to the EV parking spot to support future installation of charging stations. All new construction and qualifying additions or alterations must comply with mandatory 2019 CALGreen requirements.

In addition to the mandatory requirements, the 2019 CALGreen Code encourages local jurisdictions to raise the sustainable goals by publishing two "voluntary" tiers of additional requirements, referred to as Tier 1 and Tier 2. Tier 1 adds additional requirements beyond the mandatory measures. Tier 2 further increases the requirements. The CALGreen tiers are only mandatory where local ordinances have specifically adopted them. Tier 2 EV requirements for residential uses include the provision of at least 20 percent of the total parking spaces as "EV Capable."⁴

In October 2021, the CEC approved the 2022 CALGreen Building Standards Code which added to the 2019 CALGreen mandatory requirements. The 2022 CALGreen Code does not change the EV Capable percentages required for voluntary Tier 2 from the 2019 standards, but adds the requirement for chargers to be installed. For example, for multifamily buildings with 20 or more units, the 2022 CALGreen Code Tier 2 requires 15 percent of total parking spaces to have EVCS (Electric Vehicle Charging Stations) (California Housing and Community Development, n.d).

Napa County has not adopted requirements beyond the mandatory CALGreen requirements. Further, the HEU does not include a requirement that all future residential development projects proposed for development under the HEU include EV infrastructure consistent with CALGreen Tier 2 requirements. Therefore, housing units developed under the HEU would not comply with the BAAQMD's draft threshold requiring compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.

4. Consistency with SB 743 VMT Reduction Target of 15 percent below the regional average

As detailed earlier, with the adoption of SB 743, the State of California changed the method of traffic analysis required through CEQA for publicly- and privately-initiated projects. SB 743 requires project reviews under CEQA to evaluate the transportation impacts of new developments in terms of VMT, rather than on-road congestion and automobile delay. Based on the County's travel demand forecasting model, the analysis in Chapter 4.15, *Transportation* estimates the VMT per capita generated by the HEU to be vary between 19.0 miles per resident (for the Foster Road site) and 64.0 miles per resident (for the Spanish Flat site) in 2040. The Bay Area 9-county average is estimated to be 16.0 miles per resident in 2040 (Appendix D).

⁴ "EV Capable" refers to a parking space that is linked to a listed electrical panel with sufficient capacity to provide at least 110/120 volts and 20 amperes to the parking space.

Based on these findings, the VMT generated per capita with the implementation of the HEU would exceed the regional average VMT per resident. Therefore, the HEU would be inconsistent with VMT requirement stipulated in the BAAQMD's GHG thresholds.

Because the HEU would not comply with the no natural gas and CALGreen Tier 2 EV requirements, and because VMT per resident generated by the HEU would not meet the 15 percent below regional average required by the BAAQMD's GHG thresholds, this would result in a **potentially significant impact**, requiring mitigation.

Mitigation Measure GHG-1: Reduce GHG emissions from building energy use and motor vehicle trips.

- a) All new residential development proposed as part of the HEU shall be designed to be 100 percent electric with no natural gas infrastructure for appliances, including water heaters, clothes washers and dryers, HVAC systems, and stoves.
- b) Subsequent residential development projects proposed as part of the HEU shall be designed to comply with EV requirements in the most recently adopted version of CALGreen Tier 2 at the time of project-specific CEQA review.
- c) Implement Mitigation Measure TRA-1 included in Chapter 4.15, *Transportation*.

Significance after Mitigation: With the implementation of Mitigation Measure GHG-1a and GHG-1b, all future projects proposed for development pursuant to the HEU would be consistent with the requirements 1 and 3 of the BAAQMD's GHG significance thresholds regarding no natural gas and EV charging infrastructure. However, even with implementation of Mitigation Measure GHG-1c (Mitigation Measure TRA-1), a TDM program would likely not result in reducing VMT to more at least 15 percent below regional average, and the HEU would be inconsistent with BAAQMD GHG threshold 4. Inconsistency with this threshold would mean that projects developed under the HEU would not contribute their fair share of GHG reductions from transportation sources for the Bay Area to achieve its GHG reduction targets for 2030 and beyond. Therefore, this impact would be considered *significant and unavoidable with mitigation*.

Impact GHG-2: Implementation of the HEU would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. *(Significant and Unavoidable with Mitigation)*

CARB 2017 Scoping Plan Update, SB 32 and EO S-3-05

The 2017 Scoping Plan Update adopted by CARB establishes the framework for achieving the 2030 statewide GHG reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan Update details local actions that land use development projects and municipalities can implement to support the statewide goal. The BAAQMD's project-level GHG CEQA thresholds are designed to demonstrate consistency with CARB's 2017 Scoping Plan Update for new projects and plans. As described under Impact GHG-1, the HEU would be inconsistent with the BAAQMD's GHG threshold to reduce VMT per capita to 15 percent below the regional average. Therefore, implementation of the HEU would be inconsistent with the statewide emissions reduction goal for 2030 required by SB 32 and achieved through the 2017 Scoping Plan Update.

The 2017 Scoping Plan Update incorporates a broad array of regulations, policies, and state plans designed to reduce GHG emissions. Those that are applicable to the construction and operation of development proposed under the HEU are listed in **Table 4.8-3**. Actions, plans, and programs that are not under the control or influence of local jurisdictions, such as the Cap-and-Trade program, are not included in the table.

Sector / Source	Category / Description	Consistency Analysis		
Energy and Water				
California Renewables Portfolio Standard (RPS) and SB 100	SB 100 requires that the proportion of electricity from renewable sources be 60 percent renewable power by 2030 and 100 percent renewable power by 2045.	Consistent. Electricity supplied to development allowed under the HEU would be provided by Pacific Gas and Electric (PG&E) and Marin Clean Energy (MCE). PG&E and MCE are required to comply with SB 100 and the RPS.		
California Renewables Portfolio Standard and SB 350	SB 350 requires that the proportion of electricity from renewable sources be 50 percent renewable power by 2030 (superseded by SB 100). It also requires the state to double the energy efficiency savings in existing final end uses of electricity and natural gas by retail customers through energy efficiency and conservation.	Consistent. Electricity to development under the HEU would be provided through PG&E and MCE. PG&E and MCE are required to comply with both the RPS and SB 350 and will meet these standards.		
California Building Efficiency Standards (CCR, Title 24, Part 6)	Energy Efficiency Standards for Residential and Nonresidential Buildings	Consistent. Buildings constructed as part of the HEU would be designed to comply with the most recent version of Title 24 Building Energy Efficiency Standards.		
California Green Building Standards Code (CCR, Title 24, Part 11 - CALGreen)	California's Green Building Standards (CALGreen) Code includes energy and water efficiency requirements, as well as waste management and other design regulations that apply to residential and nonresidential buildings.	Consistent. Buildings constructed as part of the HEU would comply with mandatory CALGreen measures. In addition, Mitigation Measure GHG-1b would go beyond mandatory CALGreen measures to require voluntary Tier 2 electric vehicle charging station requirements for all development allowed under the HEU.		
Senate Bill X7-7	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal.	Consistent. Spanish Flats Water District would provide water service to the Spanish Flat housing site. The Northeast Napa housing sites are outside the City of Napa's Rural Urban Limit but within the City of Napa's Water Service area, where City water may be provided upon approval of the City Council. Both water service providers are required to comply with SB X7-7 standards.		
Mobile Sources				
Advanced Clean Cars Program (ACC) and Mobile Source Strategy (MSS)	In 2012, CARB adopted the ACC program to reduce criteria pollutants and GHG emissions for model year vehicles 2015 through 2025. ACC requires the reduction of criteria pollutants and GHG emissions from light- and medium- duty vehicles. ACC also includes the Zero- Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. The Mobile Source Strategy (2106) calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) on the road by 2025, and 4.2 million ZEVs by 2030.	Consistent. The standards would apply to all vehicles used by residents of housing developed by the HEU, and to construction workers traveling to and from the construction sites. In addition, Mitigation Measure GHG-1b would go beyond mandatory CALGreen regulatory requirements for EV charging infrastructure to require voluntary Tier 2 electric vehicle charging station requirements for all development allowed under the HEU and would therefore accommodate future EV charging stations to facilitate implementation of the ACC program.		

 TABLE 4.8-3

 CONSISTENCY WITH APPLICABLE GHG REDUCTION ACTIONS IN 2017 SCOPING PLAN UPDATE

TABLE 4.8-3 (CONTINUED)
CONSISTENCY WITH APPLICABLE GHG REDUCTION ACTIONS IN 2017 SCOPING PLAN UPDATE

Sector / Source	Category / Description	Consistency Analysis		
Mobile Sources (cont.)				
SB 375	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. CARB's current targets call for the Bay Area to reduce per-capita vehicular GHG emissions 10 percent by 2020 and 19 percent by 2035 from a 2005 baseline.	Inconsistent. Residential development in rural areas is not generally consistent with MTC and ABAG's Plan Bay Area 2040 goals and objectives under SB 375 to implement "smart growth," However the HEU proposes sites for infill development close to the City of Napa and on a site near anticipated employment near Lake Berryessa. Nonetheless, VMT generated per capita within the proposed housing sites for 2040 conditions are projected to exceed the regional average and would therefore be inconsistent with CARB's VMT per capita reductions needed for consistency with SB 375 and Plan Bay Area.		
Solid Waste				
California Integrated Waste Management Act (IWMA) of 1989 and AB 341	IWMA requires all California cities to divert 50- percent of all solid waste from landfill disposal through source reduction, recycling, and composting activities. AB 341 directs CalRecycle to develop and adopt regulations for mandatory commercial recycling and sets a statewide goal for 75 percent disposal reduction by the year 2020.	Consistent. The Upper Valley Waste Management Agency (UVA) was formed for the purpose of providing coordination of economical, regional waste management services, and meeting the requirements of the California Integrated Waste Management Act. Napa County Recycling and Waste Services provides solid waste and residential recycling services to the southern unincorporated areas of Napa County, while the Upper Valley Disposal Service serves the unincorporated areas in northern Napa County. These waste management agencies are responsible for the collection, transfer, and disposal of residential and commercial solid waste and for complying with diversion requirements in the IWMA. These services would be provided to all future development under the HEU. In addition, the County requires development projects to achieve 65 percent diversion of construction waste consistent with the CALGreen Code and create and maintain a construction waste management plan. The diversion requirement may be met through direct facility recycling, reuse of the materials on site, or donation to reuse and salvage businesses.		

As shown above, though the HEU would implement actions identified in the 2017 Scoping Plan Update to reduce energy use, conserve water, reduce waste generation, and promote EV use, it would not reduce vehicle travel consistent with regional goals and strategies as VMT per capita generated by the HEU would be inconsistent with the 15 percent below regional average requirement in the BAAQMD GHG threshold. This inconsistency would mean that the HEU would not contribute its fair share of GHG reductions to meet the statewide GHG reduction goal for 2030 pursuant to SB 32 and the 2017 Scoping Plan Update.

Although the HEU would not meet the EO B-55-13 target of carbon neutrality by 2045, carbon neutrality is not a significance threshold for the purposes of this EIR because carbon neutrality is not an adopted plan, policy, or regulation of the State that is applicable to the County. In fact, the 2017 Scoping Plan Update explicitly acknowledges and states that the inability to achieve carbon

neutrality or net zero GHG emissions does not imply that a project contributes to a significant impact under CEQA (CARB, 2017):

Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.

The HEU makes progress towards carbon neutrality; however, its inability to achieve carbon neutrality by 2045 is not considered to conflict with the 2017 Scoping Plan.

Plan Bay Area 2040⁵

Pursuant to SB 375, ABAG and the MTC adopted *Plan Bay Area 2040* to establish targets and strategies for meeting the region's needs for housing at all income levels, while reducing GHG emissions by private passenger cars and light-duty truck traffic. The core strategy of *Plan Bay Area 2040* is to encourage growth in existing communities along the existing transportation network, focusing new development in PDAs and TPAs in urbanized centers where more public transit and other mobility options are available to reduce the use of cars and light trucks. In addition to encouraging focused growth through significant transit and roadway performance investments, *Plan Bay Area 2040* directs funding to neighborhood active-transportation and complete-streets projects, climate initiatives, lifeline transportation and access initiatives, pedestrian and bicycle safety programs, and PDA planning.

The HEU places housing sites near existing development and urban services. Five of the six sites are adjacent to the City of Napa and already developed residential neighborhoods. The Spanish Flat site, though remote, is expected to meet the projected demand for workforce housing in the Lake Berryessa area. However, as discussed above, VMT generated per capita within the proposed housing sites for 2040 conditions are projected to exceed the regional average and would therefore be inconsistent with CARB's current VMT per capita reductions targets for consistency with SB 375 and Plan Bay Area Therefore, the HEU would be inconsistent with *Plan Bay Area 2040*.

CALGreen Code

Housing development proposed as part of the HEU would be required to comply with the most recent update to the CALGreen Code. The mandatory requirements of the 2019 CALGreen Code, as adopted by the State of California as Title 24, Part 11 of the California Code of Regulations, is adopted and made a part of the Napa County code by reference and establishes standards for sustainable building construction practices having a positive environmental impact both in terms of GHG emissions and energy use. In addition, Mitigation Measure GHG-1 would require projects to go beyond mandatory CALGreen requirements and comply with Tier 2 EV charging requirements in the most recent CALGreen code at the time of project review.

⁵ As noted in the Regulatory Setting discussion above, despite the adoption of Plan Bay Area 2050 in late 2021, the prior plan, Plan Bay Area 2040, provides the best available information for use in this EIR because it remains the basis of growth projections used in the regional and countywide transportation models.

Conclusion

As described above, even with the implementation of Mitigation Measure GHG-1, the HEU would be inconsistent with the GHG reduction targets established by Executive Order S-3-05, and SB 32, and the measures identified in CARB's 2017 Scoping Plan to achieve these targets Therefore, implementation of the HEU would result in a potentially significant impact with respect to compliance with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of GHGs.

Mitigation Measure: Implement Mitigation Measure GHG-1.

Significance After Mitigation: Even with the implementation of Mitigation Measure GHG-1, TDM programs for projects developed under the HEU would likely not result in reducing VMT to more at least 15 percent below regional average, and the HEU would remain inconsistent with BAAQMD GHG threshold 4 adopted to ensure consistency with SB 32, EO B-55-13 and the 2017 Scoping Plan Update. Therefore, this impact would remain *significant and unavoidable with mitigation*.

4.8.6 Cumulative Impacts

Impact GHG-1.CU: Implementation of the HEU, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to GHG emissions that may have a significant impact on the environment or conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. (*Significant and Unavoidable with Mitigation*)

Global GHG emissions and global climate change are inherently a cumulative concern that is understood for CEQA purposes to be an existing significant and adverse condition. Accordingly, the significance of GHG emissions in this analysis is determined based on whether such emissions would have a cumulatively considerable impact on global climate change. Because the geographic scope of cumulative impacts related to GHG emissions (i.e., global climate change) is global, this analysis evaluates the HEU's direct and indirect generation of GHG emissions which contribute to this cumulative impact. The California Air Pollution Control Officers' Association (CAPCOA) considers GHG impacts to be exclusively cumulative impacts, in that no single project could, by itself, result in a substantial change in climate. Therefore, the evaluation of cumulative GHG impacts presented in this section considers whether the HEU would make a considerable contribution to cumulative emissions of GHG. As discussed under Impacts GHG-1 and GHG-2, implementation of the HEU would result in significant and unavoidable impacts even with mitigation primarily due to the HEU's inability to meet the required reductions from transportation-related GHG emissions to ensure consistency with the state's GHG reduction and carbon goals for 2030 and beyond. Therefore, the HEU would also be inconsistent with the 2017 Scoping Plan Update that was adopted by CARB to meet the state's GHG reduction and carbon neutrality goals, Further, development proposed under the HEU is not included in the development assumptions of Plan Bay Area 2040 which is the Bay Area regional plan to meet the region's needs for housing, while reducing GHG emissions from transportation sources. Given

that GHG emission impacts are cumulative in nature, the HEU's incremental contribution to significant cumulative GHG emissions would therefore be cumulatively considerable, and the cumulative impact of GHG emissions generated by the HEU would be *significant and unavoidable with mitigation*.

Mitigation Measure GHG-1: Reduce GHG emissions from building energy use and motor vehicle trips. (See Impact GHG-1 above).

Significance After Mitigation: Significant and Unavoidable.

4.8.7 References

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4.9 Hazards and Hazardous Materials

4.9.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts relative to hazards and hazardous materials. This section first includes a description of the existing environmental setting as it relates to hazards and hazardous materials, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project relative to hazards and hazardous materials. The locations of each of the proposed housing sites are shown on **Figure 4.17-1**, which also identifies fire hazard severity zones.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022, and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to hazards and hazardous materials received during the NOP comment period include concerns related to wildland fires in the Lake Berryessa and Atlas Peak areas.

Appendix G of the *CEQA Guidelines* includes a criterion for expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. However, Section 4.17, *Wildfires*, provides a deeper analysis of wildfires that includes the analysis that would be included in this Hazards and Hazardous Materials section. Therefore, wildfires are not analyzed in this Hazards and Hazardous Materials section and the reader is directed to Section 4.17, *Wildfires*, for such analysis.

4.9.2 Environmental Setting

Hazardous Materials Sites

Active and closed hazardous materials sites that have reported spills or releases are tracked on the State Water Resources Control Board (SWRCB) GeoTracker and Department of Toxic Substances Control (DTSC) EnviroStor websites, which can be viewed simultaneously. Each of the proposed housing sites were checked for known hazardous materials sites located at, adjacent to, or upgradient of each proposed housing site.

Spanish Flat

There are no active or closed hazardous materials sites that have reported spills or releases on this proposed housing site.

One closed hazardous materials site is located upgradient (east) and just across Spanish Flat Road from this proposed housing site (within approximately 200 feet). The Spanish Flat Yard, located at 4300 Spanish Flat Loop Road, is a former leaking underground storage tank (LUST) site (RWQCB 2021, 2022a). This site is used by the Napa County Department of Public Works for vehicle and equipment maintenance and short-term vehicle storage, and the Napa County Sheriff's Department for equipment and/or evidence storage. A shop building, large parking

4.9 Hazards and Hazardous Materials

structure, storage trailer, and fuel island/canopy occupy the Site, and there are three above ground storage tanks (ASTs), containing gasoline, diesel, and propane.

Two underground storage tanks (USTs) used to store gasoline and diesel were removed in January 1991. Petroleum hydrocarbons were detected in soil samples collected from the UST excavation pit, and petroleum hydrocarbons were later detected in groundwater samples. As of September 2008, approximately 75 cubic yards of petroleum hydrocarbon impacted soil have been excavated and removed from the location of the former USTs. Groundwater treatment was conducted form June 23, 2016, through January 25, 2018. A total of 5,536 pounds of vapor phase petroleum hydrocarbons and 37,900 gallons of impacted groundwater were removed from the treatment zone during the groundwater treatment operation. The Regional Water Quality Control Board (RWQCB) closed the case for this site on June 21, 2022, indicating that the RWQCB is satisfied that this site no longer poses a risk to people or the environment.

1806 Monticello Road

There are no active or closed hazardous materials sites that have reported spills or releases on this proposed housing site.

One closed hazardous materials site is located adjacent and upgradient (northeast) of this proposed housing site. The Voorhees Residence, located at 1091 Atlas Peak Road, is a former leaking underground storage tank (LUST) site (RWQCB 1990; EGS 2008). The no further action letter does not provide any details regarding this site other than that the RWQCB closed the case for this site on June 21, 1990, indicating that the RWQCB is satisfied that this site no longer poses a risk to people or the environment. The location of this former UST could be as close as 100 feet from the eastern border of this proposed housing site.

1011 Atlas Peak Road

There are no active or closed hazardous materials sites that have reported spills or releases on or adjacent to this proposed housing site.

One closed hazardous materials site is located approximately 500 feet upgradient (east) of this proposed housing site. The Valley Liquor and gas site, located at 2023 Monticello Road, is a former leaking underground storage tank (LUST) site (Napa County 2009). Two USTs and some affected soil were removed in November 1988. The Napa County Department of Environmental Management closed the case for this site on April 13, 2009, indicating that the County is satisfied that this site no longer poses a risk to people or the environment.

Imola Avenue

There are no active or closed hazardous materials sites that have reported spills or releases on, adjacent, or within over 3,000 feet of this proposed housing site (RWQCB 2022b). There are no active hazardous materials release sites close enough to affect this proposed housing site. Generally, an active hazardous materials cleanup site would need to be within 1,000 feet to have the potential to affect a proposed housing site.

Foster Road

There are no active or closed hazardous materials sites that have reported spills or releases on, adjacent, or within over 3,000 feet of this proposed housing site (RWQCB 2022c). There are no active hazardous materials release sites close enough to affect this proposed housing site. Generally, an active hazardous materials cleanup site would need to be within 1,000 feet to have the potential to affect a proposed housing site.

Proximity to Schools

Spanish Flat

There are no schools within 0.25 miles of this housing site. The nearest school is the Willow Elementary School, located about 14 miles to the southwest.

1806 Monticello Road

There are no schools within 0.25 miles of this housing site. The nearest school is the Vichy Elementary School, located about 2,800 feet or a little over $\frac{1}{2}$ -mile to the southeast.

1011 Atlas Peak Road

There are no schools within 0.25 miles of this housing site. The nearest school is the Vichy Elementary School, located about 1,500 feet or a little over ¹/₄-mile to the southeast.

Imola Avenue

There is one school within 0.25 miles of this housing site. The nearest school is the Creekside Middle School, located at 2121 Imola Avenue.

Foster Road

There are no schools within 0.25 miles of this housing site. The nearest school is the Shearer Elementary School, located about 1.3 miles to the north.

Proximity to Airports

There are no airports within 2 miles of the proposed housing sites. The Napa County Airport is located about 4.4 miles south of the Imola Avenue housing site. All other proposed housing sites are located further north. The Capell Valley Airport is located about 5.7 south of the Spanish Flat housing site. The Pope Valley Airport is located about 11 miles northwest of the Spanish Flat housing site.

Emergency Response or Evacuation Plans

Development under the General Plan update, including the development of new housing, has the potential to create obstacles to the implementation of emergency response or evacuation plans within Napa County including its cities. The Napa County Office of Emergency Services (OES) adopted an Emergency Operations Plan (EOP) in 2020 (Napa County 2020b). The plan aligns

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with the National Incident Management System (NIMS) and the California Standardized Emergency Management System (SEMS). The plan provides Emergency Operations Center (EOC) responders with procedures, documentation, and user-friendly checklists to effectively manage emergencies, and it also provides detailed information of supplemental requirements such as Public Information, Damage Assessment, and Recovery Operations. Relevant emergency response or evacuation plans in the Planning Area include the Napa County EOP and the Napa County Multi-Jurisdictional Hazard Management Plan (HMP; Napa County 2020a). The EOP and HMP do not identify specific emergency response or evacuation routes; the routes depend on the location and nature of the emergency.

4.9.3 Regulatory Setting

Federal

The primary federal agencies with responsibility for hazardous materials management include the U.S. Environmental Protection Agency (USEPA), U.S. Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the U.S. Department of Transportation (USDOT). Federal laws, regulations, and responsible agencies are summarized in **Table 4.9-1**.

Classification	Law or Responsible Federal Agency	Description
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA))	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from "cradle to grave."
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the "cradle to grave" system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
Hazardous Materials Transportation	USDOT	USDOT has the regulatory responsibility for the safe transportation of hazardous materials. The USDOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
	U.S. Postal Service (USPS)	USPS regulations govern the transportation of hazardous materials shipped by mail.
Occupational Safety	Occupational Safety and Health Act of 1970	Fed/OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR 1910).
Fire Code	2000 Uniform Fire Code and Standards	The Uniform Fire Code establishes standards for fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, wine caves, hazardous materials storage and use, provisions intended to protect and assist first responders, industrial processes, and many other general and specialized fire-safety elements for new and existing buildings and premises.

 TABLE 4.9-1

 Federal Laws and Regulations Related to Hazardous Materials Management
State and local agencies often have either parallel or more stringent rules than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or of a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the State or local agency section.

State

The primary State agencies with responsibility for hazardous materials management in the region include the DTSC and the RWQCB within the California Environmental Protection Agency (Cal EPA), California Occupational Safety and Health Administration (Cal/OSHA), California Department of Health Services (CDHS), California Highway Patrol (CHP), and the California Department of Transportation (Caltrans). State laws, regulations, and responsible agencies are summarized in **Table 4.9-2**.

Classification	Law or Responsible State Agency	Description	
Hazardous Materials Management	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program); CUPA (Health and Safety Code Sections 25404 et seq)	In January 1996, Cal EPA adopted regulations, which implemented a Unified Program at the local level. The agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA), which for Napa County is the Napa County Division of Environmental Health (DEH).	
	California Fire Code, Title 24, Chapter 9 of the California Code of Regulations	The California Fire Code regulates the storage and handling of hazardous materials, including the requirement for secondary containment, separation of incompatible materials, and preparation of spill response procedures.	
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985; CUPA	The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a Hazardous Materials Business Plan (HMBP) and submit it to the local CUPA, which in this case is the Napa County DEH.	
	California Hazardous Waste Control Act; DTSC	Under the California Hazardous Waste Control Act, California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100, et seq., DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act. California Health and Safety Code, Division 20, Chapter 6.8, Sections 25300 et seq., also known as the State Superfund law, providing for the investigation and remediation of hazardous substances pursuant to State law.	
Hazardous Materials Transportation	Titles 13, 22, and 26 of the California Code of Regulations	Regulates the transportation of hazardous waste originating in and passing through the state, including requirements for shipping, containers, and labeling.	
	CHP and Caltrans	These two state agencies are primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.	

TABLE 4.9-2 STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

4.9 Hazards and Hazardous Materials

TABLE 4.9-2 (CONTINUED)
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Occupational Safety	Cal/OSHA	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the Code of Federal Regulations (CFR). Cal/OSHA standards are generally more stringent than federal regulations.
	Cal/OSHA regulations (Title 8 CCR)	Concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.
Construction Storm Water General Permit (Construction General Permit; Order 2009-0009- DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ)	RWQCB	Dischargers whose project disturbs one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one of more acres, are required to obtain coverage under the <i>NPDES General</i> <i>Permit for Stormwater Discharges Associated with Construction</i> <i>and Land Disturbance Activities</i> (Construction General Permit; Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). Construction activity subject to this permit includes clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific Best Management Practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area.
Municipal Separate Storm Sewer System (MS4) Permit NPDES No. CAS000004 and Order No. 2013- 0001	RWQCB	The MS4 permit requires permittees (in this case, Napa County) to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The MS4 permittee also has its own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification element. The MS4 permit requires specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.
Underground Infrastructure	California Code of Regulations Section 4216- 4216.9	Section 4216-4216.9 "Protection of Underground Infrastructure" requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for southern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

Local

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), codified in California Health and Safety Code Sections 25404 et seq., requires the administrative consolidation of six hazardous materials and waste programs under one agency, a Certified Unified Program Agency (CUPA). The following programs are consolidated under the unified program:

- Hazardous Materials Release Response Plans, and Inventory (also referred to as Hazardous Materials Business Plans)
- California Accidental Release Program
- Underground Storage Tanks
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures
- Hazardous Waste Generation and Onsite Treatment
- Uniform Fire Code Plans and Inventory Requirements

The State Secretary for Environmental Protection designated the Napa County Division of Environmental Health (DEH) as the local CUPA. The CUPA is charged with the responsibility of conducting compliance inspections of over hazardous materials facilities in Napa County. These facilities and businesses handle hazardous materials, generate or treat a hazardous waste, and/or operate underground storage tanks. The CUPA uses education and enforcement to minimize the risk of chemical exposure to human health and the environment. The CUPA forwards important facility information to local fire prevention agencies that enables them to take appropriate protective action in the event of an emergency at regulated facilities. In order to legally store and use hazardous materials above the trigger quantities, users must apply for permits and demonstrate satisfactory compliance with regulations. The quantities that trigger disclosure are based on the maximum quantity on site at any time:

- 55 gallons, 500 pounds, or 200 cubic feet for 30 days or more at any time over one year
- Any amount of hazardous waste
- Category I or II pesticides
- Explosives
- Extremely hazardous substances above the threshold planning quantity

Napa County Operational Area Emergency Operations Plan

The County maintains an Emergency Operation Plan (EOP) that provides a framework for performing emergency functions before, during, and after an emergency event, natural disaster, or technological incident, and it supports the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS) (Napa County Office of Emergency Services 2020b). The County works together with State, Federal, and local agencies to prevent,

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prepare for, respond to, and recover from incidents regardless of cause, size, or complexity effectively and efficiently. The EOP supports the overall mission of Napa County Office of Emergency Services (Napa County OES).

Napa County Multi-Jurisdictional Hazard Mitigation Plan

The Napa County multi-Jurisdictional Hazard Mitigation Plan (HMP) was developed to ensure the most effective and economical allocation of resources for protection of people and property prior to the onset of a natural or technological disaster (Napa County Office of Emergency Services 2020a). The OAHMP development process included County representatives, representatives of each incorporated city, representatives of other interested agencies, community groups, and community members. Through the process of preparing the Plan, the County's hazards were identified, their likelihood and frequency were ranked, and a set of near-term, midterm, and long-term mitigation measures were created to address these risks.

The HMP includes a set of goals and objectives that serve as building blocks to mitigate potential natural and human-caused hazards, and build on the community's existing capabilities in dealing with hazards. These goals and objectives generated a hazards mitigation strategy in the HMP. The hazards mitigation strategy development process identified specific mitigation objectives and action items for Napa County. The list of action items identifies mitigation projects and includes a project ranking based upon time horizon, cost, risk, benefit, and input from local stakeholders. The action items were developed to provide public policy makers with a list for potential implementation, as mitigation resources, time, equipment, and funding become available for selected projects.

Goal 1: Reduce deaths, injuries and structural damage through the use of planning, regulations and preventative measures.

Goal 2: Reduce deaths, injuries and structural damage through the use of public education and awareness programs.

Goal 3: Reduce deaths, injuries and structural damage through the use of natural resource/ systems protection.

Goal 4: Reduce deaths, injuries and structural damage through the use of structural/ infrastructure projects.

Goal 5: Reduce deaths, injuries and structural damage through the use of emergency services in relation to natural hazards.

Mitigation Strategies: Drought

Mitigation No. NC-22-2020 Drought: Amend or revise water conservation regulations for landscape design.

Mitigation No. NC-23-2020 Drought: Adopt a new water conservation ordinance for commercial and residential land uses limiting outdoor watering.

Mitigation No. SH-15-2020 Drought: Develop landscape planting procedures and planting plans for residents and business wishing to reduce water usage through landscape design.

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Safety Element of the Napa County General Plan includes the following policies related to hazards and hazardous materials (Napa County, 2009).

Goal SAF-1: Safety considerations will be part of the County's education, outreach, planning, and operations in order to reduce loss of life, injuries, damage to property, and economic and social dislocation resulting from fire, flood, geologic, and other hazards.

Policy SAF-1: The County supports and will promote intergovernmental cooperation among local, state and federal public agencies to reduce known hazards and further define uncertain hazards. In particular, the County will work to develop cooperative working relationships with agencies having responsibility for flood and fire protection.

Policy SAF-3: The County shall evaluate potential safety hazards when considering General Plan Amendments, rezonings, or other project approvals (including but not limited to new residential developments, roads or highways, and all structures proposed to be open to the public and serving 50 persons or more) in areas characterized by:

- 1) Slopes over 15 percent,
- 2) Identified landslides,
- 3) Floodplains,
- 4) Medium or high fire hazard severity,
- 5) Former marshlands, or
- 6) Fault zones

Goal SAF-20: All new development shall comply with established fire safety standards. Design plans shall be referred to the appropriate fire agency for comment as to:

- 1) Adequacy of water supply.
- 2) Site design for fire department access in and around structures.
- 3) Ability for a safe and efficient fire department response.
- 4) Traffic flow and ingress/egress for residents and emergency vehicles.
- 5) Site-specific built-in fire protection.
- 6) Potential impacts to emergency services and fire department response.

Goal SAF-31: All development projects proposed on sites that are suspected or known to be contaminated by hazardous materials and/or are identified in a hazardous material/waste search shall be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.

Action Item SAF-31.1: The County shall require written confirmation from applicable local, regional, state, and federal agencies that known contaminated sites have been deemed remediated to a level appropriate for land uses proposed prior to the County approving site development or require an approved remediation plan that demonstrates how contamination will be remediated prior to site occupancy. This documentation will

specify the extent of development allowed on the remediated site as well as any special conditions and/or restrictions on future land uses.

Goal SAF-6: The County will be able to respond in the event of a disaster to protect residents and businesses from further harm and begin reconstruction as soon as reasonable.

Policy SAF-38: The County will continue to implement the Napa Operational Area Hazard Mitigation Plan (NOAHMP), which is incorporated here by reference, in the planning and operations of the County to achieve the goals, objectives, and actions of the NOAHMP, including:

- Promoting a flood safer community.
- Promoting an earthquake safer community.
- Promoting a fire safer community.
- Promoting a technological and biological safer community.
- Reducing impacts from flooding.
- Reducing impacts of earthquakes.
- Minimizing the risk of wildfire at the urban interface.
- Improving the County's ability to mitigate technological hazards and agricultural threats.

Action Item SAF-38.1: Provide staffing and other resources as necessary to regularly update and implement the Napa Operational Area Hazard Mitigation Plan (NOAHMP). Consider new information regarding climate change and the expected severity and/or frequency of weather events in updates to the NOAHMP.

Napa County Municipal Code

Chapter 12.04 - Encroachments.

12.04.020 - Unlawful Activity

A. It is unlawful for any person, firm, corporation or other body or association of persons, including municipal corporations, sanitation districts, sanitary districts, cities and towns to leave, make or cause to be made any excavation or obstruction, or to perform work of any nature within, upon or under the limits of the right-of-way in the unincorporated territory of the county without a valid encroachment permit.

12.04.050 - Applications

Applications for encroachment permits shall identify the owner of the proposed encroachment, the nature of the encroachment and its proposed location, be submitted on forms as may be prepared by the county roads commissioner, and include any information the county roads commissioner determines is necessary to evaluate the encroachment's potential impact on current and future uses of the right-of-way.

12.04.080 – Encroachment Permit Conditions

Owners of encroachments in the right-of-way who are issued a permit under this chapter shall comply with all the following conditions, in addition to any other conditions imposed by the county roads commissioner. As a condition of issuing a permit, the

county roads commissioner may require the owner of an encroachment to execute an agreement to comply with these and any other conditions, and record the agreement with the recorder division of the assessor-recorder-county clerk department where the owner of the encroachment is also the owner of the adjacent property.

- A. The owner shall replace, repair or restore the right-of-way promptly upon completion of construction or maintenance activities, to the same condition existing prior to such work. If the right-of-way is not promptly restored, the county roads commissioner may do whatever work is necessary to restore the right-of-way to its former condition at the expense of the owner of the encroachment.
- B. The owner shall maintain the encroachment in a good, safe and operable condition.
- C. The owner shall remove or relocate the encroachment, at the owner's expense, as necessary for the construction, operation, or maintenance of the right-of-way or any utility service therein, or for any other governmental purpose. The owner shall remove or relocate the encroachment within thirty days after notice unless a longer period is specified by the county roads commissioner. If the owner fails to timely remove or relocate the encroachment, the county roads commissioner may do so at the owner's expense.

12.04.100 – Traffic Control

Owners of encroachments shall provide, erect and maintain such lights, barriers, warning signs and other means necessary to protect the traveling public during construction and maintenance activities. The county roads commissioner's specification or approval of traffic control or safety plans shall not excuse the owners of the encroachments from complying with all legal requirements and properly protecting the safety of those using the right-of-way.

4.9.4 Significance Criteria

The thresholds used to determine the significance of impacts related to hazards and hazardous materials are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildfires.

Approach to Analysis

This environmental analysis of the potential impacts related to hazards and hazardous materials is based on a review of literature and database research, and Napa County planning documents referenced above.

Development in the County, including development allowed by the HEU is regulated by the various laws, regulations, and policies summarized above in Section 4.9.3, *Regulatory Setting*. Compliance with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

A significant impact would occur if, after considering the features described in the Project Description and the required compliance with regulatory requirements, future development allowed by the HEU would create a significant hazard or meet other criteria listed above. For those impacts considered to be significant, mitigation measures are proposed to reduce the identified impacts.

As noted above, Appendix G of the *CEQA Guidelines* includes a criterion for expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. However, Section 4.17, *Wildfires*, provides a deeper analysis of wildfires that includes the analysis that would be included in this Hazards and Hazardous Materials section. Therefore, wildfires are not analyzed in this Hazards and Hazardous Materials section and the reader is directed to Section 4.17, *Wildfires*, for such analysis.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to hazards and hazardous materials, rather the updates to the Safety Element are intended to improve policies associated with hazardous materials or other risks (e.g., emergency response or evacuation plans, and wildland fires). As such, it is not discussed further in this section.

Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- *Hazardous materials sites compiled pursuant to Government Code Section 65962.5* (*Cortese List*). As discussed in Section 4.9.2, *Environmental Setting*, *Hazardous Materials*, none the proposed housing sites are located on a hazardous materials site listed on the Cortese list. In addition, none of the hazardous materials release sites described as nearby are anticipated to affect any of the proposed housing sites. Therefore, this significance criterion is not applicable to the project and is not discussed further.
- Location within 2 miles of an airport. As discussed in Section 4.9.2, *Environmental Setting, Proximity to Airports*, none the proposed housing sites are located within 2 miles of an airport. Therefore, this significance criterion is not applicable to the project and is not discussed further.

4.9.5 Impacts of the Project

Impact HAZ-1: Implementation of the HEU would not create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials. (*Less than Significant*)

Construction

During the construction of new housing allowed under the Project, construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. The routine use or an accidental spill of hazardous materials could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

Construction activities would be required to comply with numerous hazardous materials regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies. Contractors would be required to prepare and implement Hazardous Materials Business Plans (HMBPs) that would require that hazardous materials used for construction would be used properly and stored in appropriate containers with secondary containment to contain a potential release. The California Fire Code would also require measures for the safe storage and handling of hazardous materials.

As discussed in Section 4.10, *Hydrology and Water Quality*, construction contractors would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities according to the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures,

4.9 Hazards and Hazardous Materials

equipment inspections, equipment and fuel storage; protocols for responding immediately to spills; and describe BMPs for controlling site runoff.

In addition, the transportation of hazardous materials would be regulated by the USDOT, Caltrans, and the CHP. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release.

Finally, in the event of a spill that releases hazardous materials at a construction site, a coordinated response would occur at the federal, state, and local levels, including the County or local fire departments, which would be the local hazardous materials response team. In the event of a hazardous materials spill, the fire and law enforcement departments would be simultaneously notified and sent to the scene to respond and assess the situation.

The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would limit the potential for creation of hazardous conditions due to the use or accidental release of hazardous materials, and would render this impact less than significant.

Operations

Once constructed, residences developed as a result of the Project would use and store small quantities of chemicals typical in residences, such as household cleaning solutions, paints and thinners, and motor fuel (e.g., for vehicles and lawn mowers). Few of the chemicals would be considered hazardous materials (e.g., bleach) and the anticipated volumes would be small (i.e., less than 5 gallons). Given that the quantities would be small, the routine use or an accidental spill of hazardous materials would render this impact less than significant.

Mitigation: None required.

Impact HAZ-2: Implementation of the HEU would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (*Less than Significant*)

As discussed in Section 4.9.2, *Environmental Setting, Proximity to Schools,* there is one school located within the proposed Imola Avenue housing site. There are no other schools located within 0.25 miles of any of the other proposed housing sites. The accidental release or spill of hazardous materials transported through the vicinity near the school could expose school children and staff to hazardous materials.

Construction

As discussed above in Impact HAZ-1, there are numerous regulations covering the transportation, use, storage, and disposal of hazardous materials during construction activities. The required compliance with these regulations would ensure that the nearby school would not be exposed to hazardous materials. In addition, Napa County Section 12.04.100, *Traffic Control*, would require

project applicants to apply to the Napa County Public Works for an encroachment permit for any work that would encroach on any public street. The encroachment permit would include traffic control measures to manage the movement of vehicles, including those transporting hazardous materials on roads, including those adjacent to or near schools. With the implementation of the encroachment permit, the impact relative to hazardous materials, substances, or waste in proximity to schools would be **less than significant**. Operations

As discussed in Impact HAZ-1, once constructed, residences allowed by the Project would use and store small quantities of chemicals typical in residences, such as household cleaning solutions, paints and thinners, and motor fuel (e.g., cars and lawn mowers). Few of the chemicals would be considered hazardous materials (e.g., bleach) and the anticipated volumes would be small (i.e., less than 5 gallons). Given that few of the routinely used chemicals would be considered hazardous and that the quantities would be small, the routine use or an accidental spill of hazardous materials near a school would render this impact **less than significant**.

Mitigation: None required.

Impact HAZ-3: Implementation of the HEU would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

Construction

During construction of residences planned for in the HEU, construction workers would access the proposed housing sites, and equipment and materials would be delivered for construction. While most construction activities would occur within the proposed housing sites and off public roads, the construction activities may require some temporary road closures or restrictions for the delivery of materials and/or utility improvements that extend into streets. The road closures or restrictions could interfere with emergency response or evacuation.

Napa County Section 12.04.100, *Traffic Control*, would require project applicants to apply to the Napa County Public Works for an encroachment permit for any work that would encroach on any public street. The encroachment permit would include traffic control measures to manage the movement of vehicles, including ensuring that emergency vehicles (e.g., police, fire, ambulances, and other vehicles traveling under emergency conditions) are able to pass through or by construction sites. With the implementation of the encroachment permit and its traffic control measures, the impact relative to emergency response or emergency evacuation would be **less than significant**.

Operations

Generally, the proposed housing sites would not alter the overall land use patterns or land use designations to such an extent that would conflict with County or city emergency response and/or evacuation plans. In addition, the County has the Napa County Multi-Jurisdictional Hazards Mitigation Plan (HMP) that includes mitigation for addressing the most significant hazards (e.g.,

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floods, earthquakes, wildland fires, terrorism, and technological hazards). The HMP's mitigation strategy includes goals, programs, objectives and action items that help to ensure effective emergency response to significant hazards. Objectives and action items in the HMP include community education programs, post-emergency power generation plans, remote area detection systems, and communication and response systems that contribute to effective emergency response in the County. The number of additional residents is not anticipated to add a significant amount of vehicle trips and is not anticipated to result in significant impacts to for emergency response. The impact relative to emergency access would be **less than significant**.

Mitigation: None required.

4.9.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts. Significant cumulative impacts related to hazards and hazardous materials would be significant if the incremental impacts of the HEU combined with the incremental impacts of cumulative development identified in Section 4.0.3, Cumulative Impacts, would be significant and if the HEU's contribution is considerable.

In the case of this HEU EIR, the amount of development anticipated in the Housing Sites Inventory portion of the HEU is used to analyze Project impacts, but specific information about how and when those sites might develop is not available. Even the precise location of housing inventory sites and densities may evolve based on public outreach and the results of the sites analysis that will be conducted in parallel to preparation of this EIR. Similarly, as discussed in Section 4.0.3, Cumulative Impacts, while resort development is anticipated on the shores of Lake Berryessa near the Spanish Flat site, and while the City of Napa's proposed General Plan for 2040 anticipates development in the Foster Road area, the specific design and schedule for such development is not known at this time.

The geographic area affected by the proposed housing sites and their potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hazardous materials impacts encompasses and is limited to the proposed housing sites and their immediately adjacent area. This is because impacts relative to hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials release, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller and more localized area surrounding the immediate spill location and extent of the release, and could only be cumulative if two or more hazardous materials releases spatially overlapped.

The timeframe during which the project could contribute to cumulative hazards and hazardous materials effects includes the construction and operations phases. For the proposed housing sites, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hazardous materials are generally time-specific.

Hazardous materials events could only be cumulative if two or more hazardous materials releases occurred at the same time, as well as overlapping at the same location.

Impact HAZ-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts relative to hazards and hazardous materials. (*Less than Significant*)

Cumulative Impacts during Construction

Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the proposed housing sites combined with the incremental impacts of cumulative development discussed above **would** substantially increase risk that people or the environment would be exposed to hazardous materials.

The construction activities for all cumulative development would be subject to the same regulatory requirements discussed for the proposed housing sites for compliance with existing hazardous materials regulations, including spill response. Construction projects that have spills of hazardous materials would be required to remediate their respective sites to the same established regulatory standards as the proposed housing sites. This would be the case regardless of the number, frequency, or size of the release(s). The responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The residual less-than-significant effects of the proposed housing sites that would remain after mitigation would not combine with the potential residual effects of cumulative projects to cause a potential significant cumulative impact because residual impacts would be highly site-specific and would be below regulatory standards. Accordingly, no significant cumulative impact with respect to the use of hazardous materials would result. For the above reasons, the Project would not cause or contribute to a cumulatively considerable impact with respect to the use of hazardous materials, and impacts would be **less than significant**.

Construction for two or more projects that occur at the same time and use the same roads could cause interference with emergency access. Similar to the HEU projects, Napa County Section 12.04.100, *Traffic Control*, would require project applicants for cumulative projects to apply to the Napa County Public Works for an encroachment permit for any work that would encroach on any public street. The encroachment permit would include traffic control measures to manage the movement of vehicles, including ensuring that emergency vehicles (e.g., police, fire, ambulances, and other vehicles traveling under emergency conditions) are able to pass through or by construction sites. With the implementation of the encroachment permit and its traffic control measures, the impact relative to emergency response or emergency evacuation would be less than significant. With the implementation of traffic control measures, the proposed housing sites would not cause or contribute to a cumulatively significant impact with respect to emergency access, and impacts would be **less than significant**.

Mitigation: None required.

4.9 Hazards and Hazardous Materials

Cumulative Impacts during Project Operations

Significant cumulative impacts related to operational hazards could occur if the incremental impacts of the proposed housing sites combined with those of one or more of the above-listed projects to cause a substantial increase in risk that people or the environment would be exposed to hazardous materials used or encountered during the operations phase.

Once constructed, the residences would use and store small quantities of chemicals typical in residences, such as household cleaning solutions, paints and thinners, and motor fuel (e.g., cars and lawn mowers). Few of the chemicals would be considered hazardous materials (e.g., bleach) and the anticipated volumes would be small (i.e., less than 5 gallons). Given that the quantities would be small, the proposed housing sites would not cause or contribute to a cumulatively significant impact with respect to the use of hazardous materials, and impacts would be **less than significant**.

For the cumulative projects that include the use of reportable quantities of hazardous materials, the cumulative project components involving the handling, storage, and disposal of hazardous materials would be required to prepare and implement an HMBP and comply with applicable regulations, including those governing containment, site layout, and emergency response and notification procedures in the event of a spill or release. Transportation and disposal of wastes, such as spent cleaning solutions, would also be subject to regulations for the safe handling, transportation, and disposal of chemicals and wastes. As noted previously, such regulations include standards to which parties responsible for hazardous materials releases must return spill sites, regardless of location, frequency, or size of release, or existing background contaminant concentrations to their original conditions. Therefore, compliance with existing regulations regarding hazardous materials. The combined effects of the proposed housing sites and cumulative projects would not be cumulatively considerable result in a significant cumulative impact, and impacts would be **less than significant**.

Generally, the proposed housing sites would not alter the overall land use patterns or land use designations to such an extent that would conflict with County or city emergency response and/or evacuation plans. In addition, the County has the Napa County Multi-Jurisdictional Hazards Mitigation Plan (HMP) that includes mitigation for addressing the most significant hazards (e.g., floods, earthquakes, wildland fires, terrorism, and technological hazards). The OAHMP's mitigation strategy includes goals, programs, objectives and action items that help to ensure effective emergency response to significant hazards. Objectives and action items in the OAHMP include community education programs, post-emergency power generation plans, remote area detection systems, and communication and response systems that contribute to effective emergency response in the County. Similar to the HEU project, the number of additional residents from cumulative projects is not anticipated to add a significant amount of vehicle trips and is not anticipated to result in significant impacts to for emergency response. The impact relative to impacts to emergency access would be **less than significant**.

Mitigation: None required.

4.9.7 References

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4.10.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on Hydrology and Water Quality. This section first includes a description of the existing environmental setting as it relates to surface and groundwater, flooding, water quality, and other hydrological considerations and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section then includes an evaluation of potential significant impacts of the Project on hydrology and water quality.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to hydrology and water quality received during the NOP comment period include concerns related to the drought and water availability for streams.

4.10.2 Environmental Setting

Study Area

There are four distinct geographic areas currently under consideration for multifamily housing as part of the HEU, including Spanish Flat, Northeast Napa (1806 Monticello Road and 1011 Atlas Peak Road), Imola Avenue, and Foster Road, as described in Chapter 3, *Project Description,* and depicted in Figure 3-3. The HEU also assumes continued development of single family homes and accessory dwelling units (ADUs) and junior accessory dwelling units (JADUs) as permitted throughout the County.

Napa County is under the water quality jurisdiction of the San Francisco Bay Regional Water Quality Control Board, and is situated in the Coast Range province north of San Pablo Bay. The topography in Napa County consists of a series of parallel north-northwest trending mountain ridges and intervening valleys. The Spanish Flat site is in the Middle Putah Creek Watershed and the rest of the sites are in the Napa River Watershed, as shown on **Figure 4.10-1**, **Watersheds and Surface Waters of Napa County**.

Surface Waters

Surface waters include perennial waterways such as the Napa River and Putah Creek, as well as multiple tributaries and ephemeral waterways depicted on Figure 4.10-1 and described below. Major tributaries to Napa River include Huichica Creek, Carneros Creek, Browne Valley Creek, Redwood Creek, Dry Creek, Conn Creek, Rector Creek, Soda Creek, Sarco Creek, Tulucay Creek, Murphy Creek, Spencer Creek, Suscol Creek, Fagan Creek, and American Canyon Creek.



SOURCE: ESRI, 2021; ESA, 2022; USGS, 2022

Napa County

Figure 4.10-1 Watersheds and Surface Waters of Napa County



Napa River Watershed

The Napa River watershed covers an approximately 426 square-mile-area (roughly half of the size of Napa County) and surrounds the 55-mile-long Napa River (Napa County Resource Conservation District [RCD], 2022). The watershed extends from Mount St. Helena in the north to San Pablo Bay in the south. The watershed is bordered by the Mayacama Mountains to the west, by a northwest-trending ridge encompassing Howell Mountain, Atlas Peak, and Mt. George to the east, and the Napa-Sonoma Marsh to the south. The watershed includes undeveloped areas, such as forests in the hills, riparian vegetation near rivers and creeks, grasslands, and cultivated vineyards in the valley. Residential and commercial development is clustered in cities throughout Napa Valley such as Calistoga, St. Helena, Napa, American Canyon, and the Town of Yountville. Unincorporated communities of Rutherford and Oakville are also located in the watershed.

Water Quality

The Napa River (non-tidal) is listed on the Clean Water Act (CWA) 303(d) list¹ as impaired for pathogens (sources include onsite waste systems or septic tanks), sedimentation and silt (sources: agriculture/ road construction) which is being addressed by a USEPA approved TMDL² currently being implemented by Napa Resource Conservation District (SFBRWQCB, 2018).

Tidal portions of the Napa River are also listed on the 303(d) list condition category 5.³ Listed pollutants include nutrients and pathogens, sources include agriculture and onsite wastewater systems (septic tanks) with a TMDL being implemented for pathogens.

Napa Sanitation District

The Napa Sanitation District (Napa San) service area lies in the Napa River watershed. Wastewater treatment and recycled water production occur at the Napa San Soscol Water Recycling Facility (Soscol WRF) in compliance with Order No. R2-2016-0008 (NPDES Permit No. CA0037575). Wastewater discharge from the Napa San Soscol WRF to the tidally-influenced Napa River is permitted from October 1 to June 30. Between July 1 and September 30, discharge to the Napa River is generally prohibited and effluent is used to produce recycled water (reclamation). Reclaimed water is used to irrigate landscaping, industrial parks, golf courses, pastures, feed and fodder crops, a cemetery, Napa Valley College ball fields, a recreational park, and vineyards. Flows not used for reclamation remain in onsite oxidation ponds and an adjacent constructed treatment marsh and do not undergo clarification until the wet season begins and discharge to the Napa River is allowed. The permitted dry-weather treatment capacity is 15.4 million gallons per day (mgd) and a peak wet weather discharge capacity of 23.0 mgd.

¹ The term 303(d) list is short for the state's list of impaired and threatened waters (e.g., stream/river segments, lakes). The state identifies the pollutant causing the impairment, when known.

² TMDL refers to total maximum daily load which is the maximum quantity of a particular contaminant that a waterbody can assimilate without experiencing adverse effects on the beneficial use identified.

³ Category 5 condition refers to a water segment where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants being listed for the segment.

Middle Putah Creek Watershed

The Middle Putah Creek watershed, which contains Lake Berryessa, is located east of the Napa River watershed. The watershed is flanked by Howell Mountain and Atlas Peak to the west, and the Blue Ridge and Vaca Mountains to the east. Major land uses in the watershed include recreation and rangeland (Napa RCD, 2022). Putah Creek, the main waterway in the Lake Berryessa basin, originates in Lake County (the north of Napa County) and flows into Lake Berryessa through Napa County, where the waterway is released through Monticello Dam to the east as a tributary to the Sacramento River. Other notable tributaries in the drainage basin include Pope Creek, Capell Creek, and Eticuera Creek (Napa County, 2007).

Lake Berryessa (controlled by Monticello Dam) is the largest surface water body in Napa County, with a storage capacity of 1.6 million-acre feet. It is estimated that 40 streams flow through the 576 square mile drainage basin into Lake Berryessa.

Water Quality

Lake Berryessa is listed on the 303 (d) list for various pollutants⁴ including mercury, source unknown (SFBRWQCB, 2018).

Groundwater Resources

Napa Valley Groundwater Subbasin

The Napa Valley Subbasin is the predominant groundwater basin within Napa Valley. The subbasin is a structural depression in the northern Coast Range Geographic Province, characterized by north-northwest trending low mountainous ridges separated by intervening stream valleys. Napa Valley is relatively narrow, flat-floored stream valley drained by the Napa River. The Napa Valley Subbasin is described in the Napa Valley Subbasin Groundwater Sustainability Plan as being hydrogeologically complex with influences of precipitation, applied irrigation water, and a variety of surface water features including losing and gaining streams. Soil and surficial geologic units of high permeability within the subbasin enable infiltration of rain and surface waters, which constitute the primary sources of groundwater recharge in the subbasin. Surface and groundwater are interconnected throughout much of the subbasin. As described in Section 4.7, *Geology Paleontology and Mineral Resources*, the regional geology is represented by three geologic units. Quaternary alluvium forms the principal aquifer in the Subbasin, ranges in thickness from 20 feet at the valley margins to approximately 650 feet in the center of the valley. Groundwater quality is generally suitable for beneficial uses, although some elevated concentrations of boron, iron, and chloride have been recorded (Napa County GSA, 2022).

Lower Milliken-Sarco Tulocay Groundwater Subarea

The Lower Milliken-Sarco Tulocay (MST) groundwater subarea is located on the eastern edge of the Napa Valley floor in southern Napa County, between the City of Napa and the Howell Mountains. Although designated as a groundwater subarea for local planning purposes, the majority of the subarea is not part of a groundwater basin mapped by DWR. The MST Basin

⁴ Additional pollutants included in the 303(d) list include: aldrin, chlordane, dieldrin, endrin, heptachlor, heptachlor epoxide, hexachlorobenzene (HCB), mirex, PCBs, selenium, total DDT, alpha endosulfan.

covers an area of about 15 square miles and has an estimated usable storage of 200,000 AF (Napa Valley Flood Control District, 1991; County of Napa, 2007). Groundwater level declines observed in the MST subarea have been noted as early as the 1960s and 1970s but have stabilized since 2009 (Luhdorff & Scalmanini, 2020). The MST Basin is the only basin designated as deficient by Napa County (County of Napa, 2022). The County of Napa has enacted an ordinance to protect groundwater in the MST deficient area. Napa Sanitation District has recently expanded recycled water distribution systems to offset use of groundwater in the subarea.

The HEU proposed residential development along Atlas Peak and Monticello Road would be within the MST subarea.

Water Supply

Napa County water supply is derived from multiple sources including local groundwater, surface storage, reclaimed water and imported State Water Project supplies. Unincorporated areas in Napa County primarily depend on groundwater with some surface diversions and storage, and limited recycled water delivery to the MST and Carneros regions. A small percentage of the unincorporated area is served by small water districts (e.g., Congress Valley, Spanish Flat), private water companies (e.g., Howell Mountain Mutual Water Company), or by the cities that subcontract with the Napa County Flood Control & Water Conservation District and receive an annual share of the District's State Water Project entitlement.

Napa County water supply reservoir levels, as of April 2022 are provided in **Table 4.10-1**. Total annual water demand is estimated to be 39,600 acre-feet (AF). Agricultural use presents the highest sector of water demand estimated to be 32,000 AF annually. Rural residential demand is 3,500 AF. Winery water demand is estimated to be 1,300 AF (Napa County Flood Control and Water Conservation District, 2022).

Water Supply Reservoir	Current Capacity (acre feet)	Total Capacity (acre feet)	Percent Full
Kimball	216	267	81
Bell Canyon	2,202	2,350	94
Milliken	1,387	1,400	99
Lake Hennessey	26,846	31,000	87
Rector	373	374	100
Lake Berryessa	1,010,873	1,602,000	63

TABLE 4.10-1 NAPA COUNTY WATER SUPPLY RESERVOIR LEVELS

NOTES:

* Data: City of Napa, City of Calistoga, City of St. Helena, Town of Yountville, Bureau of Reclamation SOURCE: County of Napa April, 2022

Napa County Flood Control and Water Conservation District (FCWCD) has 29,025 AF of annual State Water Project entitlement, which is delivered to Napa County via the North Bay Aqueduct, operated by the California Department of Water Resources. An Alternate Intact project is currently in the works to improve drinking water quality and meet multi-purpose objectives of habitat flood management and water supply (SCWA2, 2021). Currently, Napa County FCWCD subcontracts with the Cities of American Canyon, Napa, and Calistoga, and allocations vary annually. Water reliability is of concern in the region and throughout the state, particularly in the context of the current drought.

The City of Napa provides water supplies to customers within Napa City limits, yet also serves water outside of City limits and even outside its sphere of influence⁵ (SOI). The water operational boundary encompasses the City's water service area, including areas along transmission mains originating from the City's water treatment plants. City water supply extends to customers in the Monticello Road Silverado community, Congress Valley Water District, Carneros Water District, and to Napa State Hospital (City of Napa, 2022a). Refer to Section 4.16, Utilities for additional discussion regarding water supply in the region.

Flooding

The Napa River has experienced serious flood events 21 times since 1862 (Napa County, 2022). The 100-year and 500-year flood zones designated by FEMA are shown on **Figure 4.10-2**, **FEMA Flood Zones in Napa County**. In response to the damage from the flood in 1986, the Napa County Flood Control and Water Conservation District (FCWCD) and the U.S. Army Corps of Engineers are implementing the Napa River Flood Protection Project. The purpose of the project is to create a "Living River" by incorporating multiple goals that include reducing flood damage, restoring wetlands and reconnecting the river to the floodplain, providing river-related economic development opportunities, and expanding recreational opportunities. Multiple elements are complete, with remaining elements to be completed pending federal funding availability (Napa County, 2022). The 1806 Monticello Road (Bishop) and Foster Road proposed housing sites are partially within a special flood hazard zone.

Tsunami and Seiche Hazards

Tsunamis are ocean waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. The proposed housing sites are inland from nearby coastal areas and would not be subject to tsunamis.

Seiches are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. The Spanish Flat site is near Lake Berryessa. However, the lake surface elevation is about 430 feet above mean sea level, while the Spanish Flat area is at about 600 feet above mean sea level. Consequently, The Spanish Flat area is too high to be susceptible to seiches. None of the other housing sites would be close to enclosed or semi-enclosed bodies of water.

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⁵ The Napa City SOI is the boundary within which the Local Agency Formation Commission (LAFCO) anticipates the City limits may be expanded and City water may be extended, pending LAFCO approval.



SOURCE: ESRI, 2021; ESA, 2022; FEMA 2019

Napa County

Figure 4.10-2 FEMA Flood Zones in Napa County



4.10.3 Regulatory Setting

Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (USEPA), was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The purpose of the CWA is to protect and maintain the quality and integrity of the nation's waters by requiring states to develop and implement state water plans and policies. The CWA gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. In California, implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) program is conducted through the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The CWA also sets water quality standards for surface waters and established the NPDES program to protect water quality through various sections of the CWA, including Sections 401 through 404 and 303(d) that are implemented and regulated by the SWRCB and the nine RWQCBs. Section 402 of the CWA would apply to the Project because the Project would be required to control discharges of pollutants from point sources, as discussed below.

Section 402

The 1972 amendments to the Federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402[p]). The USEPA has granted the SWRCB primacy in administering and enforcing the provisions of CWA and NPDES through the local RWQCBs. NPDES is the primary federal program that regulates point-source and non-point-source discharges to waters of the United States.

The SWRCB issues both general and individual permits for discharges to surface waters, including for both point-source and non-point-source discharges. In response to the 1987 amendments, the US EPA developed the Phase I NPDES Storm Water Program for cities with populations larger than 100,000, and Phase II for smaller cities. In California, the SWRCB has drafted the General Permit for Discharges of Storm Water from Municipal Separate Storm Sewer Systems (MS4 General Permit). Development permitted by the HEU would be subject to the Phase II MS4 permit, discussed further below.

National Pollutant Discharge Elimination System (NPDES) Permit

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the U.S. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Section 402 of the CWA contain general requirements regarding NPDES permits.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than

from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the "maximum extent practicable" through the use of structural and non-structural Best Management Practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds). The NPDES permits that apply to activities in Napa County are described under State and local regulations.

State

NPDES Construction General Permit

Construction of multifamily housing allowed by the HEU would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the U.S. These developments would, therefore, be subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The Construction General Permit requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards;
- Good site management "housekeeping;"
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs)

designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before the construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The Construction General Permit also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

In the County, the Construction General Permit is implemented and enforced by the San Francisco Bay Regional Water Quality Control Board, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this Construction General Permit. Dischargers are to notify the San Francisco Bay Regional Water Quality Control Board of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State certify permit registration documents, is responsible for obtaining coverage under the permit.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014, effective January 1, 2015, authorizes local agencies to manage groundwater in a sustainable manner and allows limited state intervention when necessary to protect groundwater resources. SGMA defined "sustainable groundwater management," established a framework for local agencies to develop plans, and implement strategies to sustainably manage groundwater resources, established basin prioritization (ranked from very low to high priority), and set a 20-year timeline for implementation. Basins are prioritized under the SGMA by the California Department of Water Resources (DWR). The HEU

would apply to areas that are within the Napa Subbasin, the Pope Valley subbasin, the Berryessa subbasin, and areas not located within a DWR-designated groundwater basin. The largest groundwater basin in Napa County is the Napa subbasin, identified by DWR as a high-priority basin, though not one in condition of critical overdraft. The Napa Subbasin Groundwater Sustainability Plan was adopted by the Napa County Groundwater Sustainability Agency in 2022. The Pope Valley and Berryessa subbasins are designated very low priority basins (DWR, 2022).

Executive Order N-7-22

On March 28, 2022, Governor Gavin Newsom issued Executive Order (EO) N-7-22 in response to intensifying drought conditions. Among other requirements, EO N-7-22 limits a county, city or other public agency's ability to permit modified or new groundwater wells, and instructs the SWRCB to consider (1) requiring certain water conservation measures from urban water suppliers and (2) banning non-functional or decorative grass at businesses and institutions.

Before local entities can permit new or modified groundwater wells in high and medium priority groundwater basins, EO N-7-22 requires the Groundwater Sustainability Agency (GSA) monitoring the basin to verify in writing that the permitted action is not inconsistent with the Groundwater Sustainability Plan or other groundwater management program for the basin. Additionally, the permitting entity must determine that the well will not interfere with nearby wells and will not cause subsidence that could negatively affect nearby infrastructure. This does not apply to permits for wells that will provide less than 2 AF annually of groundwater for individual domestic users,⁶ or that will exclusively provide groundwater to public water supply systems as defined in section 116275 of the Health and Safety Code.

On June 7, 2022, the Napa County Board of Supervisors accepted procedures to implement the Governor's Executive Order N-7-22.⁷ Well permits for proposed non-exempt wells located within the Napa Valley Subbasin are considered responsive to EO N-7-22 if the following conditions are met: (1) the proposed groundwater use does not exceed 0.3 acre-feet per acre; (2) the proposed well is located at least 1,500 feet from a stream; and (3) the proposed well is located at least 500 feet from other existing water supply wells. Well permits for non-exempt wells in the Napa Valley Subbasin will require written verification to be provided by the Napa County GSA to Napa County Planning, Building and Environmental Services (PBES) Department stating that the proposed well and its operation will be consistent with the Napa Valley Subbasin Groundwater Sustainability Plan.

⁶ California Code of Regulations § 660. Domestic Uses. Domestic use means the use of water in homes, resorts, motels, organization camps, campgrounds, etc., including the incidental watering of domestic stock for family sustenance or enjoyment and the irrigation of not to exceed one-half acre in lawn, ornamental shrubbery, or gardens at any single establishments. The use of water at a campground or resort for human consumption, cooking or sanitary purposes is a domestic use.

⁷ Napa County Board of Supervisors meeting June 7, 2022, Administrative Item 11C; Napa County Planning, Building and Environmental Services Department Napa County Groundwater Sustainability Agency, Napa County and GSA Response to the Governor's Emergency Executive Order N-7-22, June 6, 2022.

Regional

Regional Water Quality Control Plan (Basin Plan)

The Project site is located mainly within the region under the jurisdiction of the San Francisco RWQCB, which establishes regulatory standards and objectives for water quality in the region in the *San Francisco Bay Basin (Region 2) Water Quality Control Plan*, commonly referred to as the Basin Plan (RWQCB, 2019). Portions of eastern Napa County including Putah Creek, Lake Berryessa, and portions of Suisun are under the jurisdiction of the Central Valley RWQCB. The Basin Plans identify existing and potential beneficial uses for surface water and groundwater and provides numerical and narrative water quality objectives designed to protect those uses. Designated beneficial uses for surface waters and groundwater in the study area are provided in **Table 4.10-2**.

Water Body	Designated Beneficial Uses	
Napa River (tidal)	COMM, EST, MIGR, RARE, WILD, REC-1, REC-2, NAV	
Napa River (nontidal)	AGR, MUN, GWR, COMM, COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Napa Creek, Redwood Creek, Mill Creek, Richie Creek, Selby Creek, Cyrus Creek, Garnett Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Bell Canyon Reservoir	MUN, WARM, WILD, REC-1, REC-2	
Montgomery Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Kimball Canyon Creek	MUN, COLD, RARE, WARM, WILD, REC-1, REC-2	
Segassia Canyon Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Milliken Creek, Milliken Reservoir, Sarco Creek	FRSH, COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
American Canyon Creek	WARM, WILD, REC-1, REC-2	
Mud Slough	COMM, EST, MIGR, RARE	
Conn Creek	MUN, FRSH, COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Huichica Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Suscol Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Tulucay Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Spencer Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Lake Hennessey	MUN, COMM, COLD, SPWN, WARM WILD, REC-1, REC-2	
Chiles Creek	MUN, FRSH, COLD, SPWN, WARM, WILD, REC-1, REC-2	
Sulphur Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC-1, REC-2	
Putah Creek, Lake Berryessa	MUN, AGR, POW, REC-1, REC-2, COLD, SPWN, WILD	

 TABLE 4.10-2

 DESIGNATED BENEFICIAL USES FOR WATER BODIES IN THE STUDY AREA

NOTES:

Existing and Potential Beneficial Uses Key:

AGR (Agricultural Supply); COLD (Cold Freshwater Habitat); COMM (Commercial and Sport Fishing); EST (Estuarine habitat); IND (Industrial Service Supply; MIGR (Fish Migration); MUN (Municipal and Domestic Supply); REC-1 (Water Contact Recreation); REC-2 (Noncontact Water Recreation); POW (Hydropower Generation); PROC (Industrial Process Supply); SHELL (Shellfish Harvesting); SPWN (Fish Spawning); RARE (Preservation of Rare and Endangered Species); WARM (Warm Freshwater Habitat); WILD (Wildlife Habitat).

SOURCES: SFB RWQCB, 2017; CV RWQCB, 2018

Municipal Separate Storm Sewer Systems (MS4s)

As discussed, the Clean Water Act mandates controls on discharges from municipal separate storm sewer systems (MS4s). Acting under the Federal mandate and the California Water Code, California Water Boards require cities, towns, and counties to regulate activities that may result in pollutants entering storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use BMPs to minimize the amount of pollutants in runoff. To enforce prohibitions and to promote the use of BMPs, the municipalities inspect businesses and construction sites, conduct public education and outreach, sweep streets, and clean storm drains. In addition, municipalities actively support projects to assess, monitor, and restore local creeks and wetlands.

Napa County, along with Town of Yountville, and cities of Napa, St. Helena, Calistoga and American Canyon) are co-permittees to the Phase II Small MS4 General Permit (Water Quality Order No. 2013-0001- DWQ General Permit Number CAS000004). The general permit contains region-specific requirements for the purpose of implementing the Napa River pathogen TMDL with respect to wasteload allocation for municipal stormwater (SWRCB, 2013).

On February 5, 2013, California's State Water Resources Control Board reissued the Phase II Stormwater National Pollutant Discharge Elimination System (NPDES) Permit for small MS4s, including Provision E.12, *Post-Construction Stormwater Management Program*. This provision mandates municipalities to require specified features and facilities to control pollutant sources, control runoff volumes, rates, and durations, and to treat runoff before discharge from the site. The provision also requires that these measures be included in development plans as conditions of issuing approvals and permits.

With funding from the North Bay Watershed Association (NBWA) and support from the NBWA Joint Technical Committee, the Bay Area Stormwater Management Agencies Association (BASMAA), through the BASMAA Phase II Committee, created the *BASMAA Post-Construction Manual, Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa, And Solano Counties: A Low Impact Development Approach to Implementing Provision E.12 of the Phase II Small MS4 General Permit (BASMAA, 2019).*

The Post-Construction Manual assists project applicants in implementing measures that demonstrate that their project complies with the NPDES permit requirements by providing guidance for the applicant's Stormwater Control Plan (demonstrates adequately sized bioretention facilities can be accommodated within the project site and landscape design) and Low-Impact Development (LID) Design (e.g., design details of bioretention basins). Because the overall Project would exceed 5,000 square feet of impervious surface, it would be considered a "Regulated Project" per the BASMAA manual. Regulated projects would be required to implement at least one measure to reduce runoff. Measures to reduce runoff include but are not limited to the following:

- Route runoff to bioretention basins
- Disperse runoff to landscape
- Use pervious pavements

Additional requirements for regulated projects include the following:

- Limit clearing, grading, and soil compaction
- Minimize impervious surfaces
- Conserve natural areas of the site as much as possible consistent with local General Plan policies
- Comply with stream setback ordinances and requirements
- Protect slopes and channels against erosion
- Route remaining runoff to bioretention or other facilities sized and designed according to the criteria in the BASMAA Manual
- Identify potential sources of pollutants and implement corresponding source control measures in the BASMAA Manual
- Provide for ongoing maintenance of bioretention facilities

Local

Napa Valley Subbasin Groundwater Sustainability Plan

The Napa Valley Subbasin Groundwater Sustainability Plan was adopted by the Napa County GSA in January 2022, pursuant to the requirements of SGMA. Achieving the sustainability goal means avoiding significant and unreasonable effects occurring throughout the basin due to groundwater conditions, referred to as "undesirable results". The Napa Valley Subbasin Groundwater Sustainability Plan (Napa County GSA, 2022) contains the following sustainability goals:

- To protect and enhance groundwater quantity and quality for all beneficial uses and users of groundwater and interconnected surface water in the Napa Valley Subbasin both now and in the future.
- The Napa County GSA will implement sustainable management criteria and an adaptive management approach supported by the best available information and best available science resulting in the absence of undesirable results within 20 years of GSP adoption.

Napa County Municipal Code

Stormwater Management and Discharge Control Ordinance

Chapter 16.28 of the Napa County Municipal Code contains the Napa County Stormwater Management and Discharge Control Ordinance, the purposes of which are to protect the health, safety and general welfare of Napa County residents; to protect water resources and to improve water quality; to protect and enhance watercourses, fish, and wildlife habitat; to cause the use of management practices that will reduce the adverse effects of polluted runoff discharges; to secure benefits from the use of stormwater as a resource; and to ensure the County is compliant with applicable state and federal law. The Ordinance enables Napa County to establish controls on the volume and rate of stormwater runoff from any developments or construction projects as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. These controls may include limits on impervious area dimensions, quantities or locations, and/or provisions for detention and retention of runoff on-site.

The County may require, as a condition of project approval, permanent structural controls designed for the removal of sediment and other pollutants and for control on the volume and rate of stormwater runoff from the project's added or replaced impervious surfaces. The selection and design of such controls shall be in accordance with criteria established or recommended by federal, state, local agencies, and where required, the BASMAA Post Construction Manual or any other standards as adopted by resolution of the Napa County Board of Supervisors. Where physical and safety conditions allow, the preferred control measure is to retain drainageways above ground and in as natural a state as possible, or other biological methods such as bioretention areas.

Chapter 16.28 also requires any person performing construction activities to implement appropriate BMPs to prevent the discharge of construction wastes or contaminants from construction materials, tools and equipment from entering a storm drain or watercourse. The combination of BMPs used, and their execution in the field, must be customized to the site using up-to-date standards and practices, such as the California Stormwater Quality Association's Construction BMP Handbook or other standards and practices as established by resolution of the board of supervisors. Erosion and Sediment Control Plans are required for any project subject to a grading permit, or subject to another County permit such as projects within fifty feet of a storm drain, projects disturbing ten thousand square feet of soil or more, or any other project required by the County.

Napa County Floodplain Management Ordinance

16.04.690 - Construction materials and methods

All applicable standards of Title 44 of the U.S. Code of Federal Regulations at Section 60.3, the State and County building codes and this chapter must be met for any structure in a flood hazard area (Ord. 1307 § 1 (part), 2008). The most restrictive regulation shall apply.

- A. All new construction and substantial improvements shall be constructed with materials that are resistant to flood damage.
- B. All new construction and substantial improvements shall be constructed using methods and practices that minimize the potential for and impact of flood damage.
- C. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment, and other service facilities, that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- D. All new and replacement water supply systems shall be designed to minimize or eliminate the potential for infiltration of floodwater into the system.
- E. New and replacement sanitary sewage systems shall be designed to minimize or eliminate the potential for infiltration of floodwaters into the systems and for the discharge from the systems into floodwaters.
- F. On-site waste disposal systems shall be located so as to avoid the potential for their impairment, or their causing contamination during flooding.

16.04.720 - Residential construction

New residential construction, and subsequent improvement of any residential structure within a special flood hazard area⁸, shall have the lowest floor, including basement, elevated to or above a level equal to the base flood elevation plus one foot of freeboard. The floodplain administrator shall be provided the elevation relative to MSL of the lowest floor, including basement, certified by a registered professional engineer or surveyor on FEMA form 81-31 prior to issuance of a certificate of occupancy. (Ord. 1307 § 1 (part), 2008)

Napa County Groundwater Conservation Ordinance

13.15.020 - Groundwater permit required

- A. No applications filed pursuant to Division I (Water) of this title for development of a new water system or improvement of an existing water system within Napa County that may use groundwater as a water source shall be approved by any employee, department or body of Napa County unless it is specifically exempted by this chapter or unless a groundwater permit is obtained as required by this chapter.
- B. Prior to the issuance of a building permit pursuant to Section 15.08.040, or any other permit or administrative approval facilitating the development or use of any parcel that may utilize a groundwater supply, a groundwater permit must be obtained unless specifically exempted by this chapter.
- C. Prior to the final approval of a subdivision, a groundwater permit must be obtained if required by this chapter and an existing, new or improved water system will provide groundwater to the subdivision.

18.141.010 - Groundwater conservation

Any zoning applications filed under this title shall disclose whether the proposed use requires or anticipates the use of groundwater as a water source. Where that use requires groundwater review and the issuance of a groundwater permit under Chapter 13.15 of this code, the zoning application shall not be approved until that review has been completed and a groundwater permit has been obtained. (Ord. 1162 § 9, 1999)

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation and Open Space Element and Safety Element of the Napa County General Plan contains the following goals and policies related to water resources (Napa County, 2008).

Goal CON-8: Reduce or eliminate groundwater and surface water contamination from known sources (e.g., underground tanks, chemical spills, landfills, livestock grazing, and other dispersed sources such as septic systems).

⁸ "Special flood hazard area" as defined in the Napa Municipal Code means an area in the floodplain subject to a one-percent or greater chance of flooding in any given year and shown on a FBFM or FIRM as zone A, AO, A1-30, AE, A99, AH, V, V1-30 or VE.

Goal CON-9: Control urban and rural storm water runoff and related non-point source pollutants, reducing to acceptable levels pollutant discharges from land-based activities throughout the county.

Goal CON-10: Conserve, enhance and manage water resources on a sustainable basis to attempt to ensure that sufficient amounts of water will be available for the uses allowed by this General Plan, for the natural environment, and for future generations.

Goal CON-11: Prioritize the use of available groundwater for agricultural and rural residential uses rather than for urbanized areas and ensure that land use decisions recognize the long-term availability and value of water resources in Napa County.

Goal CON-13: Promote the development of additional water resources to improve water supply reliability and sustainability in Napa County, including imported water supplies and recycled water projects.

Policy CON-27: The County shall enforce compliance and continued implementation of the intermittent and perennial stream setback requirements set forth in existing stream setback regulations, provide education and information regarding the importance of stream setbacks and the active management and enhancement/restoration of native vegetation within setbacks, and develop incentives to encourage greater stream setbacks where appropriate.

Policy CON-42: The County shall work to improve and maintain the vitality and health of its watersheds. Specifically, the County shall:

- b) Reduce water pollutants through education, monitoring, and pollutant elimination programs (e.g., watershed education and monitoring programs identified in the Watershed Information Center and Conservancy (WICC) Strategic Plan and Napa County/Resource Conservation District (RCD) Watershed Programs, and pollution reduction goals outlined in Napa County's Phase II National Pollution Discharge Elimination System (NPDES) General Permit from the State Water Board).
- e) Promote and support the use of recycled water wherever feasible, including the use of tertiary treated water, to help improve supply reliability and enhance groundwater recharge.

Policy CON-44: The County shall identify, improve, and conserve Napa County's surface water resources through the following measures: a) Evaluate and develop land use policies resulting in the appropriate density and mix of impervious surface and stable vegetation cover to improve water quality and reduce surface water pollution and siltation within domestic water supply watersheds.

Policy CON-45: Protect the County's domestic supply drainages through vegetation preservation and protective buffers to ensure clean and reliable drinking water consistent with state regulations and guidelines. Continue implementation of current Conservation Regulations relevant to these areas, such as vegetation retention requirements, consultation with water purveyors/system owners, implementation of erosion controls to minimize water pollution, and prohibition of detrimental recreational uses.

Policy CON-47: The County shall comply with applicable Water Quality Control/Basin Plans as amended through the Total Maximum Daily Load (TMDL) process to improve

water quality. In its efforts to comply, the following may be undertaken: a) Monitoring water quality in impaired waterbodies identified by the Regional Water Quality Control Board(s). b) Addressing failing septic systems in the vicinity of Murphy, Browns Valley, and Salvador Creeks and throughout the County, should they be found to exist. c) Retrofitting County-maintained roads to reduce sediment caused by runoff. d) Supporting voluntary habitat restoration and bank stabilization efforts, with particular focus on the main stem and main tributaries of the Napa River. e) Ensuring continued effectiveness of the National Pollution Discharge Elimination System (NPDES) program and storm water pollution prevention. f) Ensuring continued effectiveness of the County's Conservation Regulations related to vineyard projects and other earth-disturbing activities.

Policy CON-48: Proposed developments shall implement project-specific sediment and erosion control measures (e.g., erosion control plans and/or stormwater pollution prevention plans) that maintain pre-development sediment erosion conditions or at minimum comply with state water quality pollution control (i.e., Basin Plan) requirements and are protective of the County's sensitive domestic supply watersheds. Technical reports and/or erosion control plans that recommend site-specific erosion control measures shall meet the requirements of the County Code and provide detailed information regarding site specific geologic, soil, and hydrologic conditions and how the proposed measure will function.

Policy CON-49: The County shall develop and implement a water quality monitoring program (or programs) to track the effectiveness of temporary and permanent Best Management Practices (BMPs) to control soil erosion and sedimentation within watershed areas and employ corrective actions for identified water quality issues (in violation of Basin Plans and/or associated TMDLs) identified during monitoring. [Implemented by Action Item CON WR-4].

Policy CON-50: The County will take appropriate steps to protect surface water quality and quantity, including the following:

- a) Preserve riparian areas through adequate buffering and pursue retention, maintenance, and enhancement of existing native vegetation along all intermittent and perennial streams through existing stream setbacks in the County's Conservation Regulations (also see Policy CON-27 which retains existing stream setback requirements).
- b) Encourage flood control reduction projects to give full consideration to scenic, fish, wildlife, and other environmental benefits when computing costs of alternative methods of flood control.
- c) The County shall require discretionary projects to meet performance standards designed to ensure peak runoff in 2-, 10-, 50-, and 100-year events following development is not greater than predevelopment conditions.
- d) Maintain minimum lot sizes of not less than 160 acres in Agriculture, Watershed, and Open Space (AWOS) designated areas to reflect desirable densities based on access, slope, productive capabilities for agriculture and forestry, sewage disposal, water supply, wildlife habitat, and other environmental considerations.
- e) In conformance with National Pollution Discharge Elimination System (NPDES) requirements, prohibit grading and excavation unless it can be demonstrated that such activities will not result in significant soil erosion, silting of lower slopes or

waterways, slide damage, flooding problems, or damage to wildlife and fishery habitats.

- f) Adopt development standards, in conformance with NPDES Phase II requirements, for post-construction storm water control.
- g) Address potential soil erosion by maintaining sections of the County Code that require all construction-related activities to have protective measures in place or installed by the grading deadlines established in the Conservation Regulations. In addition, the County shall ensure enforceable fines are levied upon code violators and shall require violators to perform all necessary remediation activities.
- h) Require replanting and/or restoration of riparian vegetation to the extent feasible as part of any discretionary permit or erosion control plan approved by the County, understanding that replanting or restoration that enhances the potential for Pierce's Disease or other vectors is considered infeasible.
- i) Encourage management of reservoir outflows (bypass flows) to maintain fish life and riparian (streamside) vegetation.
- j) Encourage minimal use of chemical treatment of reservoirs to prevent undue damage to fish and wildlife resources.
- k) Prohibit new septic systems in areas where sewage treatment and disposal systems are available and encourage new sewage treatment and disposal systems in urbanized areas where there is high groundwater recharge potential and existing concentrations of septic systems.

Goal SAF-4: To protect residents and businesses from hazards caused by flooding.

Policy SAF-23: New construction in flood plains shall be evaluated and placed above the established flood elevation or flood-proofed to minimize the risks of flooding and provide protection to the same level as required under County's Floodplain Management Ordinance.

Policy SAF-25: The review of new proposed projects in a floodway as mapped on the County's Flood Insurance Rate Maps (FIRM)3 (Figure SAF-3) shall include an evaluation of the potential flood impacts that may result from the project. This review shall be conducted in accordance with the County's FEMA approved Flood Plain Management Ordinance, incorporated herein by reference, and at minimum include an evaluation of the project's potential to affect flood levels on the Napa River; the County shall seek to mitigate any such effects to ensure that freeboard on the Napa River in the area of the Napa River Flood Protection Project is maintained.

City of Napa Urban Water Management Plan

An Urban Water Management Plan (UWMP) helps water suppliers assess the availability of their water supplies with current and projected water use to help ensure reliable water service under different conditions. The City of Napa (City) sells and distributes treated water to more than 3,000 customers individual water users (e.g., residences and businesses). Consistent with the requirements of the California Urban Water Management Planning Act, the City is required to prepare an UWMP.

The UWMP considers water use within its SOI and in the operational water boundary encompassing other cities within the County and unincorporated parcels. Similar to the HEU for Napa County, the City of Napa is also planning for a City HEU based on the 6th cycle RHNA. The 2020 City of Napa UWMP states that "although the City's RHNA allocation may not affect its long-term water demand projections, it may accelerate the rate at which demand increases in the near term" (City of Napa 2022a).

City of Napa Water Shortage Contingency Plan

The City of Napa's Water Shortage Contingency Plan (WSCP), approved in January 2022, describes the City's strategic plan for preparing for and responding to water shortages, including defining water shortage stages and associated shortage response actions. This WSCP provides a framework for the City to proactively prevent catastrophic service disruptions and has been updated to be consistent with the 2018 Water Conservation Legislation requirements. As part of the WSCP, the City's legal authorities, communication protocols, compliance and enforcement, monitoring and reporting are described. Chapters 13.10 and 13.12 of the Napa Municipal Code support the City's WSCP. The City is in the process of updating its municipal code to be consistent with the WSCP (City of Napa, 2022b).

4.10.4 Significance Criteria

The thresholds used to determine the significance of impacts related to hydrology and water quality are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i) result in a substantial erosion or siltation on- or offsite;
 - ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv) impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
Approach to Analysis

General

This environmental analysis of the potential impacts related to hydrology and water quality is based on a review of the results of a review of literature and database research and the Napa County General Plan.

The Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.10.33, *Regulatory Setting*. Compliance by the Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

After considering the implementation of the HEU as described in Chapter 3, *Project Description*, and assuming compliance with the required regulatory requirements, the environmental analysis below identifies if significance thresholds would be exceeded and, therefore, a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to the extent feasible to reduce the identified impacts. This analysis assumes that projects proposed under the HEU would be subject to Napa County development standards and requirements with respect to stormwater and flooding, as applicable.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to hydrology and water quality, rather the updates to the Safety Element are intended to improve policies associated with flood risks. As such, it is not discussed further in this section.

Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

• *Tsunamis and Seiches*. The Project would not risk release of contaminants due to tsunami, because the HEU is not located in a coastal region. The Project would not risk release of contaminants due to seiches because the HEU sites are not located close enough to an enclosed or semi-enclosed water body. Therefore, there would be no impact with respect to tsunamis or seiches.

4.10 Hydrology and Water Quality

4.10.5 Impacts of the Project

Impact HYD-1: Implementation of the HEU would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (*Less than Significant*)

Development projects proposed under the Napa County HEU would have a significant impact if such development would violate water quality standards or waste discharge requirements issued to Napa County or public agencies therein (such as Napa Sanitation District). A violation could occur if the development would substantially increase pollutant loading levels in the sanitary sewer system, either through the direct introduction of contaminants generated by industrial land uses, or indirectly through stormwater pollution.

Construction

Construction of the housing units that could derive from the HEU's implementation would involve ground disturbing activities such as trenching and excavation, removal of trees and other vegetation, and grading. As soil disturbing activities occur across a landscape, the potential for erosion and sedimentation increases. Disturbed soils are typically more susceptible to erosion from rain and wind, which in the absence of preventative measures, can lead to mobilization of sediments and silt through runoff. Erosion can escalate under storm events where slopes are steep.

To accomplish such construction, heavy equipment such as bulldozers, graders, earth movers, heavy trucks, trenching equipment and other machinery is likely to be used. Such machinery could contribute pollutants to stormwater runoff in the form of sediment and other pollutants such as fuels, oil, lubricants, hydraulic fluid, or other contaminants. Additionally, site work could result in conditions of runoff. Sediment, silt, and construction debris, if mobilized during construction could be transported to receiving waters such as the Napa River or its tributaries. Degradation of water quality could occur and affect beneficial uses of these water bodies (see Table 4.10-2). In the absence of runoff controls, exceedances of water quality standards could result.

However, as described in Section 4.10.3, Regulatory Setting, construction projects that disturb one or more acres of ground disturbance, or less than one acre but would be part of a larger plan of development or sale, would be required to obtain coverage under the NPDES Construction General Permit. Preparation of a SWPPP, along with its implementation during construction, is required to comply with the NDPES Construction General Permit. Moreover, development projects implemented under the HEU would be subject to controls and requirements described in the Napa County Stormwater Management and Discharge Control Ordinance (Chapter 6.28 of the Napa County Municipal Code). This code specifies that an erosion and sediment control plan be prepared for such projects, subject to County engineering review and approval. Additionally, a stormwater control plan would be required for such construction to ensure that measures are taken to prevent unlawful discharge of contaminants into the municipal stormwater system.

As described in the setting, surface and groundwater are interconnected throughout much of the Napa Valley subbasin. Therefore, construction excavation could also degrade groundwater quality or alter the hydrogeology of the subbasin. Depth to groundwater is variable in the County but tends to be shallower where wells are located near waterways such as the Napa River. A

review of the available data assembled for the GSP showed that depth to groundwater could be as shallow as 20 feet below ground surface. In the event that construction could exceed these depths, dewatering of groundwater may be required (i.e., during excavation).

With adherence to regulatory standards and NPDES Construction General Permit requirements along with associated measures and best management practices described in the SWPPP, construction activities would not generate water quality violations. The impact associated with construction activities would therefore be **less than significant**.

Operation and Maintenance

Once constructed, development proposed under the HEU would be subject to municipal stormwater requirements pursuant to Order No. 2013-0001-DWQ, NPDES Permit No. CAS000004 General Permit (i.e., the MS4 permit). The Napa County Stormwater Management and Discharge Control Ordinance, as detailed in the regulatory setting, also contains post-construction controls that would be applicable to the HEU sites to ensure that ongoing stormwater exceedances do not occur. All stormwater management facilities shall be maintained and inspected according to the approved Stormwater Facilities Operation and Maintenance Plan. Compliance with the regulations cited would ensure that operational water quality impacts associated with the HEU's implementation would be **less than significant**.

Mitigation: None required.

Impact HYD-2: Implementation of the HEU would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (*Less than Significant*)

The consideration of groundwater sustainability impacts includes both the project's groundwater demand and its alteration of the recharge capability of the basins. If, for example, development of HEU projects were to require substantial quantities of groundwater during construction or operation, or if the development were to include placement of impervious surfaces to the extent that there would be an appreciable reduction in the overall recharge area for the groundwater basin, such activities could be considered potentially significant.

Construction

Projects proposed under the HEU would require water for their construction to suppress fugitive dust or for other construction purposes. As the projects have not been formally proposed, the estimated water demand associated with this construction is not currently known. However, it is likely that given the regional availability of recycled water, at least some portion of this demand could be met using recycled water. Moreover, based on the regulatory constraints outlined in the Napa County Groundwater Conservation Ordinance, it is anticipated that no groundwater would be used for construction purposes. Therefore, construction would not substantially decrease groundwater supplies. Impacts associated with construction would be **less than significant**.

4.10 Hydrology and Water Quality

Operation

Even though Napa County has a diverse portfolio of water supplies, including surface water storage, SWP entitlements, and recycled water conveyance systems, groundwater is the main water source for Napa County. The Napa Valley subbasin, though not currently in condition of critical overdraft, is a high priority groundwater basin and one subject to the provisions of SGMA. Moreover, the MST subarea is recognized as a groundwater deficient geographic area. Additional demand upon this subarea could have undesirable consequences, in the absence of measures to counteract such demand.

As unincorporated Napa County relies primarily on groundwater and demand associated with the HEU is not currently known, the residential development has the potential to impact groundwater sustainability of the Napa Valley subbasin and the groundwater deficient MST subarea. Single family homes considered under the HEU would be dispersed throughout the County and subject to the Napa County Groundwater Conservation Ordinance, which requires that applicant's demonstrate adequate groundwater availability to obtain applicable permits. Multi-family housing sites would not be reliant upon groundwater. As described in Section 4.16, Utilities, water supply for these projects would be provided from local municipal water districts and/or through State Water Project entitlements. Water supplied through the City of Napa operational water boundary would be subject to Water Supply Contingency Plan conditions, which adaptively manage water use during drought scenarios. Therefore, the HEU would not substantially deplete groundwater resources or substantially interfere with groundwater recharge. Impacts would be **less than significant**.

Mitigation: None required.

Impact HYD-3: Implementation of the HEU would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows. (*Less than Significant*)

As discussed under Impact HYD-1, construction of the residential developments that could derive from the HEU's implementation project would entail the use of heavy equipment and would include greater than one-acre of ground disturbing activities for the development. Therefore, a Construction General Permit would be required under either scenario. Construction would entail alteration of the landscape and placement of impervious surfaces. In the absence of measures to capture runoff, impacts associated with erosion and siltation of local waterways could occur. Similarly, runoff could enter city stormdrains and result in capacity exceedances.

In addition to the Construction General Permit and its associated NPDES requirements, the projects constructed under the HEU would be subject to the stormwater regulations of Napa County. This

analysis assumes that the projects considered under the HEU would be subject to and would implement projects in a manner consistent with Napa County municipal code requirements.

Napa County municipal code contains additional regulatory requirements for stormwater management and discharge control. Project development proposed under the HEU would be required to demonstrate that stormwater capacity exceedances would not occur by completing and implementing a stormwater control plan for the projects. The County has established requirements, as a condition of project approval, for permanent structural controls designed for the removal of sediment and other pollutants, and for control on the volume and rate of stormwater runoff from the project's added or replaced impervious surfaces. Erosion and Sediment Control Plans are required for any project subject to a grading permit, or subject to another county permit such as projects within fifty feet of a storm drain, projects disturbing ten thousand square feet of soil or more, or any other project required by the County. Implementation of these regulatory requirements would effectively decrease the level of runoff and ensure that stormwater capacity exceedances associated with the projects would not occur.

Implementation and maintenance of hydromodification management and LID design measures such as bio swales and revegetation, consistent with guidance provided in the BAASMAA Post Construction Manual, would continue to prevent silt, sediment, and other stormwater contaminants from entering the municipal stormdrains following construction.

As identified in Figure 4.10-2, Flood Zones, some of the sites proposed for residential development as part of the HEU (Bishop and Foster Road) are partially within special flood hazard zones. The Spanish Flat, Altamura, and Imola Avenue housing sites are not located within flood hazard zones. In the absence of controls for development within flood zones, there is a risk that flood waters could be redirected to surrounding properties.

Consistent with Napa County requirements (Chapter 6.04.721 of the County Code) residential development would be subject to engineering review and must have the lowest floor, including basement, elevated to or above a level equal to the base flood elevation plus one foot of freeboard. The floodplain administrator shall be provided the elevation relative to MSL of the lowest floor, including basement, certified by a registered professional engineer or surveyor on FEMA form 81-31 prior to issuance of a certificate of occupancy. Residential development and redevelopment would also be subject to County riparian setback requirements, which would help to prevent impediments to the conveyance of floodwaters within the floodway.

Adherence with the regulatory requirements and all associated BMPs would be sufficient to control impacts under this criterion. Based upon each of the considerations outlined above, the impact of the HEU's implementation on stormwater runoff, erosion, and storm drainage and flooding would be **less than significant**.

Mitigation: None required.

4.10 Hydrology and Water Quality

Impact HYD-4: Implementation of the HEU would risk release of pollutants due to project inundation due to being located in a flood hazard zone. (*Less than Significant*)

As described under Impact HYD-3 and depicted in Figure 4.10-2, Flood Zones, portions of the Bishop and Foster Road proposed sites are partially within a special flood hazard zone. The Spanish Flat, Altamura, and Imola Avenue housing sites are not located within flood hazard zones and would have no impact related to release of pollutants due to project inundation due to being located in a flood hazard zone. As described in the regulatory setting, Napa County has well defined code requirements to manage development within special flood hazard areas. Consistent with Napa County requirements (Chapter 6.04.721 of the County Code) residential development would be subject to engineering review and must have the lowest floor, including basement, elevated to or above a level equal to the base flood elevation plus one foot of freeboard. The floodplain administrator shall be provided the elevation relative to MSL of the lowest floor, including basement, certified by a registered professional engineer or surveyor on FEMA form 81-31 prior to issuance of a certificate of occupancy. Residential development and redevelopment would also be subject to County riparian setback requirements, which would help to prevent impediments to the conveyance of floodwaters within the floodway.

Moreover, as noted under Impact HYD-1 and discussed in additional detail in Section 4.8, *Hazards and Hazardous Materials*, Napa County has adopted a Stormwater Management and Discharge Ordinance that identifies specific requirements with respect to spill prevention, hazardous materials management, implementation of erosion control, stormwater control, low impact development design measures, good housekeeping measures, BMPs, and other requirements to limit the release of pollutants, runoff, and other site contamination. Pursuant to Chapter 6.28 of the Napa County Municipal Code, the County retains enforcement authority to ensure that unlawful discharges do not occur that could otherwise lead to contamination of the stormwater conveyance system and associated receiving waters.

Adherence with existing regulatory requirements and applicable building standards would minimize the risks associated with release of pollutants due to location within a flood hazard zone. Impacts under this criterion would be **less than significant**.

Mitigation: None required.

Impact HYD-5: Implementation of the HEU would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. (*Less than Significant*)

As discussed under Impact HYD-1, Napa County has well defined policies and regulatory controls which would be implemented to protect water quality during construction and operation of the projects proposed under the HEU. Napa is a co-permittee to the Phase II Small MS4 General Permit, which requires municipalities to implement controls to limit contamination of municipal stormwater. Consistent with this general permit, a stormwater control plan is required for development projects that meets the BASMAA Post Construction Manual standards. As

described in the Napa County municipal code, the project applicant shall implement conditions of approval that reduce stormwater pollutant discharges through the construction, operation and maintenance of source control measures, low impact development design, site design measures, stormwater treatment measures and hydromodification management measures.

With adherence to these regulatory standards including the conditions stipulated in the Napa River TMDL, pollution prevention and good housekeeping measures, the projects proposed under the HEU would not conflict with either of the Basin Plans in effect in for lands within Napa County.

Groundwater sustainability depends on multiple factors including water demand, maintenance of a diverse portfolio of water supply (surface water, imported water, recycled water) conservation, conditions for groundwater recharge, as well as the climate. In response to the current drought, a drought contingency plan is being prepared by Napa Valley Water Management Agencies along with the U.S. Bureau of Reclamation to respond to current drought conditions and alleviate its effects into the future.

Development proposed under the HEU upon vacant parcels would mean addition of impervious surfaces, which could reduce the groundwater recharge capability across the landscape. The Napa Valley Subbasin GSP describes areas within the Napa Valley floor as being areas of relatively high groundwater recharge potential. Project sites proposed under the HEU in areas of relatively high groundwater recharge (1806 Monticello Road, 1011 Atlas Peak Road, and Foster Road) present the greatest potential for impacting conditions for recharge. However, the Napa Valley floor is predominantly cultivated with vineyards, and this would not appreciably change under the HEU.

Napa County requires a groundwater permit for discretionary projects in designated groundwater deficient areas, including the MST subarea (described in the setting section). Accordingly, permit applicants must show documentation showing zero net increase of groundwater use within the MST subarea and groundwater use consistent with 0.5 acre feet/acre for residential homes. Approved permits include requirements for metering production wells and reporting groundwater use. Additionally, the Napa County Groundwater Conservation Ordinance contains permit requirements for the use of groundwater., These local requirements along with additional measures such as the delivery of recycled water for agricultural use has been effective in stabilizing the subarea.

As discussed in the setting, unincorporated Napa County relies primarily on groundwater and demand associated with the HEU is not currently known. Single family homes dispersed throughout the County would be subject to local regulatory controls such as the Napa County Groundwater Conservation Ordinance, which contains permit requirements for the use of groundwater. As described in Section 4.16, Utilities, and discussed under Impact HYD-2, multifamily homes considered under the HEU would not utilize groundwater. Therefore, the HEU would not conflict associated with the Napa Valley Subbasin Groundwater Sustainability Plan. Impacts would be **less than significant**.

Mitigation: None required.

4.10 Hydrology and Water Quality

4.10.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future developments that could cause significant cumulative impacts. Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the HEU combined with the incremental impacts of other development would be significant and if the HEU's contribution would be considerable.

As previously discussed, the proposed housing sites would have no impact from tsunamis or seiches. Accordingly, the proposed housing sites could not contribute to cumulative impacts related to these topics and are not discussed further.

The geographic area affected by the proposed housing sites and their potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic area for a consideration of cumulative effects is defined as Napa County and its watersheds. The timeframe during which the project could contribute to cumulative hydrology and water quality effects includes the construction and operations phases of development allowed by the HEU.

Impact HYD-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on hydrology and water quality. (*Less than Significant*)

As noted in Section 4.0, *Introduction to the Environmental Analysis*, other jurisdictions in the County are expected to experience growth during the timeframe of this analysis (i.e. to the year 2040). Moreover, recreational areas surrounding Lake Berryessa may be redeveloped, increasing tourism and employment, and the unincorporated County will likely experience continued development of project such as wineries and vineyards. Construction and operation of such development could reasonably combine with the effects of development allowed by the Napa County HEU to increase the severity of impacts with respect to water resources.

Cumulative Impacts during Project Construction

Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the proposed housing sites combined with the incremental impacts of cumulative development would adversely affect water quality or water supply. The construction activities for all cumulative development would be subject to the same regulatory requirements discussed for the proposed housing sites, ensuring compliance with existing hydrology and water quality regulations, including preparation and implementation of SWPPPs in compliance with the state Construction General Permit and local erosion control regulations. With compliance with existing regulations, the Project would not cause or contribute to a cumulatively considerable impact with respect to the use of erosion or water quality and impacts would be **less than significant**.

Cumulative Impacts during Project Operations

Projects involving the creation or replacement of 10,000 SF of impervious surface area would be subject to MS4 requirements, including hydromodification management controls and LID design standards and would be required to demonstrate in their stormwater control plans that run off

from such disturbance is adequately controlled to prevent erosion or impacts to water quality. With compliance with existing regulations, the Project would not cause or contribute to a cumulatively considerable impact with respect to the use of erosion or water quality, and impacts would be **less than significant**.

Mitigation: None required.

4.10.7 References

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4.11 Land Use and Planning

4.11.1 Introduction

As presented in Chapter 3, *Project Description*, the project analyzed in this EIR would update the County's Housing Element, including goals, objectives, policies, and implementation programs that address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. In addition, the project would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law. The project would also include amendments to other elements of the County General Plan in order to maintain internal consistency, to provide consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan*, and to comply with recent changes in State law. These proposed actions are collectively referred to as the Housing Element Update (HEU) or "the Project."

This section evaluates the potential for the Project to result in substantial adverse effects related to land use and planning. The *Environmental Setting* portion of this section includes descriptions of existing conditions relevant to land use and planning. Existing plans and policies relevant to land use and planning associated with implementation of the Project are provided in the *Regulatory Setting* section. Finally, the impact discussion evaluates potential effects related to land use and planning that could result from implementation of the Project in the context of existing conditions.

While an EIR may provide information regarding land use and planning issues, CEQA does not consider inconsistency with land use plans and policies to be a physical effect on the environment unless the plan or policy was adopted for the purpose of avoiding or mitigating a significant environmental effect. Adverse physical effects on the environment that could result from implementation of the Project, including the changes to land use addressed in this section, are evaluated and disclosed in the appropriate technical sections of this EIR.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments related to land use and planning received during the NOP comment period included concerns related to traffic congestion, seismic risk, fire-risk, emergency access and evacuation, and availability of public services associated with new housing that could be developed with implementation of the Project. While these topics are related to land use and planning, potential physical effects associated with these topics are addressed, where applicable, in the appropriate technical sections of this EIR, including section 4.7, *Geology, Soils, Paleontological, and Mineral Resources*, section 4.9, *Hazards and Hazardous Materials*, section 4.14, *Public Services and Recreation*, section 4.15, *Transportation*, and section, 4.17, *Wildfire*.

4.11.2 Environmental Setting

Napa County

Napa County is located in the northern San Francisco Bay area, approximately 50 miles due west of Sacramento, California. The County is bordered by Lake County to the north, Yolo and Solano County to the east, Sonoma County to the west, and San Pablo Bay to the south, as shown in Figure 3-1 in Chapter 3, *Project Description*. The planning area for the Housing Element Update is the same planning area that was considered by the currently adopted Napa County General Plan, which encompasses all unincorporated land in Napa County, as shown in Figure 3-2 in Chapter 3, *Project Description*. The unincorporated County currently includes approximately 9,022 residential dwelling units and comprises 789 square miles.

Unincorporated Napa County is a world famous grape-growing and wine-making region, with a strong agricultural industry and a longstanding commitment to agricultural preservation and open space conservation, evidenced by the County's rural character and development controls directing urban uses to urbanized areas. Incorporated cities (Napa, American Canyon, St. Helena, and Calistoga) and the incorporated town of Yountville contain the vast majority of residential development and community services (e.g., schools, shopping, transit services) and are served by municipal utilities. There are few sections of the unincorporated County that have access to water and wastewater services, with most sections relying on groundwater and septic systems. The southern part of the County is home to the Napa County Airport and a surrounding business park, and the County is currently seeking to revitalize resort areas along the shores of Lake Berryessa in the eastern part of the County.

4.11.3 Regulatory Setting

Federal

No federal plans, policies, regulations, or laws related to land use and planning are applicable to the proposed implementation of the Project.

State

Housing Element Requirements

State law requires that housing elements be updated every eight years (California Government Code Section 65588). The housing element must identify residential sites adequate to accommodate a variety of housing types for all income levels and to meet the needs of special population groups, such as the elderly, persons with disabilities, large families, farmworkers, families with female heads of households, and families and persons in the need for emergency shelter (California Government Code Section 65583). State law mandates that all cities and counties zone land appropriately to accommodate the increasing needs of regional population growth. Regional housing needs are determined by the California Department of Housing and Community Development (HCD).

The County's Housing Element was last updated in 2014, and covers the "5th Cycle" housing element planning period from 2014 through 2022. Because this period is drawing to a close, California Government Code Section 65588 requires the County to update its Housing Element and provides a deadline of January 31, 2023. In accordance with State law, the planning period for the updated Housing Element will extend to January 31, 2031 and is referred to as the "6th cycle."

There have been substantial changes to state laws regarding housing in the recent years, including changes to housing element requirements (for example requiring that housing elements affirmatively further fair housing), changes to facilitate production of Accessory Dwelling Units (ADUs) and other forms of housing, and changes that limit local agencies' ability to condition or deny applications for affordable housing. These changes are codified in the Government Code, including in Chapter 3, Article 10.6, Housing Elements (Section 65580 et seq.), and elsewhere.

California State Executive Order N-06-19: Affordable Housing Development

To address the shortage of housing for Californians, Governor Gavin Newsom ordered the Department of General Services (DGS) and the HCD to identify and prioritize excess state-owned property and aggressively pursue sustainable, innovative, cost-effective housing projects. Signed on January 15, 2019, California State Executive Order N-06-19 prioritizes affordable housing development on excess State-owned property. The order states that "local zoning ordinances do not govern the use of State property, and the State possesses legal authority to enter in to low-cost, long-term leasing agreements with housing developers and accelerate housing development on state-owned land as a public use."

As described in Chapter 3, *Project Description*, the Project would identify a 5-acre site (identified as the Imola Avenue site) owned by the State of California and planned for residential development as part of the Housing Sites Inventory (see Figure 3-7 in Chapter 3, *Project Description*). The State has expressed an interest in selling Skyline Park to the County and at the same time developing workforce housing on the area of Skyline Park immediately adjacent to the Napa County Office of Education on Imola Avenue, south and east of the City of Napa and adjacent to the Napa State Hospital. DGS currently identifies a 20.34-acre site (APN 046-450-041) that comprises excess State-owned property pursuant to Executive Order N-06-19, and DGS staff has indicated that a 5-acre portion of the property would likely be pursued for development of affordable housing within the eight-year planning period for the County's HEU.

Pursuant to Executive Order N-06-19, development of affordable housing on the Imola Avenue site would not be subject to County review or regulations, and while DGS has not identified a density or the number of units to be developed on the site, this EIR assumes the site would provide up to 100 units based on the "default density" of 20 dwelling units per acre (du/ac) applicable to the County under California Government Code Section 65583.2(c)(3). The development would plan for connections to nearby infrastructure owned by the City of Napa (water) and the Napa Sanitation District (wastewater).

Regional

Association of Bay Area Governments Area Governments and RHNA

The Association of Bay Area Governments (ABAG) is the comprehensive regional planning agency and council of governments for the nine-county San Francisco Bay Area Region. Its members include the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma counties and 101 cities and towns of the San Francisco Bay Region.

ABAG determines the distribution of affordable housing in the region through its Regional Housing Needs Allocation (RHNA) process. As discussed in Chapter 3, *Project Description*, for the period from 2023 to 2031, HCD has identified a regional housing need of 441,176 housing units in the Bay Area, which ABAG was responsible for distributing to local jurisdictions via adoption of its final RHNA Plan in December 2021.¹ Each jurisdiction's RHNA includes requirements for very low income, low income, moderate income, and above moderate households.

As discussed in Chapter 3, *Project Description*, the ABAG Executive Committee subsequently approved the County's request for RHNA transfers to the Cities of Napa, American Canyon, and St. Helena based on previously executed agreements between the County and these cities.

Plan Bay Area 2050

The Metropolitan Transportation Commission (MTC) is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area and is the government agency responsible for regional transportation planning and financing. Plan Bay Area 2050, prepared by the ABAG and MTC, is the official regional long-range plan to improve housing, the economy, transportation, and the environment across the San Francisco Bay Area Region, and includes the region's Sustainable Communities Strategy as required under SB 375, and the Regional Transportation Plan.

Plan Bay Area 2050 connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. In the short-term, the plan's Implementation Plan identifies more than 80 specific actions for MTC, ABAG and partner organizations to take over the next five years to make headway on each of the 35 strategies.

Between 2015 and 2050, Plan Bay Area 2050 estimates the Bay Area will add 1.4 million new jobs, for a total of 5.4 million bay area workers. Household growth is anticipated to follow pace, adding slightly fewer than 1.4 million new households for a total of 4 million households by 2050. This growth would bring the Bay Area's population to an estimated 10.3 million residents by 2050, up from around 7.8 million in 2021. Plan Bay Area 2050 estimates the region would

¹ Association of Bay Area Governments (ABAG), 2021. *Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031*. Available online at https://abag.ca.gov/sites/default/files/documents/2021-12/Final_RHNA_Allocation_Report_2023-2031-approved_0.pdf. December 2021. Accessed on April 14, 2022.

need to build another 1.4 million new homes by 2050 to meet forecasted future demand.² Because it will be several years before these growth projections are understood on a jurisdictional level and incorporated into the regional transportation model and County transportation models, growth projections contained in Plan Bay Area 2040 represent the best available information for use in this EIR.³

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for land use and planning within Napa County, and the General Plan Land Use Map (General Plan Figure AG/LU-3) provides a general illustration of land use policy via the use of land use designations. The Agricultural Preservation and Land Use Element of the Napa County General Plan includes the following goals and policies applicable to the land use and planning evaluation for the proposed Project.

Goal AG/LU-2: Concentrate urban uses in the County's existing cities and town and urbanized areas.

Goal AG/LU-5: With municipalities, other governmental units, and the private sector, plan for commercial, industrial, residential, recreational and public land uses in locations that are compatible with adjacent uses and agriculture.

Policy AG/LU-23: Consistent with longstanding practice and "smart growth" principles, the County will enact and enforce regulations that will encourage the concentration of residential growth within the County's existing cities and town and urbanized areas designated on the Land Use Map.

Policy AG/LU-28: Consistent with the County's longstanding commitment to urbancentered growth, new multi-family housing and other urban uses shall be directed to the incorporated cities and town and urbanized areas of Napa County.

Policy AG/LU-30: The County shall use a variety of strategies to address its long-term housing needs and to meet the state and regional housing requirements in its cyclical updates of the Housing Element. In addition to working with the state and ABAG to reduce the County's regional allocation, these strategies shall include:

- Consider re-use of former industrial sites designated as Study Area on the Land Use Map to provide for a mix of uses, including affordable and market rate work force housing as appropriate.
- Use of overlay designations to permit/facilitate multi-family housing on specific sites within designated urbanized areas shown on the Land Use Map.

² Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), 2021. *Plan Bay Area 2050*. Final. Released October 1, 2021. Available online https://www.planbayarea.org/finalplan2050. Accessed on April 14, 2022.

³ Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), July 2017. Plan Bay Area 2040; Projections 2040. Available online http://projections.planbayarea.org/. Accessed on April 21, 2022.

- Collection and disbursement of housing impact fees to subsidize construction of affordable housing.
- Cooperative agreements with incorporated agencies within the County where these jurisdictions are able to accept additional housing requirements in exchange for other considerations.
- Actions that provide housing to farm workers and their families.
- Use of County-owned land for affordable housing where this land is no longer needed to meet the County's operational requirements and would be appropriate for housing.
- Actions to allow production of second units in all areas of the unincorporated County as appropriate.
- Other policies and programs which address the need for workforce housing.

Policy AG/LU-32: The County will maintain and improve the safety and adequacy of the existing housing stock in the County through application of applicable building and housing codes and related enforcement programs.

Growth Management System for Napa County

As detailed in Policy AG/LU-119 of the Agricultural Preservation and Land Use Element of the General Plan, a Growth Management System Element was adopted as required by Slow Growth Initiative Measure A, approved by the voters in 1980. The County Board of Supervisors made the implementation of Measure A a matter of high priority and before expiration of Measure A in December 2000, the Board reaffirmed the policies of Measure A and established a housing allocation program via passage of Ordinance No. 1178 on November 28, 2000. The Growth Management System Element was later combined with the Agricultural Preservation and Land Use Element in the 2008 General Plan Update, and the Growth Management System was simplified in 2009 concurrent with adoption of the 2009 Housing Element Update.

Today, the Napa County Growth Management System provides that the annual number of new housing units in the unincorporated area of the County of Napa shall be allocated so as to allow an annual population growth rate that shall not exceed the annual population growth rate of the nine Bay Area counties (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Sonoma, and Solano) over the prior 5-7 years, provided that the annual population growth rate limit shall not exceed one percent in the County of Napa (adjusted for annexations and incorporations). The annual allocation of building permits relates to permits for the construction of new residential units on a site. It does not affect permits related to rebuilding, remodeling, renovating, or enlarging existing units, moving an existing dwelling from one unincorporated site to another unincorporated site, or units exempted from the growth management system as specified in section 4) B) of Policy AG/LU-119.

As specified in Policy AG/LU-119, the annual allocation of residential building permits, until next updated, will be 115, not counting exempted/grandfathered units. This allocation was determined by reviewing population data derived from the U.S. Census. The 2008 population of unincorporated Napa County (29,666) was multiplied by 0.01 to allow for a 1 percent growth rate, and divided by the estimated household size (2.57). The annual allocation of 115 units

represents a change from the prior allocation (114 units) and from the original allocation (109 units) put in place when the Growth Management System was first adopted.

As specified in Policy AG/LU-119, the Board of Supervisors shall modify the Growth Management System and related ordinances based on data from the 2010 Census and each time the Housing Element is updated, or more frequently if so desired by the Board. In setting the annual number of new housing units allocated, the Board of Supervisors shall use the most recent census and other relevant data provided by the U.S. Census, the ABAG, the California Department of Finance's Demographic Research Unit or similar sources. The annual limit shall be set by multiplying the population of unincorporated Napa County by 0.01 and then dividing by the number of persons per household. The calculation may be adjusted to reflect the vacancy rate of year-round housing units, and shall include comparison to the average annual growth rate for the nine Bay Area counties over the prior 5-7 years (if less than 1percent). In no instance shall the new annual limit be less than the prior limit if the units are required to meet the County's Regional Housing Needs Allocation, except as warranted by the occurrence of annexations or incorporations since the prior calculation.

Regulated building types are divided into the following four categories:

- 1) **Category 1** is a single dwelling built by or for a permit holder (owner-builder or his/her contractor) who is building only one dwelling unit per year.
- 2) **Category 2** is any type of dwelling which requires no discretionary review, but the permit holder is building more than one dwelling unit per year. A good example would be the small-scale builder using existing lots.
- 3) **Category 3** is any type of residential project for 2 or more dwelling units which require discretionary review (e.g., subdivision, parcel map, use permit). A large-scale housing project would be a good example.
- 4) **Category 4** is housing which is affordable to persons with moderate or below moderate income. This category would require a deed restriction and/or an agreement signed by the developer; the agreement shall contain guarantees that the dwelling units would be affordable to persons of moderate or below moderate income for at least forty years.

As specified in section 4) D) of Policy AG/LU-119, when an annual allocation has not been used, the remainder may be carried over three years, except for Category 4 permits, which shall carry over indefinitely. Category 1, 2, and 3 permits which expire after three years shall become Category 4.

At least 15 percent of the annual building permit allocation each year shall be in Category 4, and shall be affordable for purchase or rental by persons with moderate or below moderate income. "Affordable" means the housing cost shall not exceed 30 percent of the stated minimum household income adjusted for family size appropriate for the unit.

Napa County Code

The Napa County Zoning Ordinance, Title 18 of the County Code, establishes standards and regulations to implement the policies contained in the General Plan and guides development within the County. Zoning districts relevant to the proposed Project are summarized below.

Agricultural Watershed (AW): The AW district classification is intended to be applied in those areas of the County where the predominant use is agriculturally oriented, where watershed areas, reservoirs and floodplain tributaries are located, where development would adversely impact on all such uses, and where the protection of agriculture, watersheds, and floodplain tributaries from fire, pollution, and erosion is essential to the general health, safety, and welfare. Permitted uses include agriculture/wineries; single-family residential (one dwelling unit per legal lot); second units, either attached to or detached from an existing legal residential dwelling unit, providing that all applicable code conditions are met; small residential care facilities; small family day care homes; farmworker housing; minor antennas and telecommunications facilities, and other compatible uses permitted upon grant of a use permit.

Agricultural Preservation (AP): The AP district classification is intended to be applied in the fertile valley and foothill areas of Napa County in which agriculture is and should continue to be the predominant land use, where uses incompatible to agriculture should be precluded and where the development of urban-type uses would be detrimental to the continuance of agriculture and the maintenance of open space which are economic and aesthetic attributes and assets of the County. Permitted uses include agriculture/wineries, single-family residential (one dwelling unit per legal lot); second units, either attached to or detached from an existing legal residential dwelling unit, providing that all applicable code conditions are met; small residential care facilities; small family day care homes; farmworker housing; and other compatible uses permitted upon grant of a use permit.

Residential Single (RS): The RS district classification is intended to be applied in appropriate locations to allow residential developments of varying population density to meet the housing needs of present and future population in the unincorporated area in accordance with the General Plan. RS districts will be located within established urban areas where existing urban services and facilities are adequate to serve the intended development. Limited RS development is intended to assist in the preservation of the natural and agricultural resources of the County. Permitted uses include single-family residential (one dwelling unit per legal lot); second units, either attached to or detached from an existing legal residential dwelling unit, providing that all applicable code conditions are met; small residential care facilities, family day care homes, private schools (home instruction), and other compatible uses permitted upon grant of a use permit.

Residential Multiple (RM): The RM district classification is intended to provide, in areas of the County otherwise suitable for RS zoning, for the development of multiple-family dwelling units. RM zoning districts will be located within established urban areas that are served by an adequate public road system and are provided with publicly owned water and sewage disposal systems and normal municipal services. Permitted uses include single-family residential (one dwelling unit per legal lot); small residential care facilities, family day care homes, farmworker housing, and minor antennas and telecommunications facilities. Multiple-family dwelling units and single room occupancy units and outdoor parks and recreation facilities permitted upon grant of a use permit.

Residential Country (RC): The RC district classification is intended to be applied to: a) land in proximity to existing urban areas but currently in agriculture or developed with low-

density residences where a more intensive urban use is possible through the extension of water and sewage facilities, major streets, and other services and b) other land near major public recreation areas which, because of its location in relation to existing or future community services, facilities and access roads, and because of underlying soil and geological characteristics, land slope and minimum fire hazard, is suitable for low-density single-family residential development. Permitted uses include single-family residential (one dwelling unit per legal lot); second units, either attached to or detached from an existing legal residential dwelling unit, provided that all applicable code conditions are met; one guest cottage, provided that all applicable code conditions are met; agriculture; public stables; small residential care facilities; family day care homes; farmworker housing; private schools (home instruction); minor antennas and telecommunications facilities; and other compatible uses permitted upon grant of a use permit.

Commercial Neighborhood (CN): The CN district classification is intended to provide zoning districts consistent with the General Plan where residents of the unincorporated area of the County may obtain commercial services for day-to-day needs in the immediate neighborhood in a setting compatible with surrounding land uses. The area and location of such zoning district shall be determined largely by the urban nature and extent of the local trade area to be served. Other criteria which will figure significantly in the choice of parcels deemed suitable for classification include availability of public service, public utilities, traffic safety, character of the site and surrounding area. The central business district of each incorporated city shall be recognized as the dominant commercial and financial center for the surrounding unincorporated area of the County.

Commercial Limited (CL): The CL district classification is intended to establish areas which will provide the tourist, vacationer and highway traveler with needed uses and services. Only property designated as urban in the General Plan and which has frontage on a State Highway, Silverado Trail, or an arterial County road or County collector road may be zoned to this classification. In addition, areas proposed for inclusion within the CL district.

Planned Development (PD): The PD district classification is intended to be applied in those areas of the County shown as "urban residential" or "rural residential" in Figure 14 of the General Plan. Planned developments increase the opportunity for diversified uses by providing the means for integrating townhouse, row house, condominiums and cluster housing in a desirable relationship to planned common use space, limited commercial, institutional, educational, cultural, recreational and other uses, while at the same time preserving the quality urban environment fostered by the General Plan.

Affordable Housing Combination District (:AH): The :AH combination district classification is intended to implement the goals of the Housing Element of the General Plan in regard to the construction of affordable housing by establishing development regulations for identified housing opportunity sites.

Skyline Wilderness Park Combination District (:SWP): The :SWP classification is intended to be applied to those lands within or adjacent to Skyline Wilderness Park, where allowed uses vary from those allowed in the principal AW zoning district. Only the following uses shall be allowed in the :SWP Combination District: agriculture; parks and rural recreation uses and facilities as defined in Section 18.08.428, conforming to the standards in Chapter 18.104, and consistent with a board adopted Skyline Wilderness Park Master Plan; and campgrounds as defined in Section 18.08.118, but only when located on public lands, conforming to the standards in Chapter 18.104, and consistent with a board adopted Skyline Wilderness Park Master Plan.

4.11.4 Significance Criteria

The thresholds used to determine the significance of impacts related to land use and planning are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Approach to Analysis

The analysis of potential impacts related to land use and planning evaluates the potential for the Project to result in substantial adverse effects related to land use and planning, including physical division of an established community and the potential for implementation of the Project to conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

As detailed in Chapter 3, *Project Description*, the Project would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law. The Project would also include amendments to other elements of the General Plan in order to maintain internal consistency, to provide consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan*, and to comply with recent changes in State law. Updates to the Safety Element would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development or land use changes that would result in any adverse impacts related to land use and it is not discussed further in this section.

Because these zoning and policy changes are part of the Housing Element Update, by definition the Project would not conflict with them, and the analysis does not consider inconsistency with existing plan policies or codes to necessarily be indicative of significant environmental impacts. As previously discussed, and analyzed further below, pursuant to Executive Order N-06-19, development of affordable housing on the State-owned Imola Avenue site would not be subject to local plans, policies, or regulations, but this EIR assumes the site would provide up to 100 units based on the "default density" of 20 dwelling units du/ac applicable to the County under California Government Code Section 65583.2(c)(3).

As previously discussed, consistent with CEQA, the analysis does not consider inconsistency with land use plans and policies to be a physical effect on the environment unless the plan or policy was adopted for the purpose of avoiding or mitigating a significant environmental effect. Adverse physical effects on the environment that could result from implementation of the Project, including the changes to land use addressed in this section, are evaluated and disclosed in the appropriate technical sections of this EIR.

4.11.5 Impacts of the Project

Impact LUP-1: Implementation of the Project would not physically divide an established community. (*Less than Significant*)

As presented in Chapter 3, *Project Description*, the Project would update the County's Housing Element, including goals, objectives, policies, and implementation programs that address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. In addition, the Project would identify sites appropriate for the development of multifamily housing, and the County would rezone those sites as necessary to meet the requirements of State law. The Project would also include amendments to other elements of the County General Plan in order to maintain internal consistency, to provide consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan*, and to comply with recent changes in State law.

The County's General Plan and zoning ordinance permits construction of one single-family home on each legal lot, with the exception of areas that are zoned for industrial use. As discussed in Chapter 3, *Project Description*, HCD guidance suggests that the County's HEU may assume development of market-rate single-family homes on currently vacant and buildable parcels. Accordingly, the Project would plan for development on currently vacant parcels, providing up to 230 single family homes, with the assumption that these homes would provide market rate (rather that affordable) housing.

The County's zoning also permits one Accessory Dwelling Unit (ADU) and one Junior Accessory Dwelling Unit (JADU) per parcel within residentially and Agricultural Watershed (AW) zoning. One JADU is permitted in Agricultural Preservation (AP) zoning. HCD guidance suggests that the County may assume that ADUs and JADUs continue to develop at the same pace and affordability levels that has occurred over the last three years. As a result, the Project would plan for development of 72 ADUs units at a range of income levels over the eight-year planning period for the County's HEU.

The County's zoning ordinance permits development of up to 12 individual farmworker housing units as an allowed use by right on every legal parcel in agricultural zones. The County is seeking to encourage additional development of farmworker units, and the HEU would include goals, policies, and programs to address this issue with the objective of permitting at least 12 new farmworker housing units during the planning period.

As discussed in Chapter 3, *Project Description*, the County proposes to meet the balance of its RHNA and provide a generous "buffer" by identifying sites suitable for development of multifamily housing affordable to lower income households at a minimum density of 20 du/ac. This is the "default density" considered affordable to lower income households under State law for unincorporated Napa County (Government Code Section 65583.2(c)(3)).

Based on analysis of parcels in the unincorporated County meeting applicable screening criteria, and based on the input from the County's Housing Element Advisory Committee (HEAC), other stakeholders, and interested members of the public, the Project proposes to include the sites in the

4.11 Land Use and Planning

Housing Sites Inventory that are grouped in four distinct geographies: Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road, all of which are described and illustrated in Figure 3-3 in Chapter 3, *Project Description*. Within these geographies, the number and location of sites are subject to adjustment based on further community input and analysis prior to adoption by the Board of Supervisors, and this EIR assumes a number of units that may exceed what is ultimately considered for adoption and/or implementation. In addition, sites in other areas may be considered if/as needed in response to HCD's review of the draft and final HEU.

As noted above, in conjunction with updates to the Housing Element, the project would include targeted updates to the Safety Element of the General Plan to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element and incorporate results of an analysis of emergency evacuation routes consistent with requirements of Assembly Bill (AB) 747.⁴

While implementation of the Project would result in the development of new housing and housing at higher densities than currently exist in some areas, as well as related amendments to other elements of the County General Plan and zoning ordinance, these changes would not alter the physical layout of the County such that movement within or across the housing sites or the County would be obstructed. The Project also does not propose any roadways, such as freeways, that would divide the County or isolate individual neighborhoods within it. Consequently, implementation of the Project would have a **less-than-significant impact** related to the division of an established community.

Mitigation: None required.

Impact LUP-2: Implementation of the Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (*Less than Significant*)

As previously discussed, while an EIR may provide information regarding land use and planning issues, CEQA does not consider inconsistency with land use plans and policies to be a physical effect on the environment unless the plan or policy was adopted for the purpose of avoiding or mitigating a significant environmental effect. Adverse physical effects on the environment that could result from implementation of the Project, including the changes to land use addressed in this section, are evaluated and disclosed in the appropriate technical sections of this EIR.

As presented in Chapter 3, *Project Description*, and as discussed above in Impact LUP-1, the Project would update the County's Housing Element, including goals, objectives, policies, and

⁴ Signed into law in October 2019, AB 747 requires the legislative body of each county and city to adopt a comprehensive, long-term general plan for the physical development of the county or city and of any land outside its boundaries that bears relation to its planning. The law requires the general plan to include certain mandatory elements, including a safety element for the protection of the community from unreasonable risks associated with the effects of various geologic hazards, flooding, wildland and urban fires, and climate adaptation and resilience strategies. The law requires the safety element to address, among other things, evacuation routes related to identified fire and geologic hazards.

implementation programs that address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. In addition, the Project would identify sites appropriate for the development of multifamily housing as described and illustrated in Figure 3-3 in Chapter 3, *Project Description*, and the County would rezone those sites as necessary to meet the requirements of State law, with the exception of the Imola Avenue site, which is State property and could be developed with affordable housing without conformance to County zoning pursuant to California State Executive Order N-06-19, *Affordable Housing Development*, as discussed above in the *Regulatory Setting*.

Implementation of the Project would result in the development of new housing and housing at higher densities than currently exist in some areas, as well as related amendments to other elements of the General Plan. However, as part of the approval of the Project, existing policies and zoning would be amended to reflect the new condition for sites in Northeast Napa, Spanish Flat, and Foster Road. As previously discussed, pursuant to Executive Order N-06-19, development of affordable housing on the State-owned Imola Avenue site would not be subject to local plans, policies, or regulations, and while DGS has not identified a density or the number of residential units to be developed on the site, this EIR assumes the site would provide up to 100 affordable units based on the "default density" of 20 dwelling du/ac applicable to the County under California Government Code Section 65583.2(c)(3). Consistent with Executive Order N-06-19, development on the Imola site would accelerate housing (and affordable housing) development on state-owned land as a public use. In addition, the HEU would explain the County's RHNA requirements and include policies necessary to advance the County's housing program notwithstanding potentially competing policies in the currently adopted General Plan. Consequently, the Project would not cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and the impact would be less than significant.

Mitigation: None required.

4.11.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to land use and planning could occur if the incremental impacts of the Project combined with the impacts of cumulative development identified in Section 4.0.3, *Cumulative Impacts*, which includes 2040 projections for housing units and employment in the County as a whole and the nine-county Bay Area.

Impact LUP-1.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not physically divide an established community. (*Less than Significant*)

As noted in Section 4.0.3, *Cumulative Impacts*, a limited amount of new development is projected to occur in the County as a whole by 2040, and it is reasonable to assume that this growth would

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occur within the existing framework formed by roads and infrastructure. Also, as discussed above in Impact LUP-1, while implementation of the Project would result in the development of new housing and housing at higher densities than currently exist in some areas, as well as related amendments to other elements of the County General Plan and zoning ordinance, these changes would not alter the physical layout of the County such that movement within or across the housing sites or the County would be obstructed. The Project also does not propose any new roadways, such as freeways, that would divide the County or isolate individual neighborhoods within it. Consequently, cumulative impacts related to division of an established community would be **less than significant**.

Mitigation: None required.

Impact LUP-2.CU: Implementation of the Project, when combined with other past, present, or reasonably foreseeable projects, would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (*Less than Significant*)

As discussed under Impact LUP-2, implementation of the Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Other jurisdictions in the Bay Area are also updating their housing elements in response to meet RHNA requirements, and those jurisdictions would also update and amend their general plans and zoning codes, as applicable, to ensure planned and orderly growth that would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Consequently, cumulative impacts related to conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding an environmental effect would be **less than significant**.

Mitigation: None required.

4.11.7 References

- Association of Bay Area Governments (ABAG), 2021. Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area, 2023-2031. December 2021.
- Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC), 2021. *Plan Bay Area 2050*. Final. Released October 1, 2021.
- Napa County, 2008. *Napa County General Plan*, adopted by Board of Supervisors Resolution 08-86, June 3, 2008, as amended through February 2022.

4.12 Noise and Vibration

4.12.1 Introduction

This section assesses the potential for the Housing Element Update (HEU) to result in significant adverse impacts from noise and vibration. Below, the Environmental Setting portion of this section includes descriptions of existing conditions relevant to noise. Further below, existing plans and policies relevant to noise associated with implementation of the HEU are provided in the Regulatory Setting section. Finally, the impact discussion evaluates potential impacts to noise that could result from implementation of the HEU in the context of existing conditions.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to noise and vibration received during the NOP comment period include concerns related to potential impacts of noise on wildlife habitat. The analysis focuses on impacts on humans and structures; potential effects on wildlife are addressed in Section 4.4, Biological Resources

The primary sources of information referenced in this section included the following:

- Napa County General Plan (2008)
- California General Plan Guidelines (Governor's Office of Planning and Research, 2017)

4.12.2 Environmental Setting

Technical Background and Noise Terminology

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Therefore, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting

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follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts.

This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

- L_{eq}: the energy-equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level, which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).
- L_{max} : the instantaneous maximum noise level for a specified period of time.
- L_{dn}: is a 24-hour day and night A-weighted noise exposure level, which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night ("penalizing" nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dB to take into account the greater annoyance of nighttime noises.
- **CNEL:** similar to L_{dn}, the Community Noise Equivalent Level (CNEL) adds a 5-dB "penalty" for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10-dB penalty between the hours of 10:00 p.m. and 7:00 a.m.

As a general rule, in areas where the noise environment is dominated by traffic, the L_{eq} during the peak-hour is generally within one to two decibels of the L_{dn} at that location.

Effects of Noise on People

When a new noise is introduced to an environment, human reaction can be predicted by comparing the new noise to the ambient noise level, which is the existing noise level comprised of all sources of noise in a given location. In general, the more a new noise exceeds the ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

• Except in carefully controlled laboratory experiments, a change of 1-dB cannot be perceived;

- Outside of the laboratory, a 3-dB change is considered a just-perceivable difference;
- A change in level of at least 5-dB is required before any noticeable change in human response would be expected; and
- A 10-dB change is subjectively heard as approximately a doubling in loudness and can cause an adverse response.

The perceived increases in noise levels shown above are applicable to both mobile and stationary noise sources. These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence, the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dB for hard sites and 7.5 dB for soft sites for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the receiver such as parking lots or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the changes in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dB (per doubling distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles) attenuate at a rate between 3 dB for hard sites and 4.5 dB for soft sites for each doubling of distance from the reference measurement.

Noise levels may also be reduced by intervening structures, such as a row of buildings, a solid wall, or a berm located between the receptor and the noise source.

Fundamentals of Vibration

As described in the Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment Manual (FTA, 2018), ground borne vibration can be a serious concern for nearby neighbors, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground borne vibration are trains, buses and heavy trucks on rough roads, and construction activities such as blasting, sheet pile-driving, and operation of heavy earth-moving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal, which is measured in inches per second (in/sec). The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect

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of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (V_{db}) is commonly used to express RMS. The decibel notation acts to compress the range of numbers required to describe vibration. Typically, ground borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration assessment include structures (especially older masonry structures), people who spend a lot of time indoors (especially residents, students, the elderly and sick), and vibration sensitive equipment such as hospital analytical equipment and equipment used in computer chip manufacturing.

The effects of ground borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin.

Existing Noise-Sensitive Land Uses

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication, and can cause physiological and psychological stress and hearing loss. Given these effects, some land uses are considered more sensitive to noise levels than others due to the duration and nature of time people spend at these uses. In general, residences are considered most sensitive to noise as people spend extended periods of time in them, including the nighttime hours. Therefore, noise impacts to rest and relaxation, sleep, and communication are highest at residential uses. Schools, hotels, hospitals, nursing homes, and recreational uses are also considered to be more sensitive to noise as activities at these land uses involve rest and recovery, relaxation and concentration, and increased noise levels tend to disrupt such activities. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate, are also sensitive to noise but due to the limited time people spend at these uses, impacts are usually tolerable. Commercial and industrial uses are considered the least noise-sensitive.

Existing Noise Environment

The noise environment in and around the County is influenced by vehicular traffic, such as along State Route 29 (SR-29), State Route 121 (SR 121), State Route 221 (SR 221), State Route 128 (SR 128), State Route 12 (SR 12), Napa-Vallejo Highway and local roadways such as Silvarado Trail, American Canyon Road, Soscol Avenue and Redwood Road/Trancas Street. Other noise sources in the vicinity include the Napa Valley Wine Train that runs parallel to SR 29 between the Cities of Napa and St. Helena.

Traffic noise modeling conducted for the Napa County General Plan estimated noise levels along several major roadways within the County. Results of this traffic modeling are presented in **Table 4.12-1** and are representative of transportation noise levels generated by, based on traffic noise contours contained in the General Plan.

Roadway Segment	Ldn at 100 feet
American Canyon Road	72
Napa Vallejo Hwy	76
Silverado Trail	67 — 71
Soscol Avenue	68
State Highway 12	73
State Highway 121	62 — 73
State Highway 128	63 — 69
State Highway 29	62 — 77
NOTEO	·

 TABLE 4.12-1

 EXISTING LDN TRAFFIC NOISE LEVELS ALONG MAJOR ROADWAYS IN NAPA COUNTY

NOTES:

a. Noise levels were estimated for future year (2020)in the 2008 General Plan

SOURCE: Napa County, 2008.

4.12.3 Regulatory Setting

Federal

Noise Control Act

In 1972, the Noise Control Act was established to address the concerns of noise as a growing danger to the health and welfare of the Nation's population, particularly in urban areas. In 1974, in response to the Noise Control Act, the U.S. Environmental Protection Agency (EPA) published Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.¹ **Table 4.12-2** summarizes U.S. EPA findings for residential land uses.

Indoor Outdoor **To Protect To Protect** Measure of Activity Hearing Against Activity Hearing Against **Both Effects Both Effects** Category Exposure Interference Loss Interference Loss Residential with 45 70 45 55 70 55 Ldn **Outside Space** Residential with 70 45 Ldn 45 _ _ -No Outside Space

TABLE 4.12-2 SOUND LEVELS THAT PROTECT PUBLIC HEALTH (DBA)

NOTES:

Sound levels are yearly average equivalent in decibels; the exposure period which results in hearing loss at the identified level is a period of forty years.

SOURCE: U.S. Environmental Protection Agency, Information of Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an adequate Margin of Safety, 1974.

¹ U.S. Environmental Protection Agency (U.S. EPA), 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an adequate margin of Safety. March 1974.

4.12 Noise and Vibration

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) aims to ensure worker safety and health in the United States by working with employers and employees to create better working environments. With regard to noise exposure and workers, OSHA regulations set forth accepted criteria to protect the hearing of workers exposed to occupational noise. Noise exposure regulations are listed in 29 Code of Federal Regulations (CFR) Section 1910.95. Section 1910.95(c)(1) states that an employer shall administer a hearing conservation program whenever noise exposure levels equal or exceed an 8-hour time-weighted average sound level of 85 dBA.

Federal Aviation Administration

The Federal Aviation Administration (FAA) has published guidelines for land use compatibility in 14 CFR Part 150. For aviation noise analyses, the FAA has determined that the 24-hour cumulative exposure of individuals to noise resulting from aviation activities must be established in terms of L_{dn} as FAA's primary metric. However, the FAA recognizes CNEL as an alternative metric for assessing aircraft (e.g., helicopters) noise exposure in California.

Based on FAA standards, a significant noise impact would occur if analysis shows that the project would cause noise sensitive areas to experience an increase in the aircraft noise level of 1.5 dB CNEL or more when aircraft levels are 65 dBA CNEL or higher. In addition, a significant noise impact would occur if noise sensitive land uses would be newly exposed to levels of 65 dBA CNEL or higher as a result of a project. For example, a 1.5 dB increase at an aircraft noise level of 63.5 dBA CNEL that brings the aircraft noise level to 65 dBA CNEL would be considered a significant impact.

According to Chapter 65 of Title 42 of the United States Code, and Articles 3 and 3.5 of Chapter 4 of Division 9 of the Public Utilities Code of the State of California, local enforcement of noise regulations and land use regulations related to noise control of airports (e.g., helistops) are preempted by the FAA.

State

Title 24

Title 24 of the California Code of Regulations codifies Sound Transmission Control requirements, which establishes uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings.

Department of Industrial Relations

The Division of Occupational Safety and Health (DOSH) protect workers and the public from safety hazards through its California Divisions of Occupational Safety and Health (Cal/OSHA) program. The Cal/OSHA Program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers

about workplace safety and health issues. DOSH enforces noise standards in the workplace in conjunction with OSHA through the CAL/OSHA program.

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Community Character Element of the Napa County General Plan includes the following policies related to noise that may apply to the proposed HEU (Napa County, 2008).

Goal CC-7: Accept those sounds which are part of the County's agricultural character while protecting the people of Napa County from exposure to excessive noise.

Goal CC-8: Place compatible land uses where high noise levels already exist and minimize noise impacts by placing new noise-generating uses in appropriate areas.

Policy CC-35: The noises associated with agriculture, including agricultural processing, are considered an acceptable and necessary part of the community character of Napa County, and are not considered to be undesirable provided that normal and reasonable measures are taken to avoid significantly impacting adjacent uses.

Policy CC-36: Residential and other noise-sensitive activities shall not be located where noise levels exceed the standards contained in this Element without provision of noise attenuation features that result in noise levels meeting the current standards of the County for exterior and interior noise exposure.

Policy CC-38: The following are the County's standards for maximum exterior noise levels for various types of land uses established in the County's Noise Ordinance. Additional standards are provided in the Noise Ordinance for construction activities (i.e., intermittent or temporary noise).

- a) For the purposes of implementing this policy, standards for residential uses shall be measured at the housing unit in areas subject to noise levels in excess of the desired levels shown above. Note to the Reader: Agricultural uses covered by the Right to Farm are defined in Policy LU-2 in the Agricultural Preservation and Land Use Element. Please also see the Agricultural Preservation/Land Use Element for additional policies regarding agricultural uses and their right to operate.
- b) Industrial noise limits are intended primarily for use at the boundary of industrial zones rather than for noise reduction at the industrial use.
- c) Where projected noise levels for a given location are not included in this Element, site-specific noise modeling may need to be conducted in order to apply the County's Noise policies.
- d) For further information, see the County Noise Ordinance.

4.12 Noise and Vibration

		Noise Level (dBA) by Noise Zone Classificatio			
Land Use Type	Time Period	Rural	Suburban	Urban	
Single-Family	10 p.m. to 7 a.m.	45	45	50	
homes and Duplexes	7 a.m. to 10 p.m.	50	55	60	
Multiple Residential	10 p.m. to 7 a.m.	45	50	55	
3 or More Units Per Building (Triplex+)	7 a.m. to 10 p.m.	50	55	60	
Office and Retail	10 p.m. to 7 a.m.	60			
	7 a.m. to 10 p.m.	65			
Industrial and Wineries	Anytime	75			

TABLE 4.12-3 OUTDOOR NOISE LIMITS EXTERIOR NOISE LEVEL STANDARDS (LEVELS NOT TO BE EXCEEDED MORE THAN 30 MINUTES IN ANY HOUR)

Policy CC-39: The following are noise compatibility guidelines for use in determining the general compatibility of planned land uses:

	TABLE 4.12-4
	OUTDOOR NOISE LIMITS NOISE COMPATIBILITY GUIDELINES
((EXPRESSED AS A 24-HOUR DAY-NIGHT AVERAGE OR LDN)

Land Use	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
Residential	Less than 55 dBA	55-60 dBA	60-75 dBA	Greater than 75 dBA
Commercial	Less than 65 dBA	65-75 dBA	75-80 dBA	Greater than 80 dBA
Industrial	Less than 70 dBA	70-80 dBA	80-85 dBA	Greater than 85 dBA

NOTES:

See Policy CC-43 for the definitions of these four levels of compatibility.

SOURCE: Napa County General Plan. 2008.

Policy CC-40: Property owners proposing new noise- or vibration-sensitive uses in proximity to existing industrial activities such as Syar Quarry, haul roads leading to the quarry, and within 100' of railroad tracks shall retain the services of a qualified noise expert to evaluate the potential for noise- and vibration-related land use conflicts. The expert shall recommend methods to ensure that residents and occupants will not be exposed to (a) excessive vibration levels that are disruptive or cause structural damage, or (b) noise in excess of the standards provided in this General Plan. Other methods to address noise and vibration may include, but are not limited to, building setbacks, site design and building orientation, soil compaction/grouting, noise barriers, buffers, building and foundation design, and incorporation of noise insulation. Compliance with this policy shall be demonstrated prior to issuance of a building permit.

Policy CC-41: Where noise-sensitive uses are proposed on County-owned sites within incorporated jurisdictions, the noise standards of that jurisdiction shall apply.

Policy CC-42: The following are the County's standards for acceptable indoor intermittent noise levels for various types of land uses. These standards should receive special attention when projects are considered in "Tentatively Compatible" or "Normally Incompatible" areas as determined by Policies CC-39 and CC-43, and new uses shall incorporate design features to ensure that these standards are met.

Land Use Type	Acceptable Noise Level (dBA CNEL)		
Residential (Single- and Multi-Family)			
Living Areas, Daytime	60 dBA		
Living Areas, Nighttime	55 dBA		
Sleeping Areas	45 dBA		
School Classrooms or Library	55 dBA		
Church Sanctuary	45 dBA		
Commercial, Educational, Office, Light and Heavy Industrial, Warehousing	Conform with applicable state and federal workplace safety standards		
NOTES:			
Standards for public schools are set and enforced by the State of	of California and are not regulated by the County.		

TABLE 4.12-5 INTERIOR NOISE LEVEL CRITERIA FOR INTERMITTENT NOISE

SOURCE: Napa County General Plan. 2008.

Policy CC-43: The following definitions shall be used in combination with the standards in the Noise Compatibility Guidelines shown above.

- a) "Completely Compatible" means that the specified land use is satisfactory and both the indoor and outdoor environments are pleasant.
- b) "Tentatively Compatible" means that noise exposure may be of concern, but common building construction practices will make the indoor living environment acceptable, even for sleeping quarters, and the outdoor environment will be reasonably pleasant.
- c) "Normally Incompatible" means that noise exposure warrants special attention, and new construction or development should generally be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Careful site planning or exterior barriers may be needed to make the outdoor environment tolerable.
- d) "Completely Incompatible" means that the noise exposure is so severe that new construction or development should generally not be undertaken.

Policy CC-44: The County shall require that appropriate noise mitigation measures be included when new residential developments are to be built in close proximity to significant noise sources.

Policy CC-45: Development in the area covered by any Airport Land Use Compatibility Plan (ALUCP) shall be consistent with the noise levels projected for the airport. Where necessary, noise insulation or other measures shall be included to maintain desired interior noise levels.

Action CC-45.1: The County shall use avigation easements, disclosure statements, and other appropriate measures to ensure that residents and businesses within any airport influence area are informed of the presence of the airport and its potential for creating current and future noise.

Policy CC-47: Where feasible, the County should embrace new technologies to address existing and potential future noise sources. For example, use of rubberized asphalt concrete in roadway resurfacing can reduce noise levels experienced by nearby residents.

Policy CC-49: Consistent with the County's Noise Ordinance, ensure that reasonable measures are taken such that temporary and intermittent noise associated with construction and other activities does not become intolerable to those in the area. Construction hours shall be limited per the requirements of the Noise Ordinance. Maximum acceptable noise limits at the sensitive receptor are defined in Policies CC-35, CC-36, and CC-37.

Napa County Municipal Code

The Napa County Municipal Code includes regulations associated with noise. Within Title 8 Health and Safety specifically, Chapter 8.16 details a noise policy that is meant to protect the peace and well-being of Napa County residents from excessive and unnecessary noise. **Table 4.12-6** summarizes the maximum permissible exterior noise levels by receiving land use established in Section 8.16.070.

		Noise Zone Classification ^a		
Receiving Land Use Category	Time Period	Rural	Suburban	Urban
Residential Single family and duplex	10 p.m. — 7 a.m. 10 p.m. — 7 a.m.	45 50	45 55	50 60
Residential multiple and country	10 p.m. — 7 a.m. 7 a.m. — 10 p.m.	45 50	50 55	55 60
Commercial	10 p.m. — 7 a.m. 7 a.m. — 10 p.m.		60 65	
Industrial, including wineries	Anytime	75		

TABLE 4.12-6 EXTERIOR NOISE LIMITS

NOTES:

a. The classification of different areas of the County in terms of environmental noise zones shall be determined by the Noise Control Officer, based upon assessment of County noise survey data. Industrial noise limits are intended primarily for use at the boundary of industrial zones rather than for noise reduction within the zone.

SOURCE: Napa County, 2022.

Construction noise is addressed in Section 8.16.080 (B)(2) of the County Code. The following "Special Provisions" specifically address noise from construction activities within the County:

Notwithstanding any other provision of this chapter, between the hours of eight a.m. and eight p.m. on weekdays and between the hours of ten a.m. and six p.m. on Sundays and holidays, construction, alteration and repair activities which are authorized by a valid city permit; and maintenance activities such as lawn mowing, rotovating, tree trimming and painting, which require no city permit (but not including the operation of stationary, installed

equipment, such as swimming pool and air-conditioning motors and devices), shall be allowed if they meet at least one of the following noise limitations:

- a. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of seven p.m. and seven a.m., such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the appropriate authority. This subsection shall not apply to the use of domestic power tools, as specified in subsection (B)(3) of this section.
- b. Noise Restrictions at Affected Properties. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties will not exceed those listed in the following schedule (**Table 4.12-7**):

	Residential	Commercial	Industrial
Daily: 7 a.m. to 7 p.m.	75 dBA	80 dBA	85 dBA
Daily: 7 p.m. to 7 a.m.	60 dBA	65 dBA	70 dBA
SOURCE: Napa County, 2022.			

TABLE 4.12-7 Noise Limits for Construction Activities

4.12.4 Significance Criteria

The thresholds used to determine the significance of impacts related to noise and vibration are based on Appendix G of the *CEQA Guidelines*. Implementation of the HEU could have a significant impact on the environment if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generate excessive groundborne vibration or groundborne noise levels.
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

Approach to Analysis

After considering the implementation of the proposed project as described in Chapter 3, *Project Description*, and compliance with the required regulatory requirements, the environmental analysis below identifies if the defined significance thresholds would be exceeded and, therefore, a significant impact would occur.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would

affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to noise and it is not discussed further in this section.

Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

• *Expose people or structures to or generate excessive groundborne noise levels.* The second criterion above relates to groundborne vibration and groundborne noise levels, but only the issue of groundborne vibration is relevant to the HEU. Groundborne noise occurs when vibrations transmitted through the ground result in secondary radiation of noise. Groundborne noise is generally associated with underground railway operations and with construction activities such as blasting, neither of which are likely to result from implementation of the proposed HEU. Future planned development within the County would not involve equipment that would produce groundborne vibration; therefore, no impacts related to the exposure of people or structures to, or the generation of, excessive groundborne noise levels would occur in connection with project operations. The potential for construction activities to result in groundborne vibration is addressed below in Impact NOI-2.

4.12.5 Impacts of the Project

Impact NOI-1: Implementation of the HEU would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant*)

Under the HEU, the primary source of temporary noise within the County would be from demolition and construction. Construction activities within the County would involve both off-road construction equipment (e.g., excavators, dozers, cranes, etc.) and transport of workers and equipment to and from construction sites. **Table 4.12-8** shows typical noise levels produced by the types of off-road equipment that would likely be used during future construction areas within the County.

Construction noise is a prominent source of temporary noise within the County and would continue to be so regardless of whether or not the HEU is adopted. Noise levels near individual construction sites under the proposed HEU would not be substantially different from what they would be under the existing Housing Element. Since specificity of future projects involving the construction of single family homes within the County are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be located within 50 feet of sensitive land uses. This assumption is also conservative for the identified multi-family housing sites, as the closest sensitive receptors are located approximately 50 feet from the Imola Avenue site and Foster Road site. To quantify construction-related noise exposure at the nearest sensitive land uses, it is assumed that the two loudest pieces of construction equipment would operate within 50 feet of a sensitive receptor.
Type of Equipment	L _{max} , dBA	Hourly L _{eq} , dBA/Percent Use ^a
Backhoe	80	76/40
Jackhammer	85	78/20
Roller	85	78/20
Compactor	80	73/20
Paver	85	82/50
Crane	85	77/16
Grader	85	81/40
Concrete Mixer Truck	85	81/40
Loader	80	76/40
Air Compressor	80	76/40
Excavator	85	81/40

 TABLE 4.12-8

 REFERENCE CONSTRUCTION EQUIPMENT NOISE LEVELS (50 FEET FROM SOURCE)

NOTES

a. Percent used during the given time period (usually an hour – hourly L_{eq}) were obtained from the FHWA Roadway Construction Noise Model User's Guide.

SOURCE: FHWA, 2006.

Under the HEU, sensitive receptors located within 50 feet of an excavator or other construction equipment producing similar levels of noise could be exposed to a noise level of 82 dBA L_{eq} . However, Municipal Code Section 8.16.080 (B)(2) specifically exempts construction noise between the hours of eight a.m. and eight p.m. on weekdays and between the hours of ten a.m. and six p.m. on Sundays and holidays, for construction, alteration and repair activities which are authorized by a valid city permit. However, the Imola site is State-owned and would not be subject to County review or regulations. Therefore, for most housing sites under the HEU, likely construction equipment operations would operate within the constraints of Municipal Code Section 8.16.080(B)(2) and impacts associated with future construction activities conflicting with local noise standards would be less than significant.

However, the potential development under the Imola site would not be subject to County Code constraints. In lieu of a specified state-wide criterion for assessing the magnitude of a construction noise impact applicable to the Imola site, construction noise levels may be compared to construction noise impact criteria developed by the FTA. While the FTA's *Transit Noise and Vibration Impact Assessment Manual*² was developed for determining significant noise and vibration impacts for transit projects and is not a regulation, it is one of the few federal sources that suggest both a methodology and criteria for assessing construction noise impacts. The FTA noise impact criteria used to assess construction noise impacts on residential uses is 90 dBA during daytime hours and 80 dBA during nighttime hours. Applying the General Assessment methodology of the FTA Manual, which assumes the simultaneous operation of the two noisiest pieces of equipment (grader and excavator) results in a property line noise level of 82.4 dBA at the nearest

² U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed May 12, 2021.

4.12 Noise and Vibration

residence on Penny Lane. Because this noise level is below the FTA daytime criterion of 90 dBA, impacts associated with future construction activities conflicting with local noise standards or applicable standards of other agencies for all sites including the Imola site would be **less than significant**.

Mitigation: None required.

Impact NOI-2: Implementation of the HEU would not generate excessive groundborne vibration. (*Less than Significant*)

Future construction activities could occur under the proposed HEU which could have the potential to expose sensitive land uses within the County to groundborne vibration.

Construction activities would occur in a variety of locations throughout the County under the HEU, which may require activities or use of off-road equipment known to generate some degree of vibration. Activities that would potentially generate excessive vibration, such as blasting or impact pile driving would not be expected to occur from housing development under the HEU, as such activities would typically be associated with high-rise development that is not envisioned. Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and the sick), and equipment (e.g., magnetic resonance imaging equipment, high resolution lithographic, optical and electron microscopes). Regarding the potential effects of groundborne vibration to people, except for long-term occupational exposure, vibration levels rarely affect human health.

Since specificity of future projects within the County are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be located within 50 feet of sensitive land uses. This assumption is conservative for the identified multi-family housing sites, as the closest sensitive receptors are located approximately 50 feet from the Imola Avenue site and Foster Road site while all other sites are located 100 to 365 feet from the nearest noise-sensitive land use.

The primary vibration-generating activities associated with the proposed project would occur during grading, placement of underground utilities, and construction of foundations. **Table 4.12-9** shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with housing development construction would be the use of drill rigs for foundation peers, if required.

According to the Caltrans' *Transportation and Construction Vibration Guidance Manual*, the building damage threshold for historic and some older buildings is 0.25 PPV (in/sec).³ As indicated in Table 4.12-9, construction activities at distances of 25 feet or further from the nearest existing buildings would be well below the threshold of 0.25 PPV to avoid structural damage to

³ California Department of Transportation (Caltrans), 2020. *Transportation and Construction Vibration Guidance manual*. April 2020.

historic and older buildings. For these reasons, project-related construction and operational groundborne vibration impacts would be **less than significant**.

	PPV (in/sec)ª		
Equipment	At 25 Feet (Reference)	At 50 feet	
Large Bulldozer	0.089	0.35	
Auger Drill Rig	0.089	0.35	
Loaded Trucks	0.076	0.30	
Jackhammer	0.035	0.14	

TABLE 4.12-9 VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT

NOTES:

 Vibration amplitudes for construction equipment assume normal propagation conditions and were calculated using the following formula: PPV (equip) = PPV (ref) x (25/D)1.1 where:

PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in in/sec from pp. 31–33 and Table 18 of the Caltrans Vibration Guidance Manual, as well as Table 12-2 of the FTA's Noise and Vibration Guidance Manual

D = the distance from the equipment to the receiver

SOURCES: Caltrans, Transportation and Construction Vibration Guidance Manual, April 2020, pp. 29-34,

http://www.dot.ca.gov/hq/en/noise/publications.htm, accessed on December 21, 2021; FTA, *Transit Noise and Vibration Impact Assessment Manual*, September 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed December 21, 2021.

Mitigation: None required.

Impact NOI-3: Stationary noise sources from development within the HEU area would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation*)

The proposed HEU would have a minimal potential to result in new noise-producing stationary sources to developed areas of the City. Air conditioning units would be expected to increase noise exposure at existing nearby noise-sensitive uses or affect proposed noise-sensitive uses in the vicinity.

At the present time, the type, size, and the location of any air handling equipment that may be associated with housing developed under the HEU is unknown. Policy CC-36 of the General Plan prohibits residential and noise-sensitive activities to be located within noise environments that exceed the County's standards. Section 8.16.070 Exterior noise limits of the Napa County Municipal Code establishes maximum noise levels at the nearest residential properties, presented in Table 4.12-4 above. However, the Imola Avenue site is State-owned and would not be subject to County review or regulations. Therefore, for most housing sites under the HEU the County Code standards for residential uses would be measured at the housing unit in areas subject to noise levels in excess of the desired levels to implement the purpose of Policy CC-38 of the General Plan and impacts associated with future stationary noise sources conflicting with local noise standards would be less than significant.

4.12 Noise and Vibration

However, the potential development under the Imola Avenue site would not be subject to County Code or General Plan policy constraints. The State of California General Plan Guidelines (Appendix D) identifies an exterior noise level of 60 Ldn as sufficient to maintain an interior noise level of 45 dBA, a noise exposure level defined as clearly acceptable for residential uses. As there is no implementing mechanism to ensure that potential future development of the Imola Avenue site would be consistent with the state-recognized 60 dBA, Ldn noise exposure, this impact from stationary source noise is considered potentially significant and Mitigation Measure NOI-1 is identified to ensure that operational noise exposure would be reduced to less than significant levels. However, because the County can only monitor and enforce mitigation measures within its jurisdiction, impacts associated with future stationary noise sources resulting from the Imola Avenue housing site could remain **significant and unavoidable**.

Mitigation Measure NOI-1: Operational Noise Performance Standard for State-Owned Properties.

Prior to the issuance of any building permit, the project applicant for any housing development of the Imola Avenue site or other development site that is currently stateowned shall ensure that all mechanical equipment is selected and designed to reduce impacts on surrounding uses by meeting a performance standard of 60 dBA, Ldn (equivalent to 50 dBA hourly Leq) at the nearest residential property line. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance has been verified by the County. Methods of achieving these standards include using low-noise-emitting HVAC equipment, locating HVAC and other mechanical equipment within a rooftop mechanical penthouse, and using shields and parapets to reduce noise levels to adjacent land uses.

Significance after Mitigation: Significant and Unavoidable.

Impact NOI-4: Transportation activities under the HEU would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (*Significant and Unavoidable with Mitigation*)

Vehicular traffic noise increases associated with the proposed HEU were estimated using algorithms found in the FHWA's *Traffic Noise Model Technical Manual* and the estimated traffic volumes provided in this Draft EIR's traffic analysis for the HEU. Because the transportation analysis does not address changes to level of service, only project contributions were provided. Consequently, only roadways near potential HEU development sites where existing volumes are published by Caltrans were examined in detail. These roadways are Monticello Road and Imola Avenue. The results of the vehicular traffic noise modeling effort for these roadways is summarized in **Table 4.12-10** and reflect potential roadway noise increase associated with the Bishop, Altamura and Imola opportunity sites.

However, there are a number of other roadways adjacent to other opportunity sites for which data is not available and the potential impacts cannot be evaluated quantitatively at the programmatic level of the HEU.

	Traffic Noise Level, Leq ^a		
Roadway Segment	Existing Condition (2020) ^a	Existing plus HEU Condition ^a	Increase due to HEU
Monticello Road North of Atlas Road	65	66	1
Monticello Road South of Atlas Road	66	66	0.2
Imola Avenue West of Soscal Avenue	70	70	0.2

TABLE 4.12-10 EXISTING AND PROJECTED PEAK HOUR TRAFFIC NOISE LEVELS ALONG STREETS HOUSING ELEMENT UPDATE

NOTES:

a. Noise levels were determine using methodology described in FHWA's Traffic Noise Model Technical Manual.

b. Existing sensitive receptors exposed to a traffic noise increase greater than 3 dB between Existing and Plus HEU conditions is

c The 2040 HEU contribution to any traffic noise increase is considered considerable if existing sensitive receptors are exposed a traffic noise increase between 2040 No HEU and 2040 Plus HEU conditions is greater than 3 dB.

SOURCE: ESA, 2022 (Appendix C)

According to Caltrans, a 3 dB increase in noise is considered barely perceptible to the average human⁴ and, in lieu of the any applicable policies in the General Plan with respect to transportation noise⁵, this analysis applies a 3 dBA increase as a significant impact.

As shown in Table 4.12-10, none of the sensitive land uses along roadway segments analyzed with respect to the Bishop, Altamura and Imola Avenue housing sites would be exposed to an increase in traffic noise that would exceed 3 dB. Therefore, the increase in vehicular traffic along these local roadways would not result in the exposure of adjacent existing sensitive land uses to vehicular traffic noise and the impact would be **less than significant**.

Because the impact to roadways that would be used to access the Spanish Flat and Foster Road sites cannot be quantified at a project-level of detail, the noise impact along roadways use to access these sites is conservatively identified as potentially significant. Mitigation NOI-2 is identified to address this potential impact to the degree feasible.

Mitigation Measure NOI-2: Preparation of a Project-Level Traffic Analysis and Mitigation.

Prior to any potential future development at the Spanish Flat and Foster Road opportunity sites, the project applicant for any housing development shall prepare a project-level noise analysis demonstrating that the increase in noise along roadways used to access the site will not exceed 3 dBA above existing levels.

Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program. (See Section 4.15, *Transportation*)

considered a significant impact.

⁴ California Department of Transportation (Caltrans), 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013.

⁵ Transportation noise sources are regulated at the state and federal level and cities and counties do not have jurisdiction to regulate transportation noise via their municipal codes.

4.12 Noise and Vibration

Significance after Mitigation: Significant and Unavoidable. While the applicant may have the ability to construct sound walls or berms to maintain noise levels for a given project consistent with General Plan policies, it is unlikely for the applicant to provide such measures for other existing impacted residential developments. Engineered asphalt is no longer a recommended measure of road noise reduction by the FHWA and is therefore not an available mitigation measure. Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program could serve to reduce traffic volumes and represents a potentially available mitigation measure. However, due to the uncertainty of the magnitude of any potential noise increases and success of potential mitigation measures, this impact is conservatively identified as potentially significant and unavoidable.

Impact NOI-5: Implementation of the HEU would not expose people residing or working in the project area to excessive noise levels due to being located within the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport or public use airport. (*Less than Significant*)

There are two public use airports in Napa County. The Angwin Airport (Parrett Field) is located over 11 miles from the nearest prospective housing inventory site (Spanish Flat). The latest year for which noise contours are available for Angwin-Virgil O Parrett Field is 1996. These contours indicate that the 55 CNEL noise contour extends less than 2,000 feet from either end of the sole runway. Therefore, aircraft operations of Parrett Field would not impact the potential occupants of any of the prospective housing inventory sites of the HEU.

Napa County Airport is located at the southern end of the County off of SR 29 near American Canyon. The nearest potential development site under the HEU would be the Imola Avenue site, approximately four miles to the north. The Napa County Airport Master Plan indicates that the existing 55 dBA CNEL noise contour of Napa County Airport does not extend north of the SR 12 Napa and is over 2.5 miles south of the Imola Avenue site. Therefore, aircraft operations of the Napa County Airport would not impact the potential occupants of any of the prospective housing inventory sites of the HEU.

Additionally, Moskowite Airport in Capell Valley is a private airstrip approximately 5.7 miles from Spanish Flat. Activity at small private landing strips is highly variable. In cases where the strip is used primarily for crop-dusting, use varies with the farming season. Because use of these strips is highly variable, it is not practical to develop CNEL contours. However, data are available on typical sound levels generated by small aircraft as a function of distance. Single event noise from a twin engine aircraft takeoff is associated with a noise level of 64 dBA at 8,000 feet. (Napa County (2007). At a distance of five miles, such a noise level would be attenuated to well below rural ambient conditions. Therefore, aircraft operations of the Moskowite Airport would not impact the potential occupants of any of the prospective housing inventory sites of the HEU.

Mitigation: None required.

4.12.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to noise and vibration could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects.

The geographic scope for cumulative effects on noise and vibrations would consist of an area approximately 900 feet around the perimeter of each of the potential housing development site of the HEU. This distance was selected because typical construction noise levels can affect a sensitive receptor at a distance of 900 feet if there is a direct line-of-sight between a noise source and a noise receptor (i.e., a piece of equipment generating 85 dBA would attenuate to 60 dBA over a distance of 900 feet). An exterior noise level of 60 dBA will typically attenuate to an interior noise level of 35 dBA with the windows closed and 45 dBA with the windows open.

Impact NOI-1.CU: Construction activities associated with implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant Impact*)

Development that could occur with implementation of the HEU and the cumulative projects listed in Section 4.0.3 of this EIR), if constructed contemporaneously, could result in construction noise levels higher than those of development of the HEU alone at some receptor locations. With very few exceptions, these projects are more than 900 feet from the housing inventory sites included in the HEU.

As discussed in Impact NOI-1, above, sensitive receptors located within 50 feet of an excavator or other construction equipment producing similar levels of noise could be exposed to a noise level of 82 dBA L_{eq} . Section 8.16.080(B)(2) of the County Code specifically exempts construction noise between the hours of eight a.m. and eight p.m. on weekdays and between the hours of ten a.m. and six p.m. on Sundays and holidays, which would also apply to any other projects that may be constructed contemporaneously. Therefore, while an unlikely potential exists for construction projects under the HEU and other foreseeable development to occur simultaneously and in proximity to one another, construction equipment operations would operate within the constraints of Municipal Code Section 8.16.080 as well as within the construction noise standards or applicable standards of other agencies would be **less than significant**.

Mitigation: None required.

Impact NOI-2.CU: Stationary noise sources and transportation activities from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Significant and **Unavoidable with Mitigation**)

Development that could occur with implementation of the HEU and any cumulative projects, could result in stationary source noise levels higher than those of development of the HEU alone at some receptor locations if such cumulative projects were to occur within close proximity to a given HEU development site.

As discussed in Impact NOI-3, above, air conditioning units installed as part of development resulting from implementation of the HEU could be expected to increase noise exposure at existing nearby noise-sensitive uses or affect proposed noise-sensitive uses in the vicinity.

At the present time, the type, size, and the location of any air handling equipment may be associated with housing developed under the HEU is unknown. As discussed in Impact NOI-2, Policy CC-36 of the General Plan prohibits residential and noise-sensitive activities to be located near noise levels that exceed the County's standards. Section 8.16.070 of the Napa County Municipal Code establishes maximum noise levels at the nearest residential properties. Mitigation Measure NOI-1: Operational Noise Performance Standard for State-Owned Properties would ensure that development of state-owned lands pursuant to the HEU would meet applicable state noise exposure limits. County requirements would apply to all past, present, or reasonably foreseeable projects within the jurisdiction of the County, as well as from development with the proposed HEU. Therefore, with implementation of Mitigation Measure NOI-1, the cumulative impact with respect to stationary noise sources potentially resulting in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies would be less than significant. However, because the County can only monitor and enforce mitigation measures within its jurisdiction, cumulative impacts associated with future stationary noise sources resulting from the Imola Avenue housing site could remain significant and unavoidable.

Similarly, development that could occur with implementation of the HEU and any cumulative projects, could result in a substantial permanent increase in ambient noise levels related to transportation activities in the project vicinity above levels existing without the project if such cumulative projects were to occur within close proximity to roadways that would be used to access the Spanish Flat and Foster Road housing sites.

As discussed in Impact NOI-4, above because the impact to roadways that would be used to access the Spanish Flat and Foster Road sites cannot be quantified at a project-level of detail, the noise impact along roadways use to access these sites is conservatively identified as potentially significant. Mitigation Measure NOI-2 is identified to address this potential impact to the degree feasible. Mitigation Measure TRA-1 could also serve to reduce traffic volumes and represents a potentially available mitigation measure. However, due to the uncertainty of the magnitude of any potential noise increases and success of potential mitigation measures, this impact is conservatively identified as potentially **significant and unavoidable**.

Mitigation Measure NOI-1: Operational Noise Performance Standard for State-Owned Properties. (See Impact NOI-3 above)

Mitigation Measure NOI-2: Preparation of a Project-Level Traffic Analysis and Mitigation. (See Impact NOI-4 above)

Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program. (See Section 4.15, *Transportation*)

Significance after Mitigation: Significant and Unavoidable.

Impact NOI-3.CU: Construction activities associated with implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not result in exposure of persons to or generation of excessive groundborne vibration levels. (*Less than Significant Impact*)

Development that could occur with implementation of the HEU and any cumulative projects within the County could be constructed contemporaneously.

With regard to the potential for a cumulative vibration-related damage impact to occur, because vibration impacts are based on instantaneous PPV levels, worst-case groundborne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, instantaneous peak vibration levels do not combine in this way. Vibration from multiple construction sites, even if they are located close to one another, would not combine to raise the maximum PPV. For this reason, the cumulative impact of construction vibration from multiple construction projects located near one another would generally not combine to further increase vibration levels. In essence, because vibration effects are highly localized, the potential for intensification of vibration is extremely unlikely.

Vibration impacts resulting from construction of subsequent projects under the HEU would not combine with vibration effects from cumulative projects in the vicinity. Therefore, cumulative groundborne vibration impacts related to potential damage effects and interference with vibration-sensitive equipment would be **less than significant**.

Mitigation: None required.

4.12 Noise and Vibration

4.12.7 References

- California Department of Transportation (Caltrans), 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013
- Caltrans, *Transportation and Construction Vibration Guidance Manual*, April 2020, Table 19, p. 38, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ env/tcvgm-apr2020-a11y.pdf, accessed March 29, 2022.
- Federal Highway Administration (FHWA), 2006. Roadway Construction Noise Model User Guide, 2006.
- Federal Transit Administration. Transit Noise and Vibration impact Assessment Manual. FTA Report No. 0123. September 2018. Available online: https://www.transit.dot.gov/sites/ fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impactassessment-manual-fta-report-no-0123_0.pdf. Accessed March 29, 2022.
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- Napa County, 2008. *Napa County General Plan*, adopted by Board of Supervisors Resolution 08-86, June 3, 2008, as amended through February 2022.
- Napa County. Napa County, California Code of Ordinance. 2022. Available online: https://library.municode.com/ca/napa_county/codes/code_of_ordinances. Accessed March 30, 2022.
- U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/ docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed March 29, 2022.
- U.S. EPA, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

4.13 Population and Housing

4.13.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on population and housing. This section first includes a description of the existing environmental setting as it relates to population and housing, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on population and housing.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. No comments relating to population and housing were received during the NOP comment period.

4.13.2 Environmental Setting

Population

The Bay Area is the fifth-largest metropolitan area in the nation and has seen a steady increase in population since 1990. Many cities in the region have experienced significant growth in jobs and population. While these trends have led to a corresponding increase in demand for housing across the region, the regional production of housing has largely not kept pace with job and population growth. However, in unincorporated Napa County, the population has been declining. Between 2010 and 2020 unincorporated Napa County's population decreased by approximately 4.9 percent. Napa County's overall population increased by 1.8 percent during this period, indicating that growth in the County has occurred entirely within its incorporated cities. Overall, however, the County has lagged the region, which has seen growth of approximately 8.4 percent over the same decade. **Table 4.13-1** below shows the population trends for 2010-2020 for the County and the region.

Population	2010	2020	% Change from 2000-2020
Unincorporated Napa County	26,213	24,924	- 4.9%
Napa County (as a whole)	136,484	139,000	+ 1.8%
Bay Area Region ^a	7,150,739	7,748,930	+ 8.4%

TABLE 4.13-1
POPULATION TRENDS, 2010-2020

NOTES:

a. The nine-county Bay Area Region includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

SOURCE: California Department of Finance, E-4 Series (CDOF 2021a).

4.13 Population and Housing

In 2020, the population of unincorporated Napa County was estimated to be 24,924 (see Table 4.13-1). The population of unincorporated Napa County makes up approximately 17.9 percent of Napa County. From 1990 to 2000, the population of the unincorporated county decreased by 24 percent, largely due to the incorporation of American Canyon in 1992 rather than an actual decline in population. This trend continued, with a decrease of approximately 4.6 percent between 2000 and 2010, and a further decline of approximately 4.9 percent between 2010 and 2020. Recent decreases are related to the wildfires of recent years that have resulted in the loss of numerous housing units in the unincorporated County (BAE, 2021).

Housing

Trends for the change in the number of housing units mirror those for population described above. The number of housing units declined in unincorporated Napa County between 2010 and 2020; as with population, recent declines can be attributed to the loss of housing due to wildfires. Napa County as a whole showed modest growth in the number of households, lagging the Bay Area Region. Average household size increased in the unincorporated County over the decade, similar to the County and the region. **Table 4.13-2** below shows the housing tends for 2010-2020 for the County and the region.

2010	2020	% Change from 2010-2020			
Housing Units ^a					
12,281	11,768	- 4.2%			
54,759	55,289	+ 1.0%			
2,783,991	2,924,264	+ 5.0%			
Average Household Size					
2.48	2.52				
2.69	2.75				
2.65	2.70				
	2010 12,281 54,759 2,783,991 2.48 2.69 2.65	2010 2020 12,281 11,768 54,759 55,289 2,783,991 2,924,264 2 2			

TABLE 4.13-2 HOUSING TRENDS, 2010-2020

NOTES:

a. "Housing units" are all housing (occupied and unoccupied housing units).

 b. The nine-county Bay Area Region includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

SOURCE: California Department of Finance, E-4 and E-5 Series (CDOF 2021a; 2021b).

4.13.3 Regulatory Setting

Federal

Fair Housing Act

The federal Fair Housing Act (42 U.S.C. 3601 et seq.), enacted in 1968, prohibits discrimination by direct providers of housing, such as landlords and real estate companies as well as other

entities, such as municipalities, banks or other lending institutions and homeowners insurance companies whose discriminatory practices make housing unavailable to persons because of race or color, religion, sex, national origin, familial status, or disability.

State

California Housing Element Requirements

California law (Government Code Section 65580, et seq.) requires cities and counties to include a Housing Element as a part of their General Plans to address housing conditions and needs in the community. Housing Elements are prepared approximately every eight years, following timetables set forth in the law. The Housing Element must identify and analyze existing and projected housing needs and "make adequate provision for the existing and projected needs of all economic segments of the community," among other requirements. The County adopted its current Housing Element in 2014 (Napa County, 2014).

State law mandates that all cities and counties zone land appropriately to accommodate the increasing needs of regional population growth. Regional housing needs are determined by the California Department of Housing and Community Development (HCD).

Regional

Association of Bay Area Governments Area Governments and RHNA

The Association of Bay Area Governments (ABAG) is the comprehensive regional planning agency and council of governments for the nine-county San Francisco Bay Area Region. Its members include the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma counties and 101 cities and towns of the San Francisco Bay region.

ABAG determines the distribution of affordable housing in the region through its Regional Housing Needs Allocation process. For the period from 2023 to 2031, HCD has identified a need of more than 441,000 housing units in the Bay Area — more than double the amount from the last eight-year cycle (187,000 units between 2015 and 2023). Housing needs are distributed for very low income, low income, moderate income, and above moderate households.¹

As discussed in Chapter 3, *Project Description*, jurisdictions in the Bay Area are currently updating their housing elements for the 6th Cycle, representing the eight year planning period from 2023 to 2031. The County's initial Regional Housing Needs Allocation (RHNA) as of December 2021 totaled 1,014 units and was reduced on March 17, 2022 with ABAG's approval of the County's request for transfers to incorporated jurisdictions (ABAG 2021; 2022). The County's initial and final RHNA from March 17, 2022 by income group is shown in **Table 4.13-3**, below. The County's HEU must plan for housing that meets this RHNA, plus an appropriate buffer.

¹ Bay Area Council of Governments. 2021. ABAG_2023-2031_Draft_RHNA_Plan.pdf (ca.gov) *Regional Needs Housing Plan 2023-2031*.

4.13 Population and Housing

	Units by Income Group ^b				
	Very Low (0-50% AMI)	Low (51-80% AMI)	Moderate (81-120% AMI)	Above Moderate (>120% AMI)	Total Units
Initial December 2021 RHNA Allocation	369	213	120	312	1,014
% of Total	36%	21%	12%	31%	100%
March 17, 2022 (Final) RHNA Allocation ^a	45	16	14	31	106
% of Total	42%	15%	13%	29%	100%

 TABLE 4.13-3

 NAPA COUNTY REGIONAL HOUSING NEEDS (RHNA) ALLOCATION AS OF MARCH 2022¹

NOTES:

a. The RHNA allocation shown here reflects ABAG's March 17, 2022 approval of RHNA transfers pursuant to California Government Code Section 65584.07, which modified the original RHNA adopted in December 2021

b. Units are grouped into categories based on the incomes of households accommodated and their relationship (percentage of) Area Median Income (AMI). In 2021, the County's Area Median Income for a family of four was \$109,200, as published by HCD in Title 25 of the California Code of Regulations section 6932.

SOURCE: ABAG, 2022.

Plan Bay Area 2050

SB 375 requires all metropolitan regions in California to complete a sustainable communities strategy (SCS) as part of a regional transportation plan. In the Bay Area, the MTC and ABAG are jointly responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by the California Air Resources Board.

Plan Bay Area 2050, adopted in October 2021, serves as the SCS for the Bay Area, in accordance with SB 375.² *Plan Bay Area 2050 is comprised of 35 strategies across the elements of housing, the economy, transportation, and the environment*. A core household and employment growth strategy of Plan Bay Area is "focused growth" in existing communities along the existing transportation network. Key to implementing this focused growth strategy are Priority Development Areas (PDAs) and Transit-Rich Areas (TRAs), as recommended and approved by local governments. As defined by the plan, PDAs are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. Plan Bay Area also recommends increasing non-auto travel mode share and reducing vehicle miles traveled per capita and per employee by promoting transit-oriented development, transit improvements, and active transportation modes such as walking and bicycling.

Prior to *Plan Bay Area 2050*, Plan Bay Area 2040, adopted in 2017, was the most recent regional transportation plan and sustainable communities strategy for the Bay Area region. Plan Bay Area 2050 updates Plan Bay Area 2040 and is consistent with the current Regional Housing Needs Allocation cycle. However, since Plan Bay Area 2050 was adopted in late 2021, Plan Bay Area 2040 continues to serve as the basis for regional and county-wide transportation models until the models are updated. Updates to the models are anticipated within the next several years.

² Association of Bay Area Governments, *Plan Bay Area 2050*, Final, adopted October 21, 2021.

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Agricultural Preservation and Land Use and Economic Development Elements of the Napa County General Plan includes the following policies related to population and housing (Napa County, 2008).

Goal AG/LU-4: Develop and implement planning policies which define a rate of population growth that perpetuates our quality of life.

Goal AG/LU-5: With municipalities, other governmental units, and the private sector, plan for commercial, industrial, residential, recreational, and public land uses in locations that are compatible with adjacent uses and agriculture.

Goal AG/LU-6: Create a stable and predictable regulatory environment that encourages investment by the private sector and balances the rights of individuals with those of the community and the needs of the environment.

Goal AG/LU-7: Plan for demographic changes, environmental or climatic changes, and desired social services when siting public facilities and when considering the design of those facilities.

Policy AG/LU-30: The County shall use a variety of strategies to address its long-term housing needs and to meet the state and regional housing requirements in its cyclical updates of the Housing Element. In addition to working with the state and ABAG to reduce the County's regional allocation, these strategies shall include:

- Consider re-use of former industrial sites designated as Study Area on the Land Use Map to provide for a mix of uses, including affordable and market rate work force housing as appropriate.
- Use of overlay designations to permit/facilitate multi-family housing on specific sites within designated urbanized areas shown on the Land Use Map.
- Collection and disbursement of housing impact fees to subsidize construction of affordable housing.
- Cooperative agreements with incorporated agencies within the County where these jurisdictions are able to accept additional housing requirements in exchange for other considerations.
- Actions that provide housing to farm workers and their families.
- Use of County-owned land for affordable housing where this land is no longer needed to meet the County's operational requirements and would be appropriate for housing.
- Other policies and programs which address the need for workforce housing.

Policy AG/LU-31: The County will work with the cities and town to see that low and moderate cost housing is provided to address the needs of low and moderate income householders in Napa County. In addition, the County will accept responsibility for

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meeting its fair share of the housing needs, including a predominant percentage generated by any new employment in unincorporated areas.

Policy AG/LU-33: The County will promote development concepts that create flexibility, economy, and variety in housing without resulting in significant environmental impacts and without allowing residences to become timeshares, resorts, hotels, or similar tourist-type accommodations.

Policy E-13.5: Increasing the supply of workforce housing will help the County maintain a stable and locally based workforce, reduce commuter traffic and air emissions, and support the local economy.

In addition, Policy AG/LU-119 contains the County's Growth Management System, which limits population growth in the unincorporated County by establishing annual limits for various types of residential building permits.

4.13.4 Significance Criteria

The thresholds used to determine the significance of impacts related to population and housing are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Approach to Analysis

The proposed project would update the County's Housing Element and plan for development of additional housing. Importantly, the first significance threshold above requires an evaluation of whether the project would induce "unplanned growth," which it would not, since the housing element itself is a plan. Similarly, the RHNA Plan and the housing requirements contained therein is also a plan. It thus follows that the HEU's conformance with those plans would avoid a significant environmental impact. Nonetheless, the analysis informs consideration of whether implementation of the HEU would induce substantial unplanned population growth, and is supplemented with a consideration of whether the planned development of new housing would displace existing people or housing, necessitating construction of replacement housing.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to population and housing and it is not discussed further in this section.

4.13.5 Impacts of the Project

Impact POP-1: Implementation of the HEU would not induce substantial unplanned population growth in an area, either directly or indirectly. (*Less than Significant*)

Implementation of the HEU would provide for the development of additional housing units in the unincorporated County and a resulting increase in the County's population. While no specific development proposals are directly associated with the HEU, the HEU would plan for development of up to 760 new housing units in the County, which is equivalent to the 106 units assigned to the County through the RHNA process plus a generous buffer. In doing so, the Housing Element would be updated to identify specific sites for multifamily housing in the four geographies shown in Figure 3-3. In addition, the Agricultural Preservation and Land Use Element of the General Plan would be amended to update applicable land use designations as needed, and sites would be rezoned to allow greater residential densities than are currently allowed. If all sites were developed at the planned densities to accommodate the total of 760 new units, the population of the County would increase by approximately 1,900 persons, using the unincorporated County's 2.5 persons-per-household factor to make the calculation.

The number of housing units and resultant population growth assumes that each parcel identified in the inventory of opportunity sites would be developed at somewhat less than its maximum potential under its proposed zoning, reflecting site-constraints and absence of higher-density multifamily housing in the unincorporated County. It is important to note that the identification of housing sites in the County's Housing Element does not mean that housing will necessarily be constructed on those sites at the planned unit count or level of affordability. Although the County must plan for housing development, it does not directly build, or require to be built, any housing. Instead, the identification of housing sites is intended to plan for and encourage housing, and future development on identified sites would be at the discretion of individual property owners and would be largely dependent on market forces and in the case of affordable housing, on available funding and/or other incentives.

The HEU would plan for 760 units in response to the County's RHNA allocation. By definition, these units would be "planned" rather than unplanned, and would conform to the County's Zoning Ordinance and General Plan as amended, as well as the ABAG RHNA Plan.

Housing development that could occur as a result of the HEU's implementation would require installation of infrastructure such as access roads and utilities. However, these infrastructure improvements would be designed to serve only the planned housing, and would not enable growth or facilitate unplanned growth beyond that housing.

Based upon these considerations, implementation of the HEU would not directly or indirectly induce unplanned population growth to the area, and the impact would therefore be less than significant.

Mitigation: None required.

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Impact POP-2: Implementation of the HEU would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. (*Less than Significant*)

Implementation of the HEU would not displace existing housing or people, as the goals, objectives, policies, and implementation programs contained therein would address the maintenance, preservation, improvement, and development of housing in unincorporated Napa County. Of the housing sites requiring rezoning to allow multi-family residential units at higher densities, only the Foster Road housing site contains an existing single family detached residential unit. This unit could be retained on site or may be replaced with development accommodating approximately 100 units. Regardless, residential use on the site would be perpetuated, though at a higher density, and there would be a net increase in available housing on the site. Therefore, the construction of replacement housing elsewhere would not be required. As such, the implementation of the HEU would not displace substantial numbers of existing people or housing, and construction of replacement housing elsewhere would not be required. The impact would be **less than significant**.

Mitigation: None required.

4.13.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable development that could cause cumulatively significant impacts. Significant cumulative impacts related to population and housing could occur if the incremental impacts of the HEU combined with the incremental impacts of cumulative growth is significant, and if the HEU's contribution is considerable.

The geographic scope for cumulative effects on population and housing is the Bay Area Region. The cumulative scenario is represented by the HEU and Plan Bay Area 2040, which estimate planned housing and population growth within the County and Bay Area region. For the County, the HEU plans for up to 760 dwelling units in the unincorporated County, which is somewhat more than the 575 units anticipated by Plan Bay Area 2040. For the Bay Area region, Plan Bay Area 2040 anticipates the addition of 544,735 housing units between 2020 and 2040. (See Table 4.0-1 in Section 4.0.3, Cumulative Impacts.)

Impact POP-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable growth, would not contribute considerably to cumulative impacts on population and housing. (*Less than Significant*)

As discussed under the analysis for Impacts POP-1 and POP-2, implementation of the HEU would have a less than significant impact with respect to unplanned population growth or residential displacement because it would by definition provide for planned growth, and because it would not displace large numbers of people. The potential population and housing growth provided for in the HEU somewhat exceeds the amount projected for the County in Plan Bay Area 2040, but is consistent with the ABAG RHNA Plan, and represents an extremely small

percent of planned regional growth. Under the HEU, if growth were to occur at the maximum densities specified, that growth would conform to the County's Zoning Ordinance and General Plan, as amended, as well as the ABAG RHNA Plan, and would thus constitute "planned growth."

Other jurisdictions in the Bay Area are also updating their housing elements in response to the RHNA Plan. Updates to those housing elements would also conform to the housing unit and buffer requirements of the RHNA Plan, and those jurisdictions would also update and amend their General Plans and zoning codes to meet the requirements of the RHNA Plan. Similar to the unincorporated County's planned growth as described above, growth in these other jurisdictions would therefore be similarly "planned" and would not contribute to a cumulatively considerable effect as relates to unplanned growth. Accordingly, implementation of the HEU would not be cumulatively considerable, and the impact would therefore be **less than significant**.

Mitigation: None required.

4.13.7 References

- Association of Bay Area Governments (ABAG), 2022. Minutes of March 17, 2022 Executive Board meeting, agenda item 6.a, Napa County Request for Regional Housing Needs Allocation (RHNA) Transfers.
- ABAG, 2021. ABAG Final Regional Housing Needs Allocation (RHNA) Plan: San Francisco Bay Area 2023-2031, December 2021.
- BAE Urban Economics, 2021. Draft Napa County Housing Element Housing Needs Assessment, December 16, 2021.
- California Department of Finance (CDOF), 2021a, E-4 Population Estimates for Cities, Counties, and the State, 2011-2021, with 2010 Census Benchmark, May 2021.
- CDOF, 2021b. E-5 Population and Housing Estimates for Cities, Counties and the State January 1, 2011-2021, May 2021.

Napa County, 2014. Napa County General Plan Housing Element, adopted December 16, 2014.

Napa County, 2008. *Napa County General Plan*, adopted by Board of Supervisors Resolution 08-86, June 3, 2008, as amended through February 2022. 4.13 Population and Housing

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4.14 Public Services and Recreation

4.14.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on public services and recreation. This section first includes a description of the existing environmental setting as it relates to public services and recreation, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on public services and recreation.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. No comments relating to public services were received during the NOP comment period.

4.14.2 Environmental Setting

4.14.2.1 Fire and Emergency Medical Service

Napa County Fire Department

The County of Napa contracts with the California Department of Forestry (CAL FIRE) for fire protection services as the Napa County Fire Department (NCFD). CAL FIRE provides administrative support and coordination with five full-time paid stations and nine volunteer fire companies operating under a County Fire Plan. The American Canyon Fire Protection District (ADFPD), Napa Fire Department (NFD), St. Helena Fire Department (SHFD), Calistoga Fire Department (CFD), and the Napa State Hospital Fire Department (NSHFD) provide services to the County through contracts and aid agreements. The Schnell-Vista Fire Protection District (SVFPD), the Knights Valley Volunteer Fire Department (KVVFD), and the Mountain Volunteer Fire Department (MVFD) are located outside the County but provide limited services to the County under necessary circumstances. The County contracts with the cities of St. Helena and Calistoga, and Schell-Vista Fire Protection District for the provision of fire protection services to specified unincorporated areas adjoining these agencies. The Napa County Fire Department provides fire and emergency service dispatching for the City of St. Helena and Calistoga Fire Departments. The Town of Yountville and the California Veterans Home contracts with the County to provide fire services to those jurisdictions (Napa County, 2022a).

NCFD provides fire protection and emergency medical response to nearly 30,000 residents covering 728 square miles of unincorporated Napa County except for 83 parcels that are served by the ACFPD. The NCFD also provides fire protection and related services to smaller communities and various agencies in the unincorporated portion of the County (Napa County, 2007). There are six local fire departments, twelve volunteer fire, and one seasonal fire department providing fire protection to various portions of the County (Napa County, 2022b). The closest station to the unincorporated community of Spanish Flat is Station 24 Spanish Flat, located at 4454 Knoxville Road. The closest station to the Northeast Napa HEU Housing

4. Environmental Setting, Impacts, and Mitigation Measures

4.14 Public Services and Recreation

Inventory Sites is Station 25 Napa, located at 1820 Monticello Road. As of 2016, there were approximately 200 active members collectively in the nine volunteer fire stations. The NCFD ran 4,324 emergency calls supported by six career and nine volunteer stations. The NCFD has a fleet of approximately 65 vehicles, 34 of which are fire apparatus and the remaining are support vehicles (Forest M. Craig Consulting, 2016). The NCFD owns the fire protection stations and equipment but contracts with CAL FIRE for the staffing and management of the facilities (Napa County, 2007).

The Napa County Fire Marshal's Office is a division within the Napa County Fire Department. Personnel assigned to this office are CAL FIRE employees under contract by the County of Napa to provide fire prevention and code enforcement duties in the unincorporated areas of Napa County. The Town of Yountville contracts with the County of Napa for Fire Marshal services. The Napa County Fire Marshal's Office works closely with Napa County Planning, Building and Environmental Services to ensure public safety to the citizens and visitors of Napa County (Napa County, 2022a).

Napa Fire Department

The NFD serves the City of Napa and consists of an operations, prevention, and administrative staff. The Fire Administration staff supports and manages both the Fire Prevention and Fire Operations divisions. The Fire Prevention Division is responsible for the review and adoption of regulations pertaining to the prevention and control of fire. The Fire Prevention Division reviews development and building projects for compliance with applicable codes and standards, and coordinates requirements with internal and external stakeholders. The Operations Division responds to the City's emergency calls. The Division responds to structure fires and emergency medical calls as well as any emergency threatening life, property, or the environment (City of Napa, 2022a).

In 2021, NFD responded to 10,199 calls which can be broken down into 255 fire calls, 218 hazardous condition calls, 6,602 EMS/rescue calls, 1,091 service calls, rupture/explosion calls, and the rest falling into the category of good intent, false, or miscellaneous calls. The NFD has 5 stations within the city to be able to respond to any emergency quickly. In 2021, the NFD had 4 engine companies, 1 truck company, 1 squad company, and 1 battalion chief in service. Staffing had 3 shifts with 18/day/shift. In 2021, the staffing ratio for NFD was on average 1 on-duty firefighter per 4,250 residents. The NFD had 73 personnel across all 3 divisions including 17 fire captains, 27 firefighter/paramedics, and 15 firefighters. The average response time to emergency (code 3) calls was 4 minutes 51 seconds. The fractile (90% of the time) response time was 7 minutes 4 seconds (NFD, 2021).

American Canyon Fire Protection District

The ACFPD provides a high level of fire suppression, emergency medical services, and rescue services to the community. The District has representation on regional response teams such as the Napa Inter-agency Hazardous Incident Team (NIHT) and the Napa Inter-agency Rescue Team (NIRT). In 2014, the District commenced a first response Advanced Life Support Program where a fire engine is staffed by at least one firefighter who is also a licensed paramedic on a 24/7 basis.

The District and American Medical Response (AMR) have established a public-private partnership that enhances the emergency medical system in Napa County (City of American Canyon, 2022).

In 2020, ACFPD responded to 1,725 emergency incidents, which includes fires, rescue and emergency services, accidents, and other incidents (ACFPD, 2020). In 2020, the ACFPD responded to 82 incidents in Napa County. Daily staffing consists of a minimum of 5 full time personnel assigned to station 11. The ACFPD has 6 fire apparatus vehicles (ACFPD, 2020).

Emergency Medical Service

In 2011, Napa County formed its own local Emergency Medical Services (EMS) Agency. This EMS system was redesigned to incorporate one countywide Exclusive Operating Area (EOA) and to conduct a Request for Proposals for emergency Advance Life Support (ALS) ambulance services, which was later awarded to American Medical Response (AMR). The EOA provider responds to 911 calls and transports patients with an ALS ambulance throughout Napa County. Napa Fire Department and American Canyon Fire District respond to all EMS calls and provides ALS level first response services in their jurisdictions. The rural areas of the County, particularly those comprising the northeastern portion of the County, present some challenges to the provision of ambulance services. Lake Berryessa is a summer destination and ambulances can have long responses to this area.

The EOA is designed to provide specific response times to the various populated areas within Napa County called Emergency Response Zones (ERZ). There are four zones distinguished by response time performance requirements and each zone is distributed over multiple areas of the County. The zones are designated as urban (Zone A), suburban (Zone B), rural (Zone C), and wilderness (Zone D). The Contractor is responsible to comply with four priorities in each ERZ which are potentially life-threatening emergency response (Priority 1), non-life-threatening emergency response (Priority 3), and non-emergency interfacility ALS transports (Priority 4). The response time requirements for all Napa County emergency response zones are listed in **Table 4.13-1** below.

Priority Level	Urban	Suburban	Rural	Wilderness
Priority 1	8:00	10:00	15:00	60:00
Priority 2	12:00	15:00	25:00	70:00
Priority 3	20:00	30:00	60:00	90:00
Priority 4	+/- 15 Minutes			
SOURCE: Napa County, 2020				

TABLE 4.14-1 RESPONSE TIME REQUIREMENTS FOR ALL NAPA COUNTY EMERGENCY RESPONSE ZONES

AMR has a partnership agreement with the American Canyon Fire District and the Napa Fire Department. These departments operate ALS engines, and the agreement allows AMR an extra two minutes for an Urban call, three minutes for a Suburban call and five minutes for a Rural call within those jurisdictions (Napa County, 2020).

4.14 Public Services and Recreation

4.14.2.2 Police Service

There are 10 Police Departments in Napa County and approximately one Police Department per 14,100 people and one Police Department per 74 square miles (County Office, 2022).

Napa County Sherriff's Office

The Napa County Sheriff's Office (NCSO) consists of an Administrative Division that oversees overall management of personnel and fiscal resources. This division consists of a sheriff, an undersheriff, three captains, five lieutenants, a Sheriff's Administrative Manager, and an Assistant to the Sheriff. As of 2022, there are a total of 146.63 FTE, with 111 sworn FTE and 35.63 non-sworn FTE (NCSO, 2022). Main Office of the Napa County Sheriff's Office is located at 1535 Airport Boulevard near the Napa County airport (Napa County, 2022c). There are several substations throughout the County and overall, Sheriff's Office has six locations. The NCSD provides many services including an Investigation Bureau, a Special Investigations Bureau, a Marine Patrol, and Special Units consisting of many divisions.

In 2021, the Napa County Sheriff's Office received 28,389 calls for service in Napa County, 3,776 calls for service in Yountville, and 15,908 calls for service in American Canyon (NCSO, 2022).

Napa Police Department

The Napa Police Department (NPD) provides police services in the in the City of Napa including responding to emergency and non-emergency calls for service. The NPD staffing includes approximately 76 sworn personnel, and 71 professional staff. This personnel enables the NPD to respond to a variety of calls for service 7 days a week, 365 days a year (City of Napa, 2022b). NPD headquarters is located at 1539 First Street. The NPD is comprised of two main divisions: Operations and Administration/Support.

The Operations Division consists of most of the sworn personnel and includes the Detectives, Youth Services Bureau, Traffic/Parking Officers, Homeless Outreach Services, and Patrol Officers. The Operations for the Napa County Police Department includes three bureaus each headed by a Lieutenant: Operations, Special Operations, and the Napa Special Investigations. The Patrol Bureau consists of over 40 Officers who patrol the streets. The Patrol Bureau is split into two teams: one team works three 12.5-hour days per week with one additional 10-hour day a month and the other team works four 10-hour days per week. These teams cover three shifts: a day shift, swing shift, and graveyard shift. The Investigations Bureau is comprised of a Sergeant, six Detectives, and a Forensic Specialist. The Special Enforcement Unit is comprised of a Sergeant and four Detectives and focuses on on-going community problems such as gang crimes and quality of life issues. The Youth Services Unit is comprised of a Sergeant, three School Resource Officers, and a Youth Services Specialist. This Unit provides School resource Officers to the NVUSD schools within the City of Napa at the middle school and high school levels. The Napa Special Investigations Bureau has two Napa Police Investigators assigned to the Unit and primarily is responsible for providing professional narcotics investigation and enforcement efforts dedicated towards identifying, apprehending, and prosecuting illegal narcotic and drug traffickers in Napa County (City of Napa, 2022b).

The Administration/Support Division is comprised of the professional staff including the Records Bureau, Property/Evidence Unit, Training, and 911/Communications Center (City of Napa, 2022b). The Napa 911 Dispatch Center is under management of the City of Napa, is a partnership operation with the Napa Sheriff's Department, American Canyon Fire Department, and American Medical Response. The center is staffed by four Supervisors, 20 full-time Dispatchers, five Public Safety Dispatch Call Takers, and two part-time Dispatchers. The Dispatch Center is the primary answer point for 911 emergency calls in the City of Napa, unincorporated areas of Napa County, City of American Canyon and Town of Yountville. The Dispatch Center processes approximately 115,000 calls per year.

4.14.2.3 Schools

Public Schools

The public school districts serving Napa County include the Napa Valley Unified School District (NVUSD), the St. Helena Unified School District (SHUSD), the Calistoga Joint Unified School District (CJUSD), the Howell Mountain Elementary School District (HMESD), and the Pope Valley Union Elementary School District (PVUESD). The NVUSD, SHUSD, and CJUSD districts also serve unincorporated portions of the County.

Napa Valley Unified School District

The NVUSD serves the communities of Napa and American Canyon and operates 16 elementary schools covering different ranges of grades TK-6, five 6-8 middle schools, and five high schools (four 9-12 and one 10-12) (NVUSD, 2021a). There is also Napa Valley Independent Studies which covers grades K-12. NVUSD has 27 school facilities with 16,453 students (CDE, 2022a). NVUSD is opening a new middle school language academy in the 2022-2023 school year.

As authorized by California Government Code Sections 65995 and 65996, NVUSD collects school impact fees from developers of new residential building space. The impact fee revenue is used together with other NVUSD funds (e.g., State grants, general obligation bonds) to complete capital improvements. The amount of the fee (currently \$4.79 per square foot of new residential space) is established through NVUSD's Developer Fee Justification Study (NVUSD, 2021b).

St. Helena Unified School District

The St. Helena Unified School District serves the City of St. Helena, located in the northern portion of Napa County. SHUSD operates one grades TK-2 primary school (St. Helena Primary School), one grades 3-5 elementary school (St. Helena Elementary School), one grades 6-8 middle school (Robert Louis Stevenson Middle School), and one grades 9-12 high school (St. Helena High School) (SHUSD, 2022). In 2020-2021, St. Helena Unified School District had an enrollment of 1,187 students (CDE, 2022b).

As authorized by California Government Code Sections 65995 and 65996, SHUSD collects school impact fees from developers of new residential building space. The impact fee revenue is used together with other SHUSD funds (e.g., State grants, general obligation bonds) to complete

4.14 Public Services and Recreation

capital improvements. The amount of the fee (currently \$4.08 per square foot of new residential space) is established through SHUSD's Developer Fee Justification Study (SHUSD, 2020).

Calistoga Joint Unified School District

The Calistoga Joint Unified School District serves the City of Calistoga, located in the northern end of Napa Valley, and operates with one TK-6 elementary school (Calistoga Elementary School), one Junior/Senior High School (Calistoga Junior/Senior High School), and one continuation high school (Palisades High School). In 2020-2021 the enrollment at CJUSD was 869 students (CDE, 2022c).

As authorized by California Government Code Sections 65995 and 65996, CJUSD collects school impact fees from developers of new residential building space. The impact fee revenue is used together with other CJUSD funds (e.g., State grants, general obligation bonds) to complete capital improvements. The amount of the fee (currently \$4.08 per square foot of new residential space) is established through CJUSD's Developer Fee Justification Study (CJUSD, 2022).

Howell Mountain Elementary School District

Howell Mountain Elementary School District is located in the eastern foothills of the Napa Valley and serves the unincorporated portions of Napa County including the City of Angwin. HMESD has one elementary school (Howell Mountain Elementary) that serves students in transitional kindergarten through eighth grade (HMESD, 2022). In 2021-2021 the enrollment at HMESD was 88 students (CDE, 2022d).

Pope Valley Union Elementary School District

Pope Valley Union Elementary District School serves the unincorporated portions of Napa County including Pope Valley. PVUESD is a single-school district in northern Napa County. In 2020-2021, the enrollment at Pope Valley Union Elementary was 50 students (CDE, 2022e).

4.14.2.4 Parks and Recreation

In 2006, the establishment of the Napa County Regional Park and Open Space District was approved. The primary focus of the District is to protect, restore, and preserve open space lands and their associated resources for current and future generations (Napa County Regional Park & Open Space District, 2019).

Open Space

Open space are lands which are primarily either undeveloped or developed only with improvements which are necessary for the preservation of natural resources and the provision of recreational activities. The term "open space" as used in Napa County does not denote a single land use, nor is it a designation for empty, unused, or not-yet-developed places. Napa County considers open space as those lands, which support an array of activities and amenities, both measurable and intangible and is not limited to recreational uses. The majority of public open space or dedicated open space is concentrated primarily in the eastern portion of the County and although some distance for many

residents, these lands are available for public use and enjoyment. Dedicated open space includes publicly held lands, which are perpetually dedicated for open space purposes. It is important to note that private open space dedication is possible only through easements, which include public beneficiary and non-profit operating restrictions.

The Federal government, which includes the Bureau of Land Management and the Bureau of Reclamation, is the largest public landholder in the County, overseeing nearly 63,000 acres. Lake Berryessa and the surrounding area are under the jurisdiction of the Bureau of Reclamation.

The State of California controls the second most open space of any public agency in the County. The Department of Fish and Game oversees the largest amount of State held land and manages the wetland preserves near the mouth of the Napa River and the Oak woodlands and grasslands north of Lake Berryessa. Preserves are dedicated open space whose primary purpose is the preservation of native plants and wildlife, significant landscape features, and valuable natural resources. The California Department of Parks and Recreation also operates and maintains the Robert Louis Stevenson State Park and Bothe-Napa State Park.

Various other state agencies (i.e., Veterans Affairs, University of California, and the Department of Mental Health) own and maintain smaller open space areas throughout the County. The City of Napa and the City of Vallejo own and operate water supply reservoirs in the County and the City of American Canyon owns and operates Newell Ranch.

The largest expanse of accessible public open space within close proximity to where most of the County residents live is south of the City of Napa in the Napa-Sonoma marshes and Napa River floodplain, which is owned and managed by the Department of Fish and Game. The area is used primarily for habitat purposes but is open to the public for various hunting activities and fishing. The Bothe-Napa State Park, the Robert Louis Stevenson State Park and Bale Grist Mill encompass important public open space areas in the north end of the Napa Valley. These facilities offer camping, trails to the top of Mt. St. Helena and through portions of the palisades near Calistoga (Napa County, 2007).

Parks

The County's General Plan (2008) defines parks as dedicated open space areas available to the public for recreation. Parks are divided into three broad categories:

- *Neighborhood parks* are small, usually five acres or less in size, within easy walking distance of their primary users, primarily providing urban recreational opportunities, often with a special focus on young children and families.
- *Community parks* are typically 10 to 40 acres in size, serving multiple neighborhoods, primarily providing urban recreational opportunities with a special focus on team sports and larger group gatherings.
- *Regional parks* are usually 50 acres or larger, serving local residents as well as visitors from more distant communities. Regional parks include significant natural features and are primarily focused on providing nature-based recreation.

4.14 Public Services and Recreation

Skyline Park is an 850-acre open space regional park that is owned by the state but operated and maintained by a non-profit organization through a lease by Napa County. The park offers several activities including, but not limited to, camping, RV amenities, and miles of hiking, mountain biking and equestrian trails, an archery range, and a native plant garden.

Recreation

Napa County defines recreation as, "Any activity undertaken voluntarily and without compensation, which renews one's health and spirits." Several major types of recreation take place in the county:

- *Urban recreation* includes recreation which takes place in highly improved parks and recreational facilities, including but not limited to sports fields, courts, climbing structures, running tracks, paved walking paths and bicycle lanes in incorporated areas, and swimming pools.
- *Nature-based recreation* includes recreation which takes place in and around, and is significantly focused on, the natural environment, including but not limited to walking, hiking, equestrian and mountain bicycle riding, camping in tents, recreational vehicles, and rustic cabins, wildlife viewing, fishing, hunting, picnicking, swimming in lakes and rivers, and paddling.
- *Commercial recreation* includes any recreational activity provided by a for-profit business or corporation, excluding recreational activities provided under contract or concession agreement with a public agency.
- *Motorized recreation* includes any recreational activity that involves use of a motor or engine.

In Napa County, the most popular recreational activities are walking for fitness and fun, walking pets, sightseeing, and wildlife viewing (Napa County, 2008).

City of Napa

The City of Napa currently has 67 parks, recreation facilities, and trail segments totaling 1,086.4 acres of publicly accessible parkland (City of Napa, 2015). Napa has 422.3 acres of natural areas and open space, 407 acres of community parks and facilities, 70.3 acres of neighborhood parks, 3.2 acres of mini parks, 24.4 acres of special use parks and facilities, 4.3 acres of civic spaces, and 130.9 acres of school sites. (City of Napa, 2015). The City of Napa has citywide facilities which include parks, open space areas, trails, and include active recreation and/or open space areas which are of significance to the entire community.

Public recreational facilities in Napa are provided by three public agencies: the City of Napa, the Napa Valley Unified School District, and Napa Valley College (City of Napa, 2020).

4.14.3 Regulatory Setting

Federal

National Fire Protection Association 1710

National Fire Protection Association (NFPA) 1710 is the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. NFPA developed NFPA 1710 as an industry standard for the deployment of fire suppression operations to ensure safe and effective fire service operations. The Standard stipulates that the first fire engine should arrive to 90 percent of emergency calls within a range of 6:15 and 6:45 minutes. It is recognized that the NFPA 1710 Standard is the optimal nationally.

State

California Fire Code

The California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, and fire safety during construction and demolition.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all fire fighting and emergency medical equipment.

Senate Bill 50

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), authorizes school districts to levy developer fees to finance the construction or reconstruction of school facilities, and restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time when building permits are issued. Payment of school fees is required by SB 50 for all new residential development projects and is considered full and complete mitigation of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional school facilities, related furnishings

4.14 Public Services and Recreation

and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any impacts on school facilities or due to the inadequacy of school facilities. Indirect impacts related to school attendance or construction of new facilities must still be considered under CEQA (e.g., indirect impacts on traffic, air quality, noise).

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The dedication of land or in-lieu fees may be required for land or condominium subdivisions. Land dedicated and fees collected pursuant to the Quimby Act may only be used for developing new, or rehabilitating existing, park or recreational facilities. The Quimby Act effectively preserves open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development.

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Agricultural Preservation and Land Use, Community Character, Recreation and Open Space, and Safety Elements of the Napa County General Plan includes the following policies related to public services and recreation (Napa County, 2008).

Policy AG/LU-120: The County shall work with the school districts serving students in the County to coordinate the provision of school facilities in conjunction with demographic changes and student populations. The County shall also encourage incorporated jurisdictions to reserve school sites within their boundaries.

Policy Ag/LU-121: The County shall coordinate an exchange of information with the school districts regarding school needs and new residential developments in the unincorporated area.

Goal CC-1: Preserve, improve, and provide visual access to the beauty of Napa County.

Policy CC-1: The County will retain the character and natural beauty of Napa County through the preservation of open space.

Goal ROS-1: To ensure an extensive landscape of open spaces in which recreation, the protection of natural, cultural, and archaeological resources, agricultural production, and private property are mutually supportive and complementary.

Policy ROS-1: The County encourages the acquisition, location, design, management, and operation of recreational open space and facilities, in ways that protect natural resources, enhance natural habitats, conserve agricultural lands, maintain agricultural productivity, and respect private property. The County shall coordinate with and support the Napa County Regional Park and Open Space District in implementing this policy.

Policy ROS-3: Recreational facilities and improvements on open space lands should be the minimum necessary to achieve recreation objectives and be limited in density, intensity, need for public services, impacts on the natural environment, growth inducement, and impacts on neighboring properties.

Policy ROS-7: Federal, state, and regional funding for providing sustainable, long-term stewardship of open space resources and habitats should be utilized where possible to supplement local funding.

Policy ROS-8: Minimize potential negative impacts of proposed open space improvements and uses through appropriate design and by requiring mitigation for any remaining significant impacts.

Goal ROS-2: To create and maintain a high-quality system of parks, trails, and recreational, interpretive, and environmental education facilities.

Policy ROS-11: Increase by 2030 the amount of dedicated open space available, improved, and managed for nature-based recreation by the general public by improving access to existing public lands and by selective public acquisition from willing landowners of fee title ownership, easements, and/or license agreements over high priority open space lands.

Policy ROS-13: The County should work in close partnership with the Napa County Regional Park and Open Space District and support sufficient, long-term funding for the District to address mutual goals and policies.

Policy ROS-14: The priority of the County, working in cooperation with the Napa County Regional Park and Open Space District, shall generally be to provide parks outside of the cities and town that are focused on nature-based recreation, recognizing that the County's cities and town generally provide neighborhood and community parks and urban recreation.

Policy ROS-19: Federal, state, regional, and local programs that provide grants for protecting, improving, and maintaining significant open spaces should be supported and utilized where feasible.

Action Item ROS-2.2: Support the Napa County Regional Park and Open Space District in developing, and updating at appropriate intervals, a new park and recreation master plan that identifies priorities, implementation strategies, and funding needs.

Action Item ROS-2.3: Support sufficient and stable funding for the Napa County Regional Park and Open Space District

Goal ROS-3: To make recreational, cultural, interpretive, and environmental education opportunities available to all county residents.

Objective ROS-1: By 2030, ensure that the majority of Napa County residents live within proximity of parks offering a variety of nature-based recreation opportunities by increasing the acreage of publicly accessible open space within a 15-minute or less driving *time* of each of the county's four cities and one town.

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Policy ROS-24: A range of recreation opportunities should be provided to serve the diverse recreational interests of children, adults, seniors, families, people with disabilities, and individuals.

- *a)* Where possible, recreational opportunities, and particularly those which are youthoriented should be provided within walking or bicycle distance, or accessible by public transit, of population centers.
- *b)* New multifamily housing projects shall be required to provide recreational facilities and/or participate in funding of planned facilities (e.g. parkland dedication fees) when a nexus exists.

Policy ROS-30: Other than at Lake Berryessa, recreational facilities should be designed and scaled to serve the needs of county residents, recognizing that facilities that serve local residents will also serve visitors, that visitors can help pay for the construction and operation of recreational facilities beneficial to residents, and that the provision of additional nature based recreational opportunities is an important tool for achieving economic development goals while also reducing potential adverse impacts of tourism. In the case of Lake Berryessa, recreational facilities are understood to serve a broad regional market, but should nonetheless be designed to also serve the desire of Napa County residents for water- and nature-based recreation.

Goal SAF-1: Safety considerations will be part of the County's education, outreach, planning, and operations in order to reduce loss of life, injuries, damage to property, and economic and social dislocation resulting from fire, flood, geologic, and other hazards.

Policy SAF-1: The County supports and will promote intergovernmental cooperation among local, state and federal public agencies to reduce known hazards and further define uncertain hazards. In particular, the County will work to develop cooperative working relationships with agencies having responsibility for flood and fire protection.

Policy SAF-4: Encourage intergovernmental and regional cooperation directed toward providing for a continuing high level of public services and coordination of services during a disaster.

Policy SAF-5: The County shall cooperate with other local jurisdictions to develop intracounty evacuation routes to be used in the event of a disaster within Napa County

Policy SAF-7.5: Increasing the supply of workforce housing will increase the likelihood that Napa County's first responders will live locally and be immediately available in the event of a disaster or other emergency.

Goal SAF-3: It is the goal of Napa County to effectively manage forests and watersheds, and to protect homes and businesses from fire and wildfire and minimize potential losses of life and property.

Policy SAF-14: The County will prepare a fire management plan and will continue, enhance, and implement programs seeking to reduce losses and costs associated with catastrophic fires.

Policy SAF-15: The County shall coordinate with CAL FIRE and fire agencies in neighboring counties to plan for future fire prevention and suppression needs.

Policy SAF-19: The County supports the development and use of new technology in the suppression and prevention of fires.

Action Item SAF-19.1: The County will work with CAL FIRE to develop improved methods of fire planning and firefighting for use in Napa County.

Goal SAF-5: To protect residents and businesses from hazards caused by human activities.

Policy SAF-34: All new commercial and multi-family development shall be referred to the Sheriff's Department for review of public safety issues. If the proposed project is adjacent to or within an incorporated city/town, consultation with their law enforcement agency shall also be required.

City of Napa General Plan Update

The City of Napa General Plan Update is an update of the City of Napa's existing General Plan, which formalizes a long-term vision for the physical evolution of Napa and outlines policies, standards, and programs to guide day-to-day decisions concerning Napa's development (City of Napa, 2022).

Goal CSPR-9: Provide, improve, and maintain a comprehensive system of City parks, trails, and recreational facilities to meet the needs of the City's current and future residents, businesses, property owners and visitors.

Policy CSPR 9-1: Maintain a parkland provision standard of 10.0 acres of overall parkland per 1,000 residents, 1.5 acres of Community Parks & Facilities per 1,000 residents, and 0.5 acres of Neighborhood Parks per 1,000 residents. Overall parkland includes Natural Areas & Open Space, Community Parks & Facilities, Neighborhood Parks, Mini Parks, Special Use Parks & Facilities, Civic Spaces, Trails, and School Sites.

Policy CSPR 9-2: Strive to ensure that all residents are within a 1.5 to two-mile radius of a community-serving park, which includes the Community Park & Facility or Natural Area & Open Space categories.

Goal CSPR-14: Seek funding and distribution mechanisms to support the City's existing and future parks and recreational needs.

Policy CSPR 14-6: Update the City's park development and parkland dedication impact fee ordinances to reflect the City's new policy direction of prioritizing park improvements, updated park access guidelines, and consideration of impact fees for commercial and industrial development.

Napa Open Space District 2008 Master Plan (2019 Update)

The Napa County Regional Park and Open Space District was approved by voters in 2006 and adopted its first Master Plan in 2009. The current update is intended to document what the District has accomplished to date, and to set the District's policy and financial framework for the next 15 years. The primary and most essential focus of the District continues to be to protect restore, and preserve open space lands and their associated resources for current and future

generations. In addition to protecting and stewarding valuable open space areas, the District also remains committed to making these areas accessible to the public.

Goal: Develop a system of parks, trails, and accessible open space that supports outdoor recreation and promotes physical and mental health.

Objective: Increase the amount of accessible parkland by at least 20,000 acres.

Objective: Construct another 50 miles of recreational trails over the next 15 years.

Objective: Cooperate with the municipalities of Napa County to provide seamless recreation programing and a full range of park and recreation facilities.

Objective: Cooperate with the municipalities of Napa County to provide seamless recreation programing and a full range of park and recreation facilities.

Goal: Pursue effective District management and interagency partnerships.

Objective: Support joint funding with the four cities and one town within Napa County, and with the County of Napa, to provide a comprehensive and complementary set of parks, recreation facilities and related programs that seamlessly serve all Napa county residents.

4.14.4 Significance Criteria

The thresholds used to determine the significance of impacts related to public services and recreation are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
 - i) Fire protection;
 - ii) Police protection;
 - iii) Schools;
 - iv) Parks; or
 - v) Other public facilities.
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Approach to Analysis

Potential direct impacts to public services are discussed relative to potential substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, as directed by the Significance Thresholds defined in Appendix G of the *CEQA Guidelines*. Similarly, potential direct impacts to recreation are discussed related to the accelerated substantial physical deterioration of recreational facilities and the construction/expansion of recreational facilities. The cumulative analysis considers potential public services and recreation impacts of the HEU's implementation combined with cumulative development in the vicinity.

Implementation of the HEU could have a significant impact on public services if: (1) it would require the construction of new or physically altered governmental facilities in order to maintain acceptable levels of public services; and (2) the construction or alteration of such facilities would result in a substantial adverse physical impact on the environment.

For purposes of the impact analysis, it is assumed that any projects developed as a result of the HEU's implementation would be designed to comply with the most up-to-date building and fire codes and would include fire safety measures and equipment, including but not limited to, use of fire retardant building materials, inclusion of emergency water infrastructure (fire hydrants and sprinkler systems), installation of smoke detectors and fire extinguishers, installation of emergency response notification systems, and provision of adequate emergency access ways for emergency vehicles. Project fire safety plans would be subject to review and approval by the County and Fire Department.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to public services, rather the updates to the Safety Element are intended to improve policies associated with emergency response. As such, it is not discussed further in this section.

4.14.5 Impacts of the Project

Impact PSR-1: Implementation of the HEU would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection and emergency medical response services facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection. (*Less than Significant*)

Implementation of the HEU would provide for the development of additional housing units in the unincorporated County and would result in an increase in the County's population. While no specific development proposals are directly associated with the HEU, theoretical development

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would result in an increase in population and thus an increase in demand for fire protection and emergency medical response services from the NCFD. Since ACFPD serves only a small number of parcels in the unincorporated County, any increased demand for service as a result of development of single-family homes or ADUs would be incremental and no new facilities would be needed. As discussed in Section 4.14.2, Napa County formed its own local EMS agency and developed response time compliance requirements based on priority level and their Emergency Response Zone. The current contractor, American Medical Response, is meeting overall response time compliance, but there are areas of the county that experience longer response times. Specifically, there were long waits for an ambulance in the northern portions of the county, specifically the area of St. Helena and Calistoga communities (Napa County, 2020). Travel time performance by region is variable and influenced by a variety of factors.

The increase in population as a result of the HEU would be expected to generate the typical range of service calls, including fire, emergency medical service, and other incidents. New fire personnel, vehicles, and equipment would likely be required to provide adequate service and response times to serve future development. The NFD, which would serve the Foster Road sites once annexed into the City of Napa, currently has an average response time of 4 minutes and 51 seconds for emergency calls (code 3) only. However, 90% of the time, the response time is 7 minutes and 4 seconds which is above the NFPA 1710 standard range of 6 minutes and 15 seconds to 6 minutes and 40 seconds. It is likely that the increase in population as a result of the Foster Road housing site would worsen this deficit. Additionally, new RFP ambulance services would be required to address the issue of minimum coverage in the areas that experience longer waits, which are located by some of the identified multi-family housing sites, specifically the area of St. Helena which helps serve the unincorporated Spanish Flat communities. Therefore, the NFD and NCFD's cost to maintain equipment and facilities and to train and equip personnel would also increase. However, the additional personnel and materials costs would likely be gradual as the increase in population as a result of the development under the HEU would occur incrementally over time. In accordance with Napa County General Plan Goal SAF-3, the County will coordinate with CAL FIRE to improve the methods of fire planning and firefighting for use in Napa County. Additionally, the Foster Road site would annex to the City of Napa, and adequate fire protection services would be assessed as a part of the annexation process. As such, it would be possible to assess the need for additional fire and emergency medical service personnel and equipment and address these needs to ensure that adequate fire service standards are maintained. However, as a matter of information, if and when the construction or expansion of facilities to accommodate additional personnel or equipment should become necessary, CEQA review, General Plan provisions, Municipal Code regulations, and payment of impact fees would all be required. Additional fire facilities are not expected to be required to serve the population as a result of the HEU. Therefore, the impact on fire protection and emergency medical response services would be less than significant.

Mitigation: None required.
Impact PSR-2: Implementation of the HEU would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection. (*Less than Significant*)

Implementation of the HEU would provide for the development of additional housing units in the unincorporated County and would result in an increase in the County's population. While no specific development proposals are directly associated with the HEU, theoretical development would result in an increase in population and thus an increase in demand for police protection services from the Napa County Sheriff's Office and other local police forces. As discussed in Section 4.14.2.2, the Napa County Sheriff's Office Administrative Division consists of a sheriff, an undersheriff, three captains, five lieutenants, a Sheriff's Administrative Manager, and an Assistant to the Sheriff and currently has 146.63 FTE. Based on the County's 2021 population of 136,207, the existing officer to resident ratio is approximately 1.1 officers per 1,000 residents. Currently, staffing numbers are adequate to serve the population (NCSO, 2022). With the addition of 1,900 potential residents under the HEU site locations and anticipated development there would be no change in the officer to resident ratio to 1.1 officers per 1,000 residents. While there is no adopted officer-to-resident service ratio in the County, the increase in population and associated increase in calls for service is likely to require additional police personnel. With 100 units proposed in the unincorporated community of Spanish Flat, and 158 units proposed in the unincorporated areas of Northeast Napa, the Napa County Sheriff's Office, which serves the unincorporated areas of Napa County, would likely require additional personnel. Furthermore, the Foster Road site would be annexed into the City of Napa and receive police services from the Napa Police Department. The potential 100 units at Foster Road would likely require additional police personnel for the Napa Police Department. The 100 units at the Imola Avenue site could also be served by the Napa Police Department due to the close proximity to the City boundary, directly or through a mutual aid agreement, resulting in the need for more officers.

Implementation of the HEU would increase overall demand on police protection services in Napa County. Future development is expected to generate the typical range of service calls. Additional police personnel, vehicles, and equipment would likely be required to provide adequate response times to serve future growth. Therefore, the costs to maintain equipment and facilities as well as to train and equip personnel would also increase. However, the additional personnel and materials costs would likely be gradual as the increase in population would occur incrementally over time. Napa County General Plan Policy SAF-34 provides a framework for evaluating the potential impact of development on public safety issues. Therefore, it would be possible to assess the need for additional police personnel and equipment to address these needs to ensure that the law enforcement standards in the County are maintained. For the Foster Road site, the City of Napa would ensure that adequate police protection is available through the annexation process. However, as a matter of information, if and when the construction or expansion of facilities to accommodate additional personnel or equipment could become necessary, CEQA review, General Plan provisions, Municipal Code regulations, and payment of impact fees would all be required. Additional police protection facilities are not expected to be required to serve the population as a result of the HEU. Therefore, the impact on police protection services would be less than significant.

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Mitigation: None required.

Impact PSR-3: Implementation of the HEU would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. (*Less than Significant*)

Implementation of the HEU would provide for the development of additional housing units in the unincorporated County and would result in an increase in the County's population. While no specific development proposals are directly associated with the HEU, theoretical development would result in an increase in population and thus an increase in school-aged children that could be enrolled schools. The HEU proposes to include the four distinct geographies of Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road in the Housing Sites Inventory. The NVUSD and SHUSD would likely serve these unincorporated portions of the County.

The unincorporated community of Spanish Flat would increase school-aged children enrollment in SHUSD schools. The SHUSD Developer Fee Study used a student generation rate of 0.7 per household. The anticipated development at Spanish Flat would be 100 units, which would generate approximately 70 new students under the HEU. These new students would be added to the district-wide enrollment of SHUSD schools incrementally over time as development occurs. As discussed in Section 4.14.2, SHUSD student enrollment was approximately 1,187 students in school year 2020/2021. Student enrollment at SHUSD schools over the past couple years has been in decline with peak enrollment over the last five years being 1,267 students during the 2018/2019 school year (CDE, 2022b). The addition of new students generated under the HEU from the unincorporated community of Spanish Flat would be less than past student enrollment years of SHUSD. While SHUSD currently has capacity for the increase in student population, due to the number of students generated as a result of the HEU within the unincorporated community of Spanish Flat over time, facility updates to increase capacity may also be required. Any expansion of school facilities would be required to undergo environmental review as they are identified. Appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities.

The Housing Sites Inventory included in the HEU identified housing sites at Imola Avenue, Foster Road, and in Northeast Napa which would increase school-aged children enrollment in NVUSD schools. The NVUSD Developer Fee Justification Study conducted in 2022 used a student generation rate of 0.525 for single-family units, 0.172 for multi-family units, and 0.938 for affordable family units. NVUSD used the numbers of each type of unit projected to be built in the District over the next 20 years to determine a weighted student generation rate of 0.419. The anticipated development between the Northeast Napa, Imola Avenue, and Foster Road sites is 358 units, which would generate approximately 150 new students under the HEU. These new students would be added to the district-wide enrollment of NVUSD schools incrementally overtime as development occurs. As discussed in Section 4.14.2, NVUSD student enrollment was approximately 16,453 students in 2020/2021. NVUSD has available capacity to house students generated by projected new residential development (King Consulting, 2022). However, as new students are generated by development, facility updates to increase capacity and maintain their existing effectiveness may be required. Any expansion of school facilities would be required to undergo environmental review as they are identified. Appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities.

The County's adherence to General Plan Policy AG/LU-120 and AG/LU-121, described under Section 4.14.3 would reduce the potential for effects to school facilities associated with increased enrollment. As described in Section 4.14.3, projects developed under the HEU would be required to comply with SB 50 and California Government Code Section 65996, which would fully mitigate the potential effect on public school facilities from the new student population that may be generated by the HEU. California Government Code Section 65996 and Education Code Section 17620 authorize school districts to levy a development fee on new residential projects to offset the costs associated with new students present in the districts as a result of new development. Section 65996 states that the payment of school impact fees that may be required by a State or local agency constitutes full and complete mitigation of school impacts from development. Therefore, this impact would be **less than significant**.

Mitigation: None required.

Impact PSR-4: Implementation of the HEU would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. (*Less than Significant*)

Implementation of the HEU would provide for the development of additional housing units in the unincorporated County and would result in an increase in the County's population. While no specific development proposals are directly associated with the HEU, theoretical development would result in an increase in population and thus an increased use in existing neighborhood and regional parks, and recreational facilities. However, the population increase and resulting use of existing neighborhood and regional parks as well as recreation facilities would occur over time as individual projects are developed. Individual projects under the HEU would be subject to Napa County Regional Park and Open Space District development impact fees when occurring in the unincorporated portions of the County. Similarly, the Foster Road site would be annexed and subject to the jurisdiction of the City of Napa. The City of Napa collects park land dedication or in-lieu fee to finance the acquisition, development, renovation, improvement, and replacement of parks and recreational facilities and their development (City of Napa, 2015).

As discussed in Section 4.14.2.4, *Environmental Setting*, the majority of public open space in Napa County is concentrated in the eastern portion of the County and are available for public use and enjoyment. The unincorporated community of Spanish Flat is located next to Lake Berryessa, which is under the jurisdiction of the Bureau of Reclamation. The largest expanse of accessible public open space within close proximity to where most of the County residents live is south of the City of Napa in the Napa-Sonoma marshes and Napa River floodplain, which is owned by the

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Department of Fish and Game. This public open space area would likely serve the new residents as a result of the HEU Northeast Napa, Imola Avenue, and Foster Road housing sites. Napa residents also use the nearby Skyline Park to meet recreation needs. This open space regional park offers several activities to the public and is located near the Imola Avenue and Foster Road housing sites. The Imola Avenue housing site is located on a 5-acre portion of Skyline Park and as such, would reduce the acreage of the park by approximately 5 acres. However, Skyline Park is an 850-acre wilderness area that has over 25 miles of trails for hiking, biking, and equestrian use, so there would be ample recreational area available despite the development of housing on the approximately 5-acre Imola Avenue housing site. New residents as a result of the HEU would be expected to use these facilities from time to time; however, given the vast size of the open space facilities and the relatively infrequent usage that future residents would make of them, the HEU would not result in their substantial deterioration. A modest increase in usage of built facilities such as parking facilities, picnic areas, and trails, could result from buildout of the HEU; however, this incremental growth would not be likely to lead to the construction of new built facilities over and above the already foreseen plans of these park facilities.

While the HEU would increase the use of existing parks and recreational facilities, individual projects under the HEU would be subject to the Napa County Regional Park and Open Space District development impact fees when occurring in the unincorporated portions of the County and local jurisdictions, such as the City of Napa's park land dedication or in-lieu fees. The City of Napa requires the developer of each new dwelling unit to dedicate land and/or pay fees into a special City fund used to provide parks and recreational facilities reasonably related to serving the park and recreational needs generated by the development (City of Napa, 2022c). The increased demand on existing regional parks would also not substantially increase or accelerate the physical deterioration or degradation of existing parks and recreational facilities, as these areas are much larger in size and have planned for regional recreational use. In addition, open space developed as a result of requirements for individual projects would also absorb a small portion of the demand for parks and recreational facilities by new residents. Therefore, the impacts from the accelerated physical deterioration of parks and recreation resources would be **less than significant**.

Mitigation: None required.

Impact PSR-5: Implementation of the HEU would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (*Less than Significant*)

Implementation of the HEU would provide for the development of additional housing units in the unincorporated County and would result in an increase in the County's population. While no specific development proposals are directly associated with the HEU, theoretical development would result in an increase in population and thus an increased demand for parks and recreation facilities. While there is no adopted parkland to resident ratio in the County, the increase in population and associated increase in parkland demand is likely to require additional parkland.

As discussed in section 4.14.3, the City of Napa has an existing service-level objective for parkland of 12 acres of active and passive parkland per 1,000 residents. This total figure includes citywide, community, neighborhood, and other special park sites and recreational amenities incorporated into the public parks and recreational open space system. The City of Napa General Plan update proposes to amend this standard to 10 acres of parkland per 1,000 residents, 1.5 acres of Community Parks & Facilities, and 0.5 acre of Neighborhood Parks per 1,000 residents. In 2020, the City contained 1,086.4 acres of publicly accessible parkland, which given the City population of approximately 80,000 people in 2020, is an overall parkland service ratio of about 13.6 acres per 1,000 residents, including 5.0 acres of Community Parks & Facilities per 1,000 residents, and 0.9 acre of Neighborhood Parks per 1,000 residents. Therefore, the City of Napa currently exceeds its parkland provision standards (City of Napa, 2015). With the addition of potential residents under the HEU at Foster Road, which would be annexed into the City of Napa, the HEU would worsen this existing ratio.

Individual projects under the HEU would be subject to the Napa County Regional Park and Open Space District development impact fees when occurring in the unincorporated portions of the County and the City of Napa's development impact fees for the Foster Road site after annexation. The Fees are assessed on new residential development and additions in the County or City that will result in an increase in the resident population. As the residential population of Napa County increases as a result of the HEU, the construction of new parks and facilities in the County would occur. The parks projects developed as a result of the Napa County Regional Park and Open Space District development impact fees and the City of Napa's Park Dedication Ordinance would be required to undergo environmental review as they are identified. Appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities. Development of the Imola Avenue site would not be subject to County review or regulations, and as such would not require the construction or expansion of recreational facilities.

Although the HEU would worsen existing parkland deficiencies in the County, individual projects would be subject to the Napa County Regional Park and Open Space District developmental impact fees and local jurisdictions such as the City of Napa's park land dedication or in-lieu fee as they are developed. These fees allow the County and City to meet the demand generated by new residential development. As noted above, parks, trails, and other recreational facilities developed as a result would be subject to environmental review as they are identified and appropriate measures would be identified and implemented as applicable to reduce any construction-related or operational effects of those facilities. Therefore, parkland impacts would be **less than significant**.

Mitigation: None required.

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4.14.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to public services and recreation could occur if the incremental impacts of the HEU combined with the incremental impacts of one or more cumulative projects.

The geographic scope for cumulative effects on public services and recreation is Countywide.

Impact PSR-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts. (*Less than Significant*)

The HEU, in combination with other past, present, or reasonably foreseeable projects would increase the demand for fire protection and emergency medical response services, police protection services, and public schools. As described in Section 4.0, there are various other housing developments proposed to be constructed or under review approval consideration within Napa County. As discussed above under Impacts PSR-1 and PSR-2, the HEU would have less than significant impacts with regard to fire and protection, emergency medical response services, and police protection services. Similar to the HEU, cumulative development would be subject to Napa County Regional Park and Open Space District development impact fees when occurring in the unincorporated portions of the County and subject to local park land dedication or in-lieu fees when in City jurisdictions. This would contribute to long-term parks and recreational facilities planning and capacity improvement. The County would also be required to ensure compliance with development standards contained in Napa County General Plan Policy SAF-34 related to evaluating the potential impact of development on public safety issues. With regard to public schools, similar to future development under the HEU, cumulative projects would be subject to school impact fees. Therefore, when considered in the cumulative context, the HEU's public services-related impacts would not be cumulatively considerable. Cumulative impacts would be less than significant.

Mitigation: None required.

Impact PSR-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on parks and recreation. (*Less than Significant*)

The HEU, in combination with other past, present, or reasonably foreseeable projects would incrementally increase the demand for and use of existing parks and recreation facilities. As described in Section 4.0, there are numerous other housing developments proposed to be constructed or under review approval consideration with Napa County. As discussed above under Impacts PSR-4, PSR-5, and PSR-6, the HEU would have less than significant impacts with regard

to recreation. Similar to the HEU, cumulative development would be subject to Napa County Regional Park and Open Space District development impact fees when occurring in the unincorporated portions of the County and subject to local park land dedication or in-lieu fees when in City jurisdictions. The City of Napa would be required to ensure compliance with General Plan Goal CSPR-14 related to seeking funding and distribution mechanisms to support the City's existing and future parks and recreational needs. Other developments would be required to comply with local jurisdiction General Plan Goals related to the maintenance and demand for parks and recreational facilities. Therefore, when considered in the cumulative context, the HEU's parks and recreation-related impacts would not be cumulatively considerable. Cumulative impacts related to parks and recreation would be **less than significant**.

Mitigation: None required.

4.14.7 References

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4.14 Public Services and Recreation

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4.15 Transportation

4.15.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts related to transportation. This section first includes a description of the existing environmental setting as it relates to transportation, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project related to transportation for all modes of travel (vehicular, bicycle, pedestrian, and transit).

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022, and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to transportation received during the NOP comment period include concerns related to traffic congestion in the Upvalley area and along Silverado Trail and State Route (SR) 29, as well as emergency access and evacuation. The analysis presented in this section focuses on the Project's potential effects to the transportation network and travel; potential effects related to emergency access and evacuation are addressed in Section 4.17, *Wildfire*.

4.15.2 Environmental Setting

There are four distinct geographic areas currently under consideration for multifamily housing in the HEU, including Spanish Flat, Northeast Napa, Imola Avenue, and Foster Road, as described in Chapter 3, *Project Description* and depicted in Figure 3-3. As the HEU assumes continued development of single family homes and ADUs, as well as implementation of Countywide programs, the planning area for the Housing Element Update (HEU) is the entire unincorporated area, even though the primary focus is on the proposed multifamily housing sites.

Roadway Network

The roadway network serving Napa County is shown in **Figure 4.15-1**. The County's roadway network is comprised of a hierarchy of roads with different classifications and characteristics, including freeways and highways, arterials, collectors and local roads. Key roadways are described below.

Freeways and Highways

The County effectively has no freeways except for a small segment of Interstate 80 (I-80) that crosses the corner of the County boundary between Fairfield and Vallejo, but which does not include on-ramps or off-ramps within the County limits resulting in no direct access to I-80 within Napa County. A segment of SR 29 between north of SR 121 is designated as a freeway, and the portion of SR 29 between SR 37 and SR 12/121 considered part of the Federal Highway Administration's National Highway System (NHS). (Napa County, 2019)



SOURCE: Napa County, 2018

Napa County Housing Element Update EIR

Figure 4.15-1 Napa County Roadway Network



The following roadway segments are classified as rural highways within Napa County. It should be noted that some roadways may have different classifications along their routes. Therefore, the classifications are identified by roadway segment rather than the overall route. (Napa County, 2007)

- American Canyon Road
- Oak Knoll Avenue
- Oakville Cross Road
- Old Sonoma Road
- Silverado Trail

- State Route 12/121
- State Route 12
- State Route 128
- State Route 29
- Tubbs Lane

The roadway system in Napa County is focused on a primary route, SR 29, which enters the County from the south (from Solano County at American Canyon) and leaves to the north (towards Lake County). The primary route is augmented by east-west roads, such as SR 12 (Jamieson Canyon Road and Sonoma-Napa Highway), SR 221 (Soscol Avenue), Silverado Trail and SR 121.

Arterials and Collectors

As described in the Napa County General Plan Circulation Element, arterials are typically two- or four-lane roadways designed primarily for longer-distance travel between major centers of activity, and often with limited direct driveway access. Collectors are typically two-lane roadways designed primarily to link locally important activity centers and provide a collection system for the local roads. Key arterials and collectors in the County are described below.

Butts Canyon Road is a two-lane arterial extending from the northmost part of Napa County directly into Pope Valley Road about 10 miles south.

Pope Valley Road is a two-lane arterial continuing from the intersection of Butts Canyon Road and Aetna Springs Road further south and slightly eastward for about 14 miles, directly into Chiles Pope Valley Road.

Chiles Pope Valley Road is another two-lane rural arterial. It extends further southeast into Napa County from Pope Valley Road for approximately 8 miles into Lower Chiles Valley Road southeast and a continuation of Chiles Pope Valley Road about 3 miles further southwest.

Tubbs Lane is a short, two-lane arterial extending about 1 ¹/₄ miles between State Route 128 and State Route 29 in the northwestern portion of the County.

Silverado Trail extends from State Route 29 in the north for approximately 25 miles southeastward to its intersection with Soscol Avenue.

Zinfandel Lane is an arterial which stretches almost 1 ¹/₂ miles between State Route 128 and Silverado Trail South.

Redwood Road is another two-lane rural arterial which begins near the southwest edge of the County boundary and continues about 3 miles directly into Trancas Street further southeast.

Old Sonoma Road begins at Highway 12 and continues for about 3 ¹/₂ miles to its intersection with Jefferson Street in the southern region of Napa County.

Devlin Road is the southmost arterial road in the study area which extends approximately 3 miles from Soscol Ferry Road in the north towards Napa County Airport further south.

Collector streets include Oakville Cross Road, Yountville Cross Road, Berryessa Knoxville Road, Pope Canyon Road, Petrified Forest Road, Spring Mountain Road, Lodi Lane, Howell Mountain Road, Conn Valley Road, Steele Canyon Road, Dry Creek Road, Wooden Valley Road, Oak Knoll Avenue, Mount Veeder Road, Henry Road, South Kelly Road, Newell Drive, Duhig Road, Las Amigas Road, and Milton Road.

Bicycle and Pedestrian Facilities

Bicycle Facilities

Bicycle planning and design typically relies on guidelines and design standards established by the California Department of Transportation (Caltrans) in the *Highway Design Manual* (Chapter 1000: Bicycle Transportation Design). The *Highway Design Manual* provides four distinct types of bikeway facilities, as described below.

- Class I Bikeways (Bike Paths) provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian crossflow minimized. Examples of shared-use paths within Napa County include the Vine Trail between the Town of Yountville and the City of Napa.
- Class II Bikeways (Bike Lanes) are dedicated lanes for bicyclists generally adjacent to the outer vehicle travel lanes. These lanes have special lane markings, pavement legends, and signage. Adjacent vehicle parking and vehicle/pedestrian crossflow are permitted. Class II buffered bike lanes provide greater separation from an adjacent traffic lane and/or between the bike lane and on-street parking. This separation is created with chevron or diagonal striping. Examples of bike lanes in the unincorporated areas include those on Devlin Road in the South Napa Airport area and those along portions of Silverado Trail.
- Class III Bikeways (Bicycle Routes) are designated by signs or pavement markings for shared use with pedestrians or motor vehicles but have no separated bike right-of-way or lane striping. Bike routes serve either to a) provide a connection to other bicycle facilities where dedicated facilities are infeasible, or b) designate preferred routes through high-demand corridors. Bike routes in Napa County areas are located north of Yountville and primarily connect to Silverado Trail.
- Class IV Bikeways (cycle tracks or "separated" bikeways) provide a right-of-way designated exclusively for bicycle travel within a roadway and are protected from other vehicle traffic by physical barriers, including, but not limited to, grade separation, flexible posts, inflexible vertical barriers such as raised curbs, or parked cars. No separated bike lanes currently exist in the unincorporated areas or elsewhere in Napa County.

The *Napa Countywide Bicycle Plan* (2019) identifies the following Proposed Bicycle Network which will construct facilities that create a safe, connected, and comfortable bicycle system to

link to community destinations, such as schools, transit, trails, and retail areas in Napa County. **Table 4.15-1**, as shown below, summarizes the existing and proposed miles of bicycle network planned for in the Bicycle Plan's Proposed Bicycle Network.

Facility Type	Proposed Mileage	Existing Mileage	Total Future Mileage
Vine Trail (Shared-Use Path Class I)	27.4	15.5	42.9
Shared-Use Paths (Class I, excluding Vine Trail)	52.0	25.4	77.4
Bike Lanes (Class III)	86.8	87.8	174.7
Bike Boulevards (Class III)	37.4	-	37.4
Bike Routes (Class III)	243.4	13.5	256.9
Separated Bike Lanes (Class IV)	0.9	-	0.9
Corridor Study (not included in total)	13.2	-	13.2
Total Network	459.3	142.2	602.4
SOURCE: NVTA. 2019			

TABLE 4.15-1 EXISTING AND PROPOSED BICYCLE NETWORK MILEAGE

Pedestrian Facilities

The *Napa Countywide Pedestrian Plan* (2016) is intended to guide pedestrian planning in the region. The Pedestrian Plan describes the existing setting for pedestrians in unincorporated County areas, as well as within individual jurisdictions in Napa County. The Pedestrian Plan describes unincorporated areas as predominantly rural, with limited pedestrian infrastructure and few marked crosswalks at intersections, including within the unincorporated neighborhoods of Angwin, Berryessa Estates, Berryessa Highlands, Big Ranch Road, Coombsville, Deer Park, Lake Berryessa (Moskowite Corners, Pope Creek, and Spanish Flat), Silverado and the South County Industrial Areas. The incorporated jurisdictions of American Canyon, Calistoga, Napa, St. Helena and Town of Yountville accommodate pedestrians in a variety of way, with the various downtown areas offering corridors of shopping and dining destinations that are contributors to the pedestrian environment in the County, many of which provide a system of sidewalks and plazas for pedestrian use. (NVTA, 2016)

Public Transportation

Public transit services, though not yet a major travel mode in Napa County, are available in all of the cities and in some of the unincorporated areas of the County. Fixed-route local, intercity and demand-response service and paratransit service are provided by the Napa Valley Transportation Authority (NVTA) and are described below. (NVTA, 2016; Napa County, 2007)

Vine Transit

Vine Transit, (The VINE) provides intra- and inter-city fixed route services. The VINE operates local transit service in the City of Napa, and regional transit service between Napa County and transit and rail connections in El Cerrito, Vallejo, Fairfield, and Suisun City, as well as airport

connection services to Oakland International Airport, San Francisco International Airport, and Sacramento International Airport. (The Vine, 2022)

VineGo Paratransit Service

The VineGo Paratransit Service provides curb-to-curb service for residents Countywide who live within ³/₄ mile of a fixed bus route.

American Canyon Transit Fixed-Route Service

The American Canyon Transit provides fixed-route service in the city of American Canyon.

Saint Helena Shuttle

The Saint Helena Shuttle operates a fixed-route service in the city and to St. Helena Hospital.

Yountville Trolley

The Yountville Trolley provides door-to-door service throughout the town of Yountville, including to the Veterans' Home.

Calistoga Shuttle

The Calistoga Shuttle provides general public on-demand shuttle service in Calistoga.

Taxi and Rideshare Service

Private taxis and shuttles, as well as on-demand rideshare services such as Lyft and Uber, are available in the County and account for the remainder of the public transportation service in the County.

Rail Transportation

Rail transportation in Napa County is limited to commercial and freight services.

AMTRAK

AMTRAK does not provide passenger rail service within the County. However, AMTRAK does offer fixed-route connector buses between the Soscol Gateway Transit Center in Napa and the nearest Amtrak station in Martinez, California. Passengers boarding AMTRAK at Martinez can connect to trains traveling to the Bay Area, the Central Valley, along the West Coast to Seattle and across the Country to the East Coast.

California Northern Railroad

The California Northern Railroad (CFNR) operates 216.3 miles of ex-Southern Pacific track and part of the ex-Northern Pacific tracks. CFNR has its headquarters at the Lombard Yard in American Canyon and operates trains in Napa over 7.1 miles of tracks. CFNR trains do not provide transit service.

4.15.3 Regulatory Setting

Federal

No federal plans, policies, regulations, or laws related to transportation and circulation are applicable to the project.

State

Assembly Bill 1358

Assembly Bill 1358, also known as the California Complete Streets Act of 2008, requires cities and counties to include "Complete Street" policies in their general plans. These policies address the safe accommodation of all users, including bicyclists, pedestrians, motorists, public transit vehicles and riders, children, the elderly, and the disabled. These policies can apply to new streets as well as the redesign of corridors.

Napa County adopted its Complete Streets Policy in 2013 (Resolution 2013-01).

Senate Bill 375

Senate Bill (SB) 375 provides guidance regarding curbing emissions from cars and light trucks. There are four major components to SB 375. First, SB 375 requires regional greenhouse gas emission targets. These targets must be updated every eight years in conjunction with the revision schedule of the housing and transportation elements of local general plans. Second, Metropolitan Planning Organizations are required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. Third, SB 375 requires housing elements and transportation plans to be synchronized on 8-year schedules. Finally, Metropolitan Planning Organizations must use transportation and air emissions modeling techniques that are consistent with the guidelines prepared by the California Transportation Commission.

Senate Bill 743

Passed in 2013, California SB 743 changed the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change was made by replacing Level of Service (LOS) as a performance metric with a vehicle miles traveled (VMT) approach. This shift in transportation impact focus is intended to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through development of multimodal transportation networks. LOS or other delay metrics may still be used to evaluate the impact of projects on drivers as part of land use entitlement review and impact fee programs.

In December 2018, the Natural Resources Agency finalized updates to Section 15064.3 of the CEQA Guidelines, including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of Administrative Law and as of July 1, 2020 are now in effect statewide.

To help aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA* in 2018.

Regional

Plan Bay Area 2050

SB 375 requires all metropolitan regions in California to complete a sustainable communities strategy (SCS) as part of a regional transportation plan. In the Bay Area, the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG) are jointly responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG reduction targets set by the California Air Resources Board.

Plan Bay Area 2050, adopted in October 2021, serves as the SCS for the Bay Area, in accordance with SB 375.¹ Plan Bay Area 2050 is comprised of 35 strategies across the elements of housing, the economy, transportation, and the environment. A core household and employment growth strategy of Plan Bay Area is "focused growth" in existing communities along the existing transportation network. Key to implementing this focused growth strategy are Priority Development Areas (PDAs) and Transit-Rich Areas (TRAs), as recommended and approved by local governments. As defined by the plan, PDAs are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. Plan Bay Area also recommends increasing non-auto travel mode share and reducing vehicle miles traveled per capita and per employee by promoting transit-oriented development, transit improvements, and active transportation modes such as walking and bicycling.

Prior to *Plan Bay Area 2050*, Plan Bay Area 2040, adopted in 2017, was the most recent regional transportation plan and sustainable communities strategy for the Bay Area region. Plan Bay Area 2050 updates Plan Bay Area 2040 and is consistent with the current Regional Housing Needs Allocation cycle. However, since Plan Bay Area 2050 was adopted in late 2021, Plan Bay Area 2040 continues to serve as the basis for regional and County-wide transportation models until the models are updated. Updates to the models are anticipated within the next several years.

Local

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Napa County General Plan includes the following applicable goals and policies related to transportation within Napa County (Napa County, 2008).

Goal CIR-1: The County's transportation system shall complement the policies of the Agricultural Preservation and Land Use Element to protect the County's rural character.

Napa County Housing Element Update Draft Environmental Impact Report

¹ Association of Bay Area Governments, *Plan Bay Area 2050*, Final, adopted October 21, 2021.

Goal CIR-2: The County's transportation system shall provide all users with accessibility to desirable destinations on well-maintained transportation facilities throughout the County. The operation, maintenance, and expansion of the transportation system will consider the needs of Napa County residents of all income levels, ages and abilities, as well as businesses, employees, and visitors.

Goal CIR-3: The County's transportation system shall encompass the use of private vehicles, local and regional transit, paratransit, transportation network companies, walking, bicycling, air travel, rail, and water transport. It shall support the implementation of new transportation technologies and travel options to the extent those technologies and options support the County's goals of improving mobility while reducing congestion and emissions.

Goal CIR-4: The County supports state, regional, and local efforts to reduce greenhouse gas emissions from the transportation system.

Policy CIR-1: The Circulation Map contained in [the Circulation] Element shows the following roadway types as comprising the planned roadway system. Local roadways need not be shown on the Circulation Map. The Circulation Map is a visual depiction of the County's policy regarding the ultimate width and general location of roadways in the unincorporated area.

Highways: Multi-lane roadways designed for travel at relatively high speeds. Some highways have limited access (i.e., only at grade-separated interchanges) and are designed for speeds up to 70 miles per hour. Other highways have at-grade intersections and may have speed limits in the range of 45 to 60 miles per hour depending on the context. Examples in the general vicinity of Napa County include freeways such as Interstate 80 and state highways such as State Routes 29 and 37.

Arterials: These are typically two- or four-lane roadways designed primarily for longer-distance travel between major centers of activity, and often with limited direct driveway access. The primary example in unincorporated Napa County is Silverado Trail.

Rural Collectors: These are typically two-lane roadways designed primarily to link locally important activity centers and provide a collection system for the local roads. Rural collectors will typically be designed for slower travel speeds than arterials and may incorporate sharper curves, narrower shoulders, and other features consistent with slower vehicle speeds. Examples in Napa County include Oakville Cross Road and Yountville Cross Road.

Local Roadways: Roadways which provide direct access to individual homes and businesses.

Policy CIR-2: The County Shall review this Circulation Element periodically to ensure that it embraces transportation policy best practices and future technological innovations to the extent that those innovations support the County's goals related to safety, mobility, efficiency, equity, and environmental quality.

Policy CIR-3: Consistent with urban-centered growth policies in the Agricultural Preservation and Land Use Element, new residential and commercial development shall be concentrated within existing cities and towns and urbanized areas, particularly within

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Priority Development Areas (PDAs), where higher population densities can have access to utilize transit services and pedestrian and bicycle facilities.

Policy CIR-4: Consistent with the County's and region's greenhouse gas emission reduction goals, the County will seek to increase the supply of affordable multi-unit housing concentrated in proximity to employment centers, services, and transportation hubs to decrease private drive-alone automobile trips.

Policy CIR-5: The County supports a coordinated approach to land use and circulation planning that increases opportunities for physical activity and promotes public health by prioritizing implementation of improvements to active transportation modes and encouraging mixed-use developments that locate complementary uses within reasonable walking or bicycling distance of each other.

Policy CIR-6: Applicants requesting discretionary approval for projects with the potential to significantly affect the transportation system shall fund the County's preparation of a Transportation Analysis prior to consideration of their project by the County. If the Transportation Analysis results in identification of adverse impacts as defined in the County's Transportation Impact Study Guidelines, the applicants shall mitigate their projects' impacts and pay their fair share of the full cost of countywide cumulative transportation improvements, based on their project' contribution to the need for these improvements. Analysis should be consistent with the most current version of the County's Transportation Impact Study Guidelines, including a County review of site plans with a particular focus on project frontage, consistency with the Countywide Pedestrian Plan and Countywide Bicycle Plan, and multi-modal circulation.

Policy CIR-7: All applicants for development projects or modifications thereto shall be required to evaluate the vehicle miles traveled (VMT) associated with their projects, in order to determine the projects' environmental impacts pursuant to the California Environmental Quality Act. Applicants shall specify feasible measures to reduce a proposed project's VMT and shall provide an estimate of the VMT reduction that would result from each measure. Upon the effective date of the pertinent State CEQA Guidelines, projects for which the specified VMT reduction measures would not reduce unmitigated VMT by 15 or more percent shall be considered to have a significant environmental impact.

Policy CIR-8: In support of state and regional goals to reduce greenhouse gas emissions and encourage active transportation modes, the County will implement programs to reduce the number of VMT on local roadways and regional routes in the County. In addition to those Transportation Demand Management strategies to reduce single-occupant vehicle use listed in Policy CIR-23, the County will support measures that eliminate or reduce the length of vehicle trips. Such measures could include:

- Increased efforts towards construction of affordable and workforce housing units, and additional incentives for construction of farm labor housing in the County;
- Coordination between local agencies, including local chambers of commerce, the County, cities and town, to facilitate business partnerships and interconnectivity using shared transportation facilities, such as shuttles;
- Increased parking reductions from that currently allowed in the zoning ordinance, for any two or more developments that offer opportunities for bicycle or pedestrian

activity between them, such as shared parking lots and privately-maintained multiuse paths;

• Transportation system impact fee incentives for discretionary and private development projects for which the County and project applicant agree that the applicant will construct planned pedestrian and bicycle transportation facilities, including but not limited to bicycle lanes and multi-use paths.

Policy CIR-9: The County shall update its Transportation Impact Study (TIS) Guidelines to specify a methodology for evaluating a project's VMT and a list of potential mitigation measures for achieving VMT reductions from a project. The County shall periodically monitor vehicle trips at built projects to assess the effectiveness of specified VMT reduction measures and shall periodically modify the list in the TIS Guidelines to reflect ongoing best practices in VMT reduction.

Policy CIR-10: Facilities supporting multi-modal access, including but not limited to designated areas for pick-up/drop-off activities, shall be integrated into the site layout of development projects, frontage improvements, and public projects, wherever such facilities are appropriate and can be physically accommodated. The Countywide Bicycle Plan and Countywide Pedestrian Plan shall be referenced in determining appropriate bicycle and/or pedestrian treatments at specific locations. Amenities serving public and private transportation providers and multi-modal connections between private properties are encouraged, particularly in circumstances where such amenities and connections could provide an alternative to single-occupant vehicle travel on public roadways and where the amenity or connection would reduce VMT.

Policy CIR-11: All developments along fixed transit routes shall provide appropriate amenities designed to support transit use, such as bus turnouts or other access points located in coordination with NVTA, bus shelters, and comfortable routes for transit users to walk or bicycle between the development and the nearest bus stop. The County shall require installation of relevant amenities as a condition of approval of discretionary permits.

Policy CIR-12: The County recognizes the importance of its commercially-zoned properties in providing businesses with opportunities to locate throughout the County, thereby reducing distances that residents of the unincorporated areas must drive to retail or service-based destinations.

Policy CIR-13: The County shall seek to discourage increases in commuter traffic passing through the County on all roadways except Interstate 80 by designing County roadways to meet local rather than regional needs and by supporting improvements to regional roadways that significantly affect the County (such as State Route 37).

Policy CIR-14: Developers of new land uses shall provide adequate parking or demonstrate that adequate parking exists to meet their anticipated parking demand and shall not provide excess parking that could stimulate unnecessary vehicle trips or commercial activity exceeding the site's capacity. Consideration of shared parking opportunities is encouraged.

Policy CIR-15: As electrification of the vehicle fleet is an important step toward achieving necessary greenhouse gas emission reductions, the County will require the provision of electric vehicle charging stations as part of housing and employment development projects.

Policy CIR-16: When parking is removed as a result of roadway improvement projects, surveys will be conducted before the project begins to evaluate demand for the parking that will be removed. County staff will review the survey results and will consider the level of parking demand, the nearby opportunities for shared parking options, and the applicable County Zoning Code parking standards in determining whether the parking lost due to the improvements must be replaced.

Policy CIR-17: Maintain Napa County Airport as a general aviation facility and avoid land use conflicts via land use compatibility planning and by ensuring appropriate reviews of land use decisions by the Airport Land Use Commission.

Policy CIR-18: Roadways outside the urbanized areas of the County shall reflect the rural character of the County.

Policy CIR-19: The County's roadway modifications and capacity expansion should minimize disruption to and safety impacts on neighborhoods, communities, and all roadway users, including agriculture.

Policy CIR-20: Roadway modifications and capacity expansions shall be designed to conform to existing landforms and shall include landscaping and/or other treatments to ensure that aesthetics and rural character are preserved.

Policy CIR-21: The County supports beautification programs for roadways in the unincorporated area. Roadway beautification shall be consistent with the character of the area in which the roadway is located and with other County policies related to preserving the character of the County including policies on signage as defined in the Community Character Element.

Policy CIR-22: The County will work with NVTA, transportation network companies, and other private transportation providers to develop innovative approaches to providing transportation service to the County's rural areas without the need for additional roadway lanes or other improvements that would detract from the visual and community character of these areas.

Policy CIR-23: The County strongly supports Transportation Demand Management (TDM) strategies as a means of accommodating economic growth while moderating the negative effects of personal vehicle travel on the County's transportation infrastructure and on the quality of life of County residents and visitors. Nonresidential development in the County shall include TDM strategies to reduce single-occupant vehicle use, thereby encouraging more energy-efficient forms of transportation and contributing to the County's greenhouse gas emission reduction goals. The County may require ongoing monitoring of vehicle trips to non-residential developments, in order to evaluate the effectiveness of the TDM strategies employed. TDM strategies to be considered include but are not limited to:

- Subsidized transit passes or other incentives for transit usage;
- Participation in a neighborhood or employer-sponsored shuttle program;
- Provision of multi-modal connections to nearby transit stops, neighboring properties, or other destinations;
- On-site accommodation for bicyclists (such as bicycle parking facilities and showers/lockers for employees who bicycle);

- Incentives for carpool/vanpool participation, and/or priority parking for carpool/vanpool users;
- Alternative work schedules/telecommuting;
- Participation in a subsidized car share or ride share program; and,
- Modifications to parking policies such as parking pricing, reduced supply, or financial incentives for employees who do not use a single occupant vehicle or transportation network company.

Policy CIR-24: The County, in coordination with NVTA's TDM division, shall update its Transportation System Management Ordinance (Chapter 10.28 of the County Code) to include measures that reduce commute trips to workplaces within the unincorporated County and a program to oversee implementation.

Policy CIR-25: Transportation services shall address the needs of non-drivers and those without cars living in rural areas. Services may include community-focused and private transit and paratransit services as well as ridesharing and ridesourcing services.

Policy CIR-26: As a major employer, the County of Napa shall demonstrate leadership in the implementation of programs encouraging the use of transit, walking, and bicycling by its employees, as well as the use of alternative fuels. Example programs may include:

- Preferential carpool parking and other ridesharing incentives;
- Flexible working hours or telecommuting where consistent with job duties and customer service needs;
- A purchasing program that favors hybrid, electric, or other non-fossil fuel vehicles;
- Assisting in the development of demonstration projects for alternative fuel technologies such as ethanol, hydrogen, and electricity;
- Secure bicycle parking; and
- Transit incentives.

Policy CIR-27: The County shall encourage the use of alternative transportation by tourists, visitors and commuters, and will work with wineries, the local hospitality industry, public and private employers, and the cities and town to develop incentives that encourage the use of these options and the development of private transit services.

Policy CIR-28: The County will work with the cities and town through the NVTA to coordinate seamless transportation systems and improve the efficiency of the transportation system by coordinating the construction of planned roadway, bicycle, pedestrian, and other transportation systems.

Policy CIR-29: The planning and design of all County transportation facilities shall comply with the County's adopted Complete Streets Policy (Resolution 2013-01), which expresses the County's commitment to a transportation system that serves users of all ages, abilities, and modes of travel, that is sensitive to the local context, and that applies the best available design guidelines and standards. Recommendations contained in relevant bicycle, pedestrian, transit, and other multi-modal plans shall be incorporated

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where not made infeasible by existing natural or historical features, and transportation projects shall be reviewed by the relevant Advisory Committee(s) early in the planning stage to ensure accommodation of Complete Streets features.

Policy CIR-30: The County shall periodically evaluate how well the transportation network of Napa County serves each major category of user (including transit users, motorists, bicyclists, pedestrians, and freight movers). Baseline data will be collected, followed by periodic data collection efforts to evaluate changes.

Policy CIR-31: The County seeks to provide a roadway system that maintains current roadway capacities in most locations and is efficient in providing local access. The following list of improvements, illustrated as the County's ultimate road network in Figure CIR-1, has been supported by policy makers within the County and all five incorporated cities/town. Some of these routes are controlled by other agencies (such as Caltrans or a city); in those cases, the County will coordinate with the other agencies to plan and implement these improvements.

- Construct improvements at the intersection of State Route 12, Airport Boulevard, and State Route 29 ("Airport Junction"), within the most efficient footprint, to increase capacity and reduce vehicle conflicts.
- Improve the intersection of SR 221/SR 12/SR 29 ("Soscol Junction") to improve operation and reduce vehicle conflicts.
- Improve the intersection of SR 12/SR 121/SR 29 ("Carneros Junction") to improve operation and reduce vehicle conflicts.
- Consider widening SR 221 between SR 12 and SR 121 to improve traffic flow.
- In coordination with the City of American Canyon, consider widening, operational, and other multimodal and safety improvements to SR 29 between SR 221 and the Solano County line to improve traffic flow.
- In coordination with the City of American Canyon, relieve traffic congestion along SR 29 by completing reliever routes; examples include the completion of Devlin Road between Soscol Ferry Road and Green Island Road, and evaluating the potential to connect Newell Road to South Kelly Road.
- Work with relevant agencies to investigate options for synchronizing traffic signals to improve traffic flow and reduce vehicle emissions.
- Explore opportunities for operational improvements along SR 29, Silverado Trail, and connecting crossroads to improve traffic flow and reduce conflicts for vehicles, bicyclists and pedestrians; examples may include center two-way left-turn lanes, additional turn lanes at intersections, roundabouts, and other measures that could reduce conflicts.
- Consistent with the Countywide Pedestrian Plan and the Countywide Bicycle Plan, construct multimodal facilities and install safety-related improvements on rural roads and highways, such as new signals, bike lanes, multi-use paths, shoulder widening, or softening sharp curves.

Policy CIR-32: While not suitable for all intersections, roundabouts have a wide variety of applications, and Napa County will consider them as an alternative for intersection

improvements (see the current version of the County's Transportation Impact Study Guidelines for more information).

Policy CIR-33: The County shall work with private developers, Caltrans, NVTA, local jurisdictions, and other agencies to implement the projects and policies identified in the Countywide Bicycle and Pedestrian Plans.

Policy CIR-34: Bicycle and pedestrian facilities consistent with the Countywide Bicycle and Pedestrian Plans shall be added to County roadways when repaving or upgrading of the roadway occurs. Where existing right-of-way is insufficient or the facility is off-street, the County shall require dedication of adequate right-of-way for and, if appropriate, installation of the facilities as conditions of discretionary permit approval. In certain locations where it would not conflict with the rural character of the area, the County may require low-level or pedestrian-scale lighting as part of the installation of the facility. The County shall encourage Caltrans to follow these same guidelines on state highways in Napa County.

Policy CIR-35: Where they are not needed for other transportation purposes and where such use would implement a Countywide Bicycle Plan or other County-adopted master plan, rail rights-of-way shall be considered for alternative uses such as public transit routes, bicycle paths, or pedestrian/hiking routes, provided that they are compatible with adjacent uses and sufficient funding is available for right-of-way acquisition, construction, and long-term maintenance.

Policy CIR-36: The County shall work with the NVTA and other transit agencies in adjoining counties to develop effective connections between public transit in Napa County and regional transportation networks (such as BART, SMART, Baylink, airports, etc.) via rail, bus, bicycle, and other means to serve the needs of local residents, commuters, and visitors.

Policy CIR-37: The County shall support efforts of NVTA and local and regional transit agencies to expand cost-effective transit options for Napa residents, employees and visitors; examples may include increasing the availability and accessibility of transit information, exploring options for allowing commuter service to operate on the Napa Wine Train right-of-way, implementing programs to encourage use of private transit operations or other innovative technologies to supplement regional transit, and developing additional interregional transit solutions.

Policy CIR-38: The County seeks to maintain operations of roads and intersections in the unincorporated County area that minimize travel delays and promote safe access for all users. Operational analysis shall be conducted according to the latest version of the Highway Capacity Manual and as described in the current version of the County's Transportation Impact Study Guidelines. In general, the County seeks to maintain Level of Service (LOS) D on arterial roadways and at signalized intersections, as the service level that best aligns with the County's desire to balance its rural character with the needs of supporting economic vitality and growth.

In situations where the County determines that achieving LOS D would cause an unacceptable conflict with other goals and objectives, minimizing collisions and the adequacy local access will be the County's priorities. Mitigating operational impacts should first focus on reducing the project's vehicular trips through modifying the project definition, applying TDM strategies, and/or applying new technologies that could reduce vehicular travel and associated delays; then secondarily should consider physical infrastructure changes. Proposed mitigations will be evaluated for their effect on collisions and local access, and for their effectiveness in achieving the maximum potential reduction in the project's operational impacts (see the County's Transportation Impact Study Guidelines for a list of potential mitigation measures).

The following roadway segments are exceptions to the LOS D standard described above:

- State Route 29 in the unincorporated areas between Yountville and Calistoga: LOS F is acceptable.
- Silverado Trail between State Route 128 and Yountville Cross Road: LOS E is acceptable.
- State Route 12/121 between the Napa/Sonoma county line and Carneros Junction: LOS F is acceptable.
- American Canyon Road from I-80 to American Canyon City Limit: LOS E is acceptable.

Policy CIR-39: Roadway improvements at entrances to the County shall be carefully considered, and additional lanes shall be added only where necessary for improving traffic safety and only if the additional lanes will not exacerbate traffic congestion elsewhere in the County. Key entrances where capacity will generally not be increased include:

- State Route 128 from Yolo County
- State Route 29 from Lake County
- Petrified Forest Road from Sonoma County
- State Route 121 from Sonoma County
- Butts Canyon Road from Lake County

Other entrances, as determined by the County, may also be given special consideration.

Policy CIR-40: The County shall maintain and apply consistent highway access standards regarding new driveways to minimize interference with through traffic while providing adequate local access. The County shall also maintain and apply consistent standards (though not exceeding public road standards) regarding road widths, turn lanes, and other improvements required in association with new development. When a project is proposed in a location such that County roads are needed to access the nearest fully staffed fire station, the County may require the developer to improve the County roads to meet adequate fire protection standards similar to improvements required on the developer's property.

Policy CIR-41: Preserve rail corridors and the navigable sections of the Napa River as regional transportation assets, encouraging and not precluding their future use for recreational travel as well as for the movement of passengers and goods.

Policy CIR-42: Roadway, culvert, and bridge improvements and repairs shall be designed and constructed to minimize fine-sediment and other pollutant delivery to waterways, to minimize increases in peak flows and flooding on adjacent properties, and

where applicable, to allow for fish passage and migration, consistent with all applicable codes and regulations.

Policy CIR-43: The County supports runway and other technological improvements to Napa County Airport to improve its safety and usefulness as a civil, non-commercial aviation center.

Policy CIR-44: The County supports the preservation of Angwin Airport (Parrett Field) for general aviation.

Napa Countywide Transportation Plan – Advancing Mobility 2045

As the County transportation authority, NVTA is required to develop long-range Countywide transportation priorities through a comprehensive planning process. The Countywide transportation plan (CTP), *Advancing Mobility 2045*, outlines priorities for NVTA and Napa County's transportation system to relieve congestion, improve traffic safety, create more active transportation infrastructure, provide more reliable and frequent bus service, and maintain and repair the existing transportation system. *Advancing Mobility 2025* provides a direction for the four- to five-year plan while taking into consideration land use, environmental, population, and financial projections over a 25-year planning horizon. *Advancing Mobility 2045* is part of a regional planning process that culminates in the publication of a Regional Transportation Plan (RTP) by the Metropolitan Transportation Commission (MTC). *Advancing Mobility 2045* identifies the following goals to articulate the optimal outcomes for where Napa Valleys' transportation system should be in 2045:

Goal #1: Serve the transportation needs of the entire community regardless of age, income, or ability

Goal #2: Improve system safety in order to support all modes and serve all users

Goal #3: Use taxpayer dollars efficiently

Goal #4: Promote Napa County's economic sustainability

Goal #5: Minimize the energy and other resources required to move people and goods

Goal #6: Prioritize the maintenance and rehabilitation of the existing system

Advancing Mobility 2045 also outlines several objectives associated with each of the goals described above. (NVTA, 2021)

Napa Countywide Bicycle Plan

NVTA and the local jurisdictions of Napa County developed the 2019 Napa Countywide Bicycle Plan (Bicycle Plan) with the aim to improve the bicycling environment for all residents and visitors by identifying key infrastructure, programs, and policies in the plan. The first Countywide bicycle plan was adopted in 2003, and was updated in 2012. The 2019 Bicycle Plan builds upon the bicycle recommendations presented in the 2012 Napa Countywide Bicycle Plan. The Bicycle Plan approaches the bicycling environment with an eye toward making bicycling possible for a large part of the population, not only those who already ride or are already comfortable riding in most traffic conditions. (NVTA, 2019) The Bicycle Plan identifies the following goals and policies:

Connectivity: Develop a well-designed low Level of Traffic Stress (LTS) connected bicycle network

Connectivity Policies:

- Build and maintain a local and Countywide bicycle transportation and recreation network that connects Napa County's incorporated cities/town and unincorporated communities and provides access to public transportation and community destinations
- Develop and maintain continuous low Level of Traffic Stress (LTS) bicycle facilities of all types to provide accessible intra-city connections that serve as the framework of the Countywide Bikeway System
- Prioritize coordination and completion of regionally significant primary bikeways including the Napa Valley Vine Trail, the Bay Trail and the Ridge Trail, and local connections to those facilities
- Provide secure bicycle parking at public and private destinations throughout Napa County
- Integrate the bicycle network and bicycle facility amenities into land use decisions and developments

Equity: Improve bicycle access for disadvantaged and/or underserved communities

Equity Policies:

• Implement projects that improve access for disadvantaged and/or underserved communities, particularly those reliant on walking, biking and transit for transportation

Safety: Improve safety for all ages and abilities

Safety Policies:

- Work to reduce the number and severity of bicycle collisions
- Work to reduce bicycle fatalities to zero by 2035
- Improve locations that have high incidences of bicycle collisions, and/or impediments or conflicts to bicyclists
- Implement Complete Streets policies that ensure accommodation and enable safe access for users of all ages and abilities
- Implement appropriate, well-designed bicycle facilities using accepted design standards, including intersection and other crossing improvements

Education and Encouragement: Increase mode share of bicycling

Education and Encouragement Policies:

• Encourage education programs for all users of the roadway in all jurisdictions and school districts

• Develop programs and public outreach materials to promote safety and the positive benefits of bicycling

Napa Countywide Pedestrian Plan

The *Napa Countywide Pedestrian Plan* (2016) is intended to guide pedestrian planning in the region. The Pedestrian Plan aims to provide a pedestrian network that is well-connected, safe, and enjoyable for Napa County residents and visitors of all levels of mobility. It aims to increase the number of pedestrian trips Countywide and to set the groundwork for a shift in travel mode choice such that non-motorized options are widely available accessible, and convenient. (NVTA, 2016) The following goals and policies support the overall vision for the plan:

Goal 1: Provide a connected network of pedestrian sidewalks, trails, and pathways in the County and its jurisdictions that are safe and accessible to a variety of users and that foster community interactions

Policy 1A: Protect the character and context of the County and its jurisdictions

Policy 1B: Prioritize safe routes to schools, safe routes to transit, and safe routes for seniors within the County

Policy 1C: Acknowledge the central role that the Vine Trail plays in active transportation infrastructure and prioritize connections between the trail and key destinations

Policy 1D: Work to reduce the rate of pedestrian collisions

Policy 1E: Connect key pedestrian desire lines via accessible sidewalks and marked crosswalks, focusing on downtown areas, transit stops, schools, senior housing and destinations, and tourist destinations and lodging

Goal 2: Encourage a multimodal transportation system

Policy 2A: Adhere to the current design standards in this plan as well as local design standards and other national and state manuals when designing new or retrofitted streets and communities

Policy 2B: Investigate the use of performance measures such as multi-modal level of service or built environment factors to facilitate complete streets implementation

Policy 2C: Prioritize infrastructure projects that will increase the walk mode share, while also taking advantage of all available funding opportunities to construct pedestrian infrastructure, including private development with an appropriate nexus

Policy 2D: Investigate creative parking measures such as shared parking, parking maximums, and strategic parking locations to encourage a "park once" environment in commercial districts

Policy 2E: Review new development proposals to ensure pedestrian access and circulation is maintained or improved, including during construction phases

Goal 3: Obtain funding for pedestrian projects

Policy 3A: Continue to allocate Capital Improvement Plan (CIP) funding to pedestrian projects

Policy 3B: Pursue grant funding related to pedestrian projects

Policy 3C: Identify new funding sources and partnership opportunities, such as those focusing on public health and sustainability

Goal 4: Encourage and educate residents about walking and enforce safe interactions between pedestrians and motorists

Policy 4A: Increase public awareness of pedestrian facilities, amenities, and safety

Policy 4B: Pursue recognition such as Walk-Friendly Community status

Policy 4C: Implement ongoing pedestrian safety enforcement programs and campaigns

Policy 4D: Partner with local health agencies to encourage more activity among youth through the built environment to target childhood obesity

Policy 4E: Collaborate with local businesses to enhance wayfinding and streetscape amenities

Napa County Road and Street Standards

The *Napa County Road and Streets Standards* (2021) contain specific road and street standards for County roads. These standards include overall right-of-way widths, pavement widths, lane and shoulder widths, and other design details. The County's roadway standards are developed in consultation with the County Fire Marshal, County Public Works, County Planning, Building and Environmental Services, and other agencies to ensure adequate widths for emergency access and evacuation.

4.15.4 Significance Criteria

The thresholds used to determine the significance of impacts related to transportation are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Result in inadequate emergency access.

Approach to Analysis

As noted in the Regulatory Setting section above, SB 743 changed the way traffic impacts are evaluated under CEQA, focusing the analysis on the amount of driving a project generates (VMT) rather than on traffic delay or congestion. Accordingly, an analysis of changes in VMT that would result from the HEU was prepared by Fehr & Peers and is included as **Appendix D**.

The analysis uses data from the Solano Napa Activity-Based Model (SNABM) to develop daily VMT forecasts. Full model inputs and outputs were provided to Fehr & Peers by Solano Transportation Authority (STA) in May 2021 and reflect the latest updates (from August 2020) to incorporate land use and transportation network assumptions consistent with MTC's Plan Bay Area 2040, the regional transportation plan (2017 RTP) at the time of model development.

To understand the VMT forecasts and VMT impact analysis, two metrics were developed:

- "Countywide Project-Generated VMT," which is defined as the sum of the VMT associated with travel from, to, and within a project site; and
- The Project's Effect on VMT by Speed Bin, which is an evaluation of the change in total vehicle travel within Napa County, compared between the no project and with project conditions, and allocated to each speed bin from 0 to 80 miles per hour (mph).

These metrics allowed for an evaluation of how VMT changes (increases or decreases) between the without Project and with Project scenarios, considering both VMT increases due to growth and VMT reductions due to changes in travel behavior.² This analysis initially focused on the VMT for all trip purposes and vehicle types (i.e., there is no separation of VMT by land use), however, in accordance with guidance provided by the Governor's Office and Planning and Research (OPR) in its *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018), the VMT analysis also calculated **total residential VMT per resident** for the each traffic analysis zone (TAZ) that includes a proposed housing site.³

The significance of resulting project-based VMT was assessed using two thresholds. First, based on OPR's guidance, a site's residential VMT per capita was considered significant unless it was shown to be at least 15 percent below the regional baseline (nine-county Bay Area) total residential VMT per resident.⁴ In addition, and in accordance with the County's Traffic Impact Study (TIS) Guidelines, a site's residential VMT per capita was considered significant unless it could be shown to be 15% below the unmitigated VMT estimated for the same site.

² An often-cited example of how a project can affect VMT is the addition of a grocery store in a food desert. Residents of a neighborhood without a grocery store have to travel a great distance to an existing grocery store. Adding a grocery store to that neighborhood will shorten many of the grocery shopping trips and reduce the total amount of VMT to/from the neighborhood.

³ A traffic analysis zone (TAZ) is a special area delineated by state and/or local transportation officials for tabulating traffic-related data. A TAZ usually consists of one or more census blocks, block groups, or census tracts. Each TAZ is identified by a six-character alphanumeric code that is unique within a county or statistically equivalent entity.

⁴ The *Technical Advisory* notes that for land use projects or programs located in the unincorporated areas of a county that is included in an MPO region, the threshold should be based on (1) the region (i.e. MPO) VMT per capita or (2) the aggregate population-weighted VMT per capita of all incorporated cities and towns in the region (i.e. MPO).

4.15 Transportation

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to transportation, rather the updates to the Safety Element are intended to improve policies associated with emergency evacuation plans. As such, it is not discussed further in this section.

4.15.5 Impacts of the Project

Impact TRA-1: Implementation of the HEU would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. (*Less than Significant*)

Implementation of the HEU would be subject to and comply with General Plan, Bicycle Plan, Pedestrian Plan, and other applicable policies relevant to transit, bicycle, and pedestrian facilities and service. Additionally, development projects under the HEU would be subject to all applicable County guidelines, standards, and specifications related to transit, bicycle, or pedestrian facilities.

Specifically, any modifications or improvements to or construction of new roadways, transit, bicycle, and pedestrian facilities would be subject to and designed in accordance with all applicable General Plan, Bicycle Plan, Pedestrian Plan and other applicable policies. In particular, General Plan Policy CIR-6 requires applicants requesting discretionary approval for projects with the potential to significantly affect the transportation system fund the preparation of a Transportation Analysis and mitigate their project's impacts and pay their fair share for mitigating cumulative impacts. Policy CIR-10 requires that facilities supporting multi-modal access be integrated into the site layout of development projects and frontage improvements, wherever such facilities are appropriate and can be physically accommodated. Policy CIR-11 requires that all developments along fixed transit routes provide appropriate amenities designed to support transit use. Policy CIR-14 requires that developers of new land uses shall provide or demonstrate existing of adequate parking, but not provide excess parking that could simulate unnecessary vehicle trips. Policy CIR-17 requires the maintenance of Napa County Airport as a general aviation facility and avoidance of land use conflicts. Policy CIR-22 commits the County to work with NVTA and other transportation and transportation network providers to develop innovative approaches to providing transportation service to rural areas without the need for additional roadway lanes or other improvements. Policy CIR-25 requires that transportation services address the needs of non-drivers and those without cars living in rural areas. Policy CIR-28 commits the County to work with the cities and town through the NVTA to coordinate seamless transportation systems and improve the efficiency of the transportation systems by coordinating construction of planned transportation facilities and systems. Policy CIR-29 requires the planning and design of all County transportation facilities to comply with the County's adopted Complete Streets Policy. Policy CIR-31 commits the County to providing a roadway system that maintains current roadway capacities in most locations. Policy CIR-33 commits the County to work with private developers and others to implement projects and policies identified in the Bicycle Plan and the Pedestrian Plan. Policy CIR-38 declares

the County's intent to maintain operations of roads and intersections in the unincorporated area that minimize travel delays and promote safe access for all users, and establishes the goal of maintaining Level of Service D on arterial roadways when that achievement would not cause an unacceptable conflict with other goas and objectives. Policy CIR-40 requires the maintenance and application of consistent highway access standards for new driveways to minimize interference with through traffic while providing adequate local access. Policy CIR-41 requires preservation of rail corridors and the navigable sections of the Napa River as regional transportation assets. Policy CIR-44 supports the preservation of Angwin Airport (Parrett Field) for general aviation.

Bicycle Plan policies include building and maintenance of a local and Countywide bicycle transportation (and recreation) networks that connects the County's incorporated cities/town and unincorporated communities and provides access to public transportation and community designations, as well as integrating bicycle facility and bicycle facility amenities into land use decisions and developments, and implementing Complete Streets policies that ensure accommodate and safe access for users.

Pedestrian Plan Policy 2A requires adherence to specific design standards when designing new or retrofitted streets and communities. Policy 2E requires review of new development proposals to ensure pedestrian access and circulation is improved.

Because implementation of the HEU would be subject to and comply with applicable General Plan, Bicycle Plan, Pedestrian, and other applicable policies as well as applicable County guidelines, standards, and specifications, the proposed HEU would not conflict with adopted policies, plans, or programs for transit, bicycle, or pedestrian facilities, and would results in a **less-than-significant impact**.

Mitigation: None required.

Impact TRA-2: Implementation of the HEU would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). (*Significant and Unavoidable with Mitigation*)

The HEU would allow construction of multifamily housing in four areas of the County that were assessed at a programmatic level, including the estimation of Project-Generated VMT and total residential VMT per resident.

VMT associated with households, interregional trips, trucks, and air passengers of each TAZ within Napa County were summed to obtain Project generated total VMT for both a base and cumulative year no-Project scenario. Based on trip generation rates from the 11th Edition of the Trip Generation Manual produced by the Institute of Transportation Engineers (ITE) applicable to the housing sites, and assuming a 12-mile average trip length,⁵ the Project VMT was calculated and added on top of No-Project VMT to estimate the base and cumulative year Project-generated

⁵ Represents the average trip length for unincorporated Napa County according to the results of Caltrans' *California Household Travel Survey (2010-2012)*.

total VMT. The results of Countywide Project generated total VMT for each scenario is presented in **Table 4.15-2**.

	No Project	With Project	Net Change			
Base Year (2015)	7,001,399	7,040,099	38,700			
Cumulative Year (2040)	8,476,178	8,514,878	38,700			
SOURCE: SNABM, Fehr & Peers, February 2022.						

TABLE 4.15-2 COUNTYWIDE PROJECT GENERATED TOTAL VMT

Table 4.15-3 presents base and cumulative year residential VMT per resident for each housing inventory site; these values range from 20.0 to 61.6 VMT for the base year, and 19.0 to 64.8 VMT for the cumulative year depending on the housing site. These are the unmitigated VMT values.

 TABLE 4.15-3

 VMT METRICS BY TAZ AND COMPARISON TO NINE-COUNTY BAY AREA AVERAGE

			Base Year (2015)		Cumulative Year (2040)			
Project Site	Parcel(s)	TAZ	Residential VMT per Resident ^{a,b}	% Difference from Bay Area Average	Residential VMT per Resident ^b	% Difference from Bay Area Average		
Foster Road ^b	043-062-008	75	20.3	20%	19.0	18%		
		76	-	-	-	-		
Imola Avenue	APN 046-450-041	145	20.0	19%	21.4	34%		
Northeast Napa	APN 039-320-005	154	37.6	123%	20.4	1440/		
	APN 039-320-016				39.1	144 %		
Spanish Flat	APN 019-261-041	197	61.6	265%	64.8	305%		
Nine-County Bay Area Average		16.9	-	16.0	-			
Thresholds								
15% Below Bay Area Average		<14.3	<-15%	<13.6	<-15%			
Between 15%-0% Below Bay Area Average		14.3 ~ 16.9	-15%~0%	13.6 ~ 16	-15%~0%			
Above Bay Area Average			>16.9	>0%	>16	>0%		

NOTES:

a. Residential VMT per resident is defined as total non-commercial VMT per resident.

b. Represents unmitigated VMT.

c. For the Foster Road site, the majority of the site parcels are on TAZ 76, while TAZ 76 has less than 50 population, which should be assumed as 0 population for VMT metric calculation. TAZ 75 is next to TAZ 76, and has the land use that is similar to the planned development.

SOURCE: SNABM, Fehr & Peers, February 2022.

Table 4.15-3 also presents analysis against the OPR-defined threshold for reference. Based on data from SNABM, in the base year (2015), the nine-county Bay Area average total residential VMT per resident is 16.9, and a threshold of 15 percent below this value is 14.3. In the cumulative year (2040), the nine-county Bay Area average total residential VMT per resident is

16.0, and a threshold of 15 percent below this value is 13.6.⁶ Project site TAZs have residential VMT per resident above the nine-county Bay Area average. **Figures 4.15-2** and **4.15-3** illustrate the residential VMT per resident by TAZ as compared against nine-county Bay Area Average.

Based on the County's TIS guidelines, mitigation measures, if feasible, would be needed to reduce program TAZ VMT per resident by 15 percent, or 3.0 to 9.2 VMT per resident depending on housing sites' Base Year values of 20.0 to 61.6 VMT per resident. **Mitigation Measure TRA-1**, **TDM Program**, requires developers of multi-family housing sites to develop a project-specific TDM program containing trip reduction strategies with a goal of achieving a 15 percent reduction compared to the unmitigated VMT estimated for the proposed project.

The effectiveness of TDM measures for land use projects in unincorporated areas of Napa County is difficult to quantify as the literature documenting the effectiveness of land use project-level TDM strategies are generally related to suburban and urban areas, not rural areas. Current studies⁷ show the maximum percentages of VMT reduction that can be achieved in suburban contexts in California calculates out to the range of mid-single digits due to factors associated with the land use, such as low transit usage. The requirement to reduce daily VMT and vehicle trips by 15 percent thus exceeds the range of what would be achievable in trip reduction for communities similar to the ones in unincorporated Napa County that would host the new developments due to the contextual nature of the sites which require longer travel distances to, for example, employment centers and services, and lack of available transit options. However, while the level of VMT reduction associated with TDM measures are unlikely to mitigate the program's impact to a less-than-significant level (as shown in Table 4.15-4 and described under *Effectiveness of Mitigation* below), CEQA requires that feasible mitigation measures be implemented to reduce a project or program's level of impact.

Mitigation Measure TRA-1: Transportation Demand Management (TDM) Program

Prior to issuance of building permits, project applicants of proposed multi-family development shall develop a TDM program for the proposed project, including any anticipated phasing, and shall submit the TDM Program to the County for review and approval. The TDM Program shall identify trip reduction strategies as well as mechanisms for funding and overseeing the delivery of trip reduction programs and strategies. The TDM Program shall be designed to achieve the following trip reduction, as required to meet thresholds identified by OPR:

• A 15% reduction compared to the unmitigated VMT estimated for the proposed project

⁶ Data from SNABM was used to develop daily VMT forecasts; the model has a Base Year of 2015 and Horizon Year of 2040. VMT was calculated from the SNABM output for Base Year (2015), Base Year plus Project, Cumulative (2040) and Cumulative plus Project Conditions; the Base Year (2015) model was used to assess CEQA baseline conditions due to the effects of major wildfires in 2017-2020 and the COVID-19 pandemic. Full model inputs and outputs was provided to Fehr & Peers by STA in May 2021 and reflect the latest model updates (prepared in August 2020) to incorporate land use and transportation network assumptions consistent with MTC's Plan Bay Area 2040, the regional transportation plan (2017 RTP) at the time of model development.

⁷ Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association, December 2021.



Source: Solano-Napa Activity Based Model, Solano Transportation Authority and TJKM (2021)



Figure 4.15-2 2015 Residential VMT Per Resident Compared to Nine-County Bay Area Average SNABM Model


Source: Solano-Napa Activity Based Model, Solano Transportation Authority and TJKM (2021)



Figure 4.15-3 2040 Residential VMT Per Resident Compared to Nine-County Bay Area Average SNABM Model 4.15 Transportation

Trip reduction strategies may include, but are not limited to, the following:

- 1. Provision of bus stop improvements or on-site mobility hubs
- 2. Pedestrian improvements, on-site or off-site, to connect to nearby transit stops, services, schools, shops, etc.
- 3. Bicycle programs including bike purchase incentives, storage, maintenance programs, and on-site education program
- 4. Enhancements to Countywide bicycle network
- 5. Parking reductions and/or fees set at levels sufficient to incentivize transit, active transportation, or shared modes
- 6. Cash allowances, passes, or other public transit subsidies and purchase incentives
- 7. Providing enhanced, frequent bus service
- 8. Implementation of shuttle service
- 9. Establishment of carpool, buspool, or vanpool programs
- 10. Vanpool purchase incentives
- 11. Low emission vehicle purchase incentives/subsidies
- 12. Compliance with a future County VMT/TDM ordinance
- 13. Participation in a future County VMT fee program
- 14. Participate in future VMT exchange or mitigation bank programs

Effectiveness of Mitigation

As the above TDM strategies in Mitigation Measure TRA-1 are heavily dependent on context, a matrix detailing which TDM strategies may be most effective when taking in account local contexts (by Potential Site group) has been included as **Table 4.15-4**.

Based on the number of low and moderately effective strategies shown in Table 4.15-4, a TDM program would likely not result in a 15 percent reduction in VMT, nor would it reduce VMT to more than 15 percent below regional values. The potential effectiveness of strategies is based on potential site group density, access to transit, and nearby destinations within walking or bicycling distance. Due to the contextual nature of the sites which require longer travel distances to, for example, employment centers and services, and low availability of transit options, the TDM measures are unlikely to mitigate the program's impact to a less than significant level. Therefore, the impact would remain **significant and unavoidable**.

Significance after Mitigation: Significant and Unavoidable

TDM Strategy		FR	IA	NE	SF
1.	Provision of bus stop improvements or on-site mobility hubs	L	L	L	L
2.	Pedestrian improvements, on-site or off-site, to connect to nearby transit stops, services, schools, shops, etc.	М	М	М	L
3.	Bicycle programs including bike purchase incentives, storage, maintenance programs, and on-site education program	М	М	М	L
4.	Enhancements to Countywide bicycle network	М	М	М	L
5.	Parking reductions and/or fees set at levels sufficient to incentivize transit, active transportation, or shared modes	н	н	Н	L
6.	Cash allowances, passes, or other public transit subsidies and purchase incentives	М	М	М	L
7.	Providing enhanced, frequent bus service	М	М	М	L
8.	Implementation of shuttle service	М	М	М	L
9.	Establishment of carpool, buspool, or vanpool programs	М	М	М	L
10	Vanpool purchase incentives	L	L	L	L
11.	Low emission vehicle purchase incentives/subsidies	н	Н	Н	Н
12	Compliance with a future County VMT/TDM ordinance	н	Н	Н	Н
13	Participation in a future County VMT fee program	н	Н	Н	Н
14	Participate in future VMT exchange or mitigation bank programs	н	н	Н	н

 TABLE 4.15-4

 POTENTIAL EFFECTIVENESS OF TDM STRATEGIES BY POTENTIAL SITE GROUP

NOTES:

Sites: FR = Foster Road, IA = Imola Avenue, NE = Northeast Napa, SF = Spanish Flat

Potential effectiveness ratings: L = low, M = medium, H = high

Potential effectiveness of strategies based on Potential Site Group density, access to transit, and nearby destinations within walking or bicycling distance

SOURCE: Fehr & Peers, April 2022.

Impact TRA-3: Implementation of the HEU would not substantially increase hazards due to a geometric design feature or incompatible uses. (*Less than Significant*)

Subsequent projects under the HEU, including any new roadway, bicycle, pedestrian, and transit infrastructure improvements, would be subject to, and designed in accordance with applicable design standards and specifications which address potential design hazards including sight distance, driveway placement, signage and striping, etc. Additionally, any new transportation facilities, or improvements to such facilities associated with subsequent projects would be constructed based on applicable industry design standards and best practices consistent with the County's zoning code and building design and inspection requirements. The County's evaluation of projects' access and circulation will incorporate analysis with respect to County standards for vehicular level of service and queueing, as well as for service to pedestrians, bicyclists, and transit users. Therefore, the HEU would not substantially increase hazards due to a geometric design feature or incompatible use, and would result in a **less-than-significant impact**.

4.15 Transportation

Mitigation: None required.

Impact TRA-4: Implementation of the HEU would not result in inadequate emergency access. (*Less than Significant*)

Section 4.17, Wildfire, evaluates the HEU's potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, as well as the project's potential to expose people or structures to a significant risk of loss, injury or death involved wildland fires. Please reference this section for an evaluation of the adequacy of emergency access during regional/large-scale emergency and/or natural disaster situations.

There are no specific site plans or designs of development projects that may occur as a result of the HEU; and thus, the housing sites cannot be analyzed for adequacy of emergency vehicle access at this time. However, the County maintains the roadway network that would provide access to new development sites in accordance with industry design standards, which ensures that the physical network would be free of obstructions to emergency responders. Emergency access to new development sites proposed under the HEU would be subject to review by the County and responsible emergency service agencies, thus ensuring the projects would be designed to meet all emergency access and design standards. The County also requires the preparation of construction traffic management plans that minimize temporary obstruction of traffic during site construction.

Additional vehicles associated with new development sites could increase delays for emergency response vehicles, particularly in more urbanized areas during peak commute hours. However, emergency responders maintain response plans that include use of alternate routes, sirens and other methods to bypass congestion and minimize response times. In addition, California law requires drivers to yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicle passes to ensure the safe and timely passage of emergency vehicles.

Based on the above considerations, adequate emergency access would be provided to new development sites, and the impact would be **less than significant**.

Mitigation: None required.

4.15.6 Cumulative Impacts

As described under Impact TRA-2 above, the HEU would increase VMT in the County, resulting in a significant and unavoidable impact despite adoption of mitigation. By incorporating growth projections to the year 2040 contained in the SNABM model, the analysis accounts for cumulative growth and Impact TRA-2 is a cumulative impact. Therefore, additional analysis of cumulative impacts related to VMT is not required. Impact TRA-1.CU: Implementation of the HEU, in combination with past, present, and reasonably foreseeable future development, would not result in a cumulatively considerable contribution to hazards due to geometric design features or incompatible uses, or inadequate emergency access. (*Less than Significant*)

As described under Impact TRA-3 and TRA-4 above, new development – including development allowed by the HEU -- is subject to review for conformance with design standards and specifications which address potential design hazards including sight distance, driveway placement, signage and striping, as well as emergency access. This practice would ensure that all development is constructed in such a way as to avoid creating hazards or impeding emergency access. For this reason, the cumulative impact related to hazards and emergency access would be **less than significant**.

4.15.7 References

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4.15 Transportation

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4.16.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on utilities and service systems. This section first includes a description of the existing environmental setting as it relates to utilities and service systems, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on utilities and service systems.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to utilities and service systems received during the NOP comment period include concerns related to water supply and the availability of utility infrastructure to serve development.

4.16.2 Environmental Setting

Water

Water service providers in Napa County include the City of American Canyon, the City of Calistoga, the City of Napa, the City of St. Helena, the Town of Yountville, Circle Oaks County Water District, Congress Valley Water District, Lake Berryessa Resort Improvement District, Napa Berryessa Resort Improvement District, Napa County Flood Control and Water Conservation District (NCFCWCD), and Spanish Flat Water District (SFWD). The City of American Canyon, the City of Calistoga, the Town of Yountville, Los Carneros Water District, and the Napa Sanitation District also provide recycled water services. **Figure 4.16-1** shows the jurisdictional boundaries of these agencies. Napa County water supply is derived from multiple sources including local groundwater, surface storage, reclaimed water and imported State Water Project supplies. In general, the cities rely on surface water while the unincorporated areas rely on groundwater, although some unincorporated areas, like Spanish Flat, do utilize surface water.

For a complete list of the County's water providers, service area, facilities, and capacity, refer to the *Napa County General Plan Update Draft EIR*.¹ The information below focuses on water service providers for the geographies identified in the housing sites inventory.

Available at: https://www.countyofnapa.org/DocumentCenter/View/7938/413-Public-Services-General-Plan-DEIR-PDF.



SOURCE: LAFCO

Napa County Housing Element Update EIR

Figure 4.16-1
Napa County Water and Wastewater Service Providers

ESA

Water Distribution

Spanish Flat Water District

SFWD is located in the eastern portion of Napa County along Lake Berryessa and includes four non-contiguous areas with the two distinct communities of Spanish Flat and Berryessa Pines. SFWD provides potable water services in the form of treatment and distribution to its customers. Two separate water systems serve the SFWD's Spanish Flat and Berryessa Pines service areas. Raw water from Lake Berryessa is captured from separate stationary intake systems serving each service area. Both intake systems are powered by dual pump systems with daily conveyance capacities of 0.5 acre-feet at Berryessa Pines and 1.1 acre-feet at Spanish Flat. The SFWD's overall distribution system is in good condition and SFWD reported that there is sufficient capacity in both water systems for existing and projected demand (LAFCO, 2020). The *2011 Lake Berryessa Region Municipal Service Review* identified for the SFWD that there is a water distribution system capacity issue associated with deficient storage within the initial pressure zone. This issue has not been addressed to date (LAFCO, 2021).

City of Napa Water

The City of Napa serves potable water to an area encompassing much of the lower Napa Valley and extending up to the foothills on the east and west sides of the valley. As shown on **Figure 4.16-2**, the City of Napa's water service area contains four boundaries of importance: the Water Operational Boundary, Sphere of Influence (SOI), Rural Urban Limit (RUL), and City Limits. The Water Operational Boundary encompasses the City of Napa's water service area, including areas along transmission mains originating from the City of Napa's Water Treatment Plants (WTP) (Hennessey, Milliken, and Edward I. Barwick Jamieson Canyon). Not all parcels within the Operational Boundary are served by City of Napa water. The SOI is the boundary within which the Local Agency Formation Commission of Napa County (LAFCO) anticipates the City of Napa's limits may be expanded and City of Napa water services may be extended with LAFCO's approval. City of Napa staff can approve water service to areas within the RUL with the condition that they annex to the City (Policy Resolution No. 7). Currently, about 95 percent of the area within the SOI is within the City of Napa limits, and the remaining 5 percent is unincorporated land under the jurisdiction of the County, including the area referred to as Foster Road.

While most of the City of Napa's water supply is delivered to customers within the City of Napa limits, the City of Napa also serves water outside City of Napa limits and even outside the SOI, including customers in the Monticello Road/Silverado Resort community, the independent Congress Valley Water District (CVWD), the Carneros Mutual Water Company, and along the Conn Transmission Main. CVWD was originally scheduled to be dissolved in 2017, with its water system infrastructure wholly maintained by and transferred to the City of Napa; however, the current agreement was extended to 2022 to establish a water service transition plan. The City of Napa also serves the approximately 1,175 residents of Napa State Hospital located outside the City of Napa limits and SOI (City of Napa, 2022).

The City of Napa's main water distribution system includes 12 storage tanks, nine pump stations, and 360 miles of pipelines.



SOURCE: City of Napa

ESA

NNapa County Housing Element Update EIR

Figure 4.16-2 City of Napa Water Service Area

Water Supply

Ensuring adequate water supply availability is a priority for all agencies. The 2020 *Napa Countywide Water and Wastewater Municipal Service Review* found that during normal year scenarios, all of the public water retailers in Napa County have sufficient water supply under normal conditions given existing demand (LAFCO, 2020).

Spanish Flat Water District

SFWD receives water from its contract with the Napa County Flood Control and Water Conservation District (NCFCWCD). The NCFCWCD maintains a water supply agreement with the U.S. Bureau of Reclamation for an annual entitlement of water drawn from Lake Berryessa as part of the Solano Project.² The NCFCWCD subcontracts this entitlement to several individual property owners in the Lake Berryessa area as well as to three special districts: Lake Berryessa Resort Improvement District, Napa-Berryessa Resort Improvement District, and SFWD. Each subcontractor is responsible for the construction and operation of their own intake and delivery system to Lake Berryessa (LAFCO, 2016).

SFWD's entitlement is for 200 acre feet per year through 2024. This entitlement serves the SFWD's two service areas: Spanish Flat and Berryessa Pines. Pursuant to the Agreement with NCFCWCD, SFWD may request an increase to its annual entitlement of up to 20 percent or 40 acre-feet per year. SFWD has not experienced reductions or limitations in this water supply in drought years. SFWD anticipates that the same contract will be extended in 2024. The full delivery of SFWD's entitlement is considered reliable given the current and historical storage levels at Lake Berryessa relative to the location of the intake systems (LAFCO, 2020). SFWD has ample water supply entitlement and system capacity to accommodate current as well as projected demands (LAFCO, 2021).

City of Napa Water

The City of Napa's existing water supply sources include State Water Project (SWP) imports and local surface water from Milliken Reservoir and Lake Hennessey. The NCFCWCD contracts directly with the California Department of Water Resources for SWP supplies, and the City of Napa receives its annual SWP entitlement through this contract as a SWP subcontractor. Milliken Reservoir and Lake Hennessey are two local surface water reservoirs along tributaries of the Napa River. The Napa Sanitation District (NapaSan) also delivers recycled water to customers within the City of Napa's service area (City of Napa, 2022).

The City of Napa adopted their most recent *2020 Urban Water Management Plan* (2020 UWMP) on December 21, 2021. According to the 2020 UWMP, the City of Napa's supplies can meet projected demands during normal years through 2045. For 5-year drought years starting from 2035 through 2045, modest deficits from 9 to 12 percent are anticipated. Implementing Stage 1 or 2 of the City of Napa's *Water Shortage Contingency Plan* would provide sufficient water conservation to eliminate these deficits. During single dry years, the City of Napa's supplies are only adequate to

² The Solano Project was developed between 1953 and 1958 and involved the construction of Monticello Dam on Putah Creek in Napa County for the purpose of forming Lake Berryessa. The majority of water drawn from Lake Berryessa is used by the Solano County Water Agency.

meet projected demands through 2035. In 2040 and 2045, a small supply shortfall of 150 and 375 acre-feet per year exists, respectively, in single dry years. To match projected dry year supplies in 2040 and 2045, the City of would need to reduce demands by less than 3 percent. It is assumed that the City of Napa can implement adequate water conservation efforts to achieve these demand reductions.

The City of Napa expects to meet average potable water demands beyond 2035. During an extreme single dry year, the City of Napa expects to have 16,275 acre-feet per year available (56 percent of its average supply at buildout). During a multiple dry year period of 5 years, the City of Napa expects to have 19,191 acre-feet per year in the first year (66 percent of average supply) and then 14,803 acre-feet per year in the next 5 years (51 percent of average supply). Under each of these scenarios, the City of Napa expects to manage minor supply deficits via its Water Shortage Contingency Plan. (City of Napa, 2021).

Wastewater

There are several wastewater service providers in Napa County serving various portions of the County including: the Napa Sanitation District, Lake Berryessa Resort Improvement District, Napa Berryessa Resort Improvement District, Napa River Reclamation District #2109, SFWD, Circle Oaks County Water District, and the City American Canyon.

For a complete list of the County's sewer providers, service area, facilities, planned improvements, and capacity compared to existing demand, refer to the *Napa County General Plan Update Draft EIR* (2007: Table 4.13.4-1).³ The information below focuses on wastewater service providers for the geographies identified in the housing sites inventory.

Spanish Flat Water District

SFWD owns and operates a wastewater treatment plant, which serves the Berryessa Pines and Spanish Flat housing developments on the shores of Lake Berryessa. SFWD's Spanish Flat collection system consists of approximately 16 miles of sewer lines and one pump station. SFWD provides a secondary level of treatment to raw sewage as it enters Spanish Flat's collection system through individual laterals and conveyed through a series of gravity lines, force mains, and a pump station into the SFWD's wastewater treatment facility located off Spanish Flat Loop Road and near the Spanish Flat Mobile Villa Park. The treatment process was updated in the 1990s and begins with raw sewage entering the facility's aeration basin to accelerate the biological breakdown of solids before cycling through a clarifier to remove solids before finally settling in a chlorine contact chamber. Treated wastewater is then discharged to an adjacent 4.2 million gallon holding pond with eventual disposal to two spray irrigation areas.

SFWD's wastewater treatment facility for the Spanish Flat service area has design daily dryweather and wet-weather flow capacities of 25,000 and 53,000 gallons, respectively. These design treatment capacities appear to sufficiently accommodate the service area's current average dry-

Napa County Housing Element Update Draft Environmental Impact Report

³ Available at: https://www.countyofnapa.org/DocumentCenter/View/7938/413-Public-Services-General-Plan-DEIR-PDF.

weather and wet-weather flow demands. If the remaining lots in the Spanish Flat service area develop and all new development connects with usage similar to current demands, the daily average dry-weather and wet-weather flows would increase to 20,300 and 56,000 gallons, respectively. These projected demands could be accommodated based on existing design capacities. The expected peak day wet-weather flow—in the absence of significant improvements to the collection system—nonetheless would increase to 122,000 gallons and exceed existing capacity (LAFCO, 2020).

A majority of SFWD's utility systems in Spanish Flat were destroyed in the Lightning Complex fires in August 2020. The total loss of homes was 75 within the SFWD and 80 within the SOI. Additionally, the fire destroyed a portion of SFWD's water and wastewater facilities serving the community, including the wastewater pump station building and controls, lake pump controls and power pole, water tank tops on west hillside. Given this drastic and recent change in the composition of the area, LAFCO indicated that discussion of the potential for growth and development may not be relevant until the area is substantially rebuilt (LAFCO, 2021).

Napa Sanitation District

Wastewater Collection System

The Napa Sanitation District (NapaSan) provides wastewater collection and treatment for approximately 82,000 residents, in the City of Napa and in some surrounding unincorporated Napa County areas. The collection system is comprised of about 274 miles of sewer mains, ranging in size from 4-inch to 66-inch diameter pipe, serving roughly 30,000 public laterals. As with most wastewater agencies across the United States, the majority of the pipelines are older and were installed prior to current industry best practices being implemented. During periods of sustained rainfall, water can enter the collection system through laterals, pipe joints, and manholes creating excessive flows that exceed capacity of some sewer mains, which can then contribute to overflows. Given the number of pipes, NapaSan is addressing this wet weather-induced inflow and infiltration through a programmatic approach of rehabilitation and replacement of the collection system. NapaSan also owns and operates three major wastewater pump stations, one major siphon, and five smaller siphons. **Figure 4.16-3** shows NapaSan's existing collection system, displaying sewer pipes by diameter. Nearly all of NapaSan's wastewater is eventually conveyed to the 66-inch diameter trunk sewer that flows south, parallel to the Napa River, entering the Influent Pump Station where flows are then pumped to the Soscol Water Recycling Facility (SWRF) (NapaSan, 2021).

NapaSan WWTP

NapaSan treats approximately 10 million gallons per day (mgd) at the SWRF, with a total treatment capacity of 15.4 MGD. Based on NapaSan's 2018 capacity analysis, aeration basin hydraulic capacity is the primary limiting condition for the WWTP during dry weather. Summer influent uses 7.8 mgd of capacity at the aeration basins, leaving 0.7 mgd of unused capacity. Additionally, NapaSan currently has two projects planned to expand WWTP capacity. A second digester is planned to increase the WWTP solids handling capacity, and the aeration basin will be expanded to accommodate additional secondary effluent. These upgrades are anticipated to add approximately 2.1 mgd of capacity at the treatment plant (NapaSan, 2018). NapaSan is able to reclaim a portion of its wastewater flows for recycled water usage, producing approximately 700 million gallons per year (NapaSan, 2022).



SOURCE: City of Napa

Figure 4.16-3 Napa Sanitation District Collection System Map

ESA

Napa County Housing Element Update EIR

Collection System Master Plan & Infiltration and Inflow Reduction Program

NapaSan completed an updated Collection System Master Plan (CSMP) in February 2021. The 2021 CSMP found that NapaSan's collection system has adequate dry weather capacity for existing and projected future conditions but has capacity deficiencies in specific areas during peak wet weather events. The previous 2007 CSMP recommended that NapaSan implement an infiltration and inflow (I&I) reduction program that would reduce wet weather-induced I&I in the sanitary sewer collection system in prioritized locations through rehabilitation and replacement of sewer mains, manholes, and laterals, as an alternative to a capital improvement program focused only on capacity improvements. The 2021 CSMP found that NapaSan's I&I reduction efforts since the inception of its I&I Reduction Program have shown that I&I rehabilitation is a proven way to cost-effectively manage risk and renew aging infrastructure through targeted rehabilitation of known deficiency issues (NapaSan, 2021).

In March 2021, NapaSan adopted a policy regarding I&I mitigation for new development for projects that weren't analyzed by the 2021 CSMP (Resolution 21-006). This policy recognizes that peak flow associated with new development may exacerbate hydraulic conditions in the existing collection system. As an alternative to upsizing existing infrastructure to add capacity, a developer may elect to reduce I&I in the collection system. I&I reduction would be applied at a 2:1 ratio to the project peak flow contribution from the development (reduce 1 mgd peak I&I to mitigate for a 0.5 mgd peak flow increase from the development). The 2:1 ratio was set acknowledging that success is variable when implementing I&I reduction projects, and collection system flow dynamics may not translate the full upstream benefit to the pipelines of direct interest for the developer.

Stormwater Drainage

Stormwater in Napa County is collected through a series of integrated and informal flooding control and stormwater drainage systems. NCFCWCD administers the Napa County Stormwater Management Program (NCSWMP) and coordinates the individual activities of National Pollutant Discharge Elimination System permits and programs of the City of Napa, Town of Yountville, City of St. Helena, City of Calistoga, City of American Canyon, and the County.

Other Utilities

Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) provides electric and natural gas service in Napa County. In the County, there are overhead and underground PG&E electric distribution systems, and overhead and underground secondary distribution and service system. There are also underground natural gas distribution systems.

MCE is a community-governed, local power supplier that provides low-carbon electricity to Napa County residents and businesses under a community choice energy (CCE) program at rates that are lower or comparable to PG&E's rates. In 2002, the State of California passed legislation (Assembly Bill 117) that permits local agencies to form CCE programs for their communities. Under a CCE program, the utility company (in this case PG&E) continues to operate and service the transmission and delivery system and provides billing and customer service (MCE, 2022).

Telecommunications

The telecommunications system serving the County consists of aboveground and buried telecommunications circuits from several providers, primarily AT&T, Verizon, and Comcast.

Solid Waste

There are currently five solid waste providers and two joint powers agencies/authorities in Napa County. Solid waste providers include the Upper Valley Disposal Service (UVDS), Berryessa Garbage Service (BGS), Napa Recycling and Waste Services (NRWS), Napa County Recycling and Waste Services (NCRWS), and Recology American Canyon. The joint power agencies/authorities in the County include the Upper Valley Waste Management Agency (UVWMA) and the Napa Vallejo Waste Management Authority (NVWMA). These joint power agencies do not provide solid waste collection or disposal services. The UVWMA was formed to provide the coordination of economic and regional waste Management Act (described below under Section 4.16.3, *Regulatory Setting*). The UVWMA includes Yountville, St. Helena, Calistoga, and the northern unincorporated portions of the County. The NVWMA includes the cities of Napa, Vallejo, American Canyon and the southern portion of the unincorporated County. The NVWMA was formed to coordinate all solid waste and recycling services within its watershed.

Solid waste from the NRWS, NRWCS, the NVWMA area, and Recology American Canyon is brought to the Devlin Road Transfer Station, where it is loaded into trucks and sent to Potrero Hills Landfill in Suisun. BGS also uses the Potrero Hills landfill. The Devlin Road Transfer Station is permitted to receive a maximum of 1,440 tons of waste per day (NVWMA, 2021). Potrero Hills Landfill is permitted to receive 3,400 tons per day averaged over a 7-day week (meaning any consecutive 7 day period) with a maximum of 4,330 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 41,847,269 cubic yards of remaining capacity, and is estimated to reach permitted disposal capacity by the year 2047. This landfill is located in Suisun in Solano County, south of Highway 12 (CalRecycle, 2021a).

The UVDS collects and disposes solid waste and recycling materials from the UVMAWMA area at the Clover Flat Resource Recovery Park and landfill just south of Calistoga. The Clover Flat Landfill receives a maximum of 600 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 2,239,894 cubic yards of remaining capacity, and is estimated to reach permitted disposal capacity by the year 2047. This landfill is located in northern Napa County off the Silverado Trail about three miles east of Calistoga (CalRecycle, 2021b).

In 2019, the statewide average disposal rate was 6.7 pounds per resident per day with a total of approximately 42.2 million tons of solid waste landfilled (CalRecycle, 2021c). The average disposal rate for the unincorporated County in 2020 was 7.5 pounds per resident per day and 7.0 pounds per employee per day (CalRecycle, 2022).

4.16.3 Regulatory Setting

Federal

National Pollutant Discharge Elimination System

The NPDES is a nationwide program for permitting of surface water discharges, including from municipal and industrial point sources. In California, NPDES permitting authority is delegated to and administered by the nine regional water quality control boards (regional water boards). The San Francisco Bay Regional Water Board has set standard conditions for each permittee in the Bay Area, including effluent limitation and monitoring programs. In addition to issuing and enforcing compliance with NPDES permits, each regional water board prepares and revises the relevant basin plan (refer to the following discussion of state regulations).

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), Subtitle D, contained in Title 42 of the United States Code Section 6901 et seq. contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure or landfills. The U.S. EPA waste management regulations are codified in 40 CFR 239–282. The RCRA Subtitle D is implemented by Title 27 of the PRC, approved by the U.S. EPA.

State

Urban Water Management Planning Act

California Water Code Section 10610 et seq. requires all public water systems that provide water for municipal purposes to more than 3,000 customers, or that supply more than 3,000 acre-feet per year (AFY), to prepare an Urban Water Management Plan (UWMP). UWMPs are key water supply planning documents for municipalities and water purveyors in California, and often form the basis of Water Supply Assessments (WSAs) (refer to the following discussion of Senate Bill [SB] 610 and SB 221) prepared for individual projects. UWMPs must be updated at least every 5 years on or before December 31, in years ending in 5 and 0. On December 21, 2021, the City Council conducted a public hearing and adopted, by Resolution R2021-126, the City of Napa's 2020 UWMP.

Assembly Bill 325

Assembly Bill (AB) 325, the Water Conservation in Landscaping Act of 1990, directs local governments to require the use of low-flow plumbing fixtures and the installation of drought-tolerant landscaping in all new development. Pursuant to the Water Conservation in Landscaping Act, the California Department of Water Resources developed a Model Water Efficient Landscape Ordinance.

California Health and Safety Code Section 116555

Under California Health and Safety Code Section 116555, a public water system must provide a reliable and adequate supply of pure, wholesome, healthful, and potable water.

Water Code Section 10608 et seq. (Senate Bill 7 or Senate Bill X7-7)

Water Code Section 10608 et seq. required urban retail water suppliers to set and achieve water use targets that would help the state achieve a 20 percent per capita reduction in urban water use by 2020. SB X7-7 required each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill is intended to promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in California Water Code Section 10631 as part of UWMPs.

Senate Bill 7 (2016)

In September 2016, Governor Jerry Brown signed into law SB 7, which requires new multifamily residential rental buildings in California constructed after January 1, 2018, to include a sub-meter for each dwelling unit and to bill tenants in apartment buildings accordingly for their water use to encourage water conservation.

Executive Orders B-29-15 and B-37-16

In April 2015, Governor Brown issued Executive Order B-29-15, which called for mandatory water use reductions. The executive order required cuts for public landscaping and institutions that typically use large amounts of water (e.g., golf courses), banned new landscape irrigation installation, and required municipal agencies to implement conservation pricing, subsidize water-saving technologies, and implement other measures to reduce the state's overall urban water use by 25 percent. The order also required local water agencies and large agricultural users to report their water use more frequently.

In May 2016, Governor Brown issued Executive Order B-37-16, which made the mandatory water use reduction of 25 percent permanent and directed the California Department of Water Resources and State Water Resources Control Board (State Water Board) to strategize further water reduction targets. The order also made permanent the requirement that local agencies report their water use monthly. Additionally, certain wasteful practices such as sidewalk hosing and runoff-causing landscape irrigation were permanently outlawed, while local agencies must prepare plans to handle droughts lasting 5 years.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) provides the basis for water quality regulation in California. The Porter-Cologne Act defines water quality objectives as the limits or levels of water constituents that are established for reasonable protection of beneficial uses of surface, ground, and saline waters of the state. The State Water Board administers water rights, water pollution control, and water quality functions throughout California, while the San

Francisco Bay Regional Water Board conducts regional planning, permitting, and enforcement activities. For additional requirements, refer to Section 4.10, *Hydrology and Water Quality*.

Water Quality Order No. 2004-12-DWQ

In July 2004, the State Water Board adopted Water Quality Order No. 2004-12-DWQ (General Order) which incorporates the minimum standards established by the Part 503 Rule and expands upon them to fulfill obligations to the California Water Code. However, since California does not have delegated authority to implement the Part 503 Rule, the General Order does not replace the Part 503 Rule. The General Order also does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their jurisdiction, as allowed by law.

Executive Order N-7-22

On March 28, 2022, Governor Gavin Newsom issued Executive Order (EO) N-7-22 in response to intensifying drought conditions. Among other requirements, EO N-7-22 limits a county, city or other public agency's ability to permit modified or new groundwater wells, and instructs the SWRCB to consider (1) requiring certain water conservation measures from urban water suppliers and (2) banning non-functional or decorative grass at businesses and institutions.

Before local entities can permit new or modified groundwater wells in high and medium priority groundwater basins, EO N-7-22 requires the Groundwater Sustainability Agency (GSA) monitoring the basin to verify in writing that the permitted action is not inconsistent with the Groundwater Sustainability Plan or other groundwater management program for the basin. Additionally, the permitting entity must determine that the well will not interfere with nearby wells and will not cause subsidence that could negatively affect nearby infrastructure. This does not apply to permits for wells that will provide less than 2 AF annually of groundwater for individual domestic users,⁴ or that will exclusively provide groundwater to public water supply systems as defined in section 116275 of the Health and Safety Code.

On June 7, 2022, the Napa County Board of Supervisors accepted procedures to implement the Governor's Executive Order N-7-22.⁵ Well permits for proposed non-exempt wells located within the Napa Valley Subbasin are considered responsive to EO N-7-22 if the following conditions are met: (1) the proposed groundwater use does not exceed 0.3 acre-feet per acre; (2) the proposed well is located at least 1,500 feet from a stream; and (3) the proposed well is located at least 500 feet from other existing water supply wells. Well permits for non-exempt wells in the Napa Valley Subbasin will require written verification to be provided by the Napa County GSA to Napa County Planning, Building and Environmental Services (PBES) Department stating that

⁴ California Code of Regulations § 660. Domestic Uses. Domestic use means the use of water in homes, resorts, motels, organization camps, campgrounds, etc., including the incidental watering of domestic stock for family sustenance or enjoyment and the irrigation of not to exceed one-half acre in lawn, ornamental shrubbery, or gardens at any single establishments. The use of water at a campground or resort for human consumption, cooking or sanitary purposes is a domestic use.

⁵ Napa County Board of Supervisors meeting June 7, 2022, Administrative Item 11C; Napa County Planning, Building and Environmental Services Department Napa County Groundwater Sustainability Agency, Napa County and GSA Response to the Governor's Emergency Executive Order N-7-22, June 6, 2022.

the proposed well and its operation will be consistent with the Napa Valley Subbasin Groundwater Sustainability Plan.

California Green Building Standards Code

Water and Wastewater

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, conserve natural resources, and promote the use of energy-efficient materials and equipment. Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Mandatory measures related to water conservation include water-conserving plumbing fixture and appliance requirements, including flow rate maximums, compliance with state and local waterefficient landscape standards for outdoor potable water use in landscape areas, and recycled water systems, where available. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the 2019 amendments to the CALGreen Code became effective January 1, 2020. Updates include more stringent requirements for residential metering faucets, and a requirement that all residential and non-residential developments adhere to a local water efficient landscape ordinance or to the State of California's Model Water Efficient Landscape Ordinance, whichever is more stringent.

Solid Waste

As amended, the CALGreen Code (California Code of Regulations Title 24, Part 11) requires that readily accessible areas be provided for recycling by occupants of residential. The CALGreen Code also requires that residential building projects recycle and/or salvage for reuse a minimum of 65 percent of their non-hazardous construction and demolition waste, or comply with a local construction and demolition waste management ordinance, whichever is more stringent (Section 5.408.1). The 2016 version of the code increased the minimum diversion requirement for non-hazardous construction and demolition waste to 65 percent from 50 percent (in the 2013 and earlier versions) in response to AB 341, which declared the policy goal of the state that not less than 75 percent of solid waste generated would be source reduced, recycled, or composed by 2020.

Assembly Bill 939 (California Integrated Waste Management Act)

AB 939, enacted in 1989 and known as the Integrated Waste Management Act (Public Resources Code Section 40050 et seq.), requires each city and county in the state to prepare a Source Reduction and Recycling Element to demonstrate a reduction in the amount of waste being disposed to landfills. The act required each local agency to divert 50 percent of all solid waste generated within the local agency's service area by January 1, 2000. Diversion includes waste prevention, reuse, and recycling. SB 1016 revised the reporting requirements of AB 939 by implementing a per capita disposal rate based on a jurisdiction's population (or employment) and its disposal.

The Integrated Waste Management Act requires local agencies to maximize the use of all feasible source reduction, recycling, and composting options before using transformation (incineration of

solid waste to produce heat or electricity) or land disposal. The act also resulted in the creation of the state agency now known as the California Department of Resources Recycling and Recovery (CalRecycle). Under the Integrated Waste Management Act, local governments develop and implement integrated waste management programs consisting of several types of plans and policies, including local construction and demolition ordinances. The act also set in place a comprehensive statewide system of permitting, inspections, and maintenance for solid waste facilities, and authorized local jurisdictions to impose fees based on the types and amounts of waste generated.

In 2011, AB 341 amended AB 939 to declare the policy goal of the state that not less than 75 percent of solid waste generated would be source reduced, recycled, or composted by the year 2020, and annually thereafter.

Assembly Bills 341 and 1826

AB 341, signed into law in 2012, requires multi-family dwellings to recycle. AB 1826 (2014) furthered diversion and recycling requirements by requiring that multi-family dwellings with more than five units also divert organic material. AB 1826 does not require multi-family dwellings to divert organic food waste.

Senate Bill 1383

SB 1383 established targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. SB 1383 granted CalRecycle the regulatory authority required to achieve the organic-waste disposal reduction targets. It also established a target of recovering not less than 20 percent of currently disposed edible food for human consumption by 2025.

Regional

National Pollutant Discharge Elimination System Waste Discharge Regulations

The Clean Water Act mandates controls on discharges from municipal separate storm sewer systems (MS4s). Acting under the Federal mandate and the California Water Code, California Water Boards require cities, towns, and counties to regulate activities that may result in pollutants entering storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use BMPs to minimize the amount of pollutants in runoff. To enforce prohibitions and to promote the use of BMPs, the municipalities inspect businesses and construction sites, conduct public education and outreach, sweep streets, and clean storm drains. In addition, municipalities actively support projects to assess, monitor, and restore local creeks and wetlands.

Napa County, along with Town of Yountville, and cities of Napa, St. Helena, Calistoga and American Canyon) are co-permittees to the Phase II Small MS4 General Permit (Water Quality Order No. 2013-0001- DWQ General Permit Number CAS000004). See Section 4.10, *Hydrology and Water Quality*, for more information.

Municipal Regional Permit Provision E.12

The Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual includes standards and requirements applicable to projects in Napa County. NPDES MS4 Permit Provision E.12 requires these agencies to regulate development projects to control pollutants in runoff from newly created or replaced impervious surfaces. The Post-Construction Manual is designed to ensure compliance with the requirements, facilitate review of applications, and promote integrated Low Impact Development (LID) design. See Section 4.10, *Hydrology and Water Quality*, for more information.

Local

Napa County Code

- Title 13 "Water, Sewers and Public Services" of the Napa County Code regulates individual, private and public sewage systems within the County. Title 13 includes connection requirements, permits and applicable fees, system location, design and operation requirements to ensure public safety and lessen environmental related impacts. The code specifically includes required site evaluations on soil conditions, percolation tests, depth to groundwater (sewage disposal areas must have a three-foot separation from the seasonal high groundwater levels, and distances from wells, creeks, slopes and reserve areas). In addition, the code includes required details regarding operation and maintenance of sewage facilities.
- Chapter 16.28 of the Napa County Municipal Code contains the Napa County Stormwater Management and Discharge Control Ordinance. The Ordinance enables Napa County to establish controls on the volume and rate of stormwater runoff from any developments or construction projects as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. These controls may include limits on impervious area dimensions, quantities or locations, and/or provisions for detention and retention of runoff on-site.

The County may require, as a condition of project approval, permanent structural controls designed for the removal of sediment and other pollutants and for control on the volume and rate of stormwater runoff from the project's added or replaced impervious surfaces. The selection and design of such controls shall be in accordance with criteria established or recommended by federal, state, local agencies, and where required, the BASMAA Post Construction Manual or any other standards as adopted by resolution of the Napa County Board of Supervisors. Where physical and safety conditions allow, the preferred control measure is to retain drainageways above ground and in as natural a state as possible, or other biological methods such as bioretention areas.

Chapter 16.28 also requires any person performing construction activities to implement appropriate BMPs to prevent the discharge of construction wastes or contaminants from construction materials, tools and equipment from entering a storm drain or watercourse. The combination of BMPs used, and their execution in the field, must be customized to the site using up-to-date standards and practices, such as the California Stormwater Quality Association's Construction BMP Handbook or other standards and practices as established by resolution of the board of supervisors. Erosion and Sediment Control Plans are required for any project subject to a grading permit, or subject to another county permit such as projects within fifty feet of a storm drain, projects disturbing ten thousand square feet of soil or more, or any other project required by the County.

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Conservation Element and Economic Development Element of the Napa County General Plan includes the following policies related to utilities and service systems (Napa County, 2008).

Goal CON-10: Conserve, enhance and manage water resources on a sustainable basis to attempt to ensure that sufficient amounts of water will be available for the uses allowed by this General Plan, for the natural environment, and for future generations.

Goal CON-13: Promote the development of additional water resources to improve water supply reliability and sustainability in Napa County, including imported water supplies and recycled water projects.

Goal CON-18: Provide sufficient long-term solid waste disposal capacity for the County consistent with California Integrated Waste Management Act (Public Resources Code section 40000, et seq.) requirements.

Policy CON-51: Recognizing that groundwater best supports agricultural and rural uses, the County discourages urbanization requiring net increases in groundwater use and discourages incorporated jurisdictions from using groundwater except in emergencies or as part of conjunctive-use programs that do not cause or exacerbate conditions of overdraft or otherwise adversely affect the County's groundwater resources.

Policy CON-53: The County shall ensure that the intensity and timing of new development are consistent with the capacity of water supplies and protect groundwater and other water supplies by requiring all applicants for discretionary projects to demonstrate the availability of an adequate water supply prior to approval. Depending on the site location and the specific circumstances, adequate demonstration of availability may include evidence or calculation of groundwater availability via an appropriate hydrogeologic analysis or may be satisfied by compliance with County Code "fair-share" provisions or applicable State law. In some areas, evidence may be provided through coordination with applicable municipalities and public and private water purveyors to verify water supply sufficiency.

Policy CON-55: The County shall consider existing water uses during the review of new water uses associated with discretionary projects, and where hydrogeologic studies have shown that the new water uses will cause significant adverse well interference or substantial reductions in groundwater discharge to surface waters that would alter critical flows to sustain riparian habitat and fisheries or exacerbate conditions of overdraft, the County shall curtail those new or expanded water uses.

Policy CON-62: As stated in Policy AG/LU-74, the County supports the extension of recycled water to the Coombsville area to reduce reliance on groundwater in the MST groundwater basin and exploration of other alternatives. Also, the County shall identify and support ways to utilize recycled water for irrigation and non-potable uses to offset dependency on groundwater and surface waters and ensure adequate wastewater treatment capacity through the following measures:

a. Require (as part of continued implementation of County Code Title 13 Division 2 provisions associated with sewer systems) verification of adequate wastewater

service for all development projects prior to their approvals. This requirement includes coordination with wastewater service purveyors to verify adequate capacity and infrastructure either exists or will be available prior to operation of the development project.

- b. Use wastewater treatment and reuse facilities where feasible to reclaim, reuse, and deliver treated wastewater for irrigation and possible potable use depending on wastewater treatment standards.
- c. Require proposals for non-residential construction in the Airport Industrial Area and lower Milliken-Sarco/Tulucay Creeks Area to incorporate dual plumbing to allow for the use of non-potable/recycled water when such water becomes available.
- d. Encourage the use of non-potable/recycled water wherever recycled water is available and require the use of recycled water for golf courses where feasible.

Policy CON-87: The County shall promote solid waste source reduction, reuse, recycling, composting and environmentally-safe transformation of waste. The County shall seek to comply with the requirements of AB 939 with regard to meeting state-mandated targets for reductions in the amount of solid waste generated in Napa County.

Policy E-16: The County supports the expansion of energy and telecommunication services consistent with provisions of County Code Chapter 18.119 and other applicable state and federal regulations to all areas of the County where these services are needed to support the development of locally appropriate jobs and services, including home-based businesses.

4.16.4 Significance Criteria

The thresholds used to determine the significance of impacts related to utilities and service systems are based on Appendix G of the *CEQA Guidelines*. Implementation of the Project could have a significant impact on the environment if it would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Approach to Analysis

Potential impacts to utilities are discussed based on the CEQA Significance Thresholds included in Appendix G of the CEQA Guidelines as listed above. Impacts are evaluated largely based on information included in the County's General Plan, the City of Napa's 2020 UWMP, NapaSan's 2021 CSMP and Rate Studies, LAFCO Municipal Service Reviews, and information from CalRecycle.

After considering the implementation of the proposed project as described in Chapter 3, *Project Description*, and compliance with the required regulatory requirements, the environmental analysis below identifies if the defined significance thresholds would be exceeded and, therefore, a significant impact would occur.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the 2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to utilities and it is not discussed further in this section.

4.16.5 Impacts of the Project

Impact UTL-1: Implementation of the HEU would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (*Less than Significant*)

The HEU would accommodate additional residential development in the County and a related increase in demand for water, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunications facilities. Single-family units may require utility infrastructure improvements to extend services to the lots. Extension of this infrastructure would likely occur in existing adjacent roadways and, aside from short-term construction disturbance, would not result in any unusual or further environmental impacts than identified elsewhere in this Draft EIR for overall construction activity associated with the HEU. ADUs would require minor tie-ins to the existing utility systems served by the main dwelling unit, the construction of which would not result in significant environmental impacts due to the small scale of ground disturbance. These new single family units and ADUs would pay applicable development and utility capacity fees to pay their fair-share towards any necessary utility system facility upgrades.

See the discussions below for anticipated infrastructure needs for each utility system associated with the proposed multi-family housing sites. The Draft HEU also proposes a program that would provide County support for infrastructure improvements needed to supply proposed housing sites.

Water Distribution

Spanish Flat Water District

The housing site at Spanish Flat would obtain water from the SFWD. SFWD's overall distribution system is in good condition and SFWD reported that there is sufficient capacity in both water systems for existing and projected demand (LAFCO, 2020). The *2011 Lake Berryessa Region Municipal Service Review* identified for the SFWD that there is a water distribution system capacity issue associated with deficient storage within the initial pressure zone. This issue has not been addressed to date (LAFCO, 2021). Additionally, the 2020 Lightning Complex Fires destroyed a portion of SFWD's water facilities serving the community, including the lake pump controls and power pole, and water tank tops on west hillside, and SFWD is working to rebuild these facilities (LAFCO, 2020). As such, construction of water system improvements would likely consist of capacity improvements, replacement of fire-damaged facilities, and extension of water infrastructure to serve the site. Construction would be temporary and within existing rights of way, and no unusual significant environmental impact would be anticipated due to construction activity.

City of Napa Water

The Northeast Napa housing sites and the Imola Avenue site are outside the City of Napa's Rural Urban Limit, and within the City of Napa's Water Service area, where City water may be provided upon approval of the City Council. Water infrastructure is located nearby, and therefore connections would not involve extensive construction. The Foster Road site would annex to the City prior to occupancy. With annexation, the site would have access to City water, and could connect to nearby infrastructure. Due to the proximity of existing City of Napa water infrastructure, construction of water system improvements would likely consist of extension of water infrastructure to serve the sites. Construction would be temporary and within existing rights of way, and no unusual significant environmental impact would be anticipated due to construction activity.

Wastewater Conveyance

Spanish Flat Water District

The housing site at Spanish Flat would obtain wastewater services from the SFWD. Extension of wastewater infrastructure to serve the site would be minimal in scale, given that the SFWD WWTP is located adjacent to the site. As part of a recent SOI update in 2021, it was determined that SFWD's sewer systems appear to have adequate collection capacities to meet existing service demands within its jurisdiction under normal conditions. However, the SFWD does not have any records identifying the design capacities for its sewer system. This prevents SFWD from accurately estimating its capacity to service new growth for the Spanish Flat area (LAFCO, 2021). Additionally, the fire destroyed a portion of SFWD's wastewater facilities serving the community, including the wastewater pump station building and controls, and SFWD is working to rebuild these facilities (LAFCO, 2020). If any collection system improvements were identified, construction of these improvements would be temporary and within existing rights of way, and no unusual significant environmental impact would be anticipated due to construction activity.

NapaSan

The Northeast Napa, Imola Avenue, and Foster Road housing sites would obtain wastewater services from NapaSan. The Northeast Napa housing sites are located adjacent to wastewater infrastructure owned by NapaSan, and service may be provided upon approval of the Local Agency Formation Commission (LAFCO) and NapaSan. Connecting to the wastewater system would require rehabilitating a section of the sewer main and undertaking improvements to decrease peak wet weather flows (i.e. I & I). The Imola Avenue housing site is also located near NapaSan wastewater infrastructure, and connection would also require approval of LAFCO and NapaSan. The Foster Road site is located within the City's Rural Urban Limit which is an area of the unincorporated County long identified for annexation and development within the City of Napa. As such, development associated with the Foster Road site is assumed to be included in NapaSan's 2021 CSMP. As discussed in Section 4.16.2 above, NapaSan adopted a policy regarding I&I mitigation for new development for projects that weren't analyzed by the 2021 CSMP (Resolution 21-006). This policy also applies to development projects upstream of a pipeline identified in the CSMP that lacks sufficient wet weather capacity. As such, I & I reduction to address potential capacity deficiencies during wet weather flow conditions would be required to be considered for the housing sites connecting to NapaSan.

Construction as a result of any identified capacity increases or I&I reduction projects required as a result of development under the HEU would be temporary and within existing rights of way, and no unusual significant environmental impact would be anticipated due to construction activity. Additionally, I&I reduction projects typically involve trenchless construction (minimal excavation typically limited to pipe bursting projects), which results in less intensive construction impacts compared to open cut capacity improvement projects (NapaSan, 2021).

Stormwater Drainage

County Stormwater Regulations Chapter 16.28, and the corresponding post-construction runoff management policy, addresses runoff from project sites after the construction period is over and through the life of the project. Project development proposed under the HEU would be required to demonstrate that stormwater capacity exceedances would not occur by completing and implementing a stormwater control plan for the projects. The Napa County Stormwater Management and Discharge Control Ordinance establishes controls on the volume and rate of stormwater runoff from any developments or construction projects as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. These controls may include limits on impervious area dimensions, quantities or locations, and/or provisions for detention and retention of runoff on-site.

There is not an integrated stormwater drainage system in Spanish Flat. As such, the Spanish Flat site would manage stormwater on-site and would not require stormwater drainage improvements. Stormwater discharges from the Northeast Napa sites, Imola Avenue site, and Foster Road site would be assumed to use and connect to existing drainages and outfalls; however stormwater retention and treatment systems would be added to the sites per the standards and requirements in the BASMAA Post-Construction Manual.

Other Utilities

New meter and service connections for electricity, natural gas, and telecommunications services would be coordinated with the provider at the time new development is proposed. As discussed in Section 4.6, *Energy*, future development would also be subject to a suite of programs and regulations that would reduce energy use.

Conclusion

Overall, the potential improvements or extension of utility infrastructure to serve development as a result of the HEU would be installed primarily in existing roadways and utility rights-of-way. Aside from short-term construction disturbance, no unusual or further environmental impacts would be generated beyond those identified elsewhere in this Draft EIR for overall construction activity for the project. As such, the implementation of the HEU would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. The impact would be **less than significant**.

Mitigation: None required.

Impact UTL-2: Implementation of the HEU could not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (*Significant and Unavoidable with Mitigation*)

Implementation of the HEU would result in increased demand for potable water. Most singlefamily units and ADUs developed as a result of the HEU would likely be served by groundwater, as groundwater serves most of the unincorporated County. However, some of these new housing units could utilize surface water if they are constructed within certain water districts. Because single family home and ADU development would continue at the same pace as in the past, and would be subject to existing County regulations, and the majority of these units would rely on groundwater, water supply impacts would be minimal.

The housing site at Spanish Flat would obtain water services from the SFWD. The SFWD's water supply entitlement is for 200 acre-feet per year or approximately 65 million gallons per year. Approximately 100 new multi-family dwelling units at the Spanish Flat site could demand an estimated 16,500 gpd or approximately 6 million gallons per year of potable water.⁶ This would represent approximately 9 percent of SFWD's water entitlement. As part of a recent SOI update in 2021, it was determined that SFWD has ample water supply entitlement and system capacity to accommodate current as well as projected demands (LAFCO, 2021). SFWD's total water demand within its service area in 2018 was approximately 62.98 acre-feet, or an average daily demand of nearly 56,225 gallons. The excess water capacity would be approximately 122,324 gpd (LAFCO, 2020). The water demand for the housing site at Spanish Flat would represent approximately 13 percent of the excess demand. Projected demands in the SFWD service area can be adequately

⁶ Assumes a water use rate of 165 gallons per unit per day for multi-story residential uses from the City of Napa (City of Napa, 2013).

accommodated by the current supply given the combined buildout amount of 94.5 acre-feet between the two service areas would only represent 47 percent of the available supply (LAFCO, 2020). Therefore, SFWD would have sufficient water supplies available to serve the housing site at Spanish Flat.

The Northeast Napa, Imola Avenue, and Foster Road housing sites would obtain water services from the City of Napa. The Northeast Napa and Imola Avenue housing sites are outside the City of Napa's Rural Urban Limit, but within the City of Napa's Water Service area, where City water may be provided upon approval of the City Council. In all of these areas water infrastructure is located nearby, and the City's consideration would be based on available supplies. The Foster Road site is within the City of Napa's RUL and would annex to the City prior to occupancy. With annexation, the site would have access to City water, and could connect to nearby infrastructure. Approximately 358 new multi-family dwelling units at the Northeast Napa, Imola Avenue, and Foster Road sites could demand an estimated 59,070 gpd of potable water.⁷

Population projections for 2025 through 2045 included in the City of Napa's UWMP are based on the City of Napa's ongoing General Plan Update, which projects 17,900 additional residents and 7,800 new housing units by 2040. The Foster Road site is located within the City's Rural Urban Limit which is an area of the unincorporated County long identified for annexation and development within the City of Napa. The City of Napa's ongoing General Plan Update anticipates this happening over time and proposes policies to govern planning, development, and future annexation. Therefore, the development of 100 residential units at Foster Road would be included in the City of Napa's UWMP projections. However, development potential at the Imola Avenue and Northeast Napa housing sites were not included in these projections. The approximately 258 potential units developed at these sites would demand approximately 42,570 gpd or 47.5 acre-feet of water per year, or approximately 0.66 percent of the City of Napa's average supply at buildout, and could likely be accommodated in normal years. In dry years, the City of Napa expects to manage minor supply deficits via its Water Shortage Contingency Plan and the development projects at Imola Avenue and the Northeast Napa housing sites would be subject to the same demand reduction measures. Mitigation Measure UTL-1 would require that subsequent projects provide a determination from the City of Napa that adequate water supply is available to serve the projected project demand prior to the issuance of any project approvals.

Mitigation Measure UTL-1 would require that subsequent projects submit evidence to the County that sufficient water supply is available, but it would not reduce the impact to less than significant as the provision of water services are subject to review and approval by another agency. Because the connection to the City of Napa water system is subject to the review and approval of the City of Napa, the measure would reduce the severity of the impact, but not to a level that is less than significant. For these reasons, the impact would remain **significant and unavoidable**.

⁷ Multi-story residential uses are assumed to use 165 gallons per unit per day (City of Napa, 2013).

Mitigation Measure UTL-1: Demonstrate Sufficient Water Supply Availability.

Project sponsors shall submit evidence to the County that sufficient water supply is available to serve the projected demand of proposed multifamily housing development prior to the issuance of any approvals.

Significance after Mitigation: Significant and Unavoidable

Impact UTL-3: Implementation of the HEU could result in a determination by a wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (*Significant and Unavoidable with Mitigation*)

Under the HEU, single family residences and ADUs would continue to develop at their current pace, and would be scattered throughout the County. These units would be subject to existing regulations, and many would likely use on-site septic systems. Napa County Code Title 13 regulates individual, public and private sewage systems. New development projects constructed as a result of policies and programs contained in the HEU that would not be served by an existing wastewater disposal system would be required by the existing permitting system to operate and maintain wastewater disposal facilities without causing pollution or contamination of adjacent lands, surface waters or usable subsurface waters (Ord. 13.56.020). The process regulated by Title 13 would ensure that the impacts related to inadequate wastewater capacity would be less than significant.

The housing site at Spanish Flat would obtain water and wastewater services from the SFWD. The approximately 100 multi-family units at this site could generate approximately 11,700 gpd.⁸ SFWD's wastewater treatment facility for the Spanish Flat service area has design daily flow capacity of 0.53 mgd. The housing site at Spanish Flat would represent a substantial portion of the available treatment capacity at the SFWD's WWTP. Mitigation Measure UTL-2 would require that the subsequent project sponsor for the Spanish Flat site submit evidence to the County that adequate wastewater treatment is available before any project approvals. As noted in Section 4.16.2, the majority of SFWD's utility systems in Spanish Flat were damaged in the Lightning Complex fires in August 2020. The total loss of homes was 75 within the SFWD and 80 within the SOI. As noted previously, the Draft HEU also proposes a program that would provide County support for infrastructure improvements needed to supply proposed housing sites.

The Northeast Napa, Imola Avenue, and Foster Road housing sites would obtain wastewater services from NapaSan. Approximately 358 new multi-family dwelling units at the Northeast Napa, Imola Avenue, and Foster Road sites could generate approximately 33,509 gpd of wastewater.⁹ Based on NapaSan's 2018 capacity analysis, aeration basin hydraulic capacity is the

⁸ Conservatively using NapaSan's wastewater generation rates for a typical single-family residence (117 gpd). Estimated wastewater generation = 117 gpd x 100 units.

⁹ NapaSan assumes that a typical single-family residence uses 117 gpd. NapaSan therefore sets 1 equivalent dwelling unit at 117 gpd. Multi-family housing units are considered 0.80 equivalent dwelling units (NapaSan, 2020). Estimated wastewater generation = 117 gpd x 0.8 x 358 units.

primary limiting condition for the WWTP during dry weather. Summer influent uses 7.8 mgd of capacity at the aeration basins, leaving 0.7 mgd of unused capacity. The sites identified as part of the HEU's housing sites inventory that would obtain wastewater services from NapaSan would account for approximately 4.8 percent of the unused capacity at NapaSan's WWTP. Additionally, NapaSan currently has two projects planned to expand WWTP capacity. A second digester is planned to increase the WWTP solids handling capacity, and the aeration basin will be expanded to accommodate additional secondary effluent. These upgrades are anticipated to add approximately 2.1 mgd of capacity at the treatment plant (NapaSan, 2018). Therefore, implementation of the HEU is not expected to result in wastewater treatment capacity issues for NapaSan. However, because the connection to the NapaSan wastewater treatment system is subject to the review and approval of other agencies (LAFCO and NapaSan), it is not certain that NapaSan would determine that it has adequate capacity to serve the projected demand under the HEU in addition to the provider's existing commitments.

Mitigation Measure UTL-2 would require that subsequent projects submit evidence to the County that adequate wastewater treatment is available, but it would not reduce the impact to less than significant as wastewater treatment services are subject to review and approval by other agencies. Because the connection to the NapaSan wastewater treatment system is subject to the review and approval of other agencies (LAFCO and NapaSan), the impact would remain **significant and unavoidable**.

Mitigation Measure UTL-2: Adequate Wastewater Treatment Capacity

Project sponsors shall submit evidence to the County that adequate wastewater treatment capacity is available to serve the projected demand of proposed multifamily housing development prior to the issuance of any approvals.

Significance after Mitigation: Significant and Unavoidable

Impact UTL-4: Implementation of the HEU would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less than Significant*)

While no specific development proposals are directly associated with the HEU, theoretical development would generate solid waste during both construction and operation. During construction, construction-related debris would be generated. During operation, the additional residential uses would result in an increase in the demand for solid waste services.

Construction

During construction of individual projects developed as a result of the HEU, construction-related debris would be generated. Projects developed as a result of the HEU would be required to comply with existing solid waste reduction requirements, including applicable federal, State and local solid waste statutes and regulations during construction. As described in Section 4.16.3, Regulatory Setting, the County requires development projects to achieve 65 percent diversion consistent with the CALGreen Code and create and maintain a construction waste management plan. The diversion

requirement may be met through direct facility recycling, reuse of the materials on site, or donation to reuse and salvage businesses. The remaining residue from the materials that could not be recovered are landfilled. Both the Potrero Hills and the Clover Flat landfills serving the County accept mixed construction and demolition waste. The Potrero Hills Landfill has approximately 41,847,269 cubic yards of remaining capacity (58,586,176 tons), the Clover Flat Landfill has approximately 2,239,894 cubic yards of remaining capacity (3,135,852 tons), and both have an expected closure date of 2047. Construction of development projects under the HEU is not expected to generate substantial amounts of solid waste during construction relative to the remaining capacity of the Potrero Hills or Clover Flat landfills. Therefore, construction associated with development under the HEU would not generate solid waste in excess of local infrastructure and would not impair the attainment of State-level or local waste reduction goals. This impact would be **less than significant**.

Operation

HEU could provide for development of up to 760 new housing units in the County which would generate solid waste. Using the estimated number of residents (calculated in Section 4.13, *Population and Housing*) and the average disposal rate for the unincorporated County in 2020, new residential uses would generate up to approximately 7.1 tons of waste per day (2,592 tons per year).¹⁰ The Potrero Hills Landfill accepts approximately 3,400 tons per day and has approximately 41,847,269 cubic yards of remaining capacity (58,586,176 tons), the Clover Flat Landfill accepts up to 600 tons per day and has approximately 2,239,894 cubic yards of remaining capacity (3,135,852 tons), and both have an expected closure date of 2047. Most of the developed associated with the HEU would be served by the Potrero Hills Landfill. Conservatively assuming all waste would be disposed at this landfill, the daily solid waste estimates associated with development under the HEU would account for less than 0.2 percent of the permitted daily capacity of the Potrero Hills Landfill, and as such implementation of the HEU would not generate substantial amounts of solid waste during operation relative to the capacity of local infrastructure.

Projects developed as a result of the HEU would be required to comply with existing solid waste reduction requirements, including applicable federal, State and local solid waste statutes and regulations during operation. Compliance with existing policies and regulations, including the CALGreen building and State recycling and organic material diversion requirements, would reduce the non-renewable sources of solid waste, and minimize the solid waste disposal requirements of HEU implementation. Therefore, operation under the HEU would not generate solid waste in excess of the local infrastructure, and would not impair the attainment of State-level or local waste reduction goals. This impact would be **less than significant**.

Mitigation: None required.

¹⁰ Solid waste generation = 1,900 residents x 7.5 pounds per resident per day = 14,250 pounds per day (7.1 tons per day)

Impact UTL-5: Implementation of the HEU would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (*Less than Significant*)

During construction and operation associated with development under the HEU, development projects would be required to comply with federal, State, and local solid waste standards identified in Section 3.16.3, Regulatory Setting, such as the California Integrated Waste Management Act, AB 939, the CALGreen Code, AB 341 and AB 1826, and SB 1383. UVWMA and NVWMA oversee the collection, transfer, and disposal of residential garbage, recycling, and organics in the County, assisting with keeping the County compliant with State-mandated recycling requirements (AB 341 and AB 1826), including recycling of organics. As a result, development under the HEU would not conflict with applicable waste reduction policies. Therefore, the impact of the HEU regarding compliance with solid waste regulations would be **less than significant**.

Mitigation: None required.

4.16.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future development that could cause cumulatively significant impacts. Significant cumulative impacts related to utilities and service systems could occur if the incremental impacts of the HEU combined with the incremental impacts of cumulative development would be significant and if the HEU's contribution would be considerable.

The geographic scope for cumulative effects on utilities and service systems is Countywide.

Impact UTL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on utility infrastructure. (*Less than Significant*)

Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development described in Section 4.0.3 Cumulative Impacts, would increase the demand for water, wastewater conveyance and treatment, storm drainage, and energy systems infrastructure. Cumulative development would be subject to applicable development and utilities fees that would be collected by the County and service providers, construction of system improvements, and fair-share contributions to address the new utility system demand. The potential improvement or extension of utility infrastructure to serve cumulative development would be installed primarily in existing roadways and utility rights-of-way. Aside from short-term construction disturbance, no unusual or further environmental impacts would be generated beyond those identified elsewhere in this DEIR for overall construction activity associated with future development as a result of the HEU. For these reasons, and because changes proposed to utilities infrastructure as part of future developments will be subject to review and permitting requirements, the HEU would not

contribute considerably to a significant cumulative impact in this regard, and impacts would be less than significant.

Mitigation: None required.

Impact UTL-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on water supply. (*Significant and Unavoidable with Mitigation*)

Increased water demand as a result of the HEU and Spanish Flat housing site could combine with demand from reopening of the Lake Berryessa resorts in SFWD's service area, although this demand is currently unknown. Current projected demands in the SFWD service area can be adequately accommodated by the current supply given the combined buildout amount of 94.5 acre-feet in the service area would only represent 47 percent of the available supply. Additionally, SFWD may request an increase to its annual entitlement of up to 20 percent or 40 acre-feet per year (LAFCO, 2020), which is presumed to be sufficient to accommodate resorts at the Lake. Therefore, the HEU would not contribute considerably to a cumulative increase in water shortfalls for the SFWD.

As noted under Impact UTL-2, population projections for 2025 through 2045 included in the City of Napa's 2020 UWMP are based on the City of Napa's proposed General Plan update, which projects 17,900 additional residents and 7,800 new housing units by 2040 (City of Napa, 2022). However, development potential at the Imola Avenue and Northeast Napa housing sites were not included in these projections. As noted under Impact UTL-2, the approximately 258 potential units developed at these sites would demand approximately 0.66 percent of the City of Napa's average supply at buildout, and could likely be accommodated in normal years. In dry years, the City of Napa expects to manage minor supply deficits via its Water Shortage Contingency Plan and the development projects at Imola Avenue and the Northeast Napa housing sites would be subject to the same demand reduction measures. The water supply could be accommodated with City approval. To address this significant impact and reduce the HEU's contribution, implementation of Mitigation Measure UTL-1 would be required to reduce the HEU's contribution to cumulative water supply impacts. However, because connection to the City of Napa water system is subject to the review and approval of the City of Napa, even with implementation of this measure, the impact would be significant and unavoidable.

Mitigation Measure UTL-1: Demonstrate Sufficient Water Supply Availability. (See Impact UTL-2 above)

Significance after Mitigation: Significant and Unavoidable

Impact UTL-3.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on wastewater treatment capacity. (*Significant and Unavoidable with Mitigation*)

Wastewater generation as a result of development at the Spanish Flat site could combine with potential reopening of the Lake Berryessa resorts in SFWD's service area, as the potential increase in visitors and employees would also generate wastewater that could be treated at the Spanish Flat WWTP. To address this significant impact and reduce the HEU's contribution, implementation of Mitigation Measure UTL-2 would be required to reduce the HEU's contribution to wastewater treatment capacity impacts.

As discussed under Impact UTL-3, implementation of the HEU is not expected to result in wastewater treatment capacity issues for NapaSan. However, because the connection to the NapaSan wastewater treatment system is subject to the review and approval of other agencies (LAFCO and NapaSan), it is not certain that NapaSan would determine that it has adequate capacity to serve the projected demand under the HEU in addition to the provider's existing commitments. To address this significant impact and reduce the HEU's contribution, implementation of Mitigation Measure UTL-2 would be required to reduce the HEU's contribution to cumulative wastewater treatment capacity impacts. However, because connection to the NapaSan's wastewater system is subject to the review and approval of LAFCO and NapaSan, even with implementation of this measure, the impact would be significant and unavoidable.

Mitigation Measure UTL-2: Adequate Wastewater Treatment Capacity. (See Impact UTL-3 above)

Significance after Mitigation: Significant and Unavoidable

Impact UTL-4.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would not contribute considerably to cumulative impacts on solid waste. (*Less than Significant*)

Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would increase the generation of solid waste. Both the Potrero Hills and Clover Flat landfills have an expected closure date of 2047. As with projects developed as a result of the HEU, cumulative development projects would be required to comply with federal, state, and local solid waste standards, including waste diversion during construction, including at least 65 percent construction and demolition waste diversion, and during operation, including recycling and organic material diversion requirements. As such, non-renewable sources of solid waste and the solid waste disposal requirements of cumulative development would be reduced. Therefore, when considered in the cumulative context, the proposed HEU's solid waste-related impacts would not be cumulatively considerable. Cumulative impacts would, therefore, be **less than significant**.

Mitigation: None required.

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4.16 Utilities and Service Systems

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4.17 Wildfire

4.17.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on wildfire. This section first includes a description of the existing environmental setting as it relates to wildfire, and provides a regulatory framework that discusses applicable federal, state, and local regulations. This section also includes an evaluation of potential significant impacts of the Project on wildfire.

The Notice of Preparation (NOP) for the EIR was circulated on January 24, 2022 and a scoping meeting was held on February 16, 2022. The NOP and the comments received during the public comment period can be found in **Appendix A** of this EIR. Comments relating to wildfire received during the NOP comment period include concerns related to wildland fires in the Lake Berryessa and Atlas Peak areas.

4.17.2 Environmental Setting

Napa County is a mix of developed and undeveloped lands in the northern San Francisco Bay area. The incorporated cities (Napa, American Canyon, St. Helena, and Calistoga) as well as the incorporated town of Yountville are mostly developed with urban and suburban development of differing types and densities. There are substantial areas of the County that are either undeveloped or managed as some form of open space. Unincorporated Napa County is a world famous grape-growing and wine-making region, and thus is covered with agriculture and open space land uses. Rural residential areas of the unincorporated County are generally located adjacent to the incorporated cities or in small enclaves like Angwin and Spanish Flat which have access to water and wastewater utilities.

Fire Protection Responsibility

The incorporated areas of Napa County are designated as a Local Responsibility Area (LRA) by the California Department of Forestry and Fire Protection (CalFire). The unincorporated areas of Napa County are State Responsibility Area (SRA), with CalFire serving as the designee for providing fire protection services. There are also portions of Napa County, mainly around Lake Berryessa that are Federal Responsibility Area (FRA).

The County of Napa contracts with CalFire for fire protection services as the Napa County Fire Department (NCFD). CalFire and the NCFD provide fire protection services to nearly 30,000 residents covering 728 miles of unincorporated Napa County except for 83 parcels that are served by the American Canyon Fire District (ACFD). The NCFD also provides fire protection and related services to smaller communities and various agencies in the unincorporated portion of the County (Napa County 2007). CalFire provides administrative support and coordination with five full-time paid stations and nine volunteer fire companies operating under a County Fire Plan. The County contracts with the cities of St. Helena and Calistoga, and Schell-Vista Fire Protection District for the provision of fire protection services to specified unincorporated areas adjoining

these agencies (Napa County 2022). Napa County Fire Department has two stations located near the proposed housing inventory sites:

- 24 Spanish Flat at 4454 Knoxville Road, closest to the Spanish Flat housing site.
- 25 Napa at 1820 Monticello Road., closest to the two Northeast Napa Sites. Also serves as the closest NCFD station to the Foster Road Sites and Imola Avenue Site.

Other NCFD stations are located throughout the County.

Fire Hazard Severity and Wildfire Risk

As part of its Fire Resources Assessment Program (FRAP), CalFire has mapped areas of significant fire hazards throughout the state. The maps classify lands into fire hazard severity zones, based on a hazards scoring system that takes into account localized factors such as fuel loading, slope, fire weather, and other relevant considerations, including areas where winds have been identified as a major cause of wildfire spread.

Substantial areas of the County have been designated by the FRAP as a Very High Fire Hazard Severity Zone (VHFHSZ) (CalFire, 2007). **Figure 4.17-1** shows the location of fire hazard severity zones in the area. In general, nearly all of Napa County outside of the incorporated city limits are within a designated Fire Hazard Severity Zone. Proposed housing sites that fall within a Fire Hazard Severity Zone include Spanish Flat and Imola Avenue. **Table 4.17-1** describes the extent of Fire Hazard Severity Zones within and adjacent to the HEU's proposed housing sites, with those sites where Fire Hazard Severity Zones are present shown in **bold**. The HEU housing sites in Northeast Napa and the Foster Road area are not located in designated Fire Hazard Severity Zones, but are located adjacent to designated areas.

HEU Planning Area	Fire Hazard Severity Zones in Planning Area
1 – Spanish Flat	Moderate SRA Fire Hazard Severity Zone throughout entire planning area, adjacent to VHFHSZ's
2 – Northeast Napa Sites	No designated VHFHSZ's in planning area, adjacent to VHFHSZ's
3 – Imola Avenue	Moderate SRA Fire Hazard Severity Zone throughout entire planning area
4 – Foster Road Sites	No designated VHFHSZ's in planning area, adjacent to moderate SRA Fire Hazard Zones

TABLE 4.17-1 FIRE HAZARD SEVERITY ZONES

Napa County has a long and active wildfire history. Most recently, almost half of Napa County burned as a result of the LNU Complex fire which was ignited by dry lightning in 2020. The County is characterized by narrow valleys surrounded by steep, hilly terrain. With its long, dry summers and rugged topography, Napa County has a high wildland fire potential. In the last several decades the combination of firefighting technology, fire suppression policy, environmental regulations and developmental trends has led to increasing fuel loads, greater occupancy of remote wildlands, and greater potential for catastrophic wildfire. Climate and landscape characteristics are among the most important factors influencing hazard levels. Weather characteristics such as wind,



SOURCE: Napa County; CAL FIRE; OSM; ESRI, 2021; ESA, 2022.

Napa County Safety Element Update

Figure 4.17-1 Napa County Fire Hazard Severity Zones and Responsibility Areas

ESA

temperature, humidity and fuel moisture content affect the potential for fire. Of these four, wind is the dominant factor in spreading fire since burning embers can easily be carried with the wind to adjacent exposed areas, starting additional fires. While the County has a characteristic southerly wind that originates from the San Francisco Bay (which becomes a factor in fire suppression), during the dry season, the County experiences an occasional strong north wind that is recognized as a significant factor in the spread of wildland fires (Napa County, 2007; Napa Firewise, 2021).

Landscape characteristics such as steep slopes also contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Vegetation type influences wildfire hazard levels as well. For example, landscapes dominated by chaparral are more flammable than other vegetation types. The combination of highly flammable vegetation, steep inaccessible wildlands, and high levels of recreational use can result in wildfire risk and hazards of major proportions. Such wildfire risk and hazards expose residential and other development within the County to an increased danger of conflagration, threatening life and property protection.

Emergency Response and Evacuation Plans

The Napa County Office of Emergency Services (OES) adopted an Emergency Operations Plan (EOP) in 2020 (Napa County 2020b). The plan aligns with the National Incident Management System (NIMS) and the California Standardized Emergency Management System (SEMS). The plan provides Emergency Operations Center (EOC) responders with procedures, documentation, and user friendly checklists to effectively manage emergencies, and it also provides detailed information of supplemental requirements such as Public Information, Damage Assessment, and Recovery Operations. Relevant emergency response or evacuation plans in the Planning Area include the Napa County EOP and the Napa County Multi-Jurisdictional Hazard Management Plan (HMP; Napa County 2020a). The EOP and HMP do not identify specific emergency response or evacuation routes; the routes depend on the location and nature of the emergency.

Fehr & Peers completed a general, programmatic assessment of emergency evacuation routes for the County of Napa consistent with Assembly Bill 747 (AB 747) and Senate Bill 99 (SB 99) requirements. This analysis is included as **Appendix E** of this Draft EIR. In conformance with these requirements, Fehr & Peers mapped areas of the County with only one evacuation route and analyzed evacuation access County-wide by reviewing the distance evacuees must travel during an evacuation event based on information provided by Napa County staff. The assessment measured distances from each point along the County roadway network to designated evacuation zones in each of three scenarios, which differed based on the extent of evacuations. For the AB 747 Capacity Assessment, Fehr & Peers and County of Napa staff worked together to identify seven critical evacuation zones of the highest concern which are:

- The community of Angwin
- The community of Berryessa Highlands, located on the south shore of Lake Berryessa and accessible via Steele Canyon Road
- The community of Berryessa Estates, located on the northern fork of Lake Berryessa formed by Putah Creek and accessible via Stagecoach Canyon Road

- The Calistoga area
- The Saint Helena area
- The Yountville area
- The areas on the western shore of Lake Berryessa, including Spanish Flat

The assessment identified routes to the evacuation destinations of each of the seven critical evacuation zones being analyzed. For example, the designated evacuation route for Spanish Flat and Berryessa Highlands is via State Route 121, with the evacuation destination being the City of Napa. The current estimated evacuation demand is 1,110 vehicles and the current estimated time required for vehicles to pass through the "gateway," which is the route capacity at a given point expressed in terms of vehicle per hour, is 0.69 hours based on total vehicle demand and 0.32 hours based on the assumption of one vehicle per household (Fehr & Peers 2022).

4.17.3 Regulatory Setting

Federal

There are no federal regulations pertaining to wildfire that are applicable to the proposed HEU.

State

California Department of Forestry and Fire Protection

Title 14 of the California Code of Regulations (CCR), Division 1.5, establishes regulations for CalFire in SRAs where CalFire is responsible for wildfire protection. These regulations constitute the basic wildland fire protection standards of the California Board of Forestry and Fire Protection. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in SRAs. Additionally, Title 14, Division 1.5, Chapter 7, Subchapter 2 sets forth the minimum standards for emergency access and egress (Article 2), signage (Article 3), water supply (Article 4), and fuel modification standards (Article 5) for lands within SRAs.

Emergency Services Act

Under the Emergency Services Act, Government Code Section 8550, et seq., the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving wildfire and other natural and/or human-caused incidents is an important part of the plan, which is administered by the Governor's Office of Emergency Services (OES). The office coordinates the responses of other agencies, including the California Environmental Protection Agency (CalEPA), the California Highway Patrol (CHP), regional water quality control boards, air quality management districts, and county disaster response offices.

California Public Resources Code

Fire Hazards Severity Zones – Public Resources Code Sections 4201-4204

California Public Resources Code Sections 4201 through 4204 require CalFire to prepare fire hazard severity zone maps for all lands within State Responsibility Areas, and to make recommendations for such zones in Local Responsibility Areas. Each zone is to embrace relatively homogeneous lands and is to be based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified as a major cause of wildfire spread. CalFire adopted a SRA Fire Hazard Severity Zone map for Napa County in 2007 and a recommended LRA Fire Hazard Severity Zone map for Napa County in 2008.

California Building Code

In January of 2008, California officially switched from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

Assembly Bill 747

AB 747 was adopted in 2019, and requires safety elements to be reviewed and updated as necessary to identify evacuation routes and their capacity, safety, and viability under a range of emergency scenarios. The law authorizes a city or county that has adopted a local hazard mitigation plan, emergency operations plan, or other document that fulfills commensurate goals and objectives to use that information in the safety element to comply with this requirement by summarizing and incorporating by reference that other plan or document in the safety element.

Senate Bill 99

SB 99 was adopted in 2019, and requires a city or county, upon the next revision of the housing element on or after January 1, 2020, to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.

Regional

Napa County Multi-Jurisdictional Hazard Mitigation Plan

The Napa County Multi-Jurisdictional Hazard Mitigation Plan (HMP) was developed to ensure the most effective and economical allocation of resources for protection of people and property prior to the onset of a natural or technological disaster (Napa County Office of Emergency Services 2020a). The OAHMP development process included County representatives, representatives of each incorporated city, representatives of other interested agencies, community groups, and community members. Through the process of preparing the Plan, the County's hazards were identified, their likelihood and frequency were ranked, and a set of near-term, midterm, and long-term mitigation measures were created to address these risks. The HMP includes a set of goals and objectives that serve as building blocks to mitigate potential natural and human-caused hazards, and build on the community's existing capabilities in dealing with hazards. These goals and objectives generated a hazards mitigation strategy in the HMP. The hazards mitigation strategy development process identified specific mitigation objectives and action items for Napa County. The list of action items identifies mitigation projects and includes a project ranking based upon time horizon, cost, risk, benefit, and input from local stakeholders. The action items were developed to provide public policy makers with a list for potential implementation, as mitigation resources, time, equipment, and funding become available for selected projects.

Goal 1: Reduce deaths, injuries and structural damage through the use of planning, regulations and preventative measures.

Goal 2: Reduce deaths, injuries and structural damage through the use of public education and awareness programs.

Goal 3: Reduce deaths, injuries and structural damage through the use of natural resource/ systems protection.

Goal 4: Reduce deaths, injuries and structural damage through the use of structural/ infrastructure projects.

Goal 5: Reduce deaths, injuries and structural damage through the use of emergency services in relation to natural hazards.

Mitigation Strategies: Wildfire

Mitigation No. CL-05-2013 Wildfire: Revise the General Plan Safety Element with lessons learned from to include new information from HMP and Fire-wise programs and analysis.

Mitigation No. CL-06-2013 Wildfire: Focus on human causes of ignition and address the problem through education and enforcement actions. Develop "mitigation" resources for residents in high hazard areas including incentives for fuel reduction and building material retrofits.

Mitigation No. NC-03-2020 Wildfire: Continue technical and financial assistance to private property owners to implement fuel reduction projects.

Mitigation No. NC-04-2013 Wildfire: Develop & conduct a Defensible Space community education program.

Mitigation No. NC-05-2013 Wildfire: Draft & promulgate Defensible Space Ordinance.

Napa Firewise

The "Napa Firewise" program, cited in the Napa County General Plan, is a county-wide program operated by the Napa Communities Firewise Foundation (NCFF), a County-wide nonprofit organization (NCFF 2022). NCFF's mission is to reduce the risk and impacts of wildfires through fire fuel reduction and community education in Napa County, achieved this through Fire Safe Councils, through local, state and federal grants and by educating communities on defensible space, home hardening, and fire preparedness. In 2005, with a grant from the U.S. Forest Service and the

Napa County Fire Department, Napa Firewise launched an aggressive identity-building program using free chipping services and defensible space inspections, plus community workshops and public relations media as the all-important links to the community. To allow more direct access to grant funding and tax incentives for supporters, Napa Firewise was incorporated in 2007 under section 501(c)(3) as the non-profit Napa Communities Firewise Foundation (NCFF).

Objectives

Raise Awareness - Make people aware of their environment and the natural and man-made risks that wildland fire poses to them, their family, their property, and/or their business.

Create Action - Provide the citizens of Napa County with specific steps they can take to protect their families, property, and/or business in the event of a wildland fire. Educate citizens on the key aspects of fire behavior and how "fire-hardened" homes and buildings can survive, through defensible space planning and proper mitigation techniques.

Sustain Action - Encourage defensible space practices as part of an ongoing fire prevention program. Including an annual chipping program as an important community collaboration activity.

Napa Firewise created a Community Wildfire Protection Plan (CWPP) which is a community driven plan to coordinate fire preparedness at the local, regional, and state level. The plan evaluates fire risk in the County and identifies community wildfire projects including fire prevention education components for residents, and identifies and prioritizes community preparedness projects such as defensible space projects, fuels treatments, protecting evacuation corridors, hazardous fuel reduction projects etc.

Napa County Operational Area Emergency Operations Plan

The County maintains an Emergency Operation Plan (EOP) that provides a framework for performing emergency functions before, during, and after an emergency event, natural disaster, or technological incident, and it supports the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS) (Napa County Office of Emergency Services 2020b). The County works together with State, Federal, and local agencies to prevent, prepare for, respond to, and recover from incidents regardless of cause, size, or complexity effectively and efficiently. The EOP supports the overall mission of Napa County Office of Emergency Services (Napa County OES).

Napa County Fire Department Guidelines and Strategic Plan

Residential Development Guidelines includes guidelines for the development of residential buildings with regard to fire protection water supply, sprinkler systems, fire department access to residential properties, defensible space requirements. The NCFD also conducts inspections to ensure properties are in compliance with state and local code requirements and local standards.

The NCFD has a Strategic Plan which establishes a mission and set of values for the Fire Department as well as a set of strategic initiatives related to developing the NCFD workforce, establishing a Capital Improvement Plan, establishing an up to do date Emergency Operations Plan and developing a communication process and system (NCFD, 2016).

Napa County General Plan

The Napa County General Plan serves as a broad framework for planning and future development within Napa County. The Safety Element of the Napa County General Plan includes the following policies related to wildfire (Napa County, 2009).

Goal SAF-1: Safety considerations will be part of the County's education, outreach, planning, and operations in order to reduce loss of life, injuries, damage to property, and economic and social dislocation resulting from fire, flood, geologic, and other hazards.

Policy SAF-1: The County supports and will promote intergovernmental cooperation among local, state and federal public agencies to reduce known hazards and further define uncertain hazards. In particular, the County will work to develop cooperative working relationships with agencies having responsibility for flood and fire protection.

Policy SAF-3: The County shall evaluate potential safety hazards when considering General Plan Amendments, rezonings, or other project approvals (including but not limited to new residential developments, roads or highways, and all structures proposed to be open to the public and serving 50 persons or more) in areas characterized by: 1) Slopes over 15 percent, 2) Identified landslides, 3) Floodplains, 4) Medium or high fire hazard severity, 5) Former marshlands, or 6) Fault zones.

Policy SAF-4: Encourage intergovernmental and regional cooperation directed toward providing for a continuing high level of public services and coordination of services during a disaster.

Policy SAF-5: The County shall cooperate with other local jurisdictions to develop intracounty evacuation routes to be used in the event of a disaster within Napa County.

Goal SAF-3: It is the goal of Napa County to effectively manage forests and watersheds, and to protect homes and businesses from fire and wildfire and minimize potential losses of life and property.

Policy SAF-14: The County will prepare a fire management plan and will continue, enhance, and implement programs seeking to reduce losses and costs associated with catastrophic fires.

Policy SAF-15: The County shall coordinate with CAL FIRE and fire agencies in neighboring counties to plan for future fire prevention and suppression needs.

Policy SAF-16: Consistent with building and fire codes, development in high wildland fire hazard areas shall be designed to minimize hazards to life and property.

Action Item SAF-16.1: Develop site criteria and construction standards for development in high fire hazard areas, and adopt standards to restrict urbanizing these areas as defined in Policy AG/LU-27 unless adequate fire services are provided.

Action Item SAF-16.2: Continue to implement "Napa Firewise" through information and education programs, community outreach, and fuel modification.

Policy SAF-16: Consistent with building and fire codes, development in high wildland fire hazard areas shall be designed to minimize hazards to life and property.

Action Item SAF-16.1: Develop site criteria and construction standards for development in high fire hazard areas, and adopt standards to restrict urbanizing these areas as defined in Policy AG/LU-27 unless adequate fire services are provided.

Action Item SAF-16.2: Continue to implement "Napa Firewise" through information and education programs, community outreach, and fuel modification.

Policy SAF-17: The County supports the use of prescribed fuel management programs, including prescribed burns and brush clearing, for managing fire hazardous areas; to reduce wildfire hazard, improve watershed capabilities, promote wildlife habitat diversification, and improve grazing.

Policy SAF-18: The County should set a good example and meet or exceed fire safety standards and defensible space requirements for all County buildings and roads.

Policy SAF-19: The County supports the development and use of new technology in the suppression and prevention of fires.

Action Item SAF-19.1: The County will work with CAL FIRE to develop improved methods of fire planning and firefighting for use in Napa County.

Goal SAF-20: All new development shall comply with established fire safety standards. Design plans shall be referred to the appropriate fire agency for comment as to:

- 1. Adequacy of water supply.
- 2. Site design for fire department access in and around structures.
- 3. Ability for a safe and efficient fire department response.
- 4. Traffic flow and ingress/egress for residents and emergency vehicles.
- 5. Site-specific built-in fire protection.
- 6. Potential impacts to emergency services and fire department response.

Napa County Code of Ordinances

The Napa County Code of Ordinances includes defensible space requirements and the Napa County Fire Code. The Napa County Fire Code adopts and amends the California Fire Code. The Fire Code includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. The Napa County Code also includes requirements for encroachment permits and traffic control for sites with encroachment permits.

4.17.4 Significance Criteria

The thresholds used to determine the significance of impacts related to wildfire are based on Appendix G of the *CEQA Guidelines*. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, implementation of the Project could have a significant impact on the environment if it would:

• Substantially impair an adopted emergency response plan or emergency evacuation plan.

- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Approach to Analysis

Impacts associated with wildfire are evaluated within the context of the effectiveness of standard wildfire risk abatement methods as they relate to the development of any additional housing in the County that could result from implementation of the HEU. The general rule employed in this analysis is that if wildfire risk can be effectively lessened through implementation of standard regulatory requirements (e.g., compliance with the Napa County Fire Code, other adopted plans, etc.), then the impact would be less than significant.

Updates to the Safety Element would involve updates to safety goals, policies, and programs to ensure consistency of the Safety Element with the *2020 Napa County Multi-Jurisdictional Hazard Mitigation Plan* and to comply with recent changes in State law. These updates would affect goals, policies, and programs of the current Safety Element, and incorporate results of an analysis of emergency evacuation routes consistent with requirements of AB 747. The Safety Element and associated policy updates would not result in development that would result in any adverse impacts related to wildfire, rather the updates to the Safety Element are intended to improve policies associated with wildfire risks (e.g., emergency response and evacuation plans). As such, it is not discussed further in this section.

4.17.5 Impacts of the Project

Impact WLF-1: Implementation of the HEU would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

Impact HAZ-3 in Section 4.9, Hazards and Hazardous Materials evaluates the potential for the Project to impair implementation of an emergency response plan or emergency evacuation plan. As evaluated in that section, construction and operation of this project would result in a less than significant impact to emergency access and the implementation of an emergency response or emergency evacuation plan. The following analysis focuses on the potential for the project to impact emergency response plans or emergency evacuation plans due to wildfire specific hazards. As identified in Section 4.17.2, Environmental Setting, Fehr & Peers completed a general, programmatic assessment of emergency evacuation routes for the County of Napa consistent with Assembly Bill 747 (AB 747) and Senate Bill 99 (SB 99) requirements. The analysis in this section is based on that assessment of the impact of the project on evacuation routes.

Construction

The construction of residences as part of residential development projects that could result from implementation of the HEU would include the transportation and movement of equipment, materials, and construction workers. If located along designated evacuation routes or in areas subjected to limited or constrained access, these construction activities could impair or interfere with adopted emergency response plans or emergency evacuation plans, and could be potentially significant.

Because there are not specific development projects associated with the HEU sites at this time, the development plans cannot be analyzed for adequacy of emergency access. However, the County maintains the roadway network that would provide access to new development sites in accordance with industry design standards, which ensures that the physical network would be free of obstructions to emergency responders. Emergency access to new development sites proposed under the HEU would be subject to review by the County and responsible emergency service agencies, thus ensuring the projects would be designed to meet all emergency access and design standards. The County also requires the preparation of construction traffic management plans that minimize temporary obstruction of traffic during site construction. Specifically, Napa County Section 12.04.100, *Traffic Control*, would require project applicants to apply to the Napa County Public Works for an encroachment permit for any work that would encroach on any public street. The encroachment permit would include traffic control measures to manage the movement of vehicles, including ensuring that emergency vehicles (e.g., police, fire, ambulances, and other vehicles traveling under emergency conditions) are able to pass through or by construction sites.

For these reasons, construction of residential projects that might arise as a result of the HEU's implementation would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The impact would therefore be **less than significant**.

Mitigation Measure: None required.

Operations

Once constructed, residential development allowed by the HEU would not physically alter or encroach onto roads that provide for emergency access or evacuation, nor would they alter overall land uses in a way that could conflict with emergency response plans. Residential development could incrementally increase traffic volumes on roads used for emergency evacuation, and as described above, Fehr & Peers completed an assessment of evacuation access and the potential for the project to impact evacuation access in the event of a wildfire scenario (Appendix E). Although the path of potential future wildfires is unknown, the assessment considered multiple potential evacuation scenarios. Fehr & Peers and the County of Napa identified eight critical evacuation zones based on fire history and access constraints, and the Spanish Flat, Bishop, and Altamura housing sites would be located in one of the eight zones.

As stated previously in this section, the current estimated evacuation demand for the Spanish Flat and Berryessa Highlands area is 1,110 vehicles, and the current estimated time required for vehicles to pass through the "gateway," which is the route capacity at a given point expressed in terms of vehicles per hour, is 41 minutes (0.69 hours) based on total vehicle demand and 19 minutes (0.32 hours) based on an assumption of only one vehicle per household.

For the Northeast Napa area, where the Bishop and Altamura housing sites would be located, the current estimated time to evacuate the area, as well as additional areas that would be likely to evacuate under the worst-case scenario assumed for the analysis (Saint Helena, Calistoga, and Yountville), would be 4 hours and 43 minutes (4.71 hours) with a total vehicle demand evacuation and 1 hour and 53 minutes (1.88 hours) under a one vehicle per household evacuation.

Based upon this information, the fundamental question for CEQA is measuring the amount of change to these existing conditions that the project would introduce. This difference, or "delta," is what is used to determine impacts. Accordingly, once the evacuation times under existing conditions were determined, Fehr & Peers then conducted an analysis that compared the existing conditions results described above with those that could be expected to occur under each scenario presuming *complete buildout* of the HEU for the specified areas.

As discussed in the memo prepared by Fehr & Peers, the addition of 100 housing units on the Spanish Flat site would increase the current evacuation demand from Spanish Flat, which is currently estimated at 132 households and 307 vehicles. In the evacuation scenario analyzed by Fehr & Peers, the increased evacuation demand under the HEU is estimated to be 100 additional households, for a total of 232 households (i.e. 132 + 100 new units) and 540 vehicles, and the evacuation demand from Spanish Flat would combine with demand from hillside areas on the western shore of Lake Berryessa (estimated to include 504 households in total). With the assumption that shelter in place would not be an option and that 100 percent of all dwelling units would be occupied and required to evacuate, the analysis considered the additional time it would take to pass through a hypothetical "gateway" defined by the roadway capacity expressed in terms of vehicles per hour. Based on this analysis, the addition of 100 units would add to the time required to evacuate thru the "gateway" by approximately 9 minutes (0.15 hours), ¹ and 4 minutes (0.06 hours) if only one vehicle per household were to evacuate.

As also discussed in the evaluation, the Bishop and Altamura housing sites would add approximately 158 housing units, increasing the current evacuation demand from Northeast Napa, which is estimated as 1,377 households and 3,602 vehicles. In the evacuation scenario analyzed by Fehr & Peers, the revised evacuation demand created by the HEU would be 1,535 households (i.e. 1,377 + 158 new units) and 3,920 vehicles, and the evacuation demand from Northeast Napa would combine with demand from Spanish Flat and the hillside areas on the western shore of Lake Berryessa (estimated to include 604 households in total with implementation of the HEU). With the assumption that shelter in place would not be an option and that 100 percent of all dwelling units would be occupied and must evacuate, the analysis considered the additional time it would take to pass through a hypothetical "gateway" defined by the roadway capacity expressed in terms of vehicles per hour. Based on this analysis, the addition of 158 units would add to the time required

¹ The evacuation demand of 1,110 vehicles from 504 households was divided by the capacity of 1,600 vehicles per hour on State Route 121 to estimate the existing time required at the "gateway" as 0.69 hours. With the addition of 100 additional units, the evacuation demand would increase to 1,343 and the time required at the "gateway" would increase to 0.84 hours. Fehr & Peers, *Memorandum Regarding County of Napa AB 747 Emergency Evacuation Assessment*, April 2022, pp. 12-13 (Appendix E).

to evacuate thru the "gateway" by approximately 30 minutes (0.51 hours),² and 15 minutes (0.26 hours) if only one vehicle per household were to evacuate.

As stated previously, there are no established numerical standards or thresholds to determine if the amount of time required to evacuate an area is excessive or significant. Regardless, CEQA is only concerned with a proposed project's impact as compared to the existing conditions. CEQA requires that an EIR analyze "any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected. For example the EIR should evaluate any potentially significant direct, indirect, or cumulative environmental impacts of locating development in areas susceptible to hazardous conditions (e.g., ... wildfire risk areas), including both short-term and long-term conditions" [CEQA Guidelines Section 15126.2(a)]. (a).) "[W]hen a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment— and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (*California Building Industry Assn. v. Bay Area Air Quality Management District*).

As also stated previously, the applicable threshold of significance under CEQA is whether or not implementation of the HEU would substantially worsen an existing condition such that it would "substantially impair an adopted emergency response plan or emergency evacuation plan."

While complete buildout of the HEU, and/or of a project that adds people to specific areas of the County, could increase the amount of time needed to complete an evacuation, the key question is whether the increase would be substantial, such that it impairs implementation of the County's emergency evacuation plan. In this case, the County has concluded that the estimated increase in evacuation times (if the opportunity sites are actually developed) under various conservative assumptions may warrant changes to the County's evacuation plan, which is already updated on an as-needed basis, but would not substantially impair emergency response or evacuation for the following reasons:

 As required by State law and the County's policies, the County's emergency response and evacuation plan(s) will be updated periodically to reflect changes in the County. These updates would reflect changes associated with additional development in the County made possible by implementation of the HEU and other cumulative development in the area. As with the County's current plans, these updated plans would identify specific evacuation routes, procedures, and regulatory requirements that would need to be taken into consideration when determining whether or not future projects would impair implementation of the adopted emergency response and evacuation plan(s). It is important to note that, unrelated to CEQA, the Fehr & Peers analysis also included recommendations to improve evacuation times. These recommendations could be implemented into the County's updated Safety Element, as

² The evacuation demand of 4,712 vehicles from 1,881 households was divided by the capacity of 1,000 vehicles per hour on State Route 121 to estimate the existing time required at the "gateway" as 4.71 hours. With the addition of 158 additional units, the evacuation demand would increase to 5,263 and the time required at the "gateway" would increase to 5.22 hours. Fehr & Peers, *Memorandum Regarding County of Napa AB 747 Emergency Evacuation Assessment*, April 2022, pp. 12-13 (Appendix E).

applicable, and/or into future revisions to the County's emergency response and evacuation plan(s).

- 2. Residential development proposed and constructed as a result of the HEU's implementation would not cut off or otherwise modify any of the County's evacuation routes. As stated previously, the County has established procedures concerning encroachments into public rights-of-way during construction, particularly for roadways that have been designated as evacuation routes. Nothing in the residential projects themselves or other cumulative projects would prevent or interfere with the County's emergency response and evacuation plan(s) such that an evacuation would be substantially impaired or be unable to occur.
- 3. As determined in the AB 747 evacuation analysis and in the comparative evaluation of evacuation times with and without complete buildout of the HEU, the amount of time that would be added to evacuation times for areas of the County utilized worst-case assumptions and would not be substantial. Average evacuation times under these worst-case assumptions would increase by between 9 minutes and 30 minutes. Further, evacuation orders are typically issued in phases and/or by zones, with those who are closest to a fire being evacuated first, and those who are further from the fire being evacuated later. This is in contrast to the worstcase modeled scenarios, which conservatively assumed that all zones in a given large area would evacuate simultaneously, which is not likely to occur. As such, actual evacuation times during a more likely zone-by-zone evacuation would likely be less than those modeled, reducing evacuation times accordingly. While no bright-line threshold exists to determine whether the modeled increases in evacuation times are substantially adverse, it is the County's determination that these times are reasonable under the modeled circumstances. Regardless, these potential increases still would not prevent or interfere with the County's emergency response and evacuation plan(s), such that an evacuation would be substantially impaired or unable to occur, and that is the central question to be applied in determining this impact.

Based upon these considerations, it is the County's determination that the effects of the HEU's implementation would be less than significant, as weighed against CEQA's question of whether the HEU's implementation would impair or substantially interfere with an adopted emergency response or emergency evacuation plan. While any increase in evacuation times is potentially a concern, the HEU's incremental addition to traffic volumes would not impair implementation of Napa County's Emergency Operations Plan (EOP), which provides procedures and checklists to effectively manage emergencies in alignment with the National Incident Management System (NIMS) and the California Standardized Emergency Management System (SEMS), or the Napa County MJHMP, which provides guidance for the County's response to emergency situations, including wildfire and emergency evacuation.

The same conclusion would apply to other housing sites being proposed as part of the HEU, even though they have not been subject to the same quantitative analysis. In each instance, the housing sites – if developed and fully occupied – could add to the number of households evacuating in the event of a wildfire, and could thus increase traffic volumes along the roadways serving as evacuation routes. The increases in housing and traffic volumes would be small within the context of the surrounding area, and the operation of the project would therefore result in a **less than significant** impact on emergency evacuation.

Mitigation: None required.

Impact WLF-2: Implementation of the HEU would not exacerbate wildfire risks due to slope, prevailing winds, and other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)

As shown in Table 4.17-1 Spanish Flat and Imola Avenue are both in a SRA and are in an area designated as a Moderate Fire Hazard Severity Zone. The Northeast Napa Site is adjacent not in a designated fire hazard severity zone but is adjacent to a VHFHSZ and the Foster Road Sites are adjacent SRA areas designated as moderate fire hazard severity zones.

The development of housing in each of these areas could increase the risk of wildfire by introducing new sources of ignition (i.e., vehicles and residents) into those areas during both construction and operation. However, pursuant to the California Building Code, California Fire Code, and the Napa Fire Code, Napa County Defensible Space Ordinance (see Section 4.17.3, above), all development projects would be required to comply with requirements relating to emergency planning and preparedness, fire service features, building services and systems, access requirements, water supply, fire and smoke protection features, building materials, construction requirements, defensible space and vegetation management, and specific requirements for specialized uses involving flammable and hazardous materials.

Each of the code requirements outlined above have been developed over many decades to reduce the risks associated with wildfire. The implementation of these standard requirements would reduce impacts associated with accidental ignitions emanating from project sites, and would also reduce impacts associated with wildfires encroaching onto project sites from adjacent areas. The impact would therefore be **less than significant**.

Mitigation: None required.

Impact WLF-3: Implementation of the HEU would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (*Less than Significant*)

Future development on housing sites proposed by the HEU would involve connections to nearby roadways and utilities. Connections would conform with the Building Code and other County requirements, thus limiting the fire risk associated with construction and operation. In addition, per Napa County Fire Code, the Napa County Fire Department Residential Development Guidelines and defensible space requirements, fire flow and water supply infrastructure may be installed if the housing sites are not located within a half mile of an existing municipal fire hydrant and clearing around the development site would occur to accomplish defensible space requirements. An evaluation of the environmental effects associated with development of the proposed project, including those portions of the project that reduce wildfire risk, are evaluated in

the other environmental topic sections of this EIR. For those project development features that would reduce wildfire risk, the effects of project implementation were determined to be less than significant or less than significant with mitigation. Accordingly, the impact related to the exacerbation of wildfire risk due to the installation or maintenance infrastructure would also be **less than significant**.

Mitigation: None required.

Impact WLF-4: Implementation of the HEU would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less than Significant*)

Post-fire impacts such as slope instability and downstream flooding are typically associated with steep wildland areas that burn and then erode or slide onto downslope area. With the exception the Spanish Flat site, these conditions do not apply to the multifamily housing sites proposed by the HEU.

The Spanish Flat site is located in an area with undeveloped, hilly terrain that was burned during the 2020 LNU Complex Fire. The site itself includes steep slopes, although development would occur on less sloping portions of the site adjacent to the road. If hillside areas were to burn, sloped areas could potentially erode onto the developed areas and create adverse effects. However, as analyzed in Impact HYD-3, compliance with state and local permit and code requirements would reduce impacts related to erosion, flooding and siltation to a less than significant level. Any development proposed in these areas would be subject to engineering and permit review as part of the County's approval process, and potential constraints associated with upslope areas or other factors would be evaluated at the time of application and appropriate design standards implemented prior to issuance of building permits. Based on these considerations, the effect of the HEU's implementation would be **less than significant**.

Mitigation: None required.

4.17.6 Cumulative Impacts

This section presents an analysis of the cumulative effects of the HEU in combination with other past, present, and reasonably foreseeable future development that could cause significant impacts. Significant cumulative impacts related to wildfire would be significant if the incremental impacts of the HEU combined with the incremental impacts of cumulative development identified in Section 4.0.3, Cumulative Impacts, would be significant and if the HEU's contribution is considerable.

In the case of this HEU EIR, the amount of development permitted on the housing sites is used to analyze project impacts, although specific information about how and when those sites might

develop is not available. Even the precise location of housing inventory sites and densities may evolve based on public outreach and the results of the sites analysis that will be conducted in parallel to preparation of this EIR. Similarly, as discussed in Section 4.0.3, Cumulative Impacts, while some resort development is anticipated on the shores of Lake Berryessa Resorts, near the Spanish Flat site, and while the City of Napa's proposed General Plan for 2040 anticipates some development in the Foster Road area, the specific design and schedule for such development is not known.

The geographic scope of analysis for cumulative wildfire impacts encompasses Napa County as a whole.

Impact WLF-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, would not result in significant cumulative impacts related to wildfire. (*Less than Significant*)

Emergency Response and Evacuation

The project and all development projects in Napa County are subject to a number of emergency response plans, most notably the County EOP and the Napa County MJHMP, which provides guidance for the County's response to emergency situations, including wildfire and emergency evacuation. In addition, the proposed project and all development projects in Napa are subject to compliance with the numerous County and City polices and development standards adopted to ensure new adequate access for emergency response and evacuation. Thus, while there is the potential that future development at Lake Berryessa resorts could affect emergency access and evacuation, these issues will require in-depth analysis when more specific plans for the resorts area available and those plans will be required to ensure adequate access and evacuation. Required adherence to County requirements would ensure that the proposed project would not combine with potential cumulative projects and result in a significant cumulative impact related to impairment of an adopted emergency response plan or emergency evacuation plan. The cumulative impact would be **less than significant**.

Very High Fire Hazard Severity Zones

Development of housing in the County, particularly in or near very high fire hazard severity zones, those areas could increase the risk of wildfire by introducing new sources of ignition (i.e., vehicles and residents) into those areas. However, as a condition of approval, and pursuant to the California Building Code, California Fire Code, and the Napa Fire Code, Napa County Defensible Space Ordinance (see Section 4.17.3, above), all development projects would be required to comply with requirements relating to emergency planning and preparedness, fire service features, building services and systems, access requirements, water supply, fire and smoke protection features, building materials, construction requirements, defensible space and vegetation management, and specific requirements for specialized uses involving flammable and hazardous materials.

Each of the code requirements outlined above have been developed over many decades to reduce the risks associated with wildfire. Cumulative development that may occur would be subject to these or similar requirements, as would development allowed by the HEU, and the implementation of these standard requirements would reduce impacts associated with accidental ignitions, and would also reduce impacts associated with wildfires encroaching onto project sites from adjacent areas. There would therefore be no cumulatively significant effect, and the cumulative impact would be **less than significant**.

Wildfire-Related Infrastructure

As described in Section 4.17.2, the environmental conditions in Napa County create relatively high levels of wildfire risk across the County. As the development outlined in Section 4.0.3, Cumulative Impacts are constructed, the construction of roads, fuel breaks, emergency water sources, power lines, or other utilities could be required for future development in order to reduce wildfire impacts.

Regardless, the environmental effects of installing such facilities, if required, would be evaluated at the time of project application, and would follow established regulations and development protocols as defined in County regulation and General Plan policy. Based on these considerations, the combined effect of the HEU and the other cumulative projects would be **less than significant**.

Post-Fire Effects

As described above under Impact WLF-4, the multifamily housing sites included in the HEU are located in relatively flat terrain where there is not a high risk of post-fire flooding or landslides, with the exception of the Spanish Flat site. Future development in Napa County could be located in areas that are located on or near hilly terrain such as the Spanish Flat area where post-fire impacts such as slope instability and downstream flooding could occur in the event of a wildfire. If sites in hilly areas of the County were developed and the hilly areas behind them were to burn, those sloped areas could potentially erode onto the developed areas and create adverse effects. However, any development proposed in these areas would be subject to engineering and permit review as part of the City and County approval process, and potential constraints associated with upslope areas or other factors would be evaluated at the time of application and appropriate design standards implemented prior to issuance of building permits. Based on these considerations, the effect of the cumulative projects and the HEU's implementation would be **less than significant**.

Mitigation: None required.

4.17.7 References

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CHAPTER 5 Alternatives to the Project

Pursuant to the provisions of CEQA, this chapter describes and evaluates alternatives to the proposed Project, including one or more "No Project" alternatives, and identifies one or more "environmentally superior" alternatives. The primary purpose of this section is to provide decision-makers and the public with a qualitative review of alternatives to the Project that eliminate or substantially reduce any identified adverse environmental impacts while, at the same time, attaining most of the basic objectives of the Project.

The focus of the alternatives analysis in this chapter is on assessing the extent to which the Project alternatives would eliminate or reduce impacts identified as significant and unavoidable in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*. Project impacts that would be less than significant with and without mitigation as identified in Chapter 4 are also considered, but to a lesser extent.

5.1 CEQA Requirements

CEQA requires that an EIR describe and evaluate a range of reasonable alternatives to the proposed project, and evaluate the comparative merits of the alternatives (*CEQA Guidelines* Section 15126.6(a), (d)). The "range of alternatives" is governed by the "rule of reason," which requires the EIR to set forth only those alternatives necessary to foster informed decision-making and public participation (Section 15126.6(a), (f)).

The range of alternatives shall include alternatives that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant effects of the project (*CEQA Guidelines* Section 15126.6(a)-(c)). CEQA generally defines "feasible" to mean an alternative that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, technological, and legal factors. In addition, the following may be taken into consideration when assessing the feasibility of alternatives: site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and the ability of the proponent to attain site control (Section 15126.6(f)(1)). The EIR should briefly describe the rationale for selecting the alternatives to be discussed and identify any alternatives that were rejected as infeasible, briefly explaining the reasons (15126.6(c)).

The description or evaluation of alternatives does not need to be exhaustive, and an EIR need not consider alternatives for which the effects cannot be reasonably determined and for which implementation is remote or speculative. An EIR need not describe or evaluate the environmental

effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project (*CEQA Guidelines* Section 15126.6(d)).

The "No Project" alternative must be evaluated. This analysis shall discuss the existing conditions, as well as what could be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (*CEQA Guidelines* Section 15126.6(e)(2)).

CEQA also requires that an environmentally superior alternative be selected from among the alternatives. The environmentally superior alternative is the alternative with the fewest or least severe adverse environmental impacts. When the "No Project" alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives (*CEQA Guidelines* Section 15126.6(e)(2)).

5.1.1 Project Objectives

CEQA *Guidelines* Section 15124(b) requires the description of the project in an EIR to state the objectives sought by the project.

"A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project."

In keeping with this requirement, the County's project objectives are as follows:

- Update the General Plan's Housing Element to comply with State-mandated housing requirements and to address the maintenance, preservation, improvement, and development of housing in the unincorporated County between 2023 and 2031.
- Include an inventory of housing sites and rezone the sites as necessary to meet the required Regional Housing Needs Allocation (RHNA) and to provide an appropriate buffer of additional housing development capacity.
- Amend other elements of the County's General Plan as needed to maintain internal consistency between the elements and update the Safety Element to ensure consistency with the County's Local Hazard Mitigation Plan and comply with recent changes in State law.
- Make necessary General Plan amendments and zoning changes in a manner that affirmatively furthers fair housing while preserving the rural character of Napa County and perpetuating the safety and welfare of both existing and future residents.

5.1.2 Elimination and/or Reduction of Identified Significant Impacts

CEQA *Guidelines* § 15126.6(b) states that "Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its

location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."

Potentially significant environmental impacts that would result from implementation of the HEU are evaluated in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR. With implementation of mitigation measures identified for each resource area significantly impacted, many of the potentially significant impacts resulting from the HEU would be reduced to a less-than-significant level. The Project impacts listed below would remain significant and unavoidable even after mitigation, and the alternatives evaluated in this EIR have been selected because they are anticipated to reduce and/or eliminate one or more of these significant impacts.

Aesthetics Impact AES-2: Implementation of the Project could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. *(Significant and Unavoidable with Mitigation because the Imola site is not subject to County zoning regulations)*

Air Quality Impact AIR-2: Implementation of the HEU would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. *(Significant and Unavoidable with Mitigation because the Imola site is in the jurisdiction of another agency and thus the adoption and effectiveness of mitigation is uncertain)*

Air Quality Impact AIR-3: Implementation of the HEU would not expose sensitive receptors to substantial pollutant concentrations. *(Significant and Unavoidable with Mitigation because the Imola site is in the jurisdiction of another agency and thus the adoption and effectiveness of mitigation is uncertain)*

Cultural Resources Impact CUL-1: Implementation of the HEU could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. *(Significant and Unavoidable with Mitigation due to the presence of age-eligible structures on the Altamura and Foster Road sites that have not been evaluated)*

Cultural Resources Impact CUL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, could contribute considerably to cumulative impacts on architectural historic resources pursuant to CEQA Guidelines Section 15064.5. (*Significant and Unavoidable Impact with Mitigation due to the presence of ageeligible structures on the Altamura and Foster Road sites that have not been evaluated*)

Greenhouse Gas Emissions (GHG) Impact GHG-1: Implementation of the HEU would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (Significant and Unavoidable with Mitigation because future projects allowed by the HEU would not be likely to reduce Vehicle Miles Travelled to 15 percent below the regional average)

GHG Impact GHG-2: Implementation of the HEU would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Significant and Unavoidable with Mitigation because future projects allowed by the HEU would not be likely to reduce Vehicle Miles Travelled to 15 percent below the regional average)

GHG Impact GHG-1.CU: Implementation of the HEU, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to GHG emissions that may have a significant impact on the environment or conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. (*Significant and Unavoidable with Mitigation because future projects allowed by the HEU would not be likely to reduce Vehicle Miles Travelled to 15 percent below the regional average*)

Noise Impact NOI-3: Stationary noise sources from development within the HEU area would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation because the Imola site is in the jurisdiction of another agency and thus the adoption and effectiveness of mitigation is uncertain*)

Noise Impact NOI-4: Transportation activities under the HEU would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-2.CU: Stationary noise sources and transportation activities from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation*)

Transportation Impact TRA-2: Implementation of the HEU would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). *(Significant and Unavoidable with Mitigation because future projects allowed by the HEU would not be likely to reduce Vehicle Miles Travelled by 15 percent)*

Utilities and Service Systems Impact UTL-2: Implementation of the HEU could not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. *(Significant and Unavoidable with Mitigation because water supply connections are in the jurisdiction of another agency)*

Utilities and Service Systems Impact UTL-3: Implementation of the HEU could result in a determination by a wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. *(Significant and Unavoidable with Mitigation because wastewater treatment system connections are in the jurisdiction of another agency)*

Utilities and Service Systems Impact UTL-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on water supply. *(Significant and Unavoidable with Mitigation because water supply connections are in the jurisdiction of another agency)*

Utilities and Service Systems Impact UTL-3.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on wastewater treatment capacity. *(Significant and Unavoidable with Mitigation because wastewater treatment system connections are in the jurisdiction of another agency)*

5.2 Factors in the Selection of Alternatives

The nature and scope of the range of alternatives to be discussed is governed by the "rule of reason." The CEQA *Guidelines* recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed (Section 15126.6[c]). This alternatives analysis considers the following factors:

- The extent to which the alternative would accomplish most of the basic objectives of the HEU;
- The extent to which the alternative would avoid or lessen the identified significant, or lessthan-significant with mitigation, environmental effects of implementation of the HEU;
- The feasibility of the alternative, taking into account site suitability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The extent to which an alternative contributes to a "reasonable range" of alternatives necessary to permit a reasoned choice; and
- The requirement of the CEQA *Guidelines* to consider a "No Project" alternative, and to identify an "environmentally superior" alternative in addition to the No Project alternative (Section 15126.6[e]).

5.2.1 Alternatives Considered but Rejected from Further Evaluation

A number of alternatives were considered for analysis and determined not to be feasible for the reasons explained in this section. These alternatives were not carried forward for analysis in the EIR.

Off-Site Alternative

The primary objective of the Housing Element Update is to ensure the County's conformance with State law. There would be no way to meet this objective with an alternative that did not focus on the County itself, and therefore this alternative was not analyzed further.

Additional Housing Sites

Early in the planning process, additional sites were considered for rezoning for multi-family housing and inclusion as part of the HEU. These sites were ultimately eliminated from consideration for the following reasons:

- *Sites from the Existing Housing Element.* Sites included in the County's current housing element were considered for inclusion in the Housing Element Update and were eliminated from consideration because the sites have not developed in past years and would be unlikely to be accepted by HCD. Some of the sites are also located within high fires severity zones.
- *Sites in the Carneros Area*. Several sites in the Carneros area were considered for inclusion in the housing sites inventory and eliminated from consideration due to the distance from services and inability to connect with water and wastewater utilities.

- *Former Stonebridge School Site*. The former Stonebridge school site was considered for inclusion in the housing sites inventory and eliminated due to the presence of an earthquake fault on the property.
- **Other Northeast Napa Sites.** Another site across Monticello Road to the southeast of the Bishop and Altamura sites was considered for inclusion in the housing sites inventory and eliminated from consideration due to the lack of proximity to wastewater infrastructure.
- *Other Foster Road Site*. Another site (i.e. the Horseman's property) immediately north of the Foster Road site was considered for inclusion in the housing sites inventory and eliminated from consideration because the City's proposed General Plan Update calls for the preservation of current uses on the site.
- *Up-Valley Sites*. Sites in the Napa Valley north of the City of Napa were considered for inclusion in the housing sites inventory and eliminated from consideration because of the lack of water and wastewater utilities.

5.2.2 Alternatives to Lessen Identified Significant Effects

As noted in several of the topical sections of Chapter 4 of this EIR, a number of significant and unavoidable effects were identified that would result from the HEU's implementation. These impacts are listed above in Section 5.1.2, and generally relate to seven broad categories: 1) aesthetics; 2) air quality; 3) cultural resources; 4) GHG; 5) noise; 6) transportation; and 7) utilities and service systems. CEQA Guidelines Section 15126.6(b) notes that a principal purpose of alternatives is to identify alternatives to a project or its location that are capable of avoiding or substantially lessening the significant effects of a project. To that end, the County contemplated feasible alternatives that could avoid or lessen the effects identified in the seven categories listed above.

5.3 Description of Alternatives Selected for Analysis

The following alternatives were selected for analysis based on the CEQA requirement for a No Project Alternative and the alternatives' ability to attain the basic objectives of the project while reducing one or more significant environmental impact. These alternatives are described in further detail and analyzed below.

- Alternative 1: No Project. This alternative assumes that the HEU would not be adopted and that the goals and policies within the existing Housing Element would remain unchanged. Further, the County's existing land use and zoning designations would also remain unchanged. Rezoning within portions of the County would not occur, however reasonably foreseeable development could still proceed, and residential development within the County would continue to be directed and governed in the manner that it is currently.
- Alternative 2: Reduced Program Alternative. This alternative would update the County's Housing Element in the same manner as the proposed HEU, but would eliminate the Altamura, Foster Road, and Imola Avenue sites from the housing sites inventory. No General Plan or zoning changes would be pursued to accommodate multi-family housing on these sites, the land use and zoning designations currently in place would continue, and any development on the sites would be subject to policies and standards that currently exist. Only

the Spanish Flat and Bishop housing sites would be designated for multi-family development under this alternative.

Further details on these alternatives, and an evaluation of environmental effects relative to the HEU, are provided below.

5.3.1 Alternative 1: No Project Alternative

CEQA requires consideration of the No Project Alternative, which addresses the impacts associated with not moving forward with the project. The purpose of analyzing the No Project Alternative is to allow decision-makers to compare the impacts of the project versus no project. Under the No Project Alternative, the HEU would not be adopted and the goals and policies within the County's existing Housing Element would remain unchanged. The land use and zoning designations currently in place would continue the land use decisions and development parameters that currently exist in the County. Development of additional housing would still occur in the County under existing polices and regulations, but most development would likely consist of single family homes and ADUs.

The No Project Alternative would not preclude the State from proceeding with development of the Imola Avenue site for affordable housing, however the site would not be included in an updated housing element and under this alternative, and for purposes of this analysis, the County assumes that any development on the site could occur in the timeframe of the 2023-2031 housing cycle. However, any resulting impacts would not be attributable to the HEU.

This alternative would not meet any of the objectives of the HEU as defined above in Section 5.1.1. The No Project Alternative would not update the County's Housing Element to comply with Statemandated housing requirements and to address the maintenance, preservation, improvement, and development of housing in the County between 2023 and 2031. The alternative would not include an inventory of housing sites, nor would it rezone the sites as necessary to meet the required RHNA and to provide an appropriate buffer. This alternative would also not amend other elements of the County's General Plan as needed to maintain internal consistency between the elements and update the Safety Element to ensure consistency with the County's Local Hazard Mitigation Plan and comply with recent changes in State law. Finally, this alternative would not make necessary General Plan amendments and zoning changes in a manner that affirmatively furthers fair housing while preserving the rural character of Napa County and perpetuating the safety and welfare of both existing and future residents.

5.3.2 Alternative 2: Reduced Program Alternative

The Reduced Program Alternative would update the County's Housing Element in the same manner as the proposed HEU, but would eliminate the multi-family housing sites at the Altamura site in Northeast Napa, the Foster Road site, and at the Imola Avenue site. The housing inventory site locations and anticipated development under the Reduced Program Alternative are summarized in **Table 5-1** below.

	Number of Units
Single Family Homes	230 units
ADU & JADU	72 units
Spanish Flat	100 units
Northeast Napa – Bishop Site	100 units
Total Units	502 units

TABLE 5-1 REDUCED PROGRAM ALTERNATIVE HOUSING INVENTORY SITE LOCATIONS AND ANTICIPATED DEVELOPMENT^a

NOTES:

a. The anticipated development potential is based on the County's assessment of the likely number of units to develop on each individual site, and does not always represent the maximum allowed under the proposed zoning district.

SOURCE: Napa County, May 2022.

This alternative was selected for analysis because it would lessen the HEU's impacts to various environmental topic areas which were determined in this EIR to be significant and unavoidable, even with mitigation. By removing the Imola Avenue site, significant and unavoidable impacts to aesthetics, air quality, and noise would no longer be attributable to the housing element update. By removing the Altamura and Foster Road housing sites, significant and unavoidable impacts to cultural resources would also be avoided, as there are age-eligible buildings within these sites that may constitute historic resources. By removing all of these sites, significant and unavoidable impacts to utilities and service systems, including water supply and wastewater treatment capacity would be lessened, as these sites would no longer require services subject to the review and approval of other agencies.

It's important to note that the Reduced Program Alternative would not preclude the State from proceeding with development of the Imola Avenue site for affordable housing, even though the site would not be included in the County's Housing Element and for purposes of this analysis, the County assumes that any development on the site could occur in the timeframe of the 2023-2031 housing cycle. However, any resulting impacts would not be attributable to the HEU.

This alternative would meet all of the objectives of the HEU as defined above in Section 5.1.1, although some would be met to a lesser extent. The Reduced Program Alternative would update the General Plan's Housing Element to comply with State-mandated housing requirements and to address the maintenance, preservation, improvement, and development of housing in the unincorporated County between 2023 and 2031. This alternative would include an inventory of housing sites and rezone the sites as necessary to meet the required RHNA, but would include a smaller buffer of additional housing development capacity than the proposed HEU. The Reduced Program Alternative would also amend other elements of the County's General Plan as needed to maintain internal consistency between the elements and update the Safety Element to ensure consistency with the County's Local Hazard Mitigation Plan and comply with recent changes in State law. This alternative would make necessary General Plan as mendments and zoning changes in a manner that affirmatively furthers fair housing while preserving the rural character of Napa County and perpetuating the safety and welfare of both existing and future residents, although the

potential for development of multi-family housing would be reduced due to the reduction of housing sites and the County would not be able to count any development of lower income units on the Imola Site towards its RHNA.

5.4 Comparative Analysis of the Alternatives

This section presents a discussion of the comparative environmental effects of each alternative compared to the effects of the Project. As permitted by CEQA, the significant effects of the alternatives are discussed in less detail than are the effects of the proposed Project (CEQA *Guidelines* Section 15126.6[d]). All impacts are described after implementation of any mitigation measures identified in Chapter 4 (*Environmental Setting, Impacts, and Mitigation Measures, and Standard Conditions of Approval*) of this EIR.

5.4.1 Alternative 1: No Project Alternative

Under the No Project Alternative, the HEU would not be adopted and the goals and policies within the County's existing Housing Element would remain unchanged. The land use and zoning designations currently in place would continue and development would be subject to policies and standards that currently exist in the County. This alternative would not preclude additional development in the County under existing land use and zoning regulations, and would not preclude development on the State's Imola Avenue site.

Impacts

The following discussion summarizes impacts that would occur under the No Project Alternative in comparison to the impacts that would occur under the proposed HEU.

Aesthetics

The No Project Alternative would result in less-than-significant effects to aesthetics, compared to the significant and unavoidable impact identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. The County's existing land use and zoning designations would remain as they are currently, as would the County's development standards. Thus development in the County would conform to existing development standards and no adverse visual changes would occur. Impacts related to changes in visual character and quality of public views associated with development of the State's Imola site would not be attributable to the HEU and aesthetic impacts of the No Project Alternative would be less than significant and reduced as compared to the proposed HEU.

Agriculture and Forestry Resources

The No Project Alternative would result in less-than-significant effects to agriculture and forestry resources, similar to the less than significant impacts identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. The County's

existing land use and zoning designations would remain as they are currently, as would the County's development standards. As such, agriculture impacts of the No Project Alternative would be less than significant, similar to the proposed HEU.

Air Quality

The No Project Alternative would result in less-than-significant effects to air quality, compared to the significant and unavoidable impacts identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the HEU. With less development, there would be fewer emissions and the impact would be reduced as compared to the proposed HEU. In addition, any significant and unavoidable impacts associated with the Imola Avenue site would not be attributable to the HEU.

Biological Resources

The No Project Alternative would result in less-than-significant impacts to biological resources, similar to the less than significant impacts identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts to biological resources would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

Cultural Resources and Tribal Cultural Resources

The No Project Alternative would likely result in less than significant impacts to cultural resources, compared to the significant and unavoidable impact to cultural resources identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Potential significant and unavoidable impacts related to potential historical architectural resources at the Altamura and Foster Road housing sites would be avoided. This lesser-intensity development would be subject to regulations and policies aimed at protecting historical architectural resources by requiring projects to identify and mitigate impacts to potential architectural historic resources, although there remains the potential for construction activities to damage or destroy architectural historic resources and tribal cultural resources, potential impacts would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

Energy

The No Project Alternative would result in less-than-significant impacts to energy, similar to the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, any development would still be held to the same energy standards, regardless of which alternative is adopted, and the impact would be less than significant.

Geology, Soils, Paleontological and Mineral Resources

The No Project Alternative would result in less-than-significant impacts to geology and paleontological resources, similar to the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts related to geology and paleontological resources would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

Greenhouse Gas Emissions

The No Project Alternative would result in less-than-significant effects to greenhouse gas emissions, compared to the significant and unavoidable impacts identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU, and new sites for multi-family housing development would not be designated. Without multifamily housing sites there would be fewer GHG emissions than with the proposed HEU. Overall, the impact would be less than the proposed HEU.

Hazards and Hazardous Materials

The No Project Alternative would result in less-than-significant impacts to hazards and hazardous materials, similar to the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts related to hazards and hazardous materials would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

Hydrology and Water Quality

The No Project Alternative would result in less-than-significant impacts to hydrology and water quality, similar to the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts related to hydrology and water quality would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

Land Use and Planning

The No Project Alternative would result in significant and unavoidable impacts related to land use and planning, as compared to the less-than-significant impacts associated with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity that that provided for under the proposed HEU. Under the No Project Alternative, the HEU would not be adopted and the goals and policies within the County's existing Housing Element would remain unchanged. The land use and zoning

designations currently in place would continue under the land use decisions and development parameters that currently exist in the County. However, this alternative would not provide housing to fulfill the requirements of State law or to meet the County's RHNA requirements, and it would not update the Safety Element to comply with recent changes in State law, which would be a significant and unavoidable impact, as compared to the less-than-significant impacts associated with the proposed HEU.

Noise and Vibration

The No Project Alternative would result in less-than-significant impacts to noise and vibration, compared to the significant and unavoidable (with mitigation) impacts identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts related to noise and vibration would be subject to the same standards and regulatory requirements as the proposed HEU. The significant and unavoidable impact and cumulative impact related to substantial permanent increase in ambient noise levels as a result of stationary noise sources from development on the Imola site would not be attributable to the HEU. For this reason, the impacts of the No Project Alternative would be less than significant and reduced as compared to the proposed HEU.

Population and Housing

The No Project Alternative would result in less-than-significant impacts to population and housing, similar to the proposed HEU. Under the No Project Alternative, the HEU would not be adopted and the goals and policies within the County's existing Housing Element would remain unchanged. Resulting population growth would be less, and would be consistent with the County's current General Plan and zoning, thus constituting "planned" growth.

Public Services and Recreation

The No Project Alternative would result in less-than-significant impacts to public services and recreation, similar to the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts related to public services and recreation would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

Transportation

The No Project Alternative would result in less-than-significant impacts to transportation, compared to the significant and unavoidable impact identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU and new sites for multi-family housing development would not be designated. Per capita VMT would vary depending on the location and type of new development, and each discretionary project would require separate analysis. Total VMT would be less since there would be less development, and the impact would be less than the proposed HEU.

Utilities and Service Systems

The No Project Alternative would result in less-than-significant impacts to utilities and service systems, compared to the significant and unavoidable impacts identified with the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Because development would continue at the same pace as in the past, and would be subject to existing County regulations potential impacts related to utilities and service systems with the No Project Alternative would be less than significant. Significant and unavoidable impacts to utilities and service systems with the proposed HEU, including water supply and wastewater treatment capacity would be lessened, as the sites would require services subject to the review and approval of other agencies would not be designated for housing.

Wildfire

The No Project Alternative would result in less-than-significant impacts to wildfire, similar to the proposed HEU. Under the No Project Alternative, residential development in the County could still take place, but at a lesser intensity than that provided for under the proposed HEU. Regardless, potential impacts related to wildfire would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the No Project Alternative would therefore be similar to that of the proposed HEU.

5.4.2 Alternative 2: Reduced Program Alternative

The Reduced Program Alternative would update the County's Housing Element in the same manner as the proposed HEU, but would eliminate the multi-family housing sites at the Altamura site in Northeast Napa, the Foster Road site, and the Imola Avenue site. No General Plan or zoning changes would be pursued to accommodate multi-family housing and development would be subject to policies and standards that currently exist in the County. Elimination of the Imola Avenue site would not preclude development on the site, which is owned by the State and outside the County's jurisdiction, however associated impacts would not be attributable to the HEU.

Impacts

The following discussion summarizes impacts that would occur under the Reduced Program Alternative in comparison to the impacts that would occur under the proposed HEU.

Aesthetics

The Reduced Program Alternative would result in less-than-significant effects to aesthetics, compared to the significant and unavoidable impacts identified with the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing. As such, the impacts related to visual character and quality of public views associated with development of the Imola site would not be attributable to the HEU and aesthetic impacts of the Reduced Program Alternative would be less than significant and reduced as compared to the proposed HEU.

Agriculture and Forestry Resources

The Reduced Program Alternative would result in less-than-significant effects to agriculture and forestry resources, similar to the less than significant impacts identified with the proposed HEU. Under the Reduced Program Alternative, development would be subject to existing regulations and County development standards and would result in similar agriculture impacts to the proposed HEU. Overall, agriculture impacts of the Reduced Program Alternative would be less than significant and similar to the proposed HEU.

Air Quality

The Reduced Program Alternative would result in less-than-significant effects to air quality, compared to the significant and unavoidable impacts identified with the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. Significant and unavoidable impacts related to criteria air pollutant and toxic air contaminant emissions would not be attributable to the HEU due to the elimination of the Imola Avenue housing site. This alternative would also emit fewer emissions due to the reduction in development potential. Overall, the impact would be reduced as compared to the proposed HEU.

Biological Resources

The Reduced Program Alternative would result in less-than-significant impacts (with mitigation) to biological resources, the same as identified with the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. Regardless, potential impacts to biological resources would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the Reduced Program Alternative would therefore be similar to that of the proposed HEU.

Cultural Resources and Tribal Cultural Resources

The Reduced Program Alternative would result less-than-significant effects to cultural resources, compared to the significant and unavoidable impacts identified with the proposed

HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing. By removing the Altamura housing site in Northeast Napa and the Foster Road housing site, significant and unavoidable impacts to cultural resources would be avoided, as there may be currently unknown architectural historic resources within these sites. This alternative would be subject to regulations and policies aimed at protecting historical architectural resources, although there remains the potential for construction activities to damage or destroy architectural historic resources. Overall, however, the impact of the Reduced Program Alternative would be less than the proposed HEU. With regard to other cultural resources and tribal cultural resources, development under the Reduced Program Alternative would be subject to the same standards and
regulatory requirements as the proposed HEU, and the impacts of the Reduced Program Alternative on archaeological and tribal cultural resources would therefore be similar to that of the proposed HEU.

Energy

The Reduced Program Alternative would result in less-than-significant impacts to energy, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU and result in an overall reduction in energy use. Regardless, any development would still be held to the same energy standards, and the impact would be less than significant.

Geology, Soils, Paleontological and Mineral Resources

The Reduced Program Alternative would result in less-than-significant impacts to geology and paleontological resources, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. Regardless, potential impacts related to geology and paleontological resources would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the Reduced Program Alternative would therefore be similar to that of the proposed HEU.

Greenhouse Gas Emissions

The Reduced Program Alternative would result in significant and unavoidable impacts to greenhouse gas emissions, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. This reduced development potential would result in fewer greenhouse emissions overall than the proposed HEU. Even with the implementation of mitigation, transportation demand management (TDM) programs for projects developed under the Reduced Program would likely not result in reducing vehicle miles traveled (VMT) to more than at least 15 percent below regional average, and the impacts under this alternative would remain inconsistent with greenhouse gas emissions thresholds adopted to ensure consistency with applicable plans, polices, and regulations adopted for the purpose of reducing the emissions of greenhouse gases, similar to the proposed HEU.

Hazards and Hazardous Materials

The Reduced Program Alternative would result in less-than-significant impacts to hazards and hazardous materials, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. Regardless, potential impacts related to hazards and hazardous materials would be subject to the same standards and regulatory requirements as the

proposed HEU, and the impacts of the Reduced Program Alternative would therefore be similar to that of the proposed HEU.

Hydrology and Water Quality

The Reduced Program Alternative would result in less-than-significant impacts to hydrology and water quality, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. Regardless, potential impacts related to hydrology and water quality would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the Reduced Program Alternative would therefore be similar to that of the proposed HEU.

Land Use and Planning

The Reduced Program Alternative would result in less-than-significant impacts to land use and planning, similar to the proposed HEU. Potential impacts related to land use and planning under the HEU and the Reduced Program Alternative would be less than significant because each would amend the County's General Plan polices and zoning standards as needed to ensure consistency with County policies and standards, and the impacts under the Reduced Program Alternative and proposed HEU would therefore be similar.

Noise and Vibration

The Reduced Program Alternative would result in significant and unavoidable impacts to noise, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. By removing the Imola Avenue site, the significant and unavoidable impact and cumulative impact related to substantial permanent increase in ambient noise levels as a result of stationary noise sources from development would not be attributable to the HEU. However, the significant and unavoidable impact and cumulative impact related to substantial permanent increase in ambient noise levels as a result of transportation activities from development would still occur. As such, the impacts of the Reduce Program Alternative would be similar, but reduced as compared to the proposed HEU.

Population and Housing

The Reduced Program Alternative would result in less-than-significant impacts to population and housing, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. If all sites were developed at the planned densities to accommodate the total of 602 new units under the Reduced Program Alternative, the population of the County would increase by approximately 1,505 persons, using the unincorporated County's 2.5 persons-per-household factor to make the calculation, compared to approximately 1,900 under the

proposed HEU. Potential population and housing growth under the proposed HEU and the Reduced Program Alternative would be "planned" growth because the growth would be consistent with General Plan polices and zoning standards (amended as needed), and the impacts under each would therefore be similar.

Public Services and Recreation

The Reduced Program Alternative would result in less-than-significant impacts to public services and recreation, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. Regardless, potential impacts related to public services and recreation would be subject to the same standards and regulatory requirements as the proposed HEU, and the impacts of the Reduced Program Alternative would therefore be similar to that of the proposed HEU.

Transportation

The Reduced Program Alternative would result in significant and unavoidable impacts to transportation, similar to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU and a reduction in overall VMT. However, based on the number of low and moderately effective VMT reduction strategies shown in Table 4.15-4 (Section 4.15, *Transportation*), the TDM program would likely not result in a 15 percent reduction in VMT, nor would it reduce VMT to more than 15 percent below regional values for the Spanish Flat, Bishop, or Foster Road housing sites. Therefore, the impact would remain significant and unavoidable under the Reduced Program Alternative, similar to the proposed HEU.

Utilities and Service Systems

The Reduced Program Alternative would result in significant and unavoidable impacts to utilities and public services, but to a lesser degree compared to the proposed HEU. Under the Reduced Program Alternative, one of the Northeast Napa housing sites, the Foster Road housing site, and the Imola Avenue housing site would not be designated for multi-family housing resulting in less development potential than with the proposed HEU. By removing all of these sites, significant and unavoidable impacts to utilities and service systems, including those related to water supply and wastewater treatment capacity would be lessened, as these sites would require services subject to the review and approval of other agencies. Overall, since remaining sites would require connections to service providers/agencies outside the County's control, the impacts under the Reduced Program Alternative would remain significant and unavoidable.

Wildfire

The Reduced Program Alternative would result in less-than-significant impacts to wildfire, similar to the proposed HEU. Both the proposed HEU and the Reduced Program Alternative would place housing within and adjacent to Moderate Fire Hazard Severity Zones and adjacent to

Very High Fire Hazard Severity Zones. The Reduced Program Alternative would eliminate the Imola Avenue site which is within a Moderate Fire Hazard Severity Zone, and one of the Northeast Napa sites which is located adjacent to Very High Fire Hazard Severity Zones, and would reduce overall development potential. Potential impacts related to emergency response and evacuation and wildfire risk would be subject to the same standards and regulatory requirements, and the impacts under the Reduced Program Alternative would therefore be similar to the proposed HEU.

5.5 Overall Comparison of the Alternatives

The analysis of the alternatives is summarized and compared in **Table 5-2**, which provides a summary of impact levels within all environmental topic areas. Overall, this table shows that some alternatives perform better or worse than others in reducing or avoiding the HEU's impacts.

5.5.1 Environmentally Superior Alternative

CEQA *Guidelines* §15126.6(e)(2) requires an EIR to identify an environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts to the project area and its surrounding environment. CEQA *Guidelines* Section 15126.6(a) places emphasis on alternatives that "avoid or substantially lessen the significant effects" of a project.

The No Project Alternative would be the most environmentally superior alternative with the fewest environmental impacts. However, the No Project Alternative would not meet any of the objectives of the HEU as defined above in Section 5.1.1, nor is it legally feasible to implement. The No Project Alternative would also not provide housing to fulfill the requirements of State law or meet the County's RHNA requirements, which result in a significant and unavoidable land use and planning impact, as compared to the less-than-significant impacts associated with the proposed HEU and the Reduced Program Alternative.

Since the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. Therefore, the **Reduced Program Alternative** would be the environmentally superior alternative for the purpose of this analysis.

Under the Reduced Program Alternative, the following significant and unavoidable impacts would no longer occur or (if the Imola Avenue site develops notwithstanding its elimination from the HEU) would not be attributable to the HEU:

Aesthetics Impact AES-2: Implementation of the Project could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality.

Impact	HEU	Alternative 1: No Project Alternative	Alternative 2: Reduced Program Alternative
Aesthetics	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Less than Significant ${\mathbb Q}$
Agriculture and Forestry Resources	Less than Significant	Less than Significant û/₽	Less than Significant 압/ֆ
Air Quality	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Less than Significant ${\mathbb Q}$
Biological Resources	Less than Significant	Less than Significant 압/⇩	Less than Significant 압/⇩
Cultural Resources and Tribal Cultural Resources	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Less than Significant ${\mathbb Q}$
Energy	Less than Significant	Less than Significant ${\mathbb Q}$	Less than Significant 압/⇩
Geology, Soils, & Paleontological & Mineral Resources	Less than Significant	Less than Significant û/⊅	Less than Significant û/IJ
Greenhouse Gas Emissions	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Significant and Unavoidable ௴/↓
Hazards and Hazardous Materials	Less than Significant	Less than Significant û/IJ	Less than Significant 압/ֆ
Hydrology and Water Quality	Less than Significant	Less than Significant û/₽	Less than Significant 압/ֆ
Land Use and Planning	Less than Significant	Significant and Unavoidable ☆	Less than Significant 압/⇩
Noise	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Significant and Unavoidable ${\mathbb Q}$
Population and Housing	Less than Significant	Less than Significant ${\mathbb Q}$	Less than Significant 압/⇩
Public Services and Recreation	Less than Significant	Less than Significant ${\mathbb Q}$	Less than Significant 압/ֆ
Transportation	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Significant and Unavoidable d/Ψ
Utilities and Service Systems	Significant and Unavoidable	Less than Significant ${\mathbb Q}$	Significant and Unavoidable Ψ
Wildfire	Less than Significant	Less than Significant ${\mathbb Q}$	Less than Significant ☆/ᡧ

TABLE 5-2 ALTERNATIVE IMPACT SUMMARY AND COMPARISON

NOTES:

 \mathbb{Q} - The impact is less than the proposed HEU.

 $\hat{\mathrm{v}}$ - The impact is greater than the proposed HEU.

 $\mathbb{1}/\mathbb{4}$ - The impact is about the same as the proposed HEU.

Air Quality Impact AIR-2: Implementation of the HEU would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Air Quality Impact AIR-3: Implementation of the HEU would not expose sensitive receptors to substantial pollutant concentrations.

Cultural Resources Impact CUL-1: Implementation of the HEU could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.

Cultural Resources Impact CUL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, could contribute considerably to cumulative impacts on architectural historic resources pursuant to CEQA Guidelines Section 15064.5.

Noise Impact NOI-3: Stationary noise sources from development within the HEU area would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Noise Impact NOI-2.CU: Stationary noise sources from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (The cumulative impact related to transportation activities would still occur, as indicated below)

Under the Reduced Program Alternative, the following significant impacts would remain:

GHG Impact GHG-1: Implementation of the HEU would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. *(Significant and Unavoidable with Mitigation)*

GHG Impact GHG-2: Implementation of the HEU would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. *(Significant and Unavoidable with Mitigation)*

GHG Impact GHG-1.CU: Implementation of the HEU, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to GHG emissions that may have a significant impact on the environment or conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-4: Transportation activities under the HEU would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Noise Impact NOI-2.CU: Transportation activities from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (The cumulative impact related to stationary noise sources would not occur, as indicated above)

Transportation Impact TRA-2: Implementation of the HEU would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-2: Implementation of the HEU could not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-3: Implementation of the HEU could result in a determination by a wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on water supply. *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-3.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on wastewater treatment capacity. *(Significant and Unavoidable with Mitigation)*

Even though the Reduced Program Alternative would still result in significant-and-unavoidable (with mitigation) impacts associated with the proposed HEU, it would eliminate the significantand-unavoidable (with mitigation) impacts related to aesthetics, air quality, cultural resources, and noise listed above while still meeting the objectives of the proposed HEU.

In addition, the Reduced Program Alternative would lessen the severity of significant and unavoidable impacts to utilities and service systems, including those related to water supply and wastewater treatment capacity, as the sites that would be eliminated require services subject to the review and approval of other agencies. Although since remaining sites would require connections to water and wastewater infrastructure that are subject to the review and approval of other agencies, the impacts under the Reduced Program Alternative to utilities and service systems would remain significant and unavoidable.

Additionally, the significant and unavoidable impact and cumulative impact related to substantial permanent increase in ambient noise levels as a result of stationary noise sources from development would not be attributable to the HEU. However, the significant and unavoidable impact and cumulative impact related to substantial permanent increase in ambient noise levels as a result of transportation activities from development would still occur. As such, the impacts of the Reduced Program Alternative would be similar, but reduced as compared to the proposed HEU.

In summary, the Reduced Program Alternative would eliminate 6 of the 16 significant and unavoidable impacts associated with the proposed HEU related to aesthetics, air quality, cultural resources, and noise. The Reduced Program Alternative would also reduce the severity of other significant and unavoidable impacts related to utilities and noise. As a result, the Reduced Program Alternative would be the environmentally superior alternative for the purpose of the EIR.

It should be noted that selection of this alternative would not preclude the State from developing housing on the Imola Avenue site, although it would mean that housing on the site would not help the County meet its RHNA allocation and related impacts would not be attributable to the County's HEU.

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CHAPTER 6 Other CEQA Considerations

Consistent with the CEQA *Guidelines* Section 15126.2, this section discusses significant environmental effects, significant irreversible environmental changes, and growth-inducing impacts associated with development of the Project. Project effects that were found to be less than significant are also discussed. Cumulative impacts are separately discussed in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*.

6.1 Significant Environmental Effects

Potentially significant environmental impacts that would result from implementation of the HEU are evaluated in the various subsections of Chapter 4.0, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR. With implementation of standard conditions and requirements, and mitigation measures identified for each resource area significantly impacted, many of the potentially significant impacts resulting from implementation of the HEU would be reduced to a less than significant level. The impacts listed below would remain significant and unavoidable even after mitigation.

Aesthetics Impact AES-2: Implementation of the Project could substantially degrade the existing visual character or quality of public views of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. *(Significant and Unavoidable with Mitigation)*

Air Quality Impact AIR-2: Implementation of the HEU would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. *(Significant and Unavoidable with Mitigation)*

Air Quality Impact AIR-3: Implementation of the HEU would not expose sensitive receptors to substantial pollutant concentrations. *(Significant and Unavoidable with Mitigation)*

Cultural Resources Impact CUL-1: Implementation of the HEU could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. *(Significant and Unavoidable with Mitigation)*

Cultural Resources Impact CUL-1.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable development, could contribute considerably to cumulative impacts on architectural historic resources pursuant to CEQA Guidelines Section 15064.5. (*Significant and Unavoidable Impact with Mitigation*)

Greenhouse Gas Emissions (GHG) Impact GHG-1: Implementation of the HEU would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. *(Significant and Unavoidable with Mitigation)*

GHG Impact GHG-2: Implementation of the HEU would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. *(Significant and Unavoidable with Mitigation)*

GHG Impact GHG-1.CU: Implementation of the HEU, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects, would result in a cumulatively considerable contribution to GHG emissions that may have a significant impact on the environment or conflict with applicable plans, policies or regulations adopted for the purpose of reducing the emissions of greenhouse gases. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-3: Stationary noise sources from development within the HEU area would not result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-4: Transportation activities under the HEU would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. (*Significant and Unavoidable with Mitigation*)

Noise Impact NOI-2.CU: Stationary noise sources and transportation activities from development within the proposed HEU area, when combined with other past, present, or reasonably foreseeable projects, would result in a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Significant and Unavoidable with Mitigation*)

Transportation Impact TRA-2: Implementation of the HEU would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-2: Implementation of the HEU could not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-3: Implementation of the HEU could result in a determination by a wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (*Significant and Unavoidable with Mitigation*)

Utilities and Service Systems Impact UTL-2.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on water supply. *(Significant and Unavoidable with Mitigation)*

Utilities and Service Systems Impact UTL-3.CU: Implementation of the HEU, when combined with other past, present, or reasonably foreseeable projects, would contribute considerably to cumulative impacts on wastewater treatment capacity. *(Significant and Unavoidable with Mitigation)*

6.2 Significant Irreversible Environmental Changes

Pursuant to Section 15126.2(c) of the CEQA *Guidelines*, an EIR must consider any significant irreversible environmental changes that would be caused by a project should it be implemented. Section 15126.2(c) states:

"Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

Resources that would be permanently and continually consumed by implementation of the HEU include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Construction activities related to the various development projects that could result from implementation of the HEU, though analyzed in the applicable technical section of this EIR, would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline for automobiles and construction equipment. With respect to the operational activities associated with the HEU's implementation, compliance with all applicable building codes, as well as EIR mitigation measures, would ensure that all natural resources are conserved to the maximum extent practicable. It is also possible that new technologies or systems would emerge, or would become more cost-effective or user-friendly, and would further reduce reliance upon nonrenewable energy resources.

The CEQA *Guidelines* also require a discussion of the potential for irreversible environmental damage caused by an accident associated with proposed projects. During the construction phase of the various development projects that could result from implementation of the HEU, construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. Once constructed, the completed structures would use and store small quantities of chemicals typical in residences, such as household cleaning solutions, paints and thinners, and motor fuel (e.g., motor vehicles and lawn mowers). As stated in Section 4.9, *Hazards and Hazardous Materials*, of this EIR, these materials are regulated through a series of federal, state, and local laws and regulations. Compliance with these existing requirements would ensure that the potential to cause significant irreversible environmental damage from an accident or upset of hazardous materials would be less than significant.

6.3 Growth-Inducing Impacts

The CEQA *Guidelines* require that an EIR evaluate the growth-inducing impacts of a proposed action (Section 15126.2[d]). A growth-inducing impact is defined by the CEQA *Guidelines* as:

[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth.... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement could result if a project involved construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. Increases in population could tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA *Guidelines* also require analysis of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The timing, magnitude, and location of land development and population growth is based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Because general plans define the location, type, and intensity of growth within a given jurisdiction, they are the primary means of regulating development and growth in California. Since the Housing Element is a part of the County's General Plan, any updates to that element would by definition provide a means to plan for and regulate development in the areas considered as part of the HEU.

The growth inducing impacts analysis addresses the potential of the HEU's implementation for unplanned growth inducement in Napa County. Under CEQA, a project is generally considered to be growth-inducing if it results in any one of the following:

- 1. Extension of urban services or infrastructure into a previously unserved area;
- 2. Extension of a transportation corridor into an area that may be subsequently developed; or
- 3. Removal of obstacles to population growth (such as provision of major new public services to an area where those services are not currently available).

6.3.1 Extension of Urban Services or Infrastructure

The areas under consideration for new housing sites under the HEU have some degree of existing development or are adjacent to developed areas. Urban services and infrastructure like roadways, utilities, and public services police and fire protection are already established in the vicinities. Although on-site infrastructure improvements would need to be constructed to facilitate development in those areas, development of the housing sites for residential uses would only require a connection to existing services. Consequently, implementation of the HEU would not induce unplanned growth in the County or broader area due to extension of urban services or infrastructure.

It is also noted that a majority of the Spanish Flat Water District's utility systems in Spanish Flat were destroyed in the Lightning Complex fires in August 2020. As described in Section 4.16, *Utilities and Service Systems*, the total loss of homes was 75 within the SFWD and 80 within the SOI. Additionally, the fire destroyed a portion of the Spanish Flat Water District's water and wastewater facilities serving the community, including the wastewater pump station building and controls, lake pump controls and power pole, water tank tops on west hillside. Given this drastic and recent change in the composition of the area, discussion of the potential for growth and development may not be relevant until the area is substantially rebuilt. The Draft HEU also proposes a program that would provide County support for infrastructure improvements needed to supply proposed housing sites.

6.3.2 Extension of a Transportation Corridor

As stated in the discussion above, the County is already served by existing transportation facilities and roadways that lie immediately adjacent to the various HEU housing sites. The established transportation network in the County and adjoining areas offers local and regional access to and from all of the HEU housing sites. Any onsite circulation that would be required in the HEU housing sites would be facilitated by construction of internal streets that would connect to existing and adjacent roadways. Consequently, implementation of the HEU would not induce unplanned growth in the County or broader area due to extension of transportation corridors.

6.3.3 Removal of Obstacles to Population Growth

Section 15126.2(d) of the CEQA *Guidelines* states that an EIR should discuss "the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through precedent-setting action. CEQA requires a discussion of how a project could increase population, employment, or housing in the areas surrounding the project site as well as an analysis of the infrastructure and planning changes that would be necessary to implement the project.

Projects that are characterized as having significant impacts associated with the inducement of growth are frequently those that would remove obstacles to additional growth, such as the expansion of sewer or water facilities that would permit construction of more development in the

service area covered by the new facilities. Similarly, if a project would overburden existing infrastructure so as to require construction of new facilities that could result in significant impacts, then the project may be deemed to have a significant growth-inducing impact. In identifying new sites for multi-family housing, the County required that sites have access to existing or planned water, sewer, and other dry utilities with sufficient capacity available to support housing development. As discussed in the Section 4.16, *Utilities and Service Systems*, the potential improvements or extension of utility infrastructure to serve development as a result of the HEU would be installed primarily in existing roadways and utility rights-of-way. Aside from short-term construction disturbance, no unusual or further environmental impacts would be generated beyond those identified elsewhere in this Draft EIR for overall construction activity for the Project.

Section 4.12, *Population and Housing*, analyzes the project's overall effect on population and housing, including growth-inducing considerations. In terms of housing, implementation of the HEU could theoretically provide for development of 760 residential units. The resulting population increase would be approximately 1,900 persons, using the unincorporated County's 2.5 persons-per-household factor to make the calculation.

This planned population growth in the County has been projected and directed by the Association of Bay Area Governments (ABAG) as part of the 6th Housing Element Cycle to meet the region's housing needs allocation. Implementation of the HEU would require an amendment to the County's General Plan and Zoning Code to accommodate the projected growth. Because general plans define the location, type, and intensity of growth within a given jurisdiction, they are the primary means of regulating development and growth in California. Since the Housing Element is a part of the County's General Plan, any updates to that element would by definition provide a means to plan for and regulate development in the areas considered as part of the HEU. Additional new residential development that could derive from the HEU's implementation would therefore be consistent with the growth projections in the County's General Plan as well as applicable regional plans adopted by ABAG and other relevant entities, and would help the region meet its regional housing allocation requirements. Consequently, implementation of the HEU would not induce substantial unplanned population growth that was not previously anticipated.

6.3.4 Summary

Implementation of the HEU would facilitate increased development of residential uses in specific areas of the County. However, it is important to note that while the law requires the HEU to include an inventory of housing sites and requires the County to zone those sites for multifamily housing, the County is not required to actually develop housing on these sites. Future development on the identified sites will be up to the property owners and will be largely dependent on market forces and (in the case of affordable housing) available subsidies.

Growth in Napa County is constrained by the provisions of Measure J (now Measure P) and the County's Housing Allocation Program (Measure A). Within this framework, the proposed HEU includes a number of programs and policies to encourage the development of housing and identifies specific sites where this housing development would occur. Although on-site infrastructure improvements would occur as part of this development, these improvements would connect to existing infrastructure. No extensions or expansions of infrastructure systems or roads would be required beyond what is needed to serve project-specific demand. Consequently, the HEU's implementation would not induce unplanned growth in the County due to extension of urban services or infrastructure. For the above-described reasons, implementation of the HEU would not cause a new impact related to a substantial increase in population growth, and would be in line with the projected growth planned for the County as defined in the County's General Plan and applicable regional planning directives.

6.4 Cumulative Impacts

CEQA defines cumulative impacts as two or more individual impacts which, when considered together, are substantial or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the "incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects" that can result from "individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines Section 15355) The analysis of cumulative impacts is a two-phase process that first involves the determination of whether a project, together with existing and reasonably foreseeable projects, would result in a significant impact. If there would be a significant cumulative impact of all such projects, the EIR must determine whether the project's incremental "contribution" is cumulatively considerable, in which case, the cumulative impact would be significant (CEQA Guidelines Section 15130).

The analysis of each environmental topic included in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR considers possible cumulative impacts and identifies circumstances in which the project would contribute to significant cumulative impacts.

Cumulative significant and unavoidable impacts to cultural resources (Impact CUL-1.CU), GHGs (Impact GHG-1.CU), noise (Impact NOI-2.CU), transportation (Impact TRA-2), and utilities and service systems (Impact UTL-2.CU and UTL-3.CU) were identified in the analysis. These cumulative analyses assumed that the mitigation measures identified in this EIR would be implemented. Nonetheless, these identified impacts would be cumulatively considerable and not fully mitigable. No other cumulative impacts were determined to be significant after mitigation.

6.5 Effects Found Not To Be Significant

As required by CEQA, this EIR focuses on expected significant environmental effects (CEQA *Guidelines* Section 15143). In accordance with Section 15128 of the CEQA *Guidelines*, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Effects found not to be significant are specifically discussed under each applicable environmental topic section in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR, under the "Topics Considered and No Impact Determined" heading. Effects found not to be significant include:

- Substantial damage to scenic resources within a State scenic highway (see Section 4.1, *Aesthetics*).
- Conflict with zoning for or rezone forest land, timberland, or timberland zoned Timberland Production (see Section 4.2, *Agriculture and Forestry Resources*).
- Loss of forest land or conversion of forest land to non-forest use (see Section 4.2, *Agriculture and Forestry Resources*).
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (see Section 4.4, *Biological Resources*).
- Substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (see Section 4.4, *Biological Resources*).
- Location on an active fault (see Section 4.7, *Geology, Soils, Paleontological and Mineral Resources*).
- Loss of availability of a known mineral resource that would be a value to the region and the residents of the state (see Section 4.7, *Geology, Soils, Paleontological and Mineral Resources*).
- Loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan (see Section 4.7, *Geology, Soils, Paleontological and Mineral Resources*).
- Hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List) (see Section 4.9, *Hazards and Hazardous Materials*).
- Location within 2 miles of an airport resulting in safety hazards (see Section 4.9, *Hazards and Hazardous Materials*).
- Risk release of pollutants due to project inundation in tsunami or seiche zones (see Section 4.10, *Hydrology and Water Quality*).
- Expose people or structures to or generate excessive groundborne noise levels (see Section 4.12, *Noise*).

CHAPTER 7 Report Preparers

7.1 Lead Agency

County of Napa Planning, Building, & Environmental Services 1195 Third Street, Room 210 Napa, CA 94559

Director: David Morrison *Planner*: Trevor Hawkes, Planner III

7.2 EIR Consultants

Environmental Consultant

Environmental Science Associates (ESA) 180 Grand Avenue, Suite 1050 Oakland, California 94612

Project Director: Hillary Gitelman Project Manager: Jill Feyk-Miney

Hillary Gitelman, Project Director

Jill Feyk-Miney, Project Manager

Steve Smith Cheri Velzy Brian Pittman Alexandra Sung-Jereczek Jyothi Iyer Amber Grady Heidi Koenig Ashleigh Sims Technical Review; Quality Assurance/Quality Control
Technical Review; Quality Assurance/Quality Control; Agriculture and Forestry Resources; Population and Housing; Utilities and Service Systems; Alternatives; Other CEQA Considerations
Aesthetics; Land Use and Planning Air Quality
Biological Resources; Senior Technical Review
Biological Resources
Greenhouse Gas Emissions; Energy
Historic Architectural Resources
Cultural and Tribal Cultural Resources; Senior Technical Review

Cultural and Tribal Cultural Resources

Michael Burns	Hazards and Hazardous Materials; Hydrology and Water Quality; Geology, Soils, Paleontological and Mineral Resources; Senior Technical Review
Brandon Carroll	Geology, Soils, Paleontological and Mineral Resources
Maria Hensel	Hydrology and Water Quality
Chris Sanchez	Noise and Vibration; Senior Technical Review
Nick Reynoso	Noise and Vibration
Ryan Yasuda	Public Services and Recreation
Melissa Logue	Transportation; Senior Technical Review
Juliana Medan	Transportation
Jessica O'Dell	Wildfire
Melody McCart	GIS Services
Wes McCullough	GIS Services
Ron Teitel	Graphics
Logan Sakai	Word Processing and Report Production

Transportation

Fehr & Peers 100 Pringle Avenue, Suite 600 Walnut Creek, CA 94596

> Ian Barnes, PE Terence Zhao, Transportation Planner