

City of Monterey Environmental Checklist Form

1. **Project title:** City of Monterey Greenbelt Fuel Reduction Project
2. **Lead agency name and address:** City of Monterey, 570 Pacific Street, Monterey, California 93940
3. **Contact person and phone number:** Kimberly Cole, Community Development Director, (831) 646-3759
4. **Project location:** This project is located within the following seven City of Monterey greenbelts: (1) Skyline Forest, (2) Veteran's Park, (3) Monte Vista, (4) Carmelo Street, (5) Don Dahvee, (6) Josselyn Canyon, and (7) Fisherman Flats (refer to Figures 1 and 2).
5. **Project sponsor's name and address:** Kimberly Cole, City of Monterey, Planning Office, 580 Pacific Street, Monterey, California 93940
6. **General Plan designation:** Parks and Open Space
7. **Zoning:** Open Space (O), Planned Community (PC), and Residential Single-Family District (R-1)
8. **Description of project:**

PROJECT LOCATION

The City of Monterey (City) Greenbelt Fuel Reduction Project (project or proposed project) is located within the following seven City greenbelts: (1) Skyline Forest, (2) Veteran's Park, (3) Monte Vista, (4) Carmelo Street, (5) Don Dahvee, (6) Josselyn Canyon, and (07) Fisherman Flats (see Figures 1 and 2).

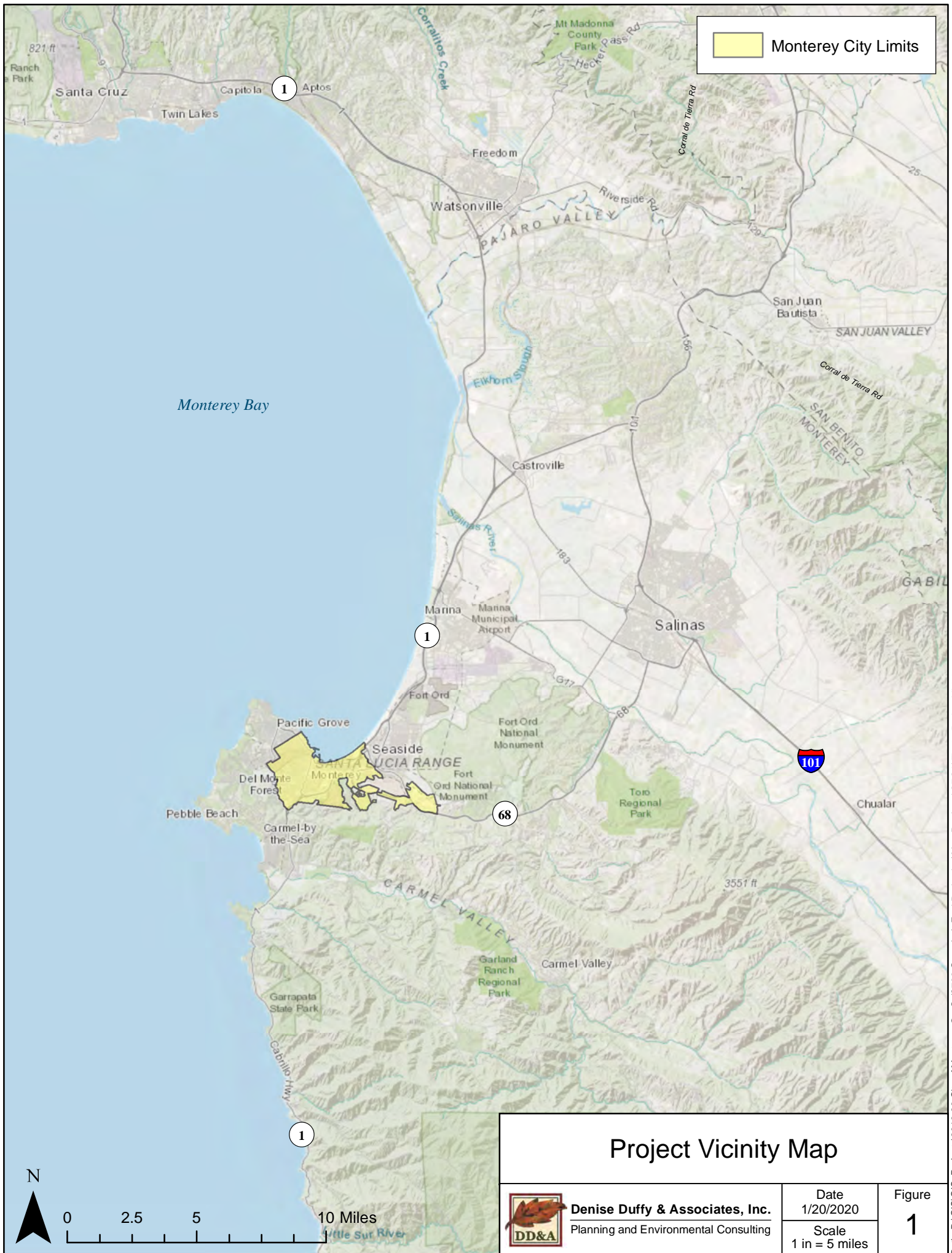
PROJECT BACKGROUND

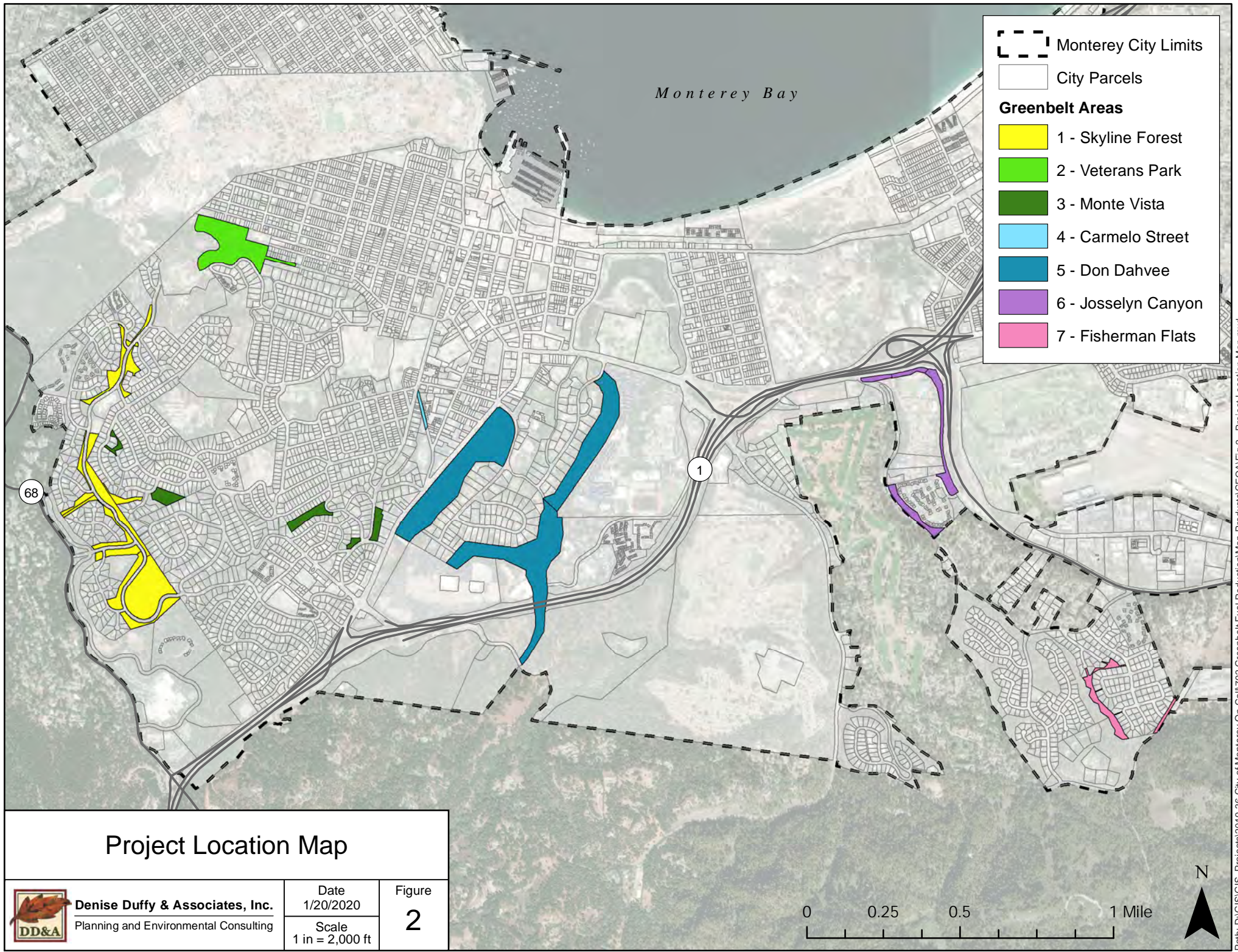
The City has identified seven treatment areas within the City's greenbelt system where the fire hazard is high due to high fuel loads. Wildfire in these greenbelts (collectively "the Plan Area") could result in substantial impacts to natural resources and substantial health, safety, and welfare impacts to the built/human environment adjacent to these areas.

PROJECT OBJECTIVES

The objective of the proposed project is to reduce the risk of wildfire in the Plan Area through fuel reduction actions undertaken by the City. These actions would be conducted in a manner that minimizes adverse environmental effects and implements goals for resource and habitat management. Specific goals that have been established by the City for the project include the following:

- Reduce the fire hazard within the City's greenbelt system to an acceptable level of risk;
- Maintain and enhance ecological values for plant and wildlife habitat while achieving fire reduction goals;
- Preserve aesthetic landscape values for neighboring residents and visitors; and
- Improve watershed conditions by protecting it from the adverse effects of wildland fire on soil and water quality.





PROJECT DESCRIPTION

The proposed project would result in the managed reduction of fire fuel hazards in the Plan Area while maintaining plant and animal habitat, preserving cultural and aesthetic resources, and protecting water quality.

The following actions would be implemented in the Plan Area as part of the project to reduce fire hazards:

- Thinning of vegetation to reduce woody biomass and to break-up horizontally- and vertically-continuous fuels would be implemented on an as-needed basis depending upon topography and vegetation type.
- Removal of trees, focusing primarily on dead and dying trees, would be implemented. However, in areas with hazardous fuels, live tree removal may be necessary to improve vegetation spacing and to reduce overall fuel continuity. Where removal of trees is required, root systems would generally be left intact, as-needed, to maintain slope stability.
- Trees or large tree-form shrubs (reaching four (4) feet or taller at maturity) that are to be retained in defensible spaces would be trimmed or pruned to reduce both vertical and horizontal fuel continuity. Pruning, where feasible, would eventually attain an at least eight-foot vertical clearance (16-foot vertical clearance preferable where attainable) from the highest slope point within the canopy, yet should not exceed 50% reduction in live crown (canopy).
- Removal of dead/dying plants from the treatment areas would be implemented to help reduce low fuel moisture biomass and highly flammable fine fire fuels. This practice would be conducted in combination with vegetation thinning efforts and may help reach or completely satisfy thinning objectives in some areas.
- Removal of exotic/invasive plants would be implemented to help reduce the presence of undesirable species and enhance thinning efforts aimed at reducing overall biomass levels. Typical undesirable exotic species include, but are not limited to, the following: Cape ivy, rattlesnake grass, French broom, panic veldt grass, English ivy, kikuyu grass, Himalayan blackberry, and poison hemlock.
- Mechanical thinning and removal of vegetation would be implemented using string and blade trimmers (i.e., weed eaters), mowers, and chainsaws.
- Prescribed grazing, utilizing goats and sheep, would be implemented to thin and remove vegetation in difficult to access areas and in areas where high fire hazard conditions exist due to dry conditions. These areas would be fenced-off using temporary fencing for the duration of grazing activities.
- Treated fire fuel materials would either be removed from the Plan Area and disposed of in a landfill with a green waste composting program or would be chipped and used as mulch within the Plan Area.
- Staging areas for vehicles and equipment would be primarily focused on existing roads and within existing road right-of-way.
- Vehicle and equipment use associated with fire fuel reduction activities would be implemented using only rubber-tired, non-metal-tracked vehicles to eliminate soil disturbance.

As part of the fire fuel reduction program, the following BMPs would be implemented in the Plan Area to limit construction dust and emissions (where feasible and appropriate):

- Prohibit all mastication or other activities causing fine particles or ground disturbance during periods of high wind (over 15 mph).
- Water all active work areas, where ground/soil disruption may occur, at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Maintain at least two feet of freeboard in haul trucks.
- Cover all trucks hauling dirt, sand, or loose materials.
- Cover inactive storage piles.

- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Air Resources District (MBARD) shall be visible to ensure compliance with Rule 402 (Nuisance).
- Construction equipment shall conform to the Air Resources Board's Tier 3 or 5 emission standards and, where feasible, construction equipment shall use alternative fuels such as compressed natural gas (CNG), propane, electricity or biodiesel.

PROJECT SCHEDULE

Fuel reduction activities would be conducted year-round depending upon fire safety conditions, availability of labor and resources, and avoidance of sensitive biological, cultural, and water resources.

PROJECT PERMITS

The project is not expected to require any permits. However, if impacts to any of the potentially jurisdictional drainages, riparian areas, and potential wetland areas within the Plan Area occur as a result of the proposed project, the project would require the following approvals:

- U.S. Army Corps of Engineers (USACE) -- Section 404 Authorization,
- Regional Water Quality Control Board (RWQCB) – Section 401 Water Quality Certification, and/or
- California Department of Fish and Wildlife (CDFW) – Section 1602 Lake and Streambed Alteration Agreement.

9. Surrounding land uses and setting: The land uses surrounding the project site include the following:

- Residential – Low Density,
- Residential – Medium Density
- Public / Semi-Public,
- Parks and Open Space,
- Commercial,
- Ocean / Lake, and
- City Boundary.

10. Other public agencies whose approval is required:

- City of Monterey Fire Department,
- Monterey Bay Air Resources District (MBARD), and
- California Department of Forestry and Fire Protection (Cal Fire).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist on the following pages.

.....Aesthetics	..... Land Use Planning
.....Agriculture Resources	..... Mineral Resources
.....Air Quality	..... Noise
.....X.....Biological Resources	..... Population/Housing
.....X.....Cultural Resources	..... Public Services
.....Energy	..... Recreation
.....X.....Geology/Soils	..... Transportation/Traffic
.....Greenhouse Gas Emissions	..... Tribal Cultural Resources
.....X.....Hazards & Hazardous Materials	..... Utilities/Service Systems
.....X.....Hydrology/Water Quality	..... X Mandatory Findings of Significance

DETERMINATION: On the basis of this initial evaluation:

.....I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

.....X.....I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

.....I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

.....I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

.....I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report (EIR) or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Public Review Period

Begins: September 3, 2020

Ends: October 5, 2020

Public Meeting

Date: October 27, 2020

Time: 4:00 pm or 7:00 pm

Location: Virtual Meeting

(Due to COVID-19, the Planning Commission meeting will be conducted with virtual (electronic) participation only. View agenda at:

<http://isearchmonterey.org/onbaseagendaonline/>)

Reviewing Body: Planning Commission

Anyone interested in this matter is invited to comment on the document by written response (send comments to sabdo@monterey.org), or by calling in to the Planning Commission hearing (instructions for calling in are described on the Planning Commission agenda).

Signature:  Date: 8/27/2020

Printed name:

Christy Sabdo, AICP

Title:

Associate Planner

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Attachments:

City of Monterey Greenbelt Fuel Reduction Plan

DISTRIBUTION LIST**Post** (Outside City Clerk's Office)

Monterey City Clerk

Monterey County Clerk

Electronic Submittal:

CA State Clearinghouse

Via Email to:

City Council

Planning Commission

Architectural Review Committee

Planning Secretary

Association of Monterey Bay Area Governments

California Coastal Commission

California Regional Water Quality Control Board

California Native Plant Society

Caltrans District 5

CA Department of Fish and Wildlife

CA Department of Parks and Recreation, Monterey District Superintendent,

LandWatch of Monterey County

League of Women Voters

Louis J. Miranda Ramirez, OCEN Tribal Chairwoman

Molly Erickson

Monterey County Airport Land Use Commission

Monterey County Health Department

Monterey Bay Air Resources Board

Monterey Regional Airport District

Native American Heritage Commission

Sierra Club, Ventana Chapter

Transportation Agency for Monterey County

Note: A copy of this document, as well as informational sources referenced herein, can be reviewed at the City's website: <https://monterey.org/Services/Community-Development/Planning>

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
I. AESTHETICS – Would the project:					
a) Have a substantial adverse effect on a scenic vista?			X		- City of Monterey, General Plan Map 2 <i>Showing Special Places</i> , and Urban Design Element Policies b3. and c.1
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X		- City of Monterey, General Plan Urban Design Element Policies h.19 and h.22
c) 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X		- City of Monterey, General Plan Urban Design Element - City of Monterey, General Plan Open Space Element, Policies a.3 and b.4 - City of Monterey City Code (M.C.C.), Chapter 37, <i>Preservation of Trees</i>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X	- City of Monterey General Plan Urban Design Element policy h.4

Existing Setting:

The City of Monterey consists of approximately 10 square miles of coastal lands and forested hills. Much of the City is urbanized; however, its coastline and wooded ridges are devoted primarily to open space and recreational uses. Located one hour away from San Jose and 1.5 hours from San Francisco, Monterey is frequently a vacation destination for inland and City residents. The Monterey region is well known for its scenic visual character, and the City's coastal areas provide expansive views of the Pacific Ocean (Monterey Bay). The adjacent beach and coastal bluff areas are visually intriguing and offer a variety of passive and active recreational opportunities. Fisherman's Wharf and Cannery Row provide a variety of shops, art and craft galleries, boutiques, and restaurants in an historic seaport setting.

As identified in the City's General Plan, all major roads leading to Monterey are scenic highways. State Route (SR) 1, south of the City, is a State of California-designated scenic highway. SR 68 from SR 1 to the Salinas River is a state- and County of Monterey (County)-designated scenic highway. In addition, SR 1 north of the City is an eligible state scenic highway, and SR 68 along the western boundary of the City is identified as a "Proposed Scenic Road" in the City's General Plan.

Discussion:

- a–c)** The City's General Plan identifies "special places," which are considered to have significant visual resources; the project areas are designated as "canyon" and "wooded hill" special places in the City's General Plan. Portions of Greenbelt 1 (Skyline Forest) are intermittently visible from SR 68 and portions of Greenbelt 5 (Don Dahvee) and Greenbelt 6 (Josselyn Canyon) are intermittently visible from SR 1. Implementation of the proposed project is intended to improve the habitat structure and quality within each of the greenbelts through the managed reduction of fire fuel hazards and includes a goal of preserving aesthetic landscape values for neighboring residents and visitors. The project is limited to the prescribed thinning and removal of trees and vegetation through the use of mechanical tools and grazing by goats and sheep. The project would not have a permanent adverse effect on any scenic vista, damage scenic resources within a state scenic highway, or degrade the existing visual character or quality of public views within the Plan Area. Temporary visual impacts associated with the project include the presence of workers, equipment, and potentially flagging within the Plan Area during prescribed fire fuel reduction activities. Visual impacts associated with these activities would be minor and short-term. Therefore, visual impacts would be minimal, and the impact would be **less than significant**.
- d)** The proposed project does not propose any new development and is limited to prescribed fire fuel reduction activities that would occur during daylight hours. The project does not include new sources of light or glare; therefore, **no impact** would result from the proposed project.

Mitigation:

Implementation of the proposed project would not result in significant impacts to aesthetics; therefore, impacts are expected to be less than significant, and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
II. AGRICULTURE AND FOREST RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a) 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?				X	<ul style="list-style-type: none"> - City of Monterey, General Plan Conservation Element - City of Monterey General Plan Update Initial Study 2003 - City of Monterey Zoning Ordinance - Monterey County Important Farmland 2014 (California Department of Conservation, 2016)
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X	<ul style="list-style-type: none"> - City of Monterey, General Plan Conservation Element - City of Monterey General Plan Update Initial Study 2003 - City of Monterey Zoning Ordinance
c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220g), timberland (as defined by Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104g)?				X	<ul style="list-style-type: none"> - City of Monterey, General Plan Conservation Element
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X	<ul style="list-style-type: none"> - City of Monterey, General Plan Conservation Element
e) 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?				X	<ul style="list-style-type: none"> - City of Monterey, General Plan Conservation Element - City of Monterey General Plan Update Initial Study 2003 - City of Monterey Zoning Ordinance

Existing Setting:

While much of Monterey County is known for, and associated with, an abundance of agricultural operations, the City itself has no agricultural operations or potential for future agriculture resources or activities. The City does not have any forest lands zoned for Timberland Production. The City is primarily an urbanized environment.

Discussion:

- a–e)** The proposed project would not affect any identified agriculture resources, land identified for potential agricultural production, lands zoned for agricultural use, or lands under a Williamson Act contract or otherwise protected by the federal Farmland Protection Policy Act. Agriculture operations are not an allowable use in the City's Zoning Code. The City also does not have any identified forest land use, nor land identified for potential timberland production or use. The proposed project would include tree and vegetation thinning and removal for the prescribed reduction of fire fuel hazards within the seven greenbelts; however, the project would not conflict with policies and ordinances protecting trees and shrubs; Policy b.3 in the Conservation Element, Policy g.5 within the Urban Design Element, and Chapter 37 Preservation of Trees and Shrubs in the City of Monterey Municipal Code. Therefore, **no impact** would occur to agricultural or forest resources as a result of the proposed project.

Mitigation:

Implementation of the proposed project would not result in impacts to agriculture and forest resources; therefore, mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?			X		<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element, Policy c.2 – 2012-2015 Air Quality Management Plan (AQMP) (MBARD, 2017) – 2008 AQMB (MBARD, 2008a) – 2008 CEQA Air Quality Guidelines (MBARD, 2008b) – NCCAB Area Designations and Attainment Status (MBARD, 2015)
b) 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?			X		<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element Goal c and Policies c.1–c.3 – 2012-2015 AQMP (MBARD, 2017) – 2008 CEQA Air Quality Guidelines (MBARD, 2008b) – NCCAB Area Designations and Attainment Status (MBARD, 2015)
c) Expose sensitive receptors to substantial pollutant concentrations?			X		<ul style="list-style-type: none"> – City of Monterey, General Plan – 2008 CEQA Air Quality Guidelines (MBARD, 2008b)
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X		<ul style="list-style-type: none"> – City of Monterey, General Plan – 2008 CEQA Air Quality Guidelines (MBARD, 2008b)

Existing Setting:

The project site is located within the North Central Coast Air Basin (NCCAB), which is comprised of Santa Cruz, San Benito, and Monterey Counties, and is regulated by the MBARD (formerly known as the Monterey Bay Unified Air Pollution Control District). A semi-permanent high-pressure system in the eastern Pacific Ocean is the controlling factor in the climate of the air basin. In late spring and summer, the high-pressure system is dominant and causes persistent west and northwesterly winds over the entire California coast. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. Warmer air aloft creates elevated inversions that restrict dilution of pollutants vertically, and mountains forming the valleys restrict dilution horizontally.

In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The airflow is occasionally reversed in a weak offshore movement, and the relatively stagnant conditions allow pollutants to accumulate over a period of days. It is during this season that the north or east winds develop that transport pollutants from either the San Francisco Bay Area or the Central Valley into the NCCAB. During winter and early spring, the Pacific high-pressure system migrates southward and has less influence on the air basin. Wind direction is more variable, but northwest winds still dominate. The general absence of deep, persistent inversions and occasional storm passages usually result in good air quality for the basin as a whole. The air basin is bounded by pine-wooded hills to the south and by the crescent-shaped southerly end of the Monterey Bay to the north. Persistent sea breezes ventilate the area with respect to other metropolitan areas, and the City generally enjoys good air quality throughout the year.

The Federal Clean Air Act (FCAA) and the California Clean Air Act mandate the control and reduction of specific air pollutants. Under these Acts, the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) have established ambient air quality standards for specific "criteria" pollutants, designed to protect public health and welfare. Primary criteria pollutants include carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), particulate matter (PM₁₀), sulfur dioxide (SO₂), and lead (Pb). Secondary criteria pollutants include ozone (O₃), and fine particulate matter (PM_{2.5}).

The U.S. EPA administers the National Ambient Air Quality Standards (NAAQS) under the FCAA. The U.S. EPA sets the NAAQS and determines if areas meet those standards. Violations of ambient air quality standards are based on air pollutant monitoring data and evaluated for each air pollutant. Areas that do not violate ambient air quality standards are considered to have attained the standard. The FCAA allows states to adopt additional or more health-protective standards, and California has established the California Ambient Air Quality Standards (CAAQS) for some pollutants not addressed by NAAQS. The NCCAB is in attainment for all NAAQS and for all CAAQS except O₃ and PM₁₀. The primary sources of O₃ and PM₁₀ in the NCAAB are from automobile engine combustion. To address exceedance of these CAAQS, the MBARD has developed and implemented several plans including the 2005 Particulate Matter Plan, the 2007 Federal Maintenance Plan, and the 2012-2015 Air Quality Management Plan (AQMP), a revision to the 2012 Triennial Plan. NCCAB Attainment Status to National and California Ambient Air Quality can be found in **Table 1** below.

Table 1. North Central Coast Air Basin Attainment Status Summary as of January 2015		
Pollutant	State Standards¹	National Standards
Ozone (O ₃)	Nonattainment²	Attainment / Unclassified ³
Inhalable Particulates (PM ₁₀)	Nonattainment	Attainment
Fine Particulates (PM _{2.5})	Attainment	Attainment / Unclassified ⁴
Carbon Monoxide (CO)	Attainment	Attainment / Unclassified
Nitrogen Dioxide (NO ₂)	Attainment	Attainment / Unclassified ⁵
Sulfur Dioxide (SO ₂)	Attainment	Attainment ⁶
Lead	Attainment	Attainment / Unclassified ⁷
Notes: 1) State designations based on 2010 to 2012 air monitoring data. 2) Effective July 26, 2007, the ARB designated the NCCAB a nonattainment area for the state ozone standard, which was revised in 2006 to include an 8-hour standard of 0.070 ppm. 3) On March 12, 2008, the U.S. EPA adopted a new 8-hour ozone standard of 0.075 ppm. In April 2012, the U.S. EPA designated the NCCAB attainment/unclassified based on 2009-2011 data. 4) This includes the 2006 24-hour standard of 35 µg/m ³ and the 2012 annual standard of 12 µg/m ³ . 5) In 2012, the U.S. EPA designated the entire state as attainment/unclassified for the 2010 NO ₂ standard. 6) In June 2011, the ARB recommended to the U.S. EPA that the entire state be designated as attainment for the 2010 primary SO ₂ standard. Final designations to be addressed in future U.S. EPA actions. 7) On October 15, 2008 EPA substantially strengthened the national ambient air quality standard for lead by lowering the level of the primary standard from 1.5 µg/m ³ to 0.15 µg/m ³ . Final designations were made by the U.S. EPA in November 2011. 8) Nonattainment designations are highlighted in Bold .		

Plans to attain these standards already accommodate the future growth projections available at the time these plans were prepared. Any development project capable of generating air pollutant emissions exceeding regionally-established criteria is considered significant for the purposes of CEQA analysis, whether or not such emissions have been accounted for in regional air planning. Furthermore, any project that would directly cause or substantially contribute to a localized violation of an air quality standard would generate substantial air pollution impacts. The same is true for a project that generates a substantial increase in health risks from toxic air contaminants or introduces future occupants to a site exposed to substantial health risks associated with such contaminants.

Discussion:

- a) CEQA Guidelines §15125(b) requires that a project is evaluated for consistency with applicable regional plans, including the AQMP. As stated above, MBARD has developed and implemented several plans to address exceedance of state air quality standards, including the MBARD 2012-2015 AQMP. MBARD is required to update their AQMP once every three years; the most recent update was approved in March 2017. This plan addresses attainment of the state ozone standard and federal air quality standard. The AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by the Association of Monterey Bay Area Governments (AMBAG) and other indicators.

The proposed project would not affect population, employment, or regional growth; therefore, the project would be consistent with the MBARD 2012-2015 AQMP (MBARD, 2017). In addition, as noted in Response b, below, the project would not result in a significant increase in emissions. For these reasons, implementation of the project is not anticipated to result in a substantial increase in either direct or indirect emissions that would conflict with or obstruct implementation of the AQMP. This impact is considered **less than significant**.

- b) Under the FCAA, the NCCAB is designated for attainment status, as shown above in Table 1.

The proposed project would include short-term and temporary impacts to air quality, which may occur from the generation of air pollutant emissions during fire fuel reduction activities that require the use of mechanical tools. No site grading or excavation, beyond occasional removal of tree stumps and invasive plant roots is proposed. The use of heavy equipment is proposed. Limited worker trips and emissions generated from the use of mechanical tools, such as string and blade trimmers (i.e., weed eaters), mowers, and chainsaws, would be the only sources of emissions and would be limited and short term in duration. These sources would not operate continuously, thereby causing intermittent emissions.

The sources of emissions associated with the proposed project have the potential to generate a small amount of fugitive particles and diesel exhaust that could result in an increase in criteria pollutants during prescribed fire fuel reduction activities could also contribute to the existing nonattainment status of the NCCAB for O₃ and inhalable particulates. As stated in the MBARD 2008 CEQA Air Quality Guidelines (Section 5.3), emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Emissions of concern related to construction activities are PM₁₀ and ozone. Per Table 5-2 of the MBARD 2008 CEQA Guidelines, a construction site with earthmoving (e.g., grading, excavation) of less than 2.2 acres per day is assumed to be below the 82 lbs/day threshold of significance for PM₁₀. The project would not include any earthmoving construction activities and includes BMPs for the control of construction dust; therefore, air quality impacts associated with the proposed project would be **less than significant**.

- c, d) Generally, residences, schools, parks, and playgrounds are considered to be “sensitive receptors” in relation to air quality issues. Adjacent sensitive receptors to the proposed project sites include residences, schools, parks, and golf courses. As stated under Response b) above, managed fuel reduction activities that have the potential to generate emissions are limited to the use of mechanical tools for tree and vegetation trimming and removal and to worker vehicle trips. These project activities would be limited and short term in duration and would not expose sensitive receptors to substantial pollutant concentrations or expose substantial numbers of people to objectionable odors. Any odors potentially generated by the project activities would be short term and temporary and would not cause a violation of any carbon monoxide, PM₁₀, or toxic air contaminant standards. Therefore, project-related impacts would be **less than significant**.

Mitigation:

Implementation of the proposed project would not result in significant impacts to air quality; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
IV. BIOLOGICAL RESOURCES – Would the project:					
a) Has 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X			<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element Goal d, Policies d.1–d.6 and Programs d.1.1–d.6.6 – City of Monterey, M.C.C. Chapter 37, Preservation of Trees and Shrubs – City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020). – Draft Greenbelt Study for the City of Monterey (Regan Biological and Horticultural Consulting, 2016).
b) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X			<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element Policy b.4 and Program d.6.3 – City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020). – Draft Greenbelt Study for the City of Monterey (Regan Biological and Horticultural Consulting, 2017).
c) 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?		X			<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element Policy b.4 and Program d.6.3 – City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020). – Draft Greenbelt Study for the City of Monterey (Regan Biological and Horticultural Consulting, 2017).
d) 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?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan – City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020). – Draft Greenbelt Study for the City of Monterey (Regan Biological and Horticultural Consulting, 2017).
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X	<ul style="list-style-type: none"> – City of Monterey, M.C.C. Chapter 37, Preservation of Trees and Shrubs – City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020). – Draft Greenbelt Study for the City of Monterey (Regan Biological and Horticultural Consulting, 2017).

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan – City of Monterey General Plan Update EIR 2004 – City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020). – Draft Greenbelt Study for the City of Monterey (Regan Biological and Horticultural Consulting, 2017).

Existing Setting:

Monterey County consists of more than 3,324 square miles of land (over 2 million acres) with a variety of habitats from rocky Pacific shores to open grasslands to high mountains at elevations exceeding 5,000 feet. The Monterey Bay area, located in northern Monterey County, is home to a diverse population of animal, bird, and plant species. The waters of Monterey Bay and the adjacent Pacific Ocean off the central California coast have been designated and protected as the Monterey Bay National Marine Sanctuary since 1992. The climate of the Plan Area is typical of the California central coast, with mild year-round and morning coastal fog that is generally cleared by afternoon breezes. Monterey typically experiences cool summer months, with temperatures averaging in the high 50s to low 60s, and warm weather in the fall. The average yearly rainfall is approximately 18 inches and is concentrated in the winter and early spring months.

The City conducted multiple biological surveys of the seven City greenbelt treatment areas between June 13th and July 29th, 2016, and on January 9th and 13th, 2020 (Reagan, 2017 and DD&A, 2020). The seven City greenbelt treatment areas were evaluated for the potential presence of special-status plant and animal species, and for sensitive habitats (see discussion of Regulations below). Mixed Monterey pine forest and coast live oak woodland is the dominant habitat type within the Plan Area. The seven greenbelts in the Plan Area are all generally urbanized and impacted by non-native species which have escaped from nearby landscaped areas or, more commonly, are part of a general spread of invasive species in the greater Monterey area. Two of the most common and abundant non-native species throughout the Plan Area are rattlesnake grass (*Briza maxima*) and French broom (*Genista monspessulana*), both prolific seed producers capable of invading disturbed areas in a short time. Native trees like Monterey pine (*Pinus radiata*), coast live oak (*Quercus agrifolia*), and others in the Plan Area are in varying states of health. A discussion of the habitat conditions associated with each greenbelt area is provided below.

Greenbelt 1: Skyline Forest

The Skyline Forest greenbelt has a much higher quality of native plant diversity compared to the other greenbelt areas and is more typical of undisturbed Monterey pine woodland with fewer invasive species. Aside from the ubiquitous rattlesnake grass, which is not as dense in this area, the plants beneath the Monterey pine trees include Douglas iris (*Iris douglasiana*), rough leaf aster (*Eurybia radulina*), California blackberry (*Rubus ursinus*), common yarrow (*Achillea millefolium*), yerba buena (*Clinopodium douglasii*), poison oak (*Toxicodendron diversilobum*), evergreen huckleberry (*Vaccinium ovatum*), Fremont's star lily (*Toxicoscordion fremontii*), and a few wooly leaf manzanita (*Arctostaphylos tomentosa* var. *tomentosa*). Like the rest of the Plan Area, small drainages are present throughout this greenbelt.

Greenbelt 2: Veteran's Park

The Veteran's Park greenbelt is a large, densely vegetated area of mixed Monterey pine and coast live oak woodland, with remnant areas of maritime chaparral and many small drainages throughout. The forest is dense and tall in this area and the understory is a diverse mix of native and non-native grasses and shrubs. Many fallen trees are in partial breakdown and could provide increased fire danger or safety issues from falling material. In addition, rattlesnake grass and French broom are common throughout this entire greenbelt.

Greenbelt 3: Monte Vista

This greenbelt consists of five small, distinct areas nestled between residential developments. Due to its proximity to homes, most of this greenbelt is regularly maintained. Trees have been thinned and left in place to decompose. Where it is maintained, the understory is mainly a low herbaceous growth of non-native grasses and forbs. The areas that are not regularly maintained consist of taller grasses and shrubs, including the ubiquitous rattlesnake grass and French broom. Small drainages are present within most of the areas in this greenbelt. A wet meadow dominated by typical wetland species such as common rush (*Juncus patens*), California blackberry, nutsedge (*Cyperus* sp.), Santa Barbara sedge (*Carex barbarae*), and western chain fern (*Woodwardia fimbriata*) is present within this greenbelt at the intersection of Pacific Street and San Bernabe Drive.

Greenbelt 4: Carmelo Street

The Carmelo Street greenbelt extends from Carmelo Street to Pacific Street near downtown Monterey. A seasonal creek runs adjacent to the greenbelt but does not overlap City property until the end of the greenbelt near Pacific Street. This area consists of a medium-density mixed Monterey pine and eucalyptus (*Eucalyptus* sp.) forest on approximately 30 percent slopes. The understory consists of a low herbaceous growth of non-native grasses and forbs, with almost zero native groundcover, and a shrub and vine component of French broom, English ivy (*Hedera helix*), poison oak, and greater periwinkle (*Vinca major*). The adjacent creek consists almost entirely of English ivy, eucalyptus, and French broom.

Greenbelt 5: Don Dahvee

The Don Dahvee greenbelt has a variety of issues, due to its location between the Del Monte shopping mall and residential streets and use by transients and locals for shortcuts into and out of the shopping center. Annual grasses and invasive shrubs and vines are prevalent and are a source of fuel buildup, erosion protection, and cover for urban wildlife and transient campsites. A main feature of the greenbelt is a large drainage running its length that may contain wetlands and riparian habitat. Open areas away from the drainage channel are dry and dominated by non-native grasses and forbs. Moisture from storm drains and runoff provides beneficial conditions for invasive species, like English ivy.

Greenbelt 6: Josselyn Canyon

Located at the intersection of Highway 1 and Highway 68, the Josselyn Canyon greenbelt consists of a riparian area dominated by a mix of native and non-native species such as nasturtium (*Tropaeolum majus*), California blackberry, English ivy, dogwood (*Cornus sericea*), and arroyo willow (*Salix lasiolepis*), a mixed Monterey pine forest and coast live oak woodland with a dense understory of native and non-native grasses, vines, and shrubs, including greater periwinkle, California blackberry, poison oak, and nasturtium, sticky monkeyflower, coyote brush, and rattlesnake grass, and two relatively open areas that are regularly used by pedestrians and which are regularly maintained.

Greenbelt 7: Fisherman Flats

The Fisherman Flats greenbelt is a narrower band running through portions of the Fisherman Flats neighborhood, bounded throughout by backyard fences and opening up in a wider drainage swath running north and south and divided by the drainage line between City coverage and private ownership of a development on the west side of the drainage. This greenbelt is heavily used by walkers and hikers and has several fallen trees close to fence lines and low-to-medium height annual grasses and invasive shrubs. Deeper into this greenbelt where the trail is less used, the understory is dominated by invasive weeds, including primarily rattlesnake grass and French broom.

Regulations:

Monterey Tree Protection Ordinance

Monterey's image is that of a small-scale residential community beside the bay, framed by a forested hill backdrop and drawing its charm from a rich historical background, certain commercial enterprises, and natural scenic beauty. Trees within the City significantly contribute to this image. The Preservation of Trees and Shrubs Ordinance is intended to assure preservation of trees and replacement of trees when removal is unavoidable. The ordinance also establishes a Landmark Tree Program.

General Plan Conservation Element

The City's Conservation Element contains a variety of goals, policies, and programs. Its elements protect the character and composition of existing native vegetative communities, as well as provide policy to conserve, manage, and restore habitats for endangered species, and protect biological diversity represented by special-status plant and wildlife species in the City.

Special-Status Species

Special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened, or are candidates for such listing under the Endangered Species Act (ESA) or the California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Guidelines Section 15380 are also considered special-status species. Animals on the CDFW's list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. CDFW also includes some animal species that are not assigned any of the other status designations on the CDFW's "Special Animals List"; however, these species have no legal or protection status and are not analyzed in this document.

Plants listed as rare under the California Native Plant Protection Act (CNPPA) or listed as California Rare Plant Rank (CRPR; formerly known as CNPS Lists) 1A, 1B, 2A, and 2B species in the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2019) are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380.¹ In general, the CDFW requires that plant species identified as CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); and CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere) in the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2019) be fully considered during the preparation of environmental documents relating to CEQA. Plant species identified as CRPR 3 (plants about which more information is needed) and CRPR 4 (plants of limited distribution) may, but generally do not, meet the definitions of Sections 2062 and 2067 of CESA, and are not typically considered in environmental documents relating to CEQA. While other species (i.e., CRPR 3 or 4 species) are sometimes found in database searches or within the literature, these do not meet the definitions of Section 2062 and 2067 of CESA and are not analyzed in this document.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." In addition, protected species under Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status wildlife species. Species with no formal special-status designation but thought by experts to be rare or in serious decline may also be considered special-status animal species in some cases, depending on project-specific analysis and relevant, localized conservation needs or precedence.

Sensitive Habitats

The seven greenbelts were also evaluated for sensitive habitats. Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted habitat types. Vegetation communities considered sensitive include those listed as sensitive on CDFW's *California Natural Communities List* (i.e., those habitats that are rare or endangered within the borders of California; CDFW, 2019), those that are occupied by species listed under the ESA or are critical habitat in accordance with ESA, and those that are defined as Environmentally Sensitive Habitat Areas (ESHA) under the California Coastal Act. Specific habitats may also be identified as

¹ CNPS initially created five CRPR to categorize degrees of concern; however, to better define and categorize rarity in California's flora, the CNPS Rare Plant Program and Rare Plant Program Committee have developed the new CRPR 2A and CRPR 2B.

sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the Clean Water Act and Executive Order 11990 – Protection of Wetlands), state regulations (such as CEQA and the CDFW Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

Discussion:

a) Two plant communities (Monterey pine forest and central maritime chaparral) and two² individual plant species — Hooker's manzanita (*Arctostaphylos hookeri* ssp. *hookeri*; CRPR 1B) and Monterey pine (CRPR 1B) — were observed in the greenbelts during biological surveys. Monterey pine occurs within all seven greenbelts, but Hooker's manzanita was only observed within portions of the Skyline Forest and Veteran's Park greenbelts. Yadon's rein orchid (*Piperia yadonii*; FE/1B) was also observed by Patric Reagan in a few of the greenbelt areas during surveys conducted for other purposes (Reagan, 2017). Additionally, while not observed to be present, but due to presence of suitable habitat and known occurrences in the area, the following special-status plant and wildlife species were determined to have a moderate or high potential to occur within the Plan Area.

- Special-Status Plant Species:
 - Hickman's onion (*Allium hickmanii*) — 1B,³
 - Toro manzanita⁴ (*Arctostaphylos montereyensis*) — 1B,
 - Pajaro manzanita (*Arctostaphylos pajaroensis*) — 1B,
 - Sandmat manzanita (*Arctostaphylos pumila*) — 1B,
 - Jolon clarkia (*Clarkia jolonensis*) — 1B,
 - Seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*) — 1B,
 - Hospital Canyon larkspur (*Delphinium californicum* ssp. *interius*) — SE/1B,
 - Hutchinson's larkspur (*Delphinium hutchinsoniae*) — 1B,
 - Eastwood's goldenbush (*Ericameria fasciculata*) — 1B,
 - Fragrant fritillary (*Fritillaria liliacea*) — 1B,
 - Gowen cypress (*Hesperocyparis goveniana*) — FT/1B,
 - Kellogg's horkelia (*Horkelia cuneata* var. *sericea*) — 1B,
 - Contra Costa goldfields (*Lasthenia conjugens*) — FE/1B,
 - Carmel Valley bush-mallow (*Malacothamnus palmeri* var. *involucratus*) — 1B,
 - Marsh microseris (*Microseris paludosa*) — 1B,
 - Northern curly-leaved monardella (*Monardella sinuata* ssp. *nigrescens*) — 1B,
 - Woodland woollythreads (*Monolopia gracilens*) — 1B,
 - Hickman's cinquefoil (*Potentilla hickmanii*) — FE/SE/1B,
 - Pine rose (*Rosa pinetorum*) — 1B,
 - Santa Cruz clover (*Trifolium buckwestiorum*) — 1B,
 - Pacific Grove clover (*Trifolium polyodon*) — SR/1B, and
 - Monterey clover (*Trifolium trichocalyx*) — FE/SE/1B.

² Monterey cypress (*Hesperocyparis macrocarpa*), a CNPS Rank 1B species, was also identified within some of the greenbelts. However, the Plan Area is outside the native range of this species, and any individuals occurring within the Plan Area are of unknown horticultural origin and not considered special-status.

³ Status Designation: FE: Federally Endangered; FT: Federally Threatened; SE: State Endangered; SR: State Rare; and 1B: CNPS CRPR 1B; CSC: CDFW Species of Special Concern.

⁴ Although perennial species such as manzanita can be identified outside of their blooming periods, these species may be present in the deeper portions of greenbelts (e.g., the Skyline Forest and Veteran's Park greenbelts) that were not reached during biological surveys.

- Special-Status Wildlife Species:
 - Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*) — CSC,
 - Monterey shrew (*Sorex ornatus salarius*) — CSC,
 - Northern California legless lizard (*Anniella pulchra*) — CSC,
 - Coast Range newt (*Taricha torosa*) — CSC, and
 - Raptors and other nesting birds.

These species have the potential to occur in the coniferous forest, maritime chaparral, riparian woodland, and grassland habitats present throughout the Plan Area. While all these species have the potential to occur within any of the greenbelts in the Plan Area where suitable habitat occurs, the following is a breakdown of the known California Natural Diversity Database (CNDDB) occurrences of these species within or adjacent to each greenbelt.

- Greenbelt 1 (Skyline Forest):
 - Monterey pine (CNDDB Occ. 4)⁵
 - Pajaro manzanita (CNDDB Occ. 27)
 - Yadon's rein orchid (CNDDB Occ. 19)
 - Marsh microseris (CNDDB Occ. 21)
 - Pine rose (CNDDB Occ. 2)
- Greenbelt 2 (Veteran's Park):
 - Monterey pine (CNDDB Occ. 4)
 - Monterey shrew (CNDDB Occ. 4)
 - Hickman's cinquefoil (CNDDB Occ. 3)
 - Woodland woollythreads (CNDDB Occ. 6)
 - Yadon's rein orchid (CNDDB Occ. 19)
 - Marsh microseris (CNDDB Occ. 21)
- Greenbelt 3 (Monte Vista):
 - Monterey pine (CNDDB Occ. 4)
 - Pajaro manzanita (CNDDB Occ. 27)
 - Marsh microseris (CNDDB Occ. 21)
 - Monterey shrew (CNDDB Occ. 4)
 - Hickman's cinquefoil (CNDDB Occ. 3)
 - Monterey pine (CNDDB Occ. 4)
 - Woodland woollythreads (CNDDB Occ. 6)
- Greenbelt 4 (Carmelo Street):
 - Monterey pine (CNDDB Occ. 4)
 - Monterey shrew (CNDDB Occ. 4)
 - Hickman's cinquefoil (CNDDB Occ. 3)
 - Woodland woollythreads (CNDDB Occ. 6)
- Greenbelt 5 (Don Dahvee):
 - Monterey pine (CNDDB Occ. 4)
 - Monterey shrew (CNDDB Occ. 4)
 - Hickman's cinquefoil (CNDDB Occ. 3)
 - Woodland woollythreads (CNDDB Occ. 6)
 - Kellogg's horkelia (CNDDB Occ. 9)
 - Yadon's rein orchid (CNDDB Occ. 8 and 34)
 - Hickman's onion (CNDDB Occ. 30)

⁵ CNDDB occurrence (Occ) number refers to the database file number for that reported occurrence.

- Greenbelt 6 (Josselyn Canyon)
 - Monterey pine (CNDDDB Occ. 4)
 - Kellogg's horkelia (CNDDDB Occ. 9)
 - Eastwood's goldenbush (CNDDDB Occ. 5)
 - Seaside bird's-beak (CNDDDB Occ. 5)
 - Northern curly-leaved monardella (CNDDDB Occ. 3)
- Greenbelt 7 (Fisherman Flats)
 - Monterey pine (CNDDDB Occ. 4)

The proposed project would include the prescribed implementation of various methods for the managed reduction of fire fuel hazards within the seven greenbelts. Mechanical thinning and removal of vegetation would be conducted using string and blade trimmers (i.e., weed eaters), mowers, chainsaws, and prescribed grazing using goats and sheep. The project could result in potential direct and indirect impacts to special-status plant and wildlife species, if present within the greenbelt treatment areas, through the use and movement of equipment and workers through the areas, and the trimming and removal of trees and vegetation for fuel reduction. This would be considered a potentially significant impact under CEQA that can be reduced to **less than significant with mitigation incorporated**.

Mitigation:

Implementation of the measures described below would reduce potential project-related impacts to special-status species to a less than significant level.

- BIO-1** Prior to initiation of all activities resulting in physical disturbance of a treatment area, including but not limited to mobilization of equipment and clearing of vegetation, a qualified biologist shall survey the area. Survey results and recommendations shall be implemented to avoid impacts to sensitive biological resources.
- BIO-2** For locations containing rare and sensitive plant and animal species, fuel reduction actions shall adhere to avoidance recommendations outlined on pages 14 and 15 of the 2020 *City of Monterey Greenbelt Fuel Reduction Plan* (Denise Duffy & Associates, Inc. [DD&A], 2020) Appendix A.
- BIO-3** If trees or large tree form shrubs are to be removed between February 1 and August 31, a qualified biologist shall conduct a nesting bird survey of the trees and shrubs and an area within 100 feet of the tree removal site, for active bird nesting, breeding, or rearing activity no more than five days prior to the start date. If nesting activity is observed by the qualified biologist, tree and shrub removal containing the nests shall be delayed until young have fledged (are flying and foraging on their own) and the nest is abandoned, per observations of the qualified biologist. In addition, the qualified biologist will recommend an appropriate buffer zone around nests to ensure no indirect disturbance occurs. The recommended buffer will depend upon the species (e.g., raptor vs. passerine) and other site-specific conditions such as proximity to roadways, slope, etc.
- BIO-4** Tree removal required due to imminent threat to a structure or safety concerns along roads (including road rights-of-way) would not be restricted as to timing but, at the discretion of the qualified biologist, would involve coordination with the California Department of Fish and Wildlife.
- BIO-5** Should disturbance of soil or ground need to be implemented for removal of tree and shrub stump and root systems, as well as removal of non-native plant species, work shall not proceed unless authorized by a qualified biological monitor. If sensitive resources are present, they shall be avoided.
- BIO-6** Environmental awareness training shall be conducted for fuel reduction personnel prior to initiation of fuel reduction measures. Training will include the identification and avoidance of resources.

- b, c)** A number of sensitive natural communities occur within the Plan Area including Monterey pine forest, central maritime chaparral; unnamed, intermittent, streams and associated riparian woodland and wetland habitats. The project does not propose ground-disturbing activities using heavy construction equipment in any of these habitats, would not modify or place fill in any of the stream channels, and would generally improve the habitat structure through the managed reduction of fire fuel hazards within each of the project study areas. However, impacts such as fuel spills and removal of vegetation could occur without an appropriate buffer to ensure activities do not occur within or directly adjacent to these habitats. This would be considered a potentially significant impact under CEQA that can be reduced to **less than significant with mitigation incorporated**.

Mitigation:

Implementation of mitigation measures **BIO-1** through **BIO-6** in addition to the measures described in mitigation measure **BIO-7** below would reduce potential project-related impacts to sensitive natural communities, riparian habitat and protected wetlands to a less than significant level.

BIO-7 Creeks, drainages, and the wet meadow (e.g., the features located in the Monte Vista Don Dahvee and Skyline Forest greenbelts) would not be crossed with motorized vehicles and refueling of all motorized equipment would be conducted utilizing a minimum 50-foot setback.

- d)** The California Essential Habitat Connectivity Project was queried for Essential Habitat Connectivity, which are the best available data describing important areas for maintaining connectivity between large blocks of land for wildlife corridor purposes. These important areas are referred to as Essential Connectivity Areas. Essential Connectivity Areas are only intended to be a broad-scale representation of areas that provide essential connectivity. The Fisherman Flats greenbelt falls within the Los Padres National Forest – Pilarcitos Canyon Essential Connectivity Area (CDFW, 2010). It is expected that additional linkages will be identified as new data becomes available for various species. For the purposes of this analysis, it is reasonable to assume that each of the seven greenbelts within the Plan Area serve as wildlife corridors and facilitate movement by wildlife through the area based on the linkages of natural habitat they provide. Implementation of the proposed project would have **no impact** on the movement of any native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors, or the use of native wildlife nursery sites.
- e)** The seven greenbelts would retain their current zoning designation. In addition, the City would remove, cut, prune, and trim trees and vegetation in compliance with good forestry practices as specified in the American National Standard for Arboricultural Operations - Safety Requirements Z133 (Tree Care Industry Association, 2017), in accordance with Section 37-4 in Chapter 37 (Preservation of Trees and Shrubs) in the City's Municipal Code (Ordinance 3424, Section 13, 2009). Implementation of the measures included in the Project Description and described above would ensure that **no impact** would result from the proposed project.
- f)** The City does not have an adopted Habitat Conservation Plan or Natural Community Conservation Plan that addresses the Plan Area. Implementation of the project is intended to improve the structure and quality of this habitat through the managed reduction of fire fuel hazards within the seven greenbelt treatment areas. Therefore, there would be **no impact**.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
V. CULTURAL RESOURCES – Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to 15064.5?		X			<ul style="list-style-type: none"> - City of Monterey, M.C.C. Chapter 38, Zoning Code, Article 15 H Historic Overlay District - City of Monterey, Historic Master Plan - City of Monterey, Historic Ordinance
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?		X			<ul style="list-style-type: none"> - Archaeological Sensitivity Map, Figure 8, Draft EIR, City of Monterey General Plan Update, July 2004
c) Disturb any human remains, including those interred outside of formal cemeteries?		X			<ul style="list-style-type: none"> - City of Monterey, General Plan, Historical Preservation Program

Existing Setting:

According to the City's General Plan, the City is one of the most historic cities in the United States and preservation of historic resources has long been a concern of Monterey citizens. Over the past three centuries, the City has served, at various times, as a Spanish mission, a center of government, a major commercial port, and a cultural center. The dramatic ocean scenery, abundant wildlife, pine forests, and historic communities continue to attract explorers, dignitaries, seafarers, artists, writers, and vacationers. Today, Monterey thrives as a cultural center and tourist destination. The City currently has a population of almost 30,000 people and is host to more than two million visitors annually.

Discussion:

- a, b, c)** According to the City's General Plan Environmental Impact Report (EIR), the Plan Area is identified as having a high probability of prehistoric resources. There are no known archaeological or historic resources present within the Plan Area; however, it is possible that unknown resources are present. The proposed project would be limited to prescribed fire fuel reduction activities, including the thinning and removal of trees, vegetation, and fire fuel material. The project would not include ground-disturbing activities beyond the occasional removal of tree and shrub stumps and invasive plant roots, or the use of heavy construction equipment; therefore, it is unlikely that cultural resources would be encountered as a result of the proposed project. However, to ensure that impacts to cultural resources resulting from the project remain less-than-significant the following measures would be implemented prior to and during implementation of the fire fuel reduction activities (**less than significant with mitigation**).

Mitigation:

Implementation of the measures described below would reduce potential project-related impacts to unknown cultural resources to a less than significant level.

- CUL-1** If archaeological materials or features are discovered at any time during ground-disturbing activities (excavation, grading, grubbing, etc.), these ground-disturbing activities shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified professional archaeologist (defined as one who is certified by the Society of Professional Archaeologists). If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented. If human remains are discovered at any time during ground-disturbing activities, work shall be halted within 50 meters (150 feet) of the find. The contractor shall call the Monterey County Coroner and await the Coroner's clearance. If the coroner determines the remains are Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. NAHC shall notify the most likely descendent. The Native American descendent, with permission of the land owner or representative, may inspect the site of the discovery and recommend the means for treating

or disposing with appropriate dignity the human remains and any associated grave goods. The Native American descent shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage Commission. The recommendation may include the removal and analysis of human remains and associated items; preservation of the Native American human remains and associated items in place; relinquishment of Native American human remains and associated items to the descendants for treatment; other culturally appropriate treatment. If the NAHC is unable to identify a descendent or the descendent identified fails to make a recommendation within 24 hours, the landowner shall reinter the human remains and items associated with the Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance. If the landowner and Native American descendent reach agreement on the appropriate procedure, the landowner shall follow this procedure. If the landowner and Native American descent cannot reach agreement, the parties shall consult with the Native American Heritage Commission. The landowner shall consider and if agreeable follow the identified procedure. If the landowner and Native American descendant cannot reach agreement after consultation, the Native American human remains shall be reinterred on the property with appropriate dignity. All procedures described in California Government Code Section 65352 shall apply.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
VI. ENERGY – Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X		<ul style="list-style-type: none"> - Project Description - City of Monterey, General Plan, Housing Element
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X		<ul style="list-style-type: none"> - Project Description - City of Monterey, General Plan

Existing Setting:

Starting in 2018, all Pacific Gas & Electric (PG&E) customers within Monterey, San Benito, and Santa Cruz Counties were automatically enrolled in Monterey Bay Community Power (MBCP). MBCP is a locally-controlled public agency providing carbon-free electricity to residents and businesses. Formed in February 2017, MBCP is a joint powers authority, and is based on a local energy model called community choice energy. MBCP partners with PG&E, which continues to provide billing, power transmission and distribution, customer service, grid maintenance services and natural gas services to Monterey County. MBCP's standard electricity offering is carbon free and is classified as 30 percent renewable. Of the electricity provided by MBCP in 2018, 40 percent was hydroelectric, and 30 percent was solar and wind (eligible renewables) (MBCP, 2019).

Discussion:

- a) Energy would be required for operation of equipment and for worker transportation to and from the Plan Area. Total energy required for the duration of fuel reduction activities has not been determined; however, worker trips and use of equipment would be minor, short-term, and intermittent in duration. Therefore, the project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project activities, and impacts are **less than significant**.
- b) The proposed project is not expected to exceed the current energy usage. The proposed project is limited to managed fire fuel reduction activities within the Plan Area and does not include any new development. The proposed project would have a less than significant impact due to energy usage and efficiency and, thus, would not conflict with local or state plans for energy efficiency. Therefore, impacts are **less than significant**.

Mitigation:

Implementation of the proposed project would not result in significant impacts to energy; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
VII. GEOLOGY AND SOILS – Would the project:					
a) 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.			X		<ul style="list-style-type: none"> - City of Monterey, General Plan Safety Element Goal a, Policies a.1–a.7 - City of Monterey, General Plan Map 11- Showing Seismic Hazards
ii) Strong seismic ground shaking?			X		<ul style="list-style-type: none"> - City of Monterey, General Plan Safety Element Goal a, Policies a.1–a.7
iii) Seismic-related ground failure, including liquefaction?			X		<ul style="list-style-type: none"> - City of Monterey, General Plan Safety Element Goal a, Policies a.1–a.7
iv) Landslides?			X		<ul style="list-style-type: none"> - City of Monterey, General Plan Safety Element Goal a, Policies a.1–a.7 - City of Monterey, General Plan Safety Element Policies b.1–b.6 - City of Monterey, General Plan Map 12- Showing Steep Slopes
b) Result in substantial soil erosion or the loss of topsoil?		X			<ul style="list-style-type: none"> - City of Monterey, General Plan Safety Element Goal a, Policies a.1–a.7 - City of Monterey, General Plan
c) 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?			X		<ul style="list-style-type: none"> - City of Monterey, General Plan Safety Element Goal a, Policies a.1–a.7 - City of Monterey, General Plan Map 12- Showing Steep Slopes
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X		<ul style="list-style-type: none"> - City of Monterey, General Plan

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
e) 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?				X	- City of Monterey, General Plan Conservation Element
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X			- Archaeological Sensitivity Map, Figure 8, Draft EIR, City of Monterey General Plan Update, July 2004

Existing Setting:

Monterey is underlain by a major geologic feature, the Salinian Block, which in turn is underlain by granitic basement rock. The Salinian Block is bounded on the northeast by the San Andreas Fault and on the southwest by the Palo Colorado-San Gregorio Fault. The block is approximately 50 miles wide and 300 miles long. The Salinian Block consists of Cretaceous granitic rocks and older Paleozoic metamorphic rocks that have been moved north from their original position as a result of tectonic activity during the Paleogene (Wakabayashi and Moores, 1988). The types of soils and geologic formations that underlie the City are varied, ranging from unconsolidated dune sands along the Monterey Bay to exposed granite and sandstone.

California is one of the most active seismic regions in the United States. The City lies adjacent to the boundary zone between the North American and Pacific tectonic plates. The faults associated with this zone are predominantly northwest-trending strike-slip faults that have a right-lateral slip. The General Plan identifies three faults that traverse the City, including the Chupines Fault, the Navy Fault, and the Berwick Fault. Information available on the activity of these faults is generally not conclusive, but each is assumed to be potentially active.

Active faults in the proposed project vicinity include: the San Andreas-1906 Segment, located approximately 26 miles northeast of the Plan Area; the Palo Colorado-Sur, located approximately 8 miles southwest of the Plan Area; the Rinconada, located approximately 9 miles northeast of the Plan Area; and the Monterey Bay-Tularcitos, located approximately one mile from the Plan Area.

Topography and slope within the City are quite variable. Lands along the margin on Monterey Bay tend to be relatively flat but sloped towards the bay. Much of the upland portion of the City is incised by a series of intermittent stream channels that have cut into surface soil and subsurface geologic formations, leaving a series of mesas that trend towards the bay. Much of the City is built on these mesas and on the more level margins of the bay. The northern terminus of the Santa Lucia Mountains is the major regional landform that forms the backdrop to the City. Due to slope and access constraints, development within this area tends to be less dense. Steep slopes within the City tend to be located along stream channels and within the hillside areas.

Numerous soil types are located within the City. Each soil type has unique characteristics and potential development limitations and erosion characteristics. Generally, the erosion potential of soils and their expansion properties (soil expansion and contraction can result in damage to building foundations, roads, etc.) are of the greatest interest from a development impact perspective.

Coastal areas along Monterey Bay, especially dune deposits, are highly susceptible to coastal erosion from waves and tidal events. Erosion potential varies along the length of the coast. Variability in erosion rates is caused by several factors, including sea level, wave patterns influenced by the form of the ocean floor, storm patterns, and the structure and character of dunes in localized areas. Historic average coastal bluff retreat rates have been highest in the former Fort Ord area, averaging up to 8 feet per year. Average erosion rates decrease down coast to about 3 to 5 feet per year in Sand City. Farther south, within the City, average erosion rates are believed to be about 1 to 2 feet per year (Philip Williams & Associates, 2008). Coastal erosion would be a significant factor for any development proposed along the margin of Monterey Bay.

Discussion:

- a.i) The City of Monterey is not located in an Alquist-Priolo Earthquake Fault Zone, as mapped by the State Geologist. The nearest known active or potentially active fault is the Monterey Bay-Tularcitos fault, located approximately one mile from the Plan Area. Earthquakes on any of the local faults or on other faults located in the vicinity or region could produce significant seismic shaking within the Plan Area. However, as identified in the City's General Plan EIR, there are no known active faults (faults on which movement has occurred within the last 11,000 years) and no Alquist-Priolo Special Studies Zones within the City. The proposed project involves the maintenance of the Plan Area, and therefore there is minimal potential for surface rupture and impacts are **less than significant**.
- a.ii, a.iii) As described above, the Plan Area may be subject to strong ground shaking in the event of a major earthquake. The City's General Plan EIR identifies seismic shaking as the most significant hazard throughout the City. Hazards from liquefaction, differential settlement, and slope failure are anticipated to be much less widespread as the surface and subsurface conditions that give rise to liquefaction during seismic shaking event is geographically limited. The proposed project is limited to managed fire fuel reduction activities within the Plan Area and does not include construction activities. Therefore, the proposed project would not result in potential impacts associated with the exposure of people or structures to potential adverse effects of seismic ground shaking, resulting in a **less-than-significant impact**.
- a.iv, c, d) The proposed project includes the managed reduction of fire fuel hazards within the City's seven greenbelt treatment areas through the thinning and removal of trees, vegetation, and fuel sources. However, while the project does include occasional removal of tree stumps and the root balls of invasive plants, the majority of the work only includes removal of the aboveground portions of dead or dying trees. Trees will be selectively removed and will consist of a small portion of the overall vegetation cover. As a result, there is very little to no potential for the effects of the limited, above ground tree removal to affect the potential for an increased risk to life or property or for potential adverse effects involving landslides, lateral spreading, liquefaction or collapse, or expansive soils. Therefore, this impact would be **less than significant**.
- b) The proposed project is intended to improve watershed conditions and protect the watershed from adverse effects of wildland fire on soil and water quality. Removal of trees, focusing primarily on dead and dying trees. However, in areas with hazardous fuels, live tree removal may be necessary to improve vegetation spacing and reduce overall fuel continuity. Vehicle and equipment use associated with fire fuel reduction activities would be implemented using only rubber-tired, non-metal-tracked vehicles to prevent soil disturbance. In addition, as stated in the project description, where trees require removal, root systems would generally be left intact where needed to maintain slope stability. The project does not require ground-disturbing activities beyond the occasional tree or shrub stump removal or the use of heavy construction equipment. However, if fuel reduction activities were to occur in or directly adjacent to streams, drainages, riparian or wetland habitats where soils are saturated, erosion could result. This would be a significant impact that can be reduced to **less than significant with mitigation**.

Mitigation:

Implementation of mitigation measure **BIO-7** will reduce impacts to geology and soils to less-than-significant.

- e) The proposed project does not propose to install septic tanks or alternative wastewater disposal systems. **No impact** would occur as a result of the proposed project.
- f) There are no known paleontological resources present within the Plan Area and no evidence that they should exist. In addition, the project would not include the use of heavy construction equipment or require any ground-disturbing activities beyond the occasional tree or shrub stump removal or invasive plant root removal. Therefore, it is highly unlikely that unique paleontological resources are present and if they are it is unlikely that those resources would be significantly impacted. However, to ensure impacts resulting from the project remain less-than-significant in the unlikely event unique paleontological resources are

encountered during fuel reduction activities, the following mitigation is provided (**less than significant with mitigation**).

Mitigation:

Implementation of the measures described below would reduce potential project-related impacts related to discovery of unique paleontological resources to a less than significant level.

GEO-1 If a unique paleontological resource, such as a fossil, is discovered during fuel reduction activities the equipment operator and/or site project manager shall stop work and mark the area surrounding the site with flagging until the discovery can be fully explored and evaluated. Construction activities in the immediate vicinity of the site shall stop until authorization for work to continue is provided by a qualified paleontologist. All scientifically important fossils shall be salvaged and fully documented within a detailed stratigraphic framework as construction conditions and safety considerations permit.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
VIII. GREENHOUSE GAS EMISSIONS – Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		<ul style="list-style-type: none"> - Project Description - ARB GHG 1990 Emissions Level and 2020 Limit - MBARD
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X	<ul style="list-style-type: none"> - Project Description - ARB GHG 1990 Emissions Level and 2020 Limit - City of Monterey Climate Action Plan (2016)

Existing Setting:

Various gases in the earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, the radiation that otherwise would have escaped back into space is retained, resulting in a warming of the atmosphere known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect and climate change are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect. In California, the transportation sector is the largest emitter of GHGs.

To reduce the statewide level of GHG emissions, the State Legislature adopted California Assembly Bill 32 (AB 32), the California Global Warming Solutions Act, in 2006. AB 32 established a comprehensive statewide program of regulatory and market mechanisms to achieve reductions in GHG emissions, thereby reducing the State's vulnerability to climate change. AB 32 directs the ARB with helping direct state efforts on the reduction of GHG emissions and engaging state agencies.

The project is in the NCCAB, where air quality is regulated by MBARD. Neither the state, MBARD, nor Monterey County have adopted GHG emissions thresholds or a GHG emissions reduction plan that would apply to the project. However, other air districts within the State of California have recently adopted recommended CEQA significance thresholds for GHG emissions. MBARD recommends using either the Bay Area Air Quality Management District (BAAQMD) or San Luis Obispo Air Pollution Control District (SLOAPCD) approved thresholds of significance for the evaluation of project-related increases of GHG emissions. The BAAQMD's CEQA Air Quality Guidelines recommends a GHG threshold of 10,000 metric tons per year (MT/yr) of carbon dioxide equivalent (CO₂e) for stationary-source projects. Development projects located within these jurisdictions that would exceed these thresholds would be considered to have a potentially significant impact on the environment which could conflict with applicable GHG-reduction plans, policies and regulations. Projects with GHG emissions that do not exceed the applicable threshold would be considered to have a less than significant impact on the environment and would not be anticipated to conflict with AB 32 GHG emission reduction goals.

Discussion:

- a) As discussed previously, the project would require limited worker trips and the use of mechanical equipment for the implementation of prescribed fire fuel reduction activities. The worker trips and use of equipment would be minor, short-term, and intermittent in duration. The proposed project would not generate a new permanent stationary or mobile source of GHG emissions from operations. Limited quantities of emissions would result from the fire fuel reduction activities; however, these levels would be well below the thresholds of significance. Therefore, potential impacts would be **less than significant**.

- b) AB 32, signed in September 2006, requires that the state's global warming emissions be reduced to 1990 levels by 2020. After completing a comprehensive review and update process, the ARB approved a 1990 statewide GHG level and 2020 limit of 431 million metric tons of CO₂e (ARB, 2014).

Senate Bill (SB) 97, signed in August 2007, acknowledges that global climate change (GCC) requires analysis under CEQA. In March 2010, the California Resources Agency (Resources Agency) adopted an amendment to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted amendments give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and GCC impacts.

SB 375, signed in August 2008, requires the inclusion of sustainable communities' strategies (SCS) in regional transportation plans (RTPs) for the purpose of reducing GHG emissions. The bill requires the ARB to set regional targets for the purpose of reducing GHG from passenger vehicles for 2020 and 2035.

The City's Climate Action Plan (CAP) includes GHG emissions reduction strategies for both the community (emissions within the City borders) and government operations (emission resulting from the activities associated with managing the City). The CAP establishes emission reduction targets for year 2020 totaling approximately 49,113 metric tons of CO₂e. The CAP emission reduction targets exceed the goals set by AB 32.

None of these statewide regulations includes requirements that apply to fire fuel reduction projects of this nature and no local or regional plans to reduce GHG emission are currently in place. In addition, none of the reduction strategies to be included in the CAP pertains to construction-generated GHG emissions. Therefore, the proposed project does not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. **No impacts** would occur.

Mitigation:

Implementation of the proposed project would not result in significant impacts related to GHG emissions; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X	– City of Monterey, General Plan Safety Element Goal G
b) 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?		X			– City of Monterey, General Plan, Safety Element
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	– City of Monterey, General Plan, Safety Element
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	– California Department of Toxic Substances (2009) – City of Monterey Fire Department
e) 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 for people residing or working in the project area?				X	– City of Monterey, General Plan – Monterey County Airport Land Use Commission, Draft Monterey Regional Airport Land Use Compatibility Plan (2019)
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X		– City of Monterey, General Plan Safety Element Goal H and Policies h.1–h-6 – City of Monterey Police and Fire Departments
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X		– M.C.C. Chapter 13, Fire Protection – General Plan Map 14, Showing Fire Hazard Severity Zones

Existing Setting:

The setting information provided below is based on information provided in the City's General Plan and General Plan EIR.

Hazardous Materials

In terms of hazardous materials usage, many types of hazardous wastes are used throughout the City in residential, commercial, and industrial applications. The Monterey County Environmental Health Division is responsible for managing the use, storage, and disposal of hazardous materials in amounts over a specific threshold (the threshold varies among uses and types of materials). The Environmental Health Division keeps an inventory of hazardous materials users and is responsible for working with users to develop plans that ensure the materials are safely used, stored, transported, and disposed.

Fire

Fire hazards can generally be divided into two main types: (1) fires within urban areas that primarily involve specific sites and structures; and (2) fires within undeveloped or minimally developed areas, commonly called wildland fires. Most of the land within the present City limits is developed with urban uses. The City of Monterey Fire Department responds to both structure and wildland fires within the planning area. The City of Monterey Fire Department maintains three stations and operates several fire prevention programs. In the event that the City does not have the capacity to safely handle a structural or wildland fire, it can request additional firefighting resources through the Monterey County Mutual Aid Plan. The Monterey County Mutual Aid Plan enables any jurisdiction that participates in the plan to receive support from fire protection services of other jurisdictions that participate in implementing the plan. Response times to nearly all areas of the City are within the Fire Department's recommended range of five to seven minutes.

The Monterey City Code (M.C.C.) Chapter 13, Fire Protection, adopted the 2019 California Fire Code pursuant to Monterey City Ordinance No. 3600 (effective January 1, 2028). Amendments to this chapter of the code, as well as amendments to the City's General Plan Map 14, Showing Fire Hazard Severity Zones, were adopted by the City Council on June 2, 2009, to comply with legislation (Government Code Section 51175). This legislation calls for the California Department of Forestry and Fire Protection (Cal Fire) Director to evaluate fire hazard severity in Local Responsibility Areas and make a recommendation to the local jurisdiction when the Very High Fire Hazard Severity Zone (VHFHSZ) exists. Based on the findings of the Cal Fire Director, there are both High and Very High Fire Hazard Severity Zone within the City of Monterey City limits.⁶

Airport Safety

Monterey Regional Airport operations have the potential to create safety issues related to safe operation of approaching and departing aircraft. The Monterey Peninsula Airport Master Plan Update (Monterey Peninsula Airport District, 2019) shows "runway protection zones" at each end of the main airport runway. These zones are areas 2,500 feet wide and 5,000 feet long. Within these areas, land use controls are exercised to minimize potential safety conflicts with activities that take place within the zones. Such controls and guidelines include the prohibition or limitation of uses that involve large assemblages of people, limitations on building heights and heights of other potential obstructions, and prohibition of new structures. Existing land uses that are within the western approach safety zone include much of the U.S. Navy Golf Course, the Monterey County Fairgrounds, and a small section of residential development. Uses within the eastern protection zone include commercial and residential development at the SR 218/SR 68 intersection. Smaller additional safety areas extend beyond the primary protection zone wherein specific development standards apply in order to minimize conflicts with airport operations.

⁶ See Map 14 at the City's website: <http://www.monterey.org/Portals/0/Policies-Procedures/Planning/GeneralPlan/14-Fire-Zone-Map.pdf>

Emergency Preparedness/Emergency Response

The City of Monterey Fire Department and City of Monterey Police Department coordinate emergency response within the City. The City operates its Emergency Operations Center (EOC) as the center of emergency response coordination and actions. During an emergency, all response activities are managed by the EOC, including information, equipment, volunteers, and other resources. Plans for responses to emergency situations are formulated by fire and police officials, and actions to implement those plans are communicated to emergency response teams that operate out of the EOC and throughout the City. The City also operates the Citizens Emergency Response Training (CERT). The main goal of the CERT program is to help the citizens of Monterey to be self-sufficient in a major disaster by developing multifunctional teams that are cross-trained in basic skills. The City's emergency response efforts are coordinated under the broader umbrella of the State of California Office of Emergency Services. The County also has an emergency response office, but the City is not a participating jurisdiction in the County's response program. The County Environmental Health Division Hazardous Materials Branch and the City of Seaside Hazardous Materials Team would likely be the first agencies to provide support to the City if the City does not have the capacity or capability to fully address a hazard. Both agencies are fully trained and equipped to respond to a variety of hazardous materials related incidents.

Discussion:

- a) The proposed project does not involve the routine transport, use, or disposal of hazardous materials. Additionally, the proposed project would comply with all pollution and environmental control rules, regulations, ordinances, and statutes that apply to the proposed project. As such, there would be **no impact**.
- b) Very small amounts of petroleum products, used for operation and maintenance of construction equipment during fuel reduction activities, have the potential to result in short-term impacts if not used and stored correctly. However, the Monterey General Plan requires projects to operate in accordance with the County Environmental Health Department requirements for reporting and management of such materials. In addition, the use of petroleum products or any waste products resulting from fire fuel reduction activities would be stored, handled, and recycled or disposed of in accordance with federal, state, and local laws. Therefore, impacts could be significant; however, impacts can be reduced to **less than significant with mitigation incorporated**.

Mitigation:

Implementation of mitigation measure **BIO-7** would reduce potential project-related impacts that could result from use of petroleum products that are used or store incorrectly to a less than significant level.

- c) The Skyline Forest, Monte Vista, and Fisherman Flat greenbelt treatment areas are located within ¼ mile of a school. However, as identified above, only small amounts of petroleum will be used during fuel reduction activities and the project will adherence to all federal, state, and local regulations. Therefore, **no impacts** to schools are anticipated.
- d) The greenbelts are not located on any sites listed as a hazardous materials site, within an airport land use plan, or within the vicinity of a private airstrip. Therefore, **no impacts** related to these topics are anticipated.
- e) The Josselyn Canyon, Fisherman Flats, and portions of the Don Dahvee Lane greenbelt treatment areas are located within the traffic overflight zone mapped in the Monterey Regional Airport Land Use Compatibility Plan. The proposed fire fuel reduction activities associated with these greenbelts would not create a safety hazard for people residing or working in the project area. Therefore, **no impacts** related to these topics are anticipated.
- f) The greenbelts are located adjacent to evacuation routes and roads that provide access to evacuation routes as identified in the City's General Plan—specifically, SR 1 southbound and SR 68 eastbound. Proposed project activities would not require substantial new trips, road closures, route diversions, or other potential impacts that could physically interfere adopted emergency response or emergency evacuation plans. Impacts would therefore be **less than significant**.

- g)** Portions of the project study area are located in high and very fire hazard severity zones, as determined by Cal Fire and as mapped in the City's General Plan. The objective of the proposed project is to reduce the risk of wildfire in the identified seven high fire hazard areas through fuel reduction actions undertaken by the City. The proposed project would result in the managed reduction of fire fuel hazards within the seven greenbelt treatment areas of the City's greenbelt system and would involve the thinning and removal of trees, vegetation, and fire fuel sources. Therefore, the project is anticipated to reduce potential impacts related to wildland fires. Impacts would therefore be **less than significant**.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
X. HYDROLOGY AND WATER QUALITY – Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X			<ul style="list-style-type: none"> - M.C.C.Chapter 31.5, Storm Water Management - City of Monterey, General Plan Public Facilities Element Policy 1.2, Urban Design Element Policy d.1, Conservation Element Water Quality Policies b.1 through b.4 - City of Monterey Plans & Public Works Department - Central Coast Region RWQCB 2019 Water Quality Control Plan - Monterey Regional Storm Water Management Program (MRSWMP)
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X	<ul style="list-style-type: none"> - City of Monterey Plans & Public Works Department - City of Monterey, General Plan Conservation Element
c) 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:		X			<ul style="list-style-type: none"> - M.C.C. Chapter 31.5, Storm Water Management - General Plan Public Facilities Element Policy I.2 - City of Monterey Plans & Public Works Department
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;				X	<ul style="list-style-type: none"> - M.C.C. Chapter 31.5, Storm Water Management - General Plan Public Facilities Element Policy I.2, Safety Element Flood Hazards Program c.1-c.4, Public Facilities Storm Drain Policy I.1 - City of Monterey Plans & Public Works Department
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				X	<ul style="list-style-type: none"> - General Plan Public Facilities Element Policy I.2 - City of Monterey Plans & Public Works Department - MRSWMP

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
iv) impede or redirect flood flows?				X	<ul style="list-style-type: none"> - General Plan Map 13-Showing Flood Zones - General Plan Safety Element Program c.1.a - M.C.C. Chapter 9, Building Regulations, Article 7, Flood Damage Prevention - FEMA Flood Insurance Rate Maps for County of Monterey, City of Monterey, April 2, 2009
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X	<ul style="list-style-type: none"> - General Plan Safety Element Policy c.1
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?		X			<ul style="list-style-type: none"> - City of Monterey, General Plan Public Facilities Element Policy 1.2, Urban Design Element Policy d.1, Conservation Element Water Quality Policies b.1 through b.4 - City of Monterey Plans & Public Works Department - RWQCB, 2016

Existing Setting:

The setting information provided below is based on information provided in the City's General Plan, General Plan EIR, and the Monterey Regional Storm Water Management Program.

Drainage Patterns

The City owns and maintains a storm drainage system that collects and transports storm water to the Monterey Bay. The system includes over 10 miles of pipelines and drainage channels. Storm water runoff is collected through catch basins and storm water inlets that direct runoff into the pipelines and channels. A series of storm water outfalls are located along the margin of the bay through which storm water is discharged.

Flooding

Areas of the City of Monterey are located in 100-year and 500-year flood zones and are subject to significant storm wave inundation that causes erosion of coastal bluffs and potential damage to property. Per the Flood Zones of the General Plan and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps Community-Panel Number 06053C0308G, the Plan Area is located outside both the 100-year and 500-year floodplains. A small portion of the Plan Area is subject to flood hazard from tsunamis, or seismic sea waves, which are generated by submarine earthquakes, volcanic eruptions, and landslides. California, in particular, has numerous potentially active submarine faults offshore and therefore is at risk for a tsunami.

Water Quality and Storm Water Regulation

The City maintains approximately 10 miles of storm drainage infrastructure—drainage channels, storm drains, pipelines, culverts, pump stations, and outfalls—within the City of Monterey. The existing drainage system collects non-point surface water runoff and conveys it through channels, pipelines, and culverts that, in most instances, eventually terminate at the Monterey Bay.

Monterey's storm water collection system is not tied into the sanitary sewer collection system. Therefore, storm water flows are, for the most part, not treated prior discharge. Storm water flows are discharged to local waterways including the Monterey Bay at multiple drainage outfalls located throughout Monterey's coastal area.

Monterey's discharge of storm water to local surface waters is regulated by the federal Clean Water Act, National Pollutant Discharge Elimination System (NPDES) Permit Program, and the California Porter-Cologne Act, and is permitted through the Central Coast Regional Water Quality Control Board (RWQCB). The City storm water permit

and ordinance require local regulation of water pollution and prevention through the mandated implementation of BMPs to protect the water quality of local waterways.

The Model Urban Runoff Program is a how-to-guide developed for local governments to address the issues of polluted runoff in urban areas. This guide incorporates the essential elements of a strong urban runoff program with examples of ordinances, BMPs and reporting forms from existing programs. The Model Urban Runoff Program was developed by a team of representatives from municipal and state government in cooperation with Woodward-Clyde Consultants and was funded by the State Water Resources Control Board (SWRCB).

The Model Urban Runoff Program incorporates a watershed management strategy with the requirements that small municipalities will face through the NPDES Phase II process mandated under the Clean Water Act. Some of the management topics covered in this document include management structure, legal authority, fiscal resources and funding mechanisms, institutional arrangements and coordination, and implementation. The implementation topics covered include public involvement and participation, public education and outreach, illicit connections and discharges, municipal operations, construction site, new development and redevelopment, commercial facilities, and industrial facilities.

To address regional urban runoff issues and develop innovative approaches to storm water management, the City collaborates with other local permittees in the Monterey Regional Storm Water Management Program (MRSWMP). The MRSWMP is a regional storm water management, implementation, and education program that assists the City and region with permit compliance. By ordinance and permit implementation, the City regulates applicable new and redevelopment projects for storm water control; construction activities for erosion, sediment, and discharge control; identifies and enforces illicit connections and illicit discharges; and implements good housekeeping practices for municipal operations to protect local water quality.

Water Supply

It is the goal of the City and the General Plan to obtain a long-term, sustainable water supply, including evaluation of water supply options outside the present Monterey Peninsula Water Management District (MPWMD) framework. Water is supplied to most of the Monterey Peninsula by the California American Water Company (Cal Am) through wells in Carmel Valley, dams on the Carmel River, and a well on the Seaside Aquifer. The City is wholly within the MPWMD, which is responsible for developing long-term water supply for the Monterey Peninsula cities in the district.

The Monterey Peninsula is subject to a Cease and Desist Order (CDO) imposed by the SWRCB on Cal Am (the water purveyor) in 2009. Both the CDO and the action by the California Public Utilities Commission (Decision 11-03-048 rendered March 24, 2011) implemented a water moratorium on customers of Cal Am. All projects are subject to both orders for Change or Intensification of Use and the addition of New Connections.

According to the General Plan, the City has a limited amount of water available for new residential or commercial development. To mitigate this problem, the City has incorporated programs to address water capacity, including giving preference in the City's water allocation process to projects meeting fair-share housing goals and to affordable housing projects. In addition, the City has established an internal allocation system, whereby water allotments are established for residential, commercial, and industrial uses.

Discussion:

- a, e)** In general, the NPDES stormwater program requires permits for discharges from construction activities that disturb one or more acres. While the plan area is greater than one acre, implementation of the project does not include construction activities, but is a vegetation removal project resulting in no temporary or permanent structures, no hard surfaces, and only occasional ground disturbing activity associated with stump and root removal. The area of ground disturbance will be significantly below the one-acre threshold and would not be subject to coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit). The project does not propose the modification of or placement of fill in any stream drainages that traverse the Plan Area. Therefore, Clean Water Act permits would not be required for the proposed project. The proposed project would restore the intended function of the habitat structure and improve erosion control within the proposed Plan Area by reducing the potential for large scale erosion that often follow fire events.

Implementation of the proposed project is intended to result in the managed reduction of fire fuel hazards within the Plan Area, improve watershed conditions, and protect the watershed from adverse effects of wildland fire on soil and water quality.

Implementation of these measures as part of the fuel reduction program would ensure that potential adverse project-related impacts to water quality would be avoided or minimized; therefore, impacts would be **less than significant with mitigation incorporated**.

Mitigation:

Implementation of mitigation measure **BIO-7** would reduce potential project-related impacts that could result from use of petroleum products that are used or stored incorrectly to a less than significant level.

- b)** The proposed project would not result in the depletion of groundwater supplies or interfere substantially with ground water recharge. Instead, implementation of the proposed project would manage fuel reduction and potentially facilitate increased or more efficient groundwater recharge within the Plan Area once fire fuel materials are removed or disposed of. Furthermore, the proposed project would not affect production rates of any nearby well. Therefore, **no impact** would result as part of the proposed project.
- c.i)** The proposed project is intended to improve watershed conditions and protect the watershed from adverse effects of wildland fire on soil and water quality. Vehicle and equipment use associated with fire fuel reduction activities would be implemented using only rubber-tired, non-metal-tracked vehicles to prevent soil disturbance. The project does not require ground-disturbing activities or the use of heavy construction equipment. Implementation of the measures identified in *Section IV. Biological Resources* and under Response a above would ensure that potential impacts related to erosion would be **less than significant with mitigation incorporated**.

Mitigation:

Implementation of mitigation measure **BIO-7** would reduce potential project-related impacts that could result in erosion to a less than significant level.

- c.ii, c.iii)** The proposed project would not create or contribute to stormwater runoff which would exceed the existing or planned storm water drainage system nor provide substantial additional sources of polluted runoff. The proposed project would not substantially alter the existing drainage pattern of the site or area in a manner which would increase flooding on- or off-site. Therefore, **no impact** would result as part of the proposed project.
- c.iv)** The proposed project would not place a structure within a 100-year flood hazard area, which would impede or redirect flood flows. Therefore, **no impacts** would result.
- d)** A very small portion of the Dan Dahvee greenbelt plan area fall within the tsunami inundation zone. However, as the proposed project does not include the construction, operation or habitation of any structures or people serving facilities. Therefore, impacts are **less-than-significant**.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XI. LAND USE AND PLANNING – Would the project:					
a) Physically divide an established community?				X	– City of Monterey, General Plan, Land Use Element
b) 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?				X	– City of Monterey, General Plan and Area Plans – City of Monterey Local Coastal Program – M.C.C. Chapter 38, Zoning Ordinance – Monterey Regional Airport Land Use Compatibility Plan (2019)

Existing Setting:

The City is a small-scale community that is largely residential and visitor serving in nature. Most of the land in the City already contains some development. Primary land uses include residential development at low to moderate density and visitor-serving, professional office, and retail commercial uses. A number of small, vacant parcels do exist within the City, most of which are designated for single-family residential development. Approximately 138 acres of land located east of the Ryan Ranch industrial park that were part of the former Fort Ord were annexed to the City just prior to the 2005 General Plan Update; this area represents the most significant vacant land resource in the City.

Discussion:

- a) The proposed project is limited to managed fire fuel reduction activities within the Plan Area and does not include any new development. Therefore, the proposed project would not physically divide an existing community. **No impact** would occur as a result of the proposed project.
- b) The proposed project is consistent with the land uses outlined in Policy a.1 within the Land Use Element of the City General Plan. The Plan Area is located within the traffic overflight zone and within the airport influence area zone of the Monterey Regional Airport, as mapped in the Monterey Regional Airport Land Use Compatibility Plan (Monterey County Airport Land Use Commission, 2019). The proposed project would not conflict with any applicable land use plans, policies or regulations. Therefore, **no impact** would occur as a result of the proposed project.

Mitigation:

Implementation of the proposed project would not result in significant impacts related to land use and planning; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XII. MINERAL RESOURCES – Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element – City of Monterey, General Plan Initial Study, Page 11
b) 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?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Conservation Element – City of Monterey, General Plan Initial Study, Page 11

Existing Setting:

While there are at present small-scale mineral extraction operations in the vicinity of the Plan Area, these operations are limited to commercial sand removal operations in the Sand City/Marina area and there are no mineral resources within the City's limits.

Discussion:

a, b) No mineral resources exist within the Plan Area. Therefore, **no impact** would occur as a result of the proposed project.

Mitigation:

Implementation of the proposed project would not result in significant impacts to mineral resources; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XIII. NOISE – Would the project result in:					
a) Generation of 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?			X		– City of Monterey, General Plan Noise Element goals, policies, and programs
b) Generation of excessive ground borne vibration or ground borne noise levels?			X		– City of Monterey, General Plan Noise Element goals, policies, and programs
c) 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, would the project expose people residing or working in the project area to excessive noise levels?			X		– City of Monterey, General Plan Noise Element Policies b.1–b-5 – City of Monterey, General Plan Map 17- Showing Airport Noise Contours – Monterey Regional Airport Land Use Compatibility Plan (2019)

Existing Setting:

The City's General Plan identifies the major noise sources affecting the community as motor vehicles (autos, trucks, buses, motorcycles) and aircraft. Motor vehicles and aircraft continue to be the primary noise sources. Some events at the fairgrounds have also generated noise complaints. No stationary source, such as an industrial plant, is known to create noise at an unacceptable level.

Discussion:

- a) The Plan Area is primarily located within noise contours ranging from 55 decibels (dB) to 65 dB and surrounded by sensitive noise receptors in the form of private residences. The City's General Plan establishes a land use and noise compatibility standard of 55-70 dB for residential low density, single family, duplex, mobile homes, and residential multi-family uses. Some greenbelt treatment areas are located directly adjacent to residences. The proposed project would result in the generation of temporary, short-term noise from the use of mechanical equipment for the thinning and removal of trees, vegetation, and fire fuel materials. Noise generated by these activities would be minimal, short-term, and intermittent and would only occur during daytime hours. These activities may result in a temporary increase in ambient noise levels; however, this increase is expected to be minor and is not expected to exceed noise exposure standards for residential land uses (50-70 dB). Therefore, impacts are expected to be **less than significant**.
- b) Noise impacts would be limited to the temporary increases in local noise levels resulting from the use of mechanical equipment for the thinning and removal of trees, vegetation, and fire fuel materials. The project would not require the use of heavy construction equipment that could generate ground borne vibration and would not create a permanent source of noise. Therefore, impacts are expected to be **less than significant**.
- c) While the Josselyn Canyon, Fisherman Flats, and portions of the Don Dahvee Lane greenbelt treatment areas are located within the traffic overflight zone of the Monterey Regional Airport, as mapped in the

Monterey Peninsula Airport Land Use Compatibility Plan (Monterey County Airport Land Use Commission, 2019), noise generated by the project would be limited to temporary increases in local noise levels resulting from the use of mechanical equipment for the thinning and removal of trees, vegetation, and fire fuel materials. Portions of the Skyline greenbelt treatment area and all of the other greenbelt treatment areas are within the airport influence area zone. The Plan Area does not intersect any other Safety Zones. Implementation of the project would not expose people residing or working in the project area to excessive noise levels; therefore, impacts would be **less than significant**.

Mitigation:

Implementation of the proposed project would not result in significant impacts related to noise; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XIV. POPULATION AND HOUSING – Would the project:					
a) Induce substantial 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)?				X	– City of Monterey, General Plan, Land Use and Housing Element
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X	– City of Monterey, General Plan, Housing Element

Existing Setting:

The 2014–2023 Regional Housing Needs Allocation Plan prepared by AMBAG identified a future housing need in Monterey of 650 new dwelling units for the period of 2014–2023. The City’s General Plan is required to show adequate sites for the 650 units to comply with state law requirements. The Department of Finance (DOF) estimates the current population for the City is 28,170 persons.

Discussion:

- a, b)** The proposed project is limited to managed fire fuel reduction activities within the Plan Area and would not include any new development or induce population growth. Therefore, **no impacts** would occur as a result of the proposed project.

Mitigation:

Implementation of the proposed project would result in no impacts to population and housing and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XV. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or 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:					
a) Fire protection?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goal c, Policies c.1–c.5 – City of Monterey Fire Department
b) Police protection?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goal b, Policies b.1–b.3 – City of Monterey Police Department
c) Schools?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goal d, Policies d.1–d.6 – Monterey Peninsula Unified School District
d) Parks?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goal j, Policies j.1–j.6 – City of Monterey Recreation & Community Services Department – City of Monterey Maintenance Division-Parks & Beaches
e) Other public facilities?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goals a, e, f–i, k–p; Policies f.1–f.7, i.1–i.3, k.1–p.2; Programs m.1.1–m.2.1 – City of Monterey Public Works Department – City of Monterey Maintenance Division-Streets & Utilities – City of Monterey Recreation and Community Services Department

Existing Setting:

The major public facilities in the City are police and fire, park and recreation facilities, schools, military facilities, cultural facilities, a conference center, health care facilities, the civic center, cemeteries, and the harbor.

Discussion:

- a–e)** The proposed project is limited to managed fire fuel reduction activities within the Plan Area and does not include any new development; therefore, would not result in an increased demand on fire or police protection, schools, parks, or other public facilities. Further, fuel reduction activities could potentially reduce demand for fire protection services. Therefore, **no impacts** would occur as a result of the proposed project.

Mitigation:

Implementation of the proposed project would result in no impacts to public services and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XVI. RECREATION – Would the project:					
a) 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?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goal j, Policies j.1–j.6 – M.C.C. Chapter 38, Zoning Ordinance, Article 9, Open Space District – M.C.C. Chapter 33, Subdivision, Article 3, §33-29(c) Park and Recreation dedication and fees
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				X	<ul style="list-style-type: none"> – City of Monterey Recreation and Community Services Department

Existing Setting:

The City of Monterey Recreation and Community Services Department manages a wide range of park and recreation facilities. The Open Space Element provides background information, goals, and policies regarding the City's open space and park resources implemented by the Parks Master Plan. Significant recreation facilities include the Monterey Sports Center, community centers, neighborhood park facilities, and beaches. Neighborhood parks also include various athletic fields, tennis courts, and other park facilities.

Discussion:

- a) The proposed project would not increase the use of recreation facilities, as it consists of reducing fire fuel hazards within the Plan Area. Therefore, **no impacts** would result from the proposed project.
- b) The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, **no impacts** would result from the proposed project.

Mitigation:

Implementation of the proposed project would result in no impacts to recreation and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XVII. TRANSPORTATION/TRAFFIC – Would the project:					
a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X		– City of Monterey Plans & Public Works Department, Traffic Engineering Division
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			X		– City of Monterey, General Plan Circulation Element Program j.1.1 – City of Monterey Plans & Public Works Department, Traffic Engineering Division
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	– City of Monterey, General Plan, Circulation Element – City of Monterey Plans & Public Works Department, Traffic Engineering Division – M.C.C. Chapter 20, Motor Vehicles and Traffic, Chapter 33, Subdivisions, Article 3, several sections related to circulation
d) Result in inadequate emergency access?				X	– City of Monterey, General Plan, Circulation Element – City of Monterey Fire and Police Departments

Existing Setting:

The setting information provided below is based on information provided in the City's General Plan and General Plan EIR.

Roadway Classification

The City has a roadway classification system which includes freeways, major arterials, minor arterials, collectors, and local streets.

Level of Service Standards and Study Road Segment/Intersection Operations

The Level of Service (LOS) is a standard used to describe the operating conditions on a roadway segment or at an intersection. LOS A represents free-flow, uncongested traffic conditions, while LOS F represents highly congested traffic conditions with unacceptable delay to vehicles at the intersections and on the road segments. The intermediate levels of service represent incremental levels of congestion and delay between these two extremes. Factors that may affect traffic flow conditions on roadway segments include intersection channelization design, type of traffic control devices, bicycle and pedestrian volumes, driveway activities, and on-street parking activities. Furthermore, urban street levels of service are based on through-vehicle travel speed for the segment or for the entire street under consideration. Travel speed is the basic service measure for urban streets.

Transit Service

Monterey-Salinas Transit (MST) is the principal transit service for the City and the surrounding communities. MST is a joint powers agency with a board of directors that includes a representative from the City. Thirteen MST routes currently serve the citizens of the community. Simoneau Plaza, located in downtown Monterey, is the transfer center for all routes serving the City. Senior and disabled citizens can use the MST fixed-route and Direct Area Response Transit (DART). MST also operates the RIDES program for disabled citizens. These routes operate on weekdays and Saturdays from approximately 7:00 AM to 11:00 PM and from approximately 7:30 AM to 5:30 PM on Sundays and holidays.

Existing Bikeway and Pedestrian Facilities

The City maintains an extensive network of Class 1, 2, and 3 bicycle paths and pedestrian sidewalks. The most notable bicycle and pedestrian path is the City's Recreational Trail that is located along the coastal side of the City. The Recreational Trail is a dual use facility that offers people destination opportunities, such as the restaurants or retail stores along Cannery Row or Fisherman's Wharf, or one of many parks for relaxing or wildlife viewing and sightseeing. The City maintains sidewalks on almost all City roadways, and some roadways have bicycle lanes.

Parking

Parking conditions throughout the City vary greatly. Some areas, mostly in the residential neighborhoods, have on-site and street parking, while much of the retail areas, such as Cannery Row, have street parking and public garages available with a minimal amount of on-site parking. The City's goal is to fully utilize the valuable commercial land opportunities throughout the City by implementing a variety of parking programs. Some programs include shared parking, which provides users with different peak parking requirements to share the same parking facilities. In addition, the City provides bicycle and pedestrian infrastructure throughout the City as an incentive to walk or ride a bike rather than drive. The available incentives help to reduce the demands on parking throughout the City.

Discussion:

- a) The proposed project is limited to managed fire fuel reduction activities within the Plan Area and does not include any new development. The proposed project would not construct new roadways or alter existing roadways, and therefore would have no permanent impacts on vehicular transportation. Furthermore, vehicle trips associated with fire fuel reduction activities would be minimal and limited to trucks used for worker and equipment transportation to the greenbelts. These trips may result in a temporary and intermittent addition of a minor amount of additional vehicle trips to the roadway network, which would not substantially impact traffic flow on local or regional roadways. Therefore, the proposed project would not conflict with any transportation performance plans, ordinances, or policies or applicable congestion management program and these impacts would be **less than significant**.
- b) As described above, vehicle trips and miles associated with fire fuel reduction activities would be minimal and limited to trucks used for worker and equipment transportation to the project study areas. In addition, the City utilizes LOS as the primary measures of traffic impacts and has not adopted threshold for Guidelines Section 15064.3, subdivision (b) which uses vehicle miles traveled (VMT) as the metric to assess transportation impacts from new development under CEQA. Therefore, the project would not conflict with CEQA Guidelines Section 15064.3(b), and this impact is **less than significant**.
- c, d) The proposed project would not result in the construction of any new roadways and, therefore, would not increase hazards due to design features. Additionally, this proposed project would not result in a change in air traffic patterns or interfere with emergency access/response routes. **No impact** would result from the proposed project.

Mitigation:

Implementation of the proposed project would not result in significant impacts to transportation and traffic; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XVIII. TRIBAL CULTURAL RESOURCES – Would the project:					
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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:			X		– City of Monterey, General Plan, Historic Preservation Element, and General Plan EIR
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or			X		– City of Monterey, General Plan and General Plan EIR
ii) 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 Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X		– City of Monterey, General Plan and General Plan EIR

Existing Setting:

The City falls within the contact-period lands of at least two aboriginal tribal groups. These groups are known ethnographically as Costanoan and Esselen, which are the names given to their language or language family. Ethnographic and ethnohistoric information regarding Costanoan and Esselen speakers comes from the records of early Spanish explorers, mission documents, the works of ethnographers and linguists, and from Native American descendants. The cultural history of the California central coast and inland region area has, until recently, been poorly documented. Since 1970, however, hundreds of surveys have been conducted and more than 60 archaeological sites have been excavated in Monterey and San Luis Obispo Counties, with more than 200 radiocarbon dates reported. Most of this work was undertaken to comply with CEQA and the National Environmental Policy Act (NEPA). Investigations of 19 sites along the northern shore of the Monterey Peninsula confirmed the existence of two archaeological “populations” in the area of ethnographic Rumsen Costanoans. Over time,

archeological investigations within the City have resulted in the recording of approximately 29 prehistoric archeological sites.

Discussion:

a.i, a.ii) According to the City's General Plan EIR, the Plan Area is identified as having a high probability of prehistoric resources. There are no known tribal cultural resources present within the Plan Area; however, it is possible that unknown resources are present. The proposed project would be limited to prescribed fire fuel reduction activities, including the thinning and removal of trees, vegetation, and other fire fuel material. The project would only include minimal ground-disturbing activities and precludes the use of heavy construction equipment; therefore, no tribal cultural resources are expected to be encountered as a result of the proposed project.

Governor Newsom issued Executive Order N-54-20 to extend tribal consultation timelines under AB 52. The Executive Order suspends the timeframes within which a California Native American tribe must request consultation and the lead agency must begin the consultation process for a period of 60 days, effective April 22, 2020, in consideration that tribal capacity to engage in or request consultation may be limited at this time.

In satisfaction of the notification requirements of AB 52 at Public Resources Code § 21083.1, a notification letter was sent to the OCEN Tribe dated March 27, 2020. The letter provided a brief project description and provided contact information for questions or a request to initiate consultation. As of the date of this document, the City has not received a response. Therefore, impacts are **less than significant**.

Mitigation:

Implementation of the proposed project would not result in significant impacts to tribal resources; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:					
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X	<ul style="list-style-type: none"> – City of Monterey Plans and Public Works Department – City of Monterey, General Plan – Water Management District – California American Water Company – Monterey Regional Water Pollution Control Agency – M.C.C. Chapter 31.5, Storm Water Management – City of Monterey, General Plan Public Facilities Element subsection l. Storm Drain
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element subsection m. Water
c) Result in a determination by the wastewater 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?				X	<ul style="list-style-type: none"> – City of Monterey Plans and Public Works Department – Monterey Regional Water Pollution Control Agency – City of Monterey, General Plan Public Facilities Element subsection k. Sewer
d) 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?			X		<ul style="list-style-type: none"> – City of Monterey Solid Waste & Recycling Division – Monterey Regional Waste Management District – City of Monterey, General Plan Public Facilities Element subsection n. Reduction and Recycling of Waste
e) Comply with federal, state, and local statutes and regulations related to solid waste?				X	<ul style="list-style-type: none"> – Monterey Regional Waste Management District – City of Monterey, General Plan Public Facilities Element subsection n. Reduction and Recycling of Waste

Existing Setting:

The setting information provided below is based on information provided in the City's General Plan and General Plan EIR.

Wastewater

The City maintains the sanitary sewer collection system within its jurisdictional boundaries. The existing sanitary sewer collection system conveys sewage from sewer point sources within the City (e.g., homes, businesses, and public facilities) to a regional wastewater treatment plant for treatment and disposal. The sanitary sewer collection system operated by the City consists of approximately 102 miles of sewer pipeline maintained by City personnel and seven sewer lift stations.

Monterey's sewage is conveyed through pipelines to the Monterey One Water (M1W) sewer treatment plant near the City of Marina for treatment and disposal. Per M1W, 60% of incoming wastewater is highly treated through their water recycling facility and distributed for irrigation uses on farmlands in northern Monterey County. M1W performs secondary treatment of the remaining wastewater, which is then discharged through an ocean outfall two miles into Monterey Bay.

Local sewer collection pipelines of various capacities exist underground within the City and eventually flow to larger sewer mains that feed into the M1W interceptor pipeline. The interceptor pipeline receives sewer flows from both Pacific Grove and Monterey and carries those flows to the wastewater treatment plant.

Monterey's existing sewer collection system is aging and requires ongoing maintenance and rehabilitation. Engineering studies and assessments of the system performed over the past 10 years provided results regarding the condition of the existing sewer collection system and identified priority repair and replacement projects. Utilizing an 'A' through 'F' standard rating system for sewer collections systems, sewer pipes were flagged for repair based on their existing level of defect. Those pipes that received a C, D, or F rating based on the quantitative measure of pipe defects are planned for rehabilitation, which will include repair or replacement of the existing sewer pipe.

The existing capacity of the system is adequate to convey the sewer loads generated, but the infrastructure is in need of repair and is planned to undergo rehabilitation in the near future upon funding availability. Rehabilitation of the City's aged sewer collection system is an important factor in mitigating sewer spills locally and into Monterey Bay. As a result, the rehabilitation of this system is a priority project for the City's Plans and Public Works Department.

Potable Water

Water is supplied to most of the Monterey Peninsula by Cal Am through wells in Carmel Valley, dams on the Carmel River, and a well on the Seaside Aquifer. The City is wholly within MPWMD's jurisdiction, which is responsible for developing long-term water supply for the Monterey Peninsula cities in the district.

As of the 2005 General Plan, the City had reached the limits of its allocation and still has very little water available to meet the City's goals. The MPWMD has not provided a stable, long-term source of water, and many of the alternatives proposed by MPWMD would provide only enough water for short-term needs. The City has a limited amount of water available for new development. Due to the Monterey Peninsula's limited water resources, the City of Monterey does not have water credits available for allocation. All private property development that requires a water permit is limited to the water credits associated with the specific site (City of Monterey, 2020).

Storm Water

The City maintains storm drainage infrastructure—drainage channels, storm drains, pipelines, culverts, pump stations, and outfalls—within City limits. The existing drainage system collects non-point surface water runoff and conveys it through channels, pipelines, and culverts that, in most instances, eventually terminate at the Monterey Bay. Monterey's storm water collection system is not tied into the sanitary sewer collection system. Therefore, storm water flows are, for the most part, not treated prior discharge. Storm water flows are discharged to local waterways including the Monterey Bay at multiple outfalls located throughout Monterey's coastal area.

Monterey's discharge of storm water to local surface waters is regulated by the Clean Water Act, NPDES Permit Program, and the California Porter-Cologne Act, and permitted through the SWRCB and Central Coast RWQCB. The City storm water permit and ordinance control water pollution through the implementation of BMPs and local regulation of pollutant discharges into waters of the U.S. To address regional urban runoff issues and develop innovative approaches to storm water management, the City collaborates with local entities in the MRSWMP, a regional storm water management, implementation, and education program to accomplish permit compliance and water quality protection.

Solid Waste

The regional waste collection facility is located in the City of Marina and is operated by the Monterey Regional Waste Management District (MRWMD). Locally, there is a transfer facility in Ryan Ranch operated by Monterey City Disposal Service, a private contractor.

Discussion:

- a–c, e) The proposed project would not increase the capacity of commercial or residential space in the area. There would not be an increased demand for water or wastewater treatment facilities, water supplies, landfill capacity, or solid waste as a result of the proposed project. No fill would be exported from the proposed project site as part of the proposed project. The proposed project would not include the construction of new storm water or wastewater treatment facilities. The proposed project would not include expansions of existing storm water facilities. Therefore, **no impact** would occur.
- d) Implementation of the proposed project includes the managed reduction of fire fuel materials within the Plan Area. Treated fire fuel materials collected would either be removed from the seven greenbelts and disposed of in a landfill with a green waste composting program or would be chipped and used as mulch within the Plan Area. The nearest waste management facility likely to serve the project is the MRWMD, located approximately 10 miles northeast of the Plan Area in the City of Marina. The MRWMD includes compost, disposal, and recycling services. The treated materials removed from the Plan Area would be composted or recycled as mulch, which could be accomplished through the composting and recycling programs at the MRWMD. Therefore, the project would not result in a net increase in quantities of solid waste that require permanent loss of available capacity within a landfill. Project impacts would be **less than significant**.

Mitigation:

Implementation of the proposed project would not result in significant impacts to utilities and service systems; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X	<ul style="list-style-type: none"> – City of Monterey, General Plan Public Facilities Element Goal j, Policies j.1–j.6 – M.C.C. Chapter 38, Zoning Ordinance, Article 9, Open Space District – M.C.C. Chapter 33, Subdivision, Article 3, §33-29(c) Park and Recreation dedication and fees – Cal Fire
b) 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?			X		– City of Monterey Recreation and Community Services Department
c) 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?				X	– City of Monterey, General Plan
d) 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?			X		– City of Monterey, General Plan

Existing Setting:

M.C.C. Chapter 13, Fire Protection, adopted the 2019 California Fire Code pursuant to Monterey City Ordinance No. 3600 (effective January 1, 2020). Legislation (Government Code Section 51175) calls for the Cal Fire Director to evaluate fire hazard severity in Local Responsibility Areas and make a recommendation to the local jurisdiction when the VHFHSZ exists. Based on the findings of the Cal Fire Director, there are both High and VHFHSZ within the City limits.⁷

⁷ See Map 14 at the City's website: <http://www.monterey.org/Portals/0/Policies-Procedures/Planning/GeneralPlan/14-Fire-Zone-Map.pdf>

Discussion:

- a) As described in *Section IX. Hazards and Hazardous Materials*, the Plan Area is located adjacent to evacuation routes and roads that provide access to evaluation routes as identified in the City's General Plan—specifically, SR 1 southbound and SR 68 eastbound. Proposed project activities would not require substantial new trips, road closures, route diversions, or other potential impacts that could physically interfere adopted emergency response or emergency evacuation plans. Therefore, **no impacts** would result from the proposed project.
- b, d) As described in *Section IX. Hazards and Hazardous Materials*, the objective of the proposed project is to reduce the risk of wildfire in the Plan Area through fuel reduction actions undertaken by the City. The proposed project would result in the managed reduction of fire fuel hazards within the seven greenbelt treatment areas of the City's greenbelt system and would involve the thinning and removal of trees, vegetation, and fire fuel sources. Therefore, the project is anticipated to reduce potential impacts related to wildland fires, including exposure of nearby residents to pollutant concentrations from a wildfire, and exposure of people or structures to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Impacts would therefore be **less than significant**.
- c) The project would not require installation of roads, fuel breaks, emergency water sources, power lines, or other utilities that may exacerbate risk of fire. Therefore, **no impacts** would result from the proposed project.

Mitigation:

Implementation of the proposed project would not result in significant impacts related to wildfire; therefore, impacts are expected to be less than significant and mitigation is not necessary.

SUBJECT AREA	Potentially Significant Impact	Less-than-significant with Mitigation	Less-than-significant Impact	No Impact	SUPPORTING INFORMATION
XXI. MANDATORY FINDINGS OF SIGNIFICANCE					
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X			<ul style="list-style-type: none"> - City of Monterey, General Plan - City of Monterey Greenbelt Fuel Reduction Plan (DD&A, 2020).
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X		<ul style="list-style-type: none"> - City of Monterey, General Plan - ARB (2014) - California Air Pollution Control Officers' Association (2009) - MBARD
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X		<ul style="list-style-type: none"> - City of Monterey, General Plan

Discussion:

- a) **Less than Significant with Mitigation Incorporated.** Based on the analysis provided in this Initial Study, the proposed project would not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Mitigation measures are identified for potential impacts of the project on biological and cultural resources, geology, hazards and hazardous materials, hydrology, and tribal cultural resources to reduce these effects to a less-than-significant level.
- b, c) **Less Than Significant.** As evidenced in this Initial Study, the proposed project would not result in significant cumulative impacts, nor would it result in substantial adverse effects on human beings, directly or indirectly, since all potentially significant impacts would be less than significant based on compliance with regulatory requirements, and implementation of project design features such as BMPs, and mitigation measures identified in this Initial Study.

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Attachments

City of Monterey Greenbelt Fuel Reduction Plan



DENISE DUFFY & ASSOCIATES, INC.

PLANNING AND ENVIRONMENTAL CONSULTING

February 5, 2020

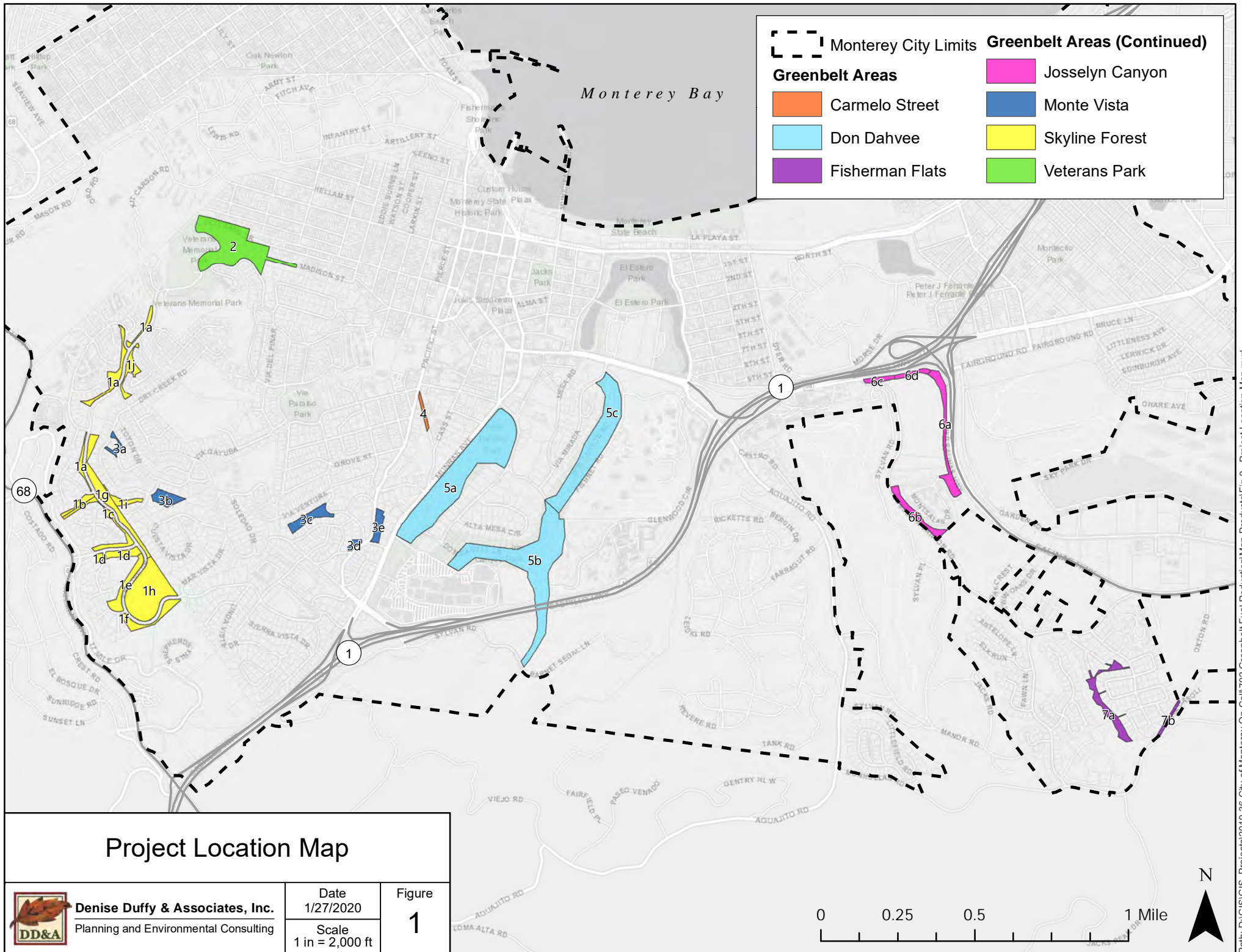
Justin Prouty
City of Monterey Forestry Department
580 Pacific Street
Monterey, California 93940

SUBJECT: City of Monterey Greenbelt Fuel Reduction Plan

Dear Mr. Prouty,

Denise Duffy & Associates, Inc. (DD&A) is contracted to provide environmental consulting services to the City of Monterey (City). The City has identified seven areas within the City's greenbelt system— the Skyline Forest, Veterans Park, Monte Vista, Carmelo Street, Don Dahvee, Josselyn Canyon, and Fisherman Flats greenbelts, collectively the "Plan Area" (**Figure 1**)—where fire hazard is high due to high fuel loads. Wildfire in these greenbelts could result in substantial impacts to natural resources, and substantial health, safety, and welfare impacts to the built/human environment adjacent to these areas. On January 9 and 13, DD&A biologists conducted surveys of the greenbelt areas to update the 2017 Fuel Reduction Plan prepared by Patrick Reagan (Reagan, 2017), which assessed biological conditions and evaluated whether typical fuel reduction maintenance activities scheduled for these greenbelt areas would negatively impact special-status species of plants or animals and require any unique avoidance measures. This updated Fuel Reduction Plan (Plan) confirms or updates the field results and fuel reduction recommendations of the greenbelt areas evaluated in 2017, and includes avoidance and minimization measures for several additional greenbelt areas not evaluated in 2017 (the Veterans Park, Carmelo Street, and Josselyn Canyon greenbelts, as well as a portion of the Monte Vista greenbelt). Much of the data and language in this Plan were pulled from the previous report and updated accordingly.

The seven greenbelts in the Plan Area are all generally urbanized and impacted by non-native species which have escaped from nearby landscaped areas or, more commonly, are part of a general spread of invasive species in the greater Monterey area. Native trees like Monterey pine (*Pinus radiata*), coast live oak (*Quercus agrifolia*), and others are in varying states of health. Many pines and oaks have collapsed and remain on the ground in several greenbelt areas. Large, collapsed trunks are not an immediate fire hazard and, in most cases, can be left to decompose and benefit habitat. The abundance of non-native weedy grasses and forbs is the most significant potential fire fuel throughout the Plan Area. The low herbaceous growth that is perennial or evergreen can be managed through annual or bi-annual scheduled thinning or cutting to the ground, but annual grasses require a more frequent cutting back or mowing to prevent them from reaching maturity, setting seed, and dying. A general thinning of trees and shrubs, where they interface with development like those near fence lines of houses and apartment type buildings, will decrease risk of spreading fire and make these areas easier to defend.



Under the California Environmental Quality Act (CEQA), potential impacts to special-status species resulting from implementation of the Plan must be considered. Special-status species are those plants and animals that have been formally listed or are Candidates for listing as Endangered or Threatened under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA), are California Department of Fish and Wildlife (CDFW) “species of special concern,” are listed as Rare under the California Native Plant Protection Act (CNPPA), are included in the California Native Plant Society (CNPS) California Rare Plant Ranks (CRPRs) 1A, 1B, 2A, or 2B, or are California Fully Protected Species (CFP). In addition, raptors (e.g., eagles, hawks, and owls), migratory birds, and their nests are protected under California Fish and Game Code.

An analysis was completed to verify or update the list of special-status species that were determined present or potentially present within the Plan Area in the 2017 Fuel Reduction Plan. A list of special-status species with the potential to occur in the Plan Area (**Appendix A**) was compiled utilizing all available occurrence data, including the 2017 Fuel Reduction Plan, the 2017 IS/MND for the project (City, 2017), California Natural Diversity Database (CNDDDB) reports for the Monterey and Seaside quadrangles (CDFW, 2020; **Appendix B**), and the U.S. Fish and Wildlife Service (Service) Information for Planning and Consulting (IPaC) resource list (Service, 2020; **Appendix C**). Each species was analyzed to determine its presence or potential presence within the Plan Area. From this list, two plant communities (Monterey pine forest and central maritime chaparral) and two¹ individual plant species—Hooker’s manzanita (*Arctostaphylos hookeri* ssp. *hookeri*; CNPS CRPR 1B) and Monterey pine (CNPS CRPR 1B)—were observed in the greenbelts. Monterey pine occurs within all seven greenbelts, but Hooker’s manzanita was only observed within portions of the Skyline Forest and Veterans Park greenbelts. Yadon’s rein orchid (*Piperia yadonii*; FE/1B) has also been observed by Reagan in a few of the greenbelt areas during previous surveys for other purposes (Reagan, 2017).

Studies have shown that reduction of invasive weed cover and dispersal of Yadon’s rein orchid seed in the cleared areas has resulted in increased recruitment of Yadon’s rein orchid plants in those areas (Reagan, 2017). If fuel reduction activities do not include soil disturbance, no impacts to Yadon’s rein orchid will occur. Competition with non-native species is a very distinct threat to this species and ongoing fuel management activities, including weed eradication and thinning, can have a positive impact on the increase and sustainability of the species in the greenbelt areas they currently occupy (Reagan, 2017). The Yadon’s rein orchid listing rule states that jubata grass or pampas grass (*Cortaderia jubata*) and French broom (*Genista monspessulana*) are two non-native plant taxa that invade forests and meadows on the Monterey Peninsula. In addition, acacia (*Acacia* spp.) and rattlesnake grass (*Briza maxima*) have been listed as threats in the Del Monte Forest populations (Reagan, 2017). The Pebble Beach Company has an on-going eradication program for these taxa (Reagan, 2017). Invasion of non-native plants is a continuing threat and could increase in severity if the remaining populations are reduced in size, dissected into many smaller parcels, or become isolated by surrounding development.

¹ Monterey cypress (*Hesperocyparis macrocarpa*), a CNPS Rank 1B species, was also identified within some of the greenbelts. However, the Plan Area is outside the native range of this species, and any individuals occurring within the Plan Area are of unknown horticultural origin and not considered special-status.

Additionally, while not observed to be present but due to presence of suitable habitat and known occurrences in the area, the following special-status plant and wildlife species have a moderate or high potential to occur within the Plan Area (**Appendix A**):

- Hickman's onion (*Allium hickmanii*) — 1B²,
- Toro manzanita³ (*Arctostaphylos montereyensis*) — 1B,
- Pajaro manzanita (*Arctostaphylos pajaroensis*) — 1B,
- Sandmat manzanita (*Arctostaphylos pumila*) — 1B,
- Jolon clarkia (*Clarkia jolonensis*) — 1B,
- Seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*) — 1B,
- Hospital Canyon larkspur (*Delphinium californicum* ssp. *interius*) — SE/1B,
- Hutchinson's larkspur (*Delphinium hutchinsoniae*) — 1B,
- Eastwood's goldenbush (*Ericameria fasciculata*) — 1B,
- Fragrant fritillary (*Fritillaria liliacea*) — 1B,
- Gowen cypress (*Hesperocyparis goveniana*) — FT/1B,
- Kellogg's horkelia (*Horkelia cuneata* var. *sericea*) — 1B,
- Contra Costa goldfields (*Lasthenia conjugens*) — FE/1B,
- Carmel Valley bush-mallow (*Malacothamnus palmeri* var. *involucratus*) — 1B,
- Marsh microseris (*Microseris paludosa*) — 1B,
- Northern curly-leaved monardella (*Monardella sinuata* ssp. *nigrescens*) — 1B,
- Woodland woollythreads (*Monolopia gracilens*) — 1B,
- Hickman's cinquefoil (*Potentilla hickmanii*) — FE/SE/1B,
- Pine rose (*Rosa pinetorum*) — 1B,
- Santa Cruz clover (*Trifolium buckwestiorum*) — 1B,
- Pacific Grove clover (*Trifolium polyodon*) — SR/1B,
- Monterey clover (*Trifolium trichocalyx*) — FE/SE/1B,
- Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*) — CSC,
- Monterey shrew (*Sorex ornatus salaries*) — CSC,
- Northern California legless lizard (*Anniella pulchra*) — CSC,
- Coast Range newt (*Taricha torosa*) — CSC, and
- Raptors and other nesting birds.

Common Issues Throughout City

Most of the seven greenbelts have similar non-native weed components that pose a more significant fire danger than do the native species co-occurring on site. Two of the most common non-native species were rattlesnake grass and French broom, both prolific seed producers capable of invading disturbed areas in a short time and both having unique timing issues for control. Rattlesnake grass, a cool season annual grass (sprouts at onset of rainy season and usually sets seed and dies by early summer), was found at virtually every greenbelt area evaluated. It is currently the dominant “standing tinder” throughout the City's

² Status Designation: FE: Federally Endangered; FT: Federally Threatened; SE: State Endangered; SR: State Rare; and 1B: CNPS CRPR 1B; CSC: CDFW Species of Special Concern.

³ Although perennial species such as manzanita can be identified outside of their blooming periods, these species may be present in the deeper portions of greenbelts (e.g., the Skyline Forest and Veterans Park greenbelts) that were not reached during surveys.

greenbelt areas. The California Invasive Plant Council (Cal-IPC) rates this species as *Limited*⁴. For fuel management, it would be beneficial to cut down this species before seed set occurs in May and June. Any fuel management activities conducted after seed set occurs in May and June will cut or knock down the dead growth and remove the dry biomass, but will spread the year's crop of seed further.

French broom is of much greater concern than rattlesnake grass, and was observed to form dense, almost mono-culture stands in many of the greenbelt areas. French broom is rated by the California Invasive Plant Council as *High*⁵. This is a plant that realistically will never be eradicated from the local landscape; however, managing its spread in the Plan Area can dramatically reduce fire danger. This plant flowers in spring and summer and then forms thin, black seed pods that demonstrate its family connection to peas and lupines. When daytime temperatures start to climb in late summer into fall, these seed pods explode open and hurl seed over 10 feet in every direction. To prevent invasion of the Plan Area, French broom plants should be cut down annually in spring and early summer, prior to development of mature seed. Eradication of plants growing among native species poses a bigger problem in terms of cost and/or impacts to native species. Larger trunked plants can be cut at ground level during the spring into early summer to reduce seed production, or pulled out of the ground with a weed wrench type tool. Pulling of younger shrubs can be done in the late fall or early winter after first rains have softened soil and improved pulling ease. Both methods are labor intensive and time consuming and may require long term planning and budgeting if the end goal is reducing fire fuel in the Plan Area.

Other non-native plant species were observed consistently throughout the Plan Area, but none to the extent of the rattlesnake grass and French broom. Wetter locations had extensive patches of Poison hemlock⁶ (*Conium maculatum*), Himalayan blackberry⁷ (*Rubus armeniacus*), and the perennial grass panic veldtgrass⁸ (*Ehrharta erecta*), which is not currently as abundant as the previous species but is becoming more prevalent in Monterey County. Dry shady areas had firmly established patches of English ivy (*Hedera helix*), an escapee from old urban gardens, and greater periwinkle⁹ (*Vinca major*), another species that

⁴ These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic. On a local level in Monterey County, rattlesnake grass is much more abundant than it is throughout much of the state.

⁵ These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

⁶ *Conium maculatum* (poison-hemlock: Cal-IPC Inventory rating: Moderate) is a biennial forb (family Apiaceae). Poison-hemlock has spread throughout California in areas below 5,000 feet (1,500 m) elevation, excluding the Great Basin and Desert provinces and is commonly found in dense patches along roadsides and fields. It also thrives in meadows and pastures and is occasionally found in riparian forests and flood plains, but prefers disturbed areas. All parts of poison-hemlock are toxic to humans and animals when ingested; handling plants can cause contact dermatitis in some people. Poison-hemlock can spread quickly after the rainy season in areas that have been cleared or disturbed. Once established, it is highly competitive and prevents establishment of native plants by over-shading.

⁷ *Rubus armeniacus* (Himalayan blackberry: Cal-IPC Inventory rating: High), formerly known as *Rubus discolor*, is a sprawling, essentially evergreen, glandless, robust shrub (family Rosaceae). *Rubus armeniacus* occurs in California in the coast ranges, Central Valley, and Sierra Nevada. This weed is a strong competitor. It rapidly displaces native plant species and thickets to produce such a dense canopy that the lack of light severely limits the growth of understory plants.

⁸ *Ehrharta erecta* (erect veldtgrass: Cal-IPC Inventory rating: Moderate) is a perennial grass (family Poaceae) found along California's coastline and in the southern Sacramento Valley. Erect veldtgrass is commonly found in disturbed areas, including riparian areas, scrub, grassland, woodland, urban areas and turf. This native to South Africa was cultivated in Berkeley and Davis in the mid-1900s as an experimental grass. It spreads rapidly and is known to out-compete native grasses and herbs. Erect veldtgrass causes more litter accumulation than native grasses and herbs do, which further inhibits native plant growth.

⁹ *Vinca major* (big periwinkle) is a spreading perennial vine or ground cover (family Apocynaceae) with dark green stems that contain milky latex. In California, it is rapidly spreading in most coastal counties, foothill woodlands, the Central Valley, and even

overtakes and outcompetes native species and turns shady oak woodland understory to a low diversity or monoculture plant cover. It is, however, a low-growing plant that is not particularly fire prone. Like the Himalayan blackberry, while it is ecologically destructive, it is not an immediate fire fuel reduction concern. Himalayan blackberry, periwinkle, and English ivy are choking some of the drainages in greenbelts closer to downtown and out near Fisherman Flats. These species should be targeted for removal or significant thinning in future management for reducing flooding and erosion problems in the Plan Area. Future anticipated flood management plans for drainages in the greenbelt complex should include riparian clean up¹⁰ and restoration to remove these and other invasive non-native species and reintroduce native riparian trees and understory species that will prevent erosion and restore natural habitat function.

The following is a station by station breakdown of the biological conditions within each greenbelt, the sensitive biological resources that are present or potentially present within each greenbelt, and the fuel reduction actions that are recommended to reduce fuel loads and risk of spreading fire within each greenbelt while preserving habitat for plants and wildlife. Depending on biological conditions, some greenbelts are further broken down into separate subareas, as follows (**Figure 1**):

1. Skyline Forest
 - a. North End of Skyline Dr
 - b. Wyndemere Way
 - c. Greenwood Way
 - d. Skyline Forest Dr
 - e. LDS Church to Wright Place
 - f. Forest Knoll Rd to Mar Vista Dr
 - g. Mar Vista on East Side of Skyline Dr
 - h. Intersection of Skyline Dr and Mar Vista Dr to Dry Creek Rd
 - i. North End of Mar Vista Dr
 - j. Skyline Dr to Crandall Rd
2. Veterans Park
3. Monte Vista
 - a. Dry Creek Rd
 - b. Crandall Rd
 - c. Soledad Dr to San Bernabe Dr
 - d. Pacific St and San Bernabe Dr
 - e. Pacific St and Via Arboles
4. Carmelo Street
5. Don Dahvee
 - a. Soledad to El Dorado
 - b. Don Dahvee Lane and South Iris Canyon
 - c. North Iris Canyon to Fishnet Rd
6. Josselyn Canyon

desert areas. Big periwinkle has escaped from garden plantings, and lowers species diversity and disrupts native plant communities. Riparian zones are particularly sensitive. Fragments of periwinkle vines can break, wash downstream, and start new invasions.

¹⁰ Riparian habitat in the greenbelt areas consists primarily of Arroyo willow and Poison oak and California blackberry. These native species are being overtaken by invasive, nonnative species that alter the habitat value and drainage function of the riparian corridors. "Cleanup" would include the eradication of the French broom, Himalayan blackberry, English Ivy, Cape Ivy, periwinkle and garden nasturtium.

- a. Old Salinas Highway
 - b. Josselyn Canyon Rd
 - c. Intersection of Josselyn Canyon Rd and Mark Thomas Dr
 - d. Mark Thomas Dr
7. Fisherman Flats
 - a. Augusta Place to Olmstead
 - b. Via Casoli and Foothill

1. Skyline Forest

a. *North End of Skyline Drive*

Near the high point of the City below Highway 68 as it winds down into Pacific Grove, this area is a maintained, generally dry Monterey pine forest with a limited understory. While not dense within the greenbelt, rattlesnake grass is abundant on the margins of this greenbelt. Due to ongoing management, trees have been thinned and left on the ground to decompose and benefit habitat. Continued management for weedy grasses would include cutting low (with a string or blade trimmer) in May to June to remove seed production and following-up in August to September, if feasible, to reduce standing dead fuel.

b. *Wyndemere Way*

Intersecting with Skyline Drive from the south, this section of greenbelt extends up toward highway 68 between housing developments. This is in area where the federally Endangered Yadon's rein orchid has been documented in the past. String or blade trimmer cutting or mowing in this area prior to September 1 can avoid impacting any potentially occurring flower stalk or seed pods that may persist late into fall by having a qualified biologist walk the area and cage flower and seed stalks prior to the weed management work. As previously mentioned, the removal of weed competition coinciding with dispersal of Yadon's rein orchid seed increases the survival and spread of the species.

All pine tree thinning and removal shall be done in such a way as to do the least possible amount of soil disturbance. The engineered log drops for erosion control through the middle of this greenbelt present a unique management issue where undermining of the sidewalls has caused extensive damage in the past and maintenance of these log drops may require vehicles and machinery to travel through the pine forest to reach each "drop". As with fuel management activities, the best time to conduct such maintenance would be between August 15 and October 15 to have the least impact to animal and plant species. Because Monterey pine is a special-status species, vehicle and machinery access through Monterey pine forest should be done in consultation with a qualified biologist to ensure that potential impacts to Monterey pine forest and Monterey pine individuals are avoided or mitigated.

c. *Greenwood Way*

This section of the greenbelt continues to follow Skyline Drive. It is tall mature Monterey pine forest with occasional coast live oak trees and remnant patches of *Arctostaphylos* (manzanita) species. The dominant weeds are rattlesnake grass in the dry understory and Kikuyu grass¹¹ (*Pennisetum clandestinum*) in wetter

¹¹ *Pennisetum clandestinum* (kikuyu grass: Cal-IPC Inventory rating: Limited) is a perennial grass (family Poaceae) that prefers disturbed areas, such as roadsides, urban areas, cropland, turf, forested sites and wetland areas. Kikuyu grass reproduces from seed and vegetatively, using its extensive system of creeping stolons and rhizomes. Kikuyu grass populations can be controlled by hand removal if detected early. Agricultural and landscape maintenance equipment should be cleaned after use in areas with kikuyu grass infestations to prevent the spread of rhizome and stolon fragments.

low spots and drainages from road and development storm drains. Kikuyu grass, like previously mentioned Himalayan blackberry and blue periwinkle, is not of particular concern regarding fire danger; however, it is an ecological concern in drainages, where it will spread and outcompete native species.

d. Skyline Forest Drive

This area of greenbelt where Skyline Forest Drive intersects with Skyline Drive is one of the botanically “cleanest” areas of the greenbelt system in that it has a much higher level of native plant diversity, more typical of undisturbed Monterey pine woodland with fewer non-native species invading. Aside from the ubiquitous rattlesnake grass which is not as dense in this area, the plants beneath the Monterey pine trees include Douglas Iris (*Iris douglasiana*), rough leaf aster (*Eurybia radulina*), California blackberry (*Rubus ursinus*), common yarrow (*Achillea millefolium*), yerba buena (*Clinopodium douglasii*), poison oak (*Toxicodendron diversilobum*), evergreen huckleberry (*Vaccinium ovatum*), Fremont’s star lily (*Toxicoscordion fremontii*), and a few woolly leaf manzanita (*Arctostaphylos tomentosa* var. *tomentosa*) (Reagan, 2017). In this area, woody shrubs should be avoided and string trimmer maintenance should be limited to areas of low herbaceous annuals and perennials. While these plants can recover from a hard trimming just as if they had been burned, woody shrubs will have a more difficult time recovering than would the herbaceous plants. As is the case throughout all greenbelt areas, fallen trees that are potential safety concerns should be removed without soil disturbance. Those that can be left in place on the ground without creating safety risks should remain for habitat improvement.

e. LDS Church to Wright Place

Like Section *d* above, this part of the greenbelt is much more diverse and denser with native species than other greenbelt areas in the City. It is bordered by fewer residential properties than other greenbelts. It does have the same invasions of rattlesnake grass in some of the brighter openings where pine trees have died and allowed more light to reach the forest floor, as well as occasional patches of Kikuyu in drainage areas. While not an immediate fire concern, non-native species within this greenbelt should be removed to benefit habitat for native species.

f. Forest Knoll Road to Mar Vista Drive

While this section of greenbelt has a Monterey pine and coast live oak overstory typical of Skyline Forest, the understory is unlike other greenbelts in the area. It looks more like wet meadow with a broader range of non-native weed species as well as native. An obvious wet area that is supporting a few native plant species that are typical of wetlands is found in an opening between mature Pine trees about 50 feet back from the road. It may be unnaturally wet from development uphill from the site, and could eventually cause decline of the surrounding pine trees. This wet meadow area should be protected from disturbance during any fuel management activities in the area.

g. Mar Vista Drive on East Side of Skyline Drive

This is a very broad area of the greenbelt that extends along the east side of Skyline from the South end of Mar Vista, north toward Skyline forest drive. The Pine forest is dense and tall in this area and the understory is diverse with native and non-native species. Many fallen trees are in partial breakdown and could provide increased fire danger or safety issues from falling material. No special-status species were observed in this area but it is expected that Yadon’s rein orchid, Hooker’s manzanita, and other special-status species could be present deep in the interior areas that were not surveyed. In sunny openings in the forest and out along

the road, the population of French broom is very dense and this is an area that needs ongoing management both for reducing fire danger and for ecological processes in the forest. A native species that is exceptionally abundant and dense here is poison oak (*Toxicodendron diversilobum*). It is found spreading along creek banks and climbing up Monterey pine trunks. The poison oak seems to favor the more moist, shady canyons along the creek channel and north facing slopes but it can be found in virtually any part of the greenbelt system.

The creek drainage running along the south end of this greenbelt is showing some advanced incising of the banks that will cause erosion or tree undercutting sooner than later. This area should receive further evaluation for potential use of engineered energy dissipation and erosion control.

h. Intersection of Skyline Drive and Mar Vista Drive to Dry Creek Road

This section of the greenbelt is a swath between the houses along Dry Creek Road and the east side of Skyline Drive. The canopy consists of Monterey pine and coast live oak; however, spacing of the trees in this portion of the greenbelt is less dense than in many other areas. The understory is mostly non-native grasses and forbs, including panic veldtgrass in some areas. This area is being maintained through tree thinning, with large trunks left in place to decompose and benefit habitat. Continued tree thinning, as necessary, and removal of non-native veldtgrass would reduce fire hazard and benefit habitat for native species.

i. North End of Mar Vista Drive

This section of greenbelt is a drier area with widely spaced Monterey pine trees and an understory of pine duff and maintained non-native grasses and forbs. Some French broom is present but appears to be maintained. Trees have also been thinned and left to decompose and benefit habitat. Continued tree thinning, as necessary, and maintenance of non-native understory would reduce fire hazard and benefit habitat for native species.

j. Skyline Drive to Crandall Road

This section of greenbelt connects to the east side of the greenbelt described under Section *h* above, and follows a relatively steep drainage east downhill and under Crandall Road. On both sides of Crandall Road, the drainage is well vegetated with a wide variety of native and non-native species. Coast live oak is dominant, with some Monterey pine trees throughout. French broom and non-native grasses are dominant in the understory, and is dense further into the greenbelt. Fallen trees higher up the drainage are fire dangers and potentially future culvert plugs that could cause backing up above Crandall and incising of both sides of the channel. This stretch could use a lot of clean up and brush clearing.

2. Veterans Park

The Veterans Park greenbelt is a large, densely vegetated area of mixed Monterey pine and coast live oak woodland, with remnant areas of maritime chaparral and many small drainages throughout. The forest is dense and tall in this area and the understory is diverse with both native and non-native species. Many fallen trees are in partial breakdown and could provide increased fire danger or safety issues from falling material. In addition, rattlesnake grass and French broom are common throughout this entire greenbelt. Because of the abundant fuel loads, this is an area that should be prioritized for fuel reduction. However, several special-status species, including pine rose, Yadon's rein orchid, sandmat manzanita, and Hooker's

manzanita are known to occur in the area (CDFW, 2020). Where brush is thick, a qualified biologist should conduct surveys for special-status plants prior to fuel reduction activities.

3. Monte Vista

a. *Dry Creek Road*

This portion of greenbelt is a small area nestled between multiple single-family homes. It consists of a mixed Monterey pine and coast live oak woodland, with an understory of pine duff and native grasses and rushes. Due to its proximity to homes, this area is regularly maintained. Trees have been thinned and left in place to decompose. Although the understory is generally low, some tall French broom plants are present along the margins of this greenbelt near residential fence lines. Recommended fuel reduction activities include continued tree thinning, as necessary, and removal of French broom. Large, downed trunks can be left in place to decompose and benefit habitat.

b. *Crandall Road*

This area of the greenbelt rapidly drops downhill away from Crandall. Both sides of Crandall Road have been repaired with erosion control matting and engineered log drops from previous erosion activity. The East side has two drainages that merge partway down the arroyo that have been engineered to prevent further washouts. The non-native species in the understory should be cleared to reduce potential fire danger.

c. *Soledad Drive to San Bernabe Drive*

This area consists of a continuation of a drainage channel from Soledad place and Soledad Drive and another from Wellings Place running behind houses on Via Ventura and Via Descanso. The extra water through this section of greenbelt keeps it quite lush and green and causes the non-native weeds and garden escapees to thrive. The understory is a dense mix of Himalayan blackberry, English Ivy, Kikuyu grass on the north side of the drainage, and French broom and rattlesnake grass and scattered native species, including small oak trees, on the south side. While this combination is not a particularly volatile mix of fire fuel, it is ecologically destructive.

d. *Pacific St and San Bernabe Dr*

At the intersection of Pacific Street and San Bernabe Dr. and directly adjacent to single-family homes, this greenbelt is a medium-density coast live oak woodland with some occurrences of toyon and coast redwood. The understory is mostly non-native grasses and forbs, with some fallen branches and an abundance of oak duff throughout. A seasonal creek runs through this greenbelt along Pacific Street. The creek supports a mesic area dominated by plants typical of wetlands, including common rush (*Juncus patens*), California blackberry (*Rubus ursinus*), nutsedge (*Cyperus* sp.), Santa Barbara sedge (*Carex barbarae*), and western chain fern (*Woodwardia fimbriata*). Removal of oak duff and fallen branches would reduce fire hazard within this greenbelt. However, the mesic area should be protected from disturbance during any fuel management activities in the area.

e. *Pacific St and Via Arboles*

This section of the Monte Vista greenbelt consists of a mixed Monterey pine and coast live oak woodland on approximately 40 percent slopes from Pacific Street up to residential developments at the top of the slope. A seasonal creek runs along the bottom of the greenbelt along Pacific Street. The understory is a low

herbaceous growth of non-native grasses and forbs. Although there are some downed trees on slopes, most downed trees have been chipped and left in place to decompose. Poison oak is present in some areas, and a few occurrences of garden escapes are scattered throughout. Due to ongoing maintenance activities, this greenbelt area presents a low fire hazard. Continued mowing and tree maintenance (e.g., trimming, chipping in place) would ensure that that fire hazard remains low.

4. Carmelo Street

The Carmelo Street greenbelt extends from Carmelo Street to Pacific Street near downtown Monterey. A seasonal creek runs adjacent to the greenbelt, but does not overlap City property until the end of the greenbelt near Pacific Street. This area consists of a medium-density mixed Monterey pine and eucalyptus (*Eucalyptus* sp.) forest on approximately 30 percent slopes. The understory consists of a low herbaceous growth of non-native grasses and forbs, with almost zero native groundcover, and a shrub and vine component of French broom, English ivy, poison oak, and greater periwinkle. The adjacent creek consists almost entirely of English ivy, eucalyptus, and French broom.

Eucalyptus duff, which is a major fire hazard and contains volatile chemicals which inhibit native vegetation growth, is abundant within this greenbelt. Downed wood is also abundant and poses a fire risk. Removal of eucalyptus duff, downed wood, and non-native species such as French broom and English ivy would reduce fire hazard and benefit native species.

5. Don Dahvee

a. Soledad to El Dorado

Portions of this greenbelt are the most open and clear of all the areas surveyed, especially in some areas that have been cleared for trail maintenance. This greenbelt follows a drainage course that runs from the Corner of Soledad Drive and Munras Avenue and runs northeast to El Dorado street all along the frontage of the Del Monte Center shopping mall. Fire danger is minimal all along this greenbelt even in the northern portions where the trees along the channel are more numerous, large, and growing closer together. English ivy dominates (drapes over) the understory throughout the channel, particularly in the portion north of the main entry to the shopping mall. In the south end closer to Soledad drive, small openings along the drainage banks are filled with non-native species like French broom and poison hemlock. This greenbelt needs riparian clean out work along the drainage channel more than it needs fire fuel reduction activities.

b. Don Dahvee Lane and South Iris Canyon

This section of greenbelt has a variety of issues based on its location between the shopping mall and residential streets and use by transients and locals for shortcuts into and out of the shopping center. As in virtually all the greenbelt areas, annual grasses and invasive shrubs and vines are prevalent and, in this case, provide an odd combination of fuel buildup, erosion protection, and cover for urban wildlife and transient camp sites. Open areas away from the drainage channel are dry and dominated by non-native grasses and forbs. There are no sensitive species in these areas that would prevent completely cutting all of this vegetation to the ground. Extra available moisture from storm drains and development runoff provides beneficial conditions for the invasive species like English ivy. It is virtually smothering other plants and forming a solid ground cover. This is not an extreme fire concern but is ecologically destructive. The extreme biomass that would need to be removed in this area calls for creative vegetation management techniques. Although an urban area, this may be an opportunity to utilize grazing goats or sheep herds,

fenced in small controllable areas for short periods, to reduce the sheer mass and allow more access to undertake more traditional vegetation management practices.

c. North Iris Canyon to Fishnet Rd

This is a continuation of the greenbelt above and is a similar mix of native and non-native species with vast swaths of poison oak along the drainage channel and English ivy, French broom, and poison hemlock choking the channel. The greenbelt runs along both sides of Iris Canyon. The north facing side slopes are dominated by older coast live oaks with a mix of the typical invasive weed species in lower areas along the roadway. At the time of the January 2020 site visit, many of the trees in this greenbelt had been cut and chipped in place, and new trees had been planted adjacent to the road. The north side closer to Monterey Peninsula College is densely vegetated with native shrubs typical of oak and pine understory but is also invaded by the vigorous growth of the non-natives already listed as well as Cape ivy (*Delairea odorata*), another high concern invasive exotic plant. This is another area that is not likely as prone to high fire danger as it is to being entirely overrun by non-native species.

6. Josselyn Canyon

a. Old Salinas Highway

This portion of the Josselyn Canyon greenbelt consists of a riparian corridor supported by a seasonal creek, which drains into a culvert under Highway 1, and a steep slope adjacent to the riparian corridor which is dominated by nasturtium (*Tropaeolum majus*). Riparian areas are dominated by a mix of native and non-native species, including California blackberry, English ivy, dogwood (*Cornus sericea*), and arroyo willow (*Salix lasiolepis*). This area is not an immediate fire concern, but would benefit from riparian cleanup.

b. Josselyn Canyon Rd

This portion of the Josselyn Canyon greenbelt starts off relatively flat at its southern end, then turns to steep slopes of mixed Monterey pine forest and coast live oak woodland. A seasonal drainage runs along the floor of this greenbelt area adjacent to Josselyn Canyon Road. The understory here is densely vegetated with a mix of native and non-native species, including greater periwinkle, California blackberry, poison oak, and nasturtium. In addition, remnant chaparral species such as sticky monkeyflower and coyote brush are present. Rattlesnake grass is also present on the upper slopes of this greenbelt. There are no fallen trees within this greenbelt; however, large branches are present throughout. Removal of fallen branches and non-native shrubs and vines would reduce fire hazard and benefit habitat for native species.

c. Intersection of Josselyn Canyon Rd and Mark Thomas Dr

This short section of the Josselyn Canyon greenbelt is regularly mowed and maintained, and consists of a sparse canopy of coast live oak and horticultural Monterey cypress plantings, with a low herbaceous understory of non-native grasses and forbs. Continued mowing of this area would ensure that fire hazard remains low.

d. Mark Thomas Dr

This greenbelt area consists of a pedestrian and bicycle trail from Josselyn Canyon Rd to the Old Salinas Highway, with a maintained coast live oak and toyon overstory on approximately 30 percent slopes on the

south side of the trail. Groundcover is mostly oak duff and non-native grasses and forbs. Continued maintenance and mowing of this area would ensure that fire hazard remains low.

7. Fisherman Flats

a. August Place to Olmstead

The greenbelt in this part of the City is a narrower band running through portions of the Fisherman Flats neighborhood, bounded throughout by backyard fences and then opening up in a wider drainage swath running north and south and divided by the drainage line between City of Monterey coverage and private ownership of a development on the west side of the drainage. These greenbelt sections are obviously well used by walkers and hikers and would be priority for keeping clear of weeds and low hanging branches. As is the case throughout the entire Plan Area, the two primary fire fuel issues here are fallen pines and oaks and low to medium height annual grasses and invasive shrubs. The portion of this greenbelt closest to regularly used trails appears to be regularly maintained, with few occurrences of rattlesnake grass and French broom; however, further into this greenbelt where the trail is less traveled, rattlesnake grass and French broom are abundant. This is another area where large scale vegetation removal might be achieved most efficiently by occasional goat grazing, creating small controlled reductions by fencing areas and allowing the animals to graze down all vegetation over a few days before moving to the next location. Goat grazing as vegetation management could be utilized throughout much of the year as they would have a low impact in terms of noise, wildlife utilization, and soil disturbance. The most ideal timing would be summer into fall.

Pine trees are naturally prone to shedding lower branches as they grow taller but oak trees are not so inclined until advanced in age. “Limbing up” branches of existing oak trees to above 6-8 feet in this greenbelt and others is recommended to create wider gaps in the fuel “ladder” between the ground and tree canopies, but should be done with the long-term health of the tree in mind.

b. Via Casoli and Foothill

This is a short section of greenbelt along the west side of Via Casoli as it approaches Foothill Elementary School. The southern end of this greenbelt is more densely vegetated with an overstory of oaks and Toyon and an understory of rattlesnake grass and other non-native grasses. The northern end is an open area directly adjacent to Via Casoli which is apparently encroached upon by fences put up by residents along Via Casoli. This greenbelt does not appear to be high fire danger but would be further enhanced for fire safety by mowing low and thinning of those trees in clusters and keeping them away from the fence lines, or having homeowners place their fence lines appropriately within their property.

Conclusions

Every effort should be taken to reduce or eliminate soil disturbance during fuel reduction activities throughout the Plan Area. To the greatest extent practicable, shrub and grass maintenance should be restricted to cutting down without extracting root systems. The exception would be hand removal of French broom plants, which is most easily done in the early winter into spring when rains have softened soils enough to allow removal via hand pulling or use of weed-wrench type tools to extract the entire root system. In lieu of herbicide applications to kill the plants in place, the removal of the plant, roots and all, is the only way to make progress toward eradication of this species in the Plan Area. Tree thinning for safety reasons

should only remove what is necessary for safety purposes, leaving as much of the remaining tree as a snag for habitat purposes.

Sensitive habitats and special-status plants and wildlife are known or have the potential to occur within the greenbelts. To avoid or reduce potential impacts to these resources, the following measures should be implemented prior to or during fuel reduction activities:

- Prior to initiation of all activities resulting in physical disturbance of a treatment area, including but not limited to mobilization of equipment and clearing of vegetation, a qualified biologist should survey the area. Survey results and recommendations survey should be implemented so as to achieve avoidance of resource impacts.
- For locations containing rare and sensitive plant and animal species, fire fuel reduction measures should adhere to state and federal guidelines specific to the particular species.
- In areas along Skyline Drive and Veterans Park in the western part of the City, effort should be made to limit disturbance to existing patches of central maritime chaparral containing remnant *Arctostaphylos* species. These species may be pruned back to reduce density, if deemed necessary, but should not be removed in any location.
- Creeks, drainages, and the wet meadow (e.g., the features located in the Monte Vista and Skyline Forest Areas) should not be crossed with motorized vehicles and refueling of all motorized equipment should be conducted utilizing a minimum 50-foot setback and utilizing fueling and hazardous material best management practices (BMPs).
- Should disturbance of soil or ground need to be implemented for removal of tree and shrub stump and root systems as well as non-native plant species, work should not proceed unless authorized by a qualified biological monitor. If sensitive resources are present, they should be avoided.
- If trees or large tree form shrubs are to be removed between February 1 and August 30, a qualified biologist should conduct a nesting bird survey of the trees and shrubs and an area within 100 feet of the tree removal site, for active bird and bat nesting, breeding, or rearing activity no more than 5 days prior to the start date.
- If nesting activity is observed by the qualified biologist, tree and shrub removal containing the nests should be delayed until young have fledged (are flying and foraging on their own) and the nest is abandoned, per observations of the qualified biologist. In addition, the qualified biologist should recommend an appropriate buffer zone around nests to ensure no indirect disturbance occurs. The recommended buffer would depend upon the species (e.g., raptor vs. passerine) and other site-specific conditions such as proximity to roadways, slope, etc.
- Tree removal required due to imminent threat to a structure or safety concerns along roads (including road right-of-ways) should not be restricted as to timing but, at the discretion of the qualified biologist, should involve coordination with the CDFW.
- Tree pruning should be conducted to avoid unnecessary injuries to the tree. General principals of pruning include placing cuts immediately beyond the branch collar, making clean cuts by scoring the underside of the branch first, and for live oak, avoiding the period from February through May.

- Environmental awareness training should be conducted for fuel reduction personnel prior to initiation of fire fuel reduction measures. Training should include, but not be limited to, applicable sensitive biological resources, and avoidance of these and other environmental issues.

If you have any questions or comments about this Fuel Reduction Plan, please contact me at (831) 373-4341 or at jharwayne@ddaplanning.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Josh Harwayne", with a long horizontal flourish extending to the right.

Josh Harwayne
Senior Environmental Scientist/Project Manager
Denise Duffy & Associates, Inc.

Attached:

- Appendix A: Special-Status Species Table
- Appendix B: CNDDB Report
- Appendix C: IPaC Resource List

APPENDIX A

Special-Status Species Table

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CITY OF MONTEREY GREENBELT FUEL REDUCTION PLAN

Special-Status Species Table

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
MAMMALS			
<i>Neotoma fuscipes luciana</i> Monterey dusky-footed woodrat	-- / CSC / --	Forest and oak woodland habitats of moderate canopy with moderate to dense understory. Also occurs in chaparral habitats.	Present Suitable habitat is present within the Plan Area. A nest was observed on a coast live oak tree within the Plan Area.
<i>Sorex ornatus salaries</i> Monterey shrew	-- / CSC / --	Mostly moist or riparian woodland habitats, and within chaparral, grassland, and emergent wetland habitats where there is a thick duff or downed logs.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Taxidea taxus</i> American badger	-- / CSC / --	Dry, open grasslands, fields, pastures savannas, and mountain meadows near timberline are preferred. The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated grounds.	Unlikely No suitable habitat within the Plan Area.
BIRDS			
<i>Agelaius tricolor</i> Tricolored blackbird (nesting colony)	-- / ST / --	Nest in colonies in dense emergent wetland vegetation, along rivers, lagoons, lakes, and ponds. Forages over grassland or aquatic habitats.	Low Suitable foraging habitat is present within the Plan Area; however, no suitable nesting habitat is present.
<i>Athene cunicularia</i> Burrowing owl (burrow sites & some wintering sites)	-- / CSC / --	Year-round resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Frequent open grasslands and shrublands with perches and burrows. Use rodent burrows (often California ground squirrel) for roosting and nesting cover. Pipes, culverts, and nest boxes may be substituted for burrows in areas where burrows are not available.	Low Marginal habitat present within the Plan Area. The CNDDDB reports one occurrence of this species directly adjacent to the Plan Area.
<i>Brachyramphus marmoratus</i> Marbled murrelet	FT / SE / --	Occur year-round in marine subtidal and pelagic habitats from the Oregon border to Point Sal. Partial to coastlines with stands of mature redwood and Douglas-fir. Requires dense mature forests of redwood and/or Douglas-fir for breeding and nesting.	Unlikely No suitable habitat within the Plan Area.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	FT / CSC / --	Sandy beaches on marine and estuarine shores, also salt pond levees and the shores of large alkali lakes. Requires sandy, gravelly or friable soil substrate for nesting.	Unlikely No suitable habitat within the Plan Area.
<i>Coturnicops noveboracensis</i> Yellow rail	-- / CSC / --	Wet meadows and coastal tidal marshes. Occurs year round in California, but in two primary seasonal roles: as a very local breeder in the northeastern interior and as a winter visitor (early Oct to mid-Apr) on the coast and in the Suisun Marsh region	Unlikely No suitable habitat within the Plan Area.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Cypseloides niger</i> Black swift	-- / CSC / --	Regularly nests in moist crevice or cave on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. Forages widely over many habitats.	Unlikely No suitable habitat within the Plan Area.
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	FE / SE / --	Breeds in riparian habitat in areas ranging in elevation from sea level to over 2,600 meters. Builds nest in trees in densely vegetated areas. This species establishes nesting territories and builds, and forages in mosaics of relatively dense and expansive areas of trees and shrubs, near or adjacent to surface water or underlain by saturated soils. Not typically found nesting in areas without willows (<i>Salix sp.</i>), tamarisk (<i>Tamarix ramosissima</i>), or both.	Unlikely The CNDDDB does not report any occurrences of this species within the quadrangles evaluated. The riparian areas may provide suitable habitat; however, the Plan Area is very likely outside of the current range for this species.
<i>Gymnogyps californianus</i> California condor	FE / SE / --	Roosting sites in isolated rocky cliffs, rugged chaparral, and pine covered mountains 2000-6000 feet above sea level. Foraging area removed from nesting/roosting site (includes rangeland and coastal area - up to 19 mile commute one way). Nest sites in cliffs, crevices, potholes.	Unlikely No suitable habitat within the Plan Area. The CNDDDB does not report any occurrences of this species within the quadrangles evaluated.
<i>Laterallus jamaicensis coturniculus</i> California black rail	-- / ST&CFP / --	Inhabits freshwater marshes, wet meadows & shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that does not fluctuate during the year & dense vegetation for nesting habitat.	Unlikely No suitable habitat within the Plan Area.
<i>Pelecanus occidentalis californicus</i> California brown pelican	-- / CFP / --	Found in estuarine, marine subtidal, and marine pelagic waters along the California coast. Usually rests on water or inaccessible rocks, but also uses mudflats, sandy beaches, wharfs, and jetties.	Unlikely No suitable habitat within the Plan Area.
<i>Sterna antillarum browni</i> California least tern	FE / SE / --	Prefers undisturbed nest sites on open, sandy/gravelly shores near shallow-water feeding areas in estuaries. Sea beaches, bays, large rivers, bars.	Unlikely No suitable habitat within the Plan Area.
<i>Vireo bellii pusillus</i> Least Bell's Vireo	FE / SE / --	Riparian areas and drainages. Breed in willow riparian forest supporting a dense, shrubby understory. Oak woodland with a willow riparian understory is also used in some areas, and individuals sometimes enter adjacent chaparral, coastal sage scrub, or desert scrub habitats to forage.	Unlikely The CNDDDB does not report any occurrences of this species within the quadrangles evaluated. The riparian areas may provide very marginal habitat; however, the Plan Area is very likely outside of the current range for this species. Roberson (2002) reports that within Monterey County, this species was likely always limited to the humid interior outside of the direct influence of summer fog. The three known records of this species along the coast within the past 50 years were migrants.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
REPTILES AND AMPHIBIANS			
<i>Ambystoma californiense</i> California tiger salamander	FT / ST / --	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Need underground refuges and vernal pools or other seasonal water sources.	Low Suitable upland and dispersal habitat is present within the Plan Area; however, the Plan Area is outside of the known dispersal range of any known breeding resources.
<i>Anniella pulchra</i> Northern California legless lizard	-- / CSC / --	Requires moist, warm habitats with loose soil for burrowing and prostrate plant cover, often forages in leaf litter at plant bases; may be found on beaches, sandy washes, and in woodland, chaparral, and riparian areas.	High Suitable habitat is present within the Plan Area. The nearest CNDDB occurrence is reported less than a mile from the Plan Area.
<i>Emys marmorata</i> Western pond turtle	-- / CSC / --	Associated with permanent or nearly permanent water in a wide variety of habitats including streams, lakes, ponds, irrigation ditches, etc. Require basking sites such as partially submerged logs, rocks, mats of vegetation, or open banks.	Unlikely No suitable habitat is present within the Plan Area.
<i>Rana boylei</i> Foothill yellow-legged frog	-- / SC / --	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats, including hardwood, pine, and riparian forests, scrub, chaparral, and wet meadows. Rarely encountered far from permanent water.	Low Suitable upland habitat present within the Plan Area. However, no permanent water is present. The nearest CNDDB occurrence is a non-specific occurrence less than a mile from the Plan Area in the City of Pacific Grove.
<i>Rana draytonii</i> California red-legged frog	FT / CSC / --	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent riparian vegetation. During late summer or fall adults are known to utilize a variety of upland habitats with leaf litter or mammal burrows.	Low Suitable breeding, upland, and dispersal habitat is present within the Plan Area; however, the Plan Area is outside of the known dispersal range of any known breeding resources.
<i>Taricha torosa</i> Coast Range newt	-- / CSC / --	Occurs mainly in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub, and mixed chaparral but is known to occur in grasslands and mixed conifer types. Seek cover under rocks and logs, in mammal burrows, rock fissures, or man-made structures such as wells. Breed in intermittent ponds, streams, lakes, and reservoirs.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDB occurrence is approximately 5 miles south of the Plan Area within Palo Corona Regional Park.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
FISH			
<i>Eucyclogobius newberryi</i> Tidewater goby	FE / CSC / --	Brackish water habitats, found in shallow lagoons and lower stream reaches. Tidewater gobies appear to be naturally absent (now and historically) from three large stretches of coastline where lagoons or estuaries are absent and steep topography or swift currents may prevent tidewater gobies from dispersing between adjacent localities. The southernmost large, natural gap occurs between the Salinas River in Monterey County and Arroyo del Oso in San Luis Obispo County.	Unlikely No suitable habitat within the Plan Area.
<i>Oncorhynchus mykiss irideus</i> Steelhead (south-central California coast DPS)	FT / -- / --	Cold headwaters, creeks, and small to large rivers and lakes; anadromous in coastal streams.	Unlikely No suitable habitat within the Plan Area.
INVERTEBRATES			
<i>Bombus occidentalis</i> Western bumble bee	-- / SC / --	Occurs in open grassy areas, urban parks, urban gardens, chaparral, and meadows. This species generally nest underground. Western bumble bee populations are currently largely restricted to high elevation sites in the Sierra Nevada.	Unlikely Suitable habitat is present within the Plan Area; however, the area is very likely outside the current range of this species.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT / -- / --	Require ephemeral pools with no flow. Associated with vernal pool/grasslands from near Red Bluff (Shasta County), through the central valley, and into the South Coast Mountains Region.	Unlikely No suitable habitat within the Plan Area.
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	FE / -- / --	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz Counties. Plant hosts are <i>Eriogonum latifolium</i> and <i>E. parvifolium</i> .	Unlikely No suitable habitat within the project site.
PLANTS			
<i>Allium hickmanii</i> Hickman's onion	-- / -- / 1B	Closed-cone coniferous forests, maritime chaparral, coastal prairie, coastal scrub, and valley and foothill grasslands at elevations of 5-200 meters. Bulbiferous perennial herb in the Alliaceae family; blooms March-May.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a 1980 occurrence of this species which overlaps the Plan Area.
<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i> Hooker's manzanita	-- / -- / 1B	Closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub on sandy soils at elevations of 85-536 meters. Evergreen shrub in the Ericaceae family; blooms January-June.	Present Identified within the Plan Area during biological surveys by Patrick Reagan and DD&A.
<i>Arctostaphylos montereyensis</i> Toro manzanita	-- / -- / 1B	Maritime chaparral, cismontane woodland, and coastal scrub on sandy soils at elevations of 30-730 meters. Evergreen shrub in the Ericaceae family; blooms February-March.	Moderate Suitable habitat is present within the Skyline Forest and Veterans Park greenbelts. The nearest CNDDDB occurrence is reported 2.3 miles from the Plan Area.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Arctostaphylos pajaroensis</i> Pajaro manzanita	-- / -- / 1B	Chaparral on sandy soils at elevations of 30-760 meters. Evergreen shrub in the Ericaceae family; blooms December-March.	Moderate Suitable habitat is present within the Skyline Forest and Veterans Park greenbelts. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Arctostaphylos pumila</i> Sandmat manzanita	-- / -- / 1B	Openings of closed-cone coniferous forests, maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils at elevations of 3-205 meters. Evergreen shrub in the Ericaceae family; blooms February-May.	Moderate Suitable habitat is present within the Skyline Forest and Veterans Park greenbelts. The nearest CNDDDB occurrence is reported 0.3 mile from the Plan Area.
<i>Arenaria paludicola</i> Marsh sandwort	FE / SE / 1B	Known from only two natural occurrences in Black Lake Canyon and at Oso Flaco Lake. Sandy openings of freshwater of brackish marshes and swamps at elevations of 3-170 meters. Stoloniferous perennial herb in the Caryophyllaceae family; blooms May-August.	Unlikely No suitable habitat within the Plan Area. The Plan Area is outside of the currently known range for this species.
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	-- / -- / 1B	Playas, valley and foothill grassland on adobe clay, and vernal pools on alkaline soils at elevations of 1-60 meters. Annual herb in the Fabaceae family; blooms March-June.	Unlikely No suitable habitat within the Plan Area.
<i>Astragalus tener</i> var. <i>titi</i> Coastal dunes milk-vetch	FE / SE / 1B	Sandy soils in coastal bluff scrub, coastal dunes, coastal prairie (mesic); elevation 3-164 feet. Annual herb in the Fabaceae family; blooms March-May.	Unlikely No suitable habitat within the Plan Area.
<i>Bryoria spiralifera</i> Twisted horsehair lichen	-- / -- / 1B	California North Coast coniferous forest at elevations of 0-30 meters. Often found on conifers, including <i>Picea sitchensis</i> , <i>Pinus contorta</i> var. <i>contorta</i> , <i>Pseudotsuga menziesii</i> , <i>Abies grandis</i> , and <i>Tsuga heterophylla</i> . Fruticose lichen in the Parmeliaceae family.	Unlikely No suitable habitat within the Plan Area.
<i>Castilleja ambigua</i> var. <i>insalutata</i> Pink Johnny-nip	-- / -- / 1B	Coastal prairie and coastal scrub at elevations of 0-100 meters. Annual herb in the Orobanchaceae family; blooms May-August.	Unlikely No suitable habitat within the Plan Area.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	-- / -- / 1B	Valley and foothill grassland on heavy clay, saline, or alkaline soils at elevations of 0-230 meters. Annual herb in the Asteraceae family; blooms May-November.	Unlikely No suitable habitat within the Plan Area.
<i>Chorizanthe minutiflora</i> Fort Ord spineflower	-- / -- / 1B	Sandy openings of maritime chaparral and coastal scrub at elevations of 55-150 meters. Only known occurrences on Fort Ord National Monument. Annual herb in the Polygonaceae family; blooms April-July.	Unlikely No suitable habitat within the Plan Area. The Plan Area is outside of the currently known range for this species.
<i>Chorizanthe pungens</i> var. <i>pungens</i> Monterey spineflower	FT / -- / 1B	Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils at elevations of 3-450 meters. Annual herb in the Polygonaceae family; blooms April-July.	Low Low quality habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 0.5 mile from the Plan Area.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Clarkia jolonensis</i> Jolon clarkia	-- / -- / 1B	Cismontane woodland, chaparral, riparian woodland, and coastal scrub at elevations of 20-660 meters. Annual herb in the Onagraceae family; blooms April-June.	Moderate Suitable habitat within the Plan Area. The nearest CNDDDB occurrence is reported 0.24 mile from the Plan Area.
<i>Collinsia multicolor</i> San Francisco collinsia	-- / -- / 1B	Closed-cone coniferous forest and coastal scrub, sometimes on serpentinite soils, at elevations of 30-250 meters. Annual herb in the Plantaginaceae family; blooms March-May.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 1.9 miles from the Plan Area.
<i>Cordylanthus rigidus</i> ssp. <i>littoralis</i> Seaside bird's-beak	-- / SE / 1B	Closed-cone coniferous forests, maritime chaparral, cismontane woodlands, coastal dunes, and coastal scrub on sandy soils, often on disturbed sites, at elevations of 0-425 meters. Annual hemi-parasitic herb in the Orobanchaceae family; blooms April-October.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Delphinium californicum</i> ssp. <i>interius</i> Hospital Canyon larkspur	-- / -- / 1B	Openings in chaparral, coastal scrub, and mesic areas of cismontane woodland at elevations of 230-1095 meters. Perennial herb in the Ranunculaceae family; blooms April-June.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 3.0 miles from the Plan Area.
<i>Delphinium hutchinsoniae</i> Hutchinson's larkspur	-- / -- / 1B	Broadleaved upland forest, chaparral, coastal scrub, and coastal prairie at elevations of 0-427 meters. Perennial herb in the Ranunculaceae family; blooms March-June.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 0.8 mile from the Plan Area.
<i>Ericameria fasciculata</i> Eastwood's goldenbush	-- / -- / 1B	Openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 30-275 meters. Evergreen shrub in the Asteraceae family; blooms July-October.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Erysimum ammophilum</i> Sand-loving wallflower	-- / -- / 1B	Openings in maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 0-60 meters. Perennial herb in the Brassicaceae family; blooms February-June.	Unlikely No suitable habitat within the Plan Area.
<i>Erysimum menziesii</i> Menzies' wallflower	FE / SE / 1B	Coastal dunes at elevations of 0-35 meters. Perennial herb in the Brassicaceae family; blooms March-September.	Unlikely No suitable habitat within the Plan Area.
<i>Fritillaria liliacea</i> Fragrant fritillary	-- / -- / 1B	Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland, often serpentinite, at elevations of 3-410 meters. Bulbiferous perennial herb in the Liliaceae family; blooms February-April.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 1.1 miles from the Plan Area.
<i>Gilia tenuiflora</i> ssp. <i>arenaria</i> Monterey gilia	FE / ST / 1B	Openings in maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils at elevations of 0-45 meters. Annual herb in the Polemoniaceae family; blooms April-June.	Low Low quality habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 0.5 mile from the Plan Area.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Hesperocyparis goveniana</i> Gowen cypress	FT / -- / 1B	Closed-cone coniferous forest and maritime chaparral at elevations of 30-300 meters. Evergreen tree in the Cupressaceae family. Natively occurring only at Point Lobos near Gibson Creek and the Huckleberry Hill Nature Preserve near Highway 68.	Not Present The Plan Area is outside of the currently known range for this species.
<i>Hesperocyparis macrocarpa</i> Monterey cypress	-- / -- / 1B	Closed-cone coniferous forest at elevations of 10-30 meters. Evergreen tree in the Cupressaceae family. Natively occurring only at Cypress Point in Pebble Beach and Point Lobos State Park; widely planted and naturalized elsewhere.	Not Present Project site is outside of the currently known range for this species. Planted individuals of unknown origin were identified during the surveys in January 2020; however, no naturally occurring individuals are present.
<i>Horkelia cuneata</i> ssp. <i>sericea</i> Kellogg's horkelia	-- / -- / 1B	Openings of closed-cone coniferous forests, maritime chaparral, coastal dunes, and coastal scrub on sandy or gravelly soils at elevations of 10-200 meters. Perennial herb in the Rosaceae family; blooms April-September.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE / -- / 1B	Mesic areas of valley and foothill grassland, alkaline playas, cismontane woodland, and vernal pools at elevations of 0-470 meters. Annual herb in the Asteraceae family; blooms March-June.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 6.1 miles from the Plan Area.
<i>Layia carnosa</i> Beach layia	FE / SE / 1B	Coastal dunes and coastal scrub on sandy soils at elevations of 0-60 meters. Annual herb in the Asteraceae family; blooms March-July.	Unlikely No suitable habitat within the Plan Area.
<i>Lupinus tidestromii</i> Tidestrom's lupine	FE / SE / 1B	Coastal dunes at elevations of 0-100 meters. Perennial rhizomatous herb in the Fabaceae family; blooms April-June.	Unlikely No suitable habitat within the Plan Area.
<i>Malacothamnus palmeri</i> var. <i>involucratus</i> Carmel Valley bush-mallow	-- / -- / 1B	Chaparral, cismontane woodland, and coastal scrub at elevations of 30-1100 meters. Perennial deciduous shrub in the Malvaceae family; blooms May-October.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 0.8 mile from the Plan Area.
<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i> Carmel Valley malacothrix	-- / -- / 1B	Chaparral and coastal scrub on rocky soils at elevations of 25-1036 meters. Perennial rhizomatous herb in the Asteraceae family; blooms June-December.	Low Marginal habitat present within the Plan Area. The nearest CNDDDB occurrence is reported 4.0 mile from the Plan Area.
<i>Microseris paludosa</i> Marsh microseris	-- / -- / 1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations of 5-300 meters. Perennial herb in the Asteraceae family; blooms April-July.	High Suitable habitat within the Plan Area. The CNDDDB reports several occurrences of this species within 5 miles of the Plan Area and which overlap the Plan Area.
<i>Monardella sinuata</i> ssp. <i>nigrescens</i> Northern curly-leaved monardella	-- / -- / 1B	Chaparral, coastal dunes, coastal scrub, and lower montane coniferous forest (ponderosa pine sandhills) on sandy soils at elevations of 0-300 meters. Annual herb in the Lamiaceae family; blooms April-September.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Monolopia gracilens</i> Woodland woollythreads	-- / -- / 1B	Openings of broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland on serpentinite soils at elevations of 100-1200 meters. Annual herb in the Asteraceae family; blooms February-July.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Pinus radiata</i> Monterey pine	-- / -- / 1B	Closed-cone coniferous forest and cismontane woodland at elevations of 25-185 meters. Evergreen tree in the Pinaceae family. Only three native stands in CA at Ano Nuevo, Cambria, and the Monterey Peninsula; introduced in many areas.	Present Individual Monterey pine trees are present throughout the site. The Plan Area is within the historic native range for this species.
<i>Piperia yadonii</i> Yadon's rein orchid	FE / -- / 1B	Sandy soils in coastal bluff scrub, closed-cone coniferous forest, and maritime chaparral at elevations of 10-510 meters. Annual herb in the Orchidaceae family; blooms February-August.	Present Identified within the Plan Area by Patrick Reagan (Reagan, 2017). The CNDDDB reports many occurrences of this species within one mile of the Plan Area, including several occurrences that overlap the Plan Area.
<i>Potentilla hickmanii</i> Hickman's cinquefoil	FE / SE / 1B	Coastal bluff scrub, closed-cone coniferous forests, vernal mesic meadows and seeps, and freshwater marshes and swamps at elevations of 10-149 meters. Perennial herb in the Rosaceae family; blooms April-August.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports a nonspecific occurrence of this species which overlaps the Plan Area.
<i>Ramalina thrausta</i> Angel's hair lichen	-- / -- / 2B	North coast coniferous forest on dead twigs and other lichens. Epiphytic fructose lichen in the Ramalinaceae family. In northern CA it is usually found on dead twigs, and has been found on <i>Alnus rubra</i> , <i>Calocedrus decurrens</i> , <i>Pseudotsuga menziesii</i> , <i>Quercus garryana</i> , and <i>Rubus spectabilis</i> . In Sonoma County it grows on and among dangling mats of <i>R. menziesii</i> and <i>Usnea</i> spp.	Unlikely No suitable habitat within the Plan Area.
<i>Rosa pinetorum</i> Pine rose	-- / -- / 1B	Closed-cone coniferous forest at elevations of 2-300 meters. Perennial shrub in the Rosaceae family; blooms May-July. Possible hybrid of <i>R. spithamea</i> , <i>R. gymnocarpa</i> , or others; further study needed.	High Suitable habitat is present within the Plan Area. The CNDDDB reports an occurrence of this species which overlaps the Plan Area.
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	-- / -- / 1B	Broadleaved upland forest, closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub, and openings in valley and foothill grassland, sometimes on serpentinite, at elevations of 10-500 meters. Annual herb in the Asteraceae family; blooms April-May.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 1.3 miles from the Plan Area.
<i>Trifolium buckwestiorum</i> Santa Cruz clover	-- / -- / 1B	Gravelly margins of broadleaved upland forest, cismontane woodland, and coastal prairie at elevations of 105-610 meters. Annual herb in the Fabaceae family; blooms April-October.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 0.5 mile from the Plan Area.

Species	Status (Service/CDFW/CNPS)	General Habitat	Potential Occurrence within Project Site
<i>Trifolium hydrophilum</i> Saline clover	-- / -- / 1B	Marshes and swamps, mesic and alkaline valley and foothill grassland, and vernal pools at elevations of 0-300 meters. Annual herb in the Fabaceae family; blooms April-June.	Low Marginal habitat present within the Plan Area. The nearest CNDDDB occurrence is reported 0.7 mile from the Plan Area.
<i>Trifolium polyodon</i> Pacific Grove clover	-- / SR / 1B	Mesic areas of closed-cone coniferous forest, coastal prairie, meadows and seeps, and valley and foothill grassland at elevations of 5-120 meters. Annual herb in the Fabaceae family; blooms April-July.	Moderate Suitable habitat is present within the Plan Area. The nearest CNDDDB occurrence is reported 0.4 mile from the Plan Area.
<i>Trifolium trichocalyx</i> Monterey clover	FE / SE / 1B	Sandy openings and burned areas of closed-cone coniferous forest at elevations of 30-240 meters. Annual herb in the Fabaceae family; blooms April-June.	Moderate Suitable habitat is present within the Plan Area. The CNDDDB reports several occurrences of this species within 0.5 mile of the Plan Area.

STATUS DEFINITIONS

Federal

- FE = listed as Endangered under the federal Endangered Species Act
FT = listed as Threatened under the federal Endangered Species Act
FC = Candidate for listing under the federal Endangered Species Act
-- = no listing

State

- SE = listed as Endangered under the California Endangered Species Act
ST = listed as Threatened under the California Endangered Species Act
SC = Candidate for listing under California Endangered Species Act
SR = plants listed as Rare under the California Native Plant Protection Act
CFP = California Fully Protected Species
CSC = CDFW Species of Concern
-- = no listing

California Native Plant Society

- 1B = California Rare Plant Rank 1B species; plants rare, threatened, or endangered in California and elsewhere
-- = no listing

POTENTIAL TO OCCUR

- Present = known occurrence of species within the site; presence of suitable habitat conditions; or observed during field surveys
High = known occurrence of species in the vicinity from the CNDDDB or other documentation; presence of suitable habitat conditions
Moderate = known occurrence of species in the vicinity from the CNDDDB or other documentation; presence of marginal habitat conditions within the site
Low = species known to occur in the vicinity from the CNDDDB or other documentation; lack of suitable habitat or poor quality
Unlikely = species not known to occur in the vicinity from the CNDDDB or other documentation, no suitable habitat is present within the site
Not Present = species was not observed during surveys

APPENDIX B

CNDDB Report

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Monterey (3612158) OR Seaside (3612157))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Allium hickmanii</i> Hickman's onion	PMLIL02140	None	None	G2	S2	1B.2
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Anniella pulchra</i> northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Arctostaphylos hookeri ssp. hookeri</i> Hooker's manzanita	PDERI040J1	None	None	G3T2	S2	1B.2
<i>Arctostaphylos montereyensis</i> Toro manzanita	PDERI040R0	None	None	G2?	S2?	1B.2
<i>Arctostaphylos pajaroensis</i> Pajaro manzanita	PDERI04100	None	None	G1	S1	1B.1
<i>Arctostaphylos pumila</i> sandmat manzanita	PDERI04180	None	None	G1	S1	1B.2
<i>Astragalus tener var. titi</i> coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Bryoria spiralifera</i> twisted horsehair lichen	NLTEST5460	None	None	G1G2	S1S2	1B.1
<i>Castilleja ambigua var. insalutata</i> pink Johnny-nip	PDSCR0D403	None	None	G4T2	S2	1B.1
<i>Central Dune Scrub</i> Central Dune Scrub	CTT21320CA	None	None	G2	S2.2	
<i>Central Maritime Chaparral</i> Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	
<i>Centromadia parryi ssp. congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Chorizanthe minutiflora</i> Fort Ord spineflower	PDPGN04100	None	None	G1	S1	1B.2
<i>Chorizanthe pungens var. pungens</i> Monterey spineflower	PDPGN040M2	Threatened	None	G2T2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Clarkia jolonensis</i> Jolon clarkia	PDONA050L0	None	None	G2	S2	1B.2
<i>Coelus globosus</i> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Cordylanthus rigidus ssp. littoralis</i> seaside bird's-beak	PDSCR0J0P2	None	Endangered	G5T2	S2	1B.1
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S2	SSC
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Delphinium californicum ssp. interius</i> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
<i>Delphinium hutchinsoniae</i> Hutchinson's larkspur	PDRAN0B0V0	None	None	G2	S2	1B.2
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Ericameria fasciculata</i> Eastwood's goldenbush	PDAST3L080	None	None	G2	S2	1B.1
<i>Erysimum ammphilum</i> sand-loving wallflower	PDBRA16010	None	None	G2	S2	1B.2
<i>Erysimum menziesii</i> Menzies' wallflower	PDBRA160R0	Endangered	Endangered	G1	S1	1B.1
<i>Euphilotes enoptes smithi</i> Smith's blue butterfly	IILEPG2026	Endangered	None	G5T1T2	S1S2	
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Gilia tenuiflora ssp. arenaria</i> Monterey gilia	PDPLM041P2	Endangered	Threatened	G3G4T2	S2	1B.2
<i>Hesperocyparis goveniana</i> Gowen cypress	PGCUP04031	Threatened	None	G1	S1	1B.2
<i>Hesperocyparis macrocarpa</i> Monterey cypress	PGCUP04060	None	None	G1	S1	1B.2
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Layia carnosa</i> beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lupinus tidestromii</i> Tidestrom's lupine	PDFAB2B3Y0	Endangered	Endangered	G1	S1	1B.1
<i>Malacothamnus palmeri</i> var. <i>involucratus</i> Carmel Valley bush-mallow	PDMAL0Q0B1	None	None	G3T2Q	S2	1B.2
<i>Malacothrix saxatilis</i> var. <i>arachnoidea</i> Carmel Valley malacothrix	PDAST660C2	None	None	G5T2	S2	1B.2
<i>Microseris paludosa</i> marsh microseris	PDAST6E0D0	None	None	G2	S2	1B.2
<i>Monardella sinuata</i> ssp. <i>nigrescens</i> northern curly-leaved monardella	PDLAM18162	None	None	G3T2	S2	1B.2
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Monterey Cypress Forest Monterey Cypress Forest	CTT83150CA	None	None	G1	S1.2	
Monterey Pine Forest Monterey Pine Forest	CTT83130CA	None	None	G1	S1.1	
Monterey Pygmy Cypress Forest Monterey Pygmy Cypress Forest	CTT83162CA	None	None	G1	S1.1	
Northern Bishop Pine Forest Northern Bishop Pine Forest	CTT83121CA	None	None	G2	S2.2	
<i>Oncorhynchus mykiss irideus</i> pop. 9 steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	
<i>Pelecanus occidentalis californicus</i> California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
<i>Pinus radiata</i> Monterey pine	PGPIN040V0	None	None	G1	S1	1B.1
<i>Piperia yadonii</i> Yadon's rein orchid	PMORC1X070	Endangered	None	G1	S1	1B.1
<i>Potentilla hickmanii</i> Hickman's cinquefoil	PDROS1B0U0	Endangered	Endangered	G1	S1	1B.1
<i>Ramalina thrausta</i> angel's hair lichen	NLLEC3S340	None	None	G5?	S2S3	2B.1
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Reithrodontomys megalotis distichlis</i> Salinas harvest mouse	AMAFF02032	None	None	G5T1	S1	
<i>Rosa pinetorum</i> pine rose	PDROS1J0W0	None	None	G2	S2	1B.2
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Sorex ornatus salarius</i> Monterey shrew	AMABA01105	None	None	G5T1T2	S1S2	SSC
<i>Stebbinsoseris decipiens</i> Santa Cruz microseris	PDAST6E050	None	None	G2	S2	1B.2
<i>Taricha torosa</i> Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Trifolium buckwestiorum</i> Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Trifolium polyodon</i> Pacific Grove clover	PDFAB402H0	None	Rare	G1	S1	1B.1
<i>Trifolium trichocalyx</i> Monterey clover	PDFAB402J0	Endangered	Endangered	G1	S1	1B.1
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	

Record Count: 74

APPENDIX C

IPaC Resource List

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IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Monterey County, California



Local office

Ventura Fish And Wildlife Office

☎ (805) 644-1766

📠 (805) 644-3958

2493 Portola Road, Suite B
Ventura, CA 93003-7726

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
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California Condor <i>Gymnogyps californianus</i>	Endangered
--	------------

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/8193>

California Least Tern <i>Sterna antillarum browni</i>	Endangered
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No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8104>

Least Bell's Vireo <i>Vireo bellii pusillus</i>	Endangered
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There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/5945>

Marbled Murrelet <i>Brachyramphus marmoratus</i>	Threatened
--	------------

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/4467>

Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	Endangered
--	------------

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/6749>

Western Snowy Plover <i>Charadrius nivosus nivosus</i>	Threatened
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There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/8035>

Amphibians

NAME	STATUS
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California Red-legged Frog <i>Rana draytonii</i>	Threatened
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There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2891>

California Tiger Salamander <i>Ambystoma californiense</i>	Threatened
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There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/2076>

Fishes

NAME	STATUS
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Tidewater Goby *Eucyclogobius newberryi*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/57>

Insects

NAME

STATUS

Smith's Blue Butterfly *Euphilotes enoptes smithi*

Endangered

There is **proposed** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/4418>

Crustaceans

NAME

STATUS

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/498>

Flowering Plants

NAME

STATUS

Beach Layia *Layia carnosa*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6728>

Clover Lupine *Lupinus tidestromii*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4459>

Coastal Dunes Milk-vetch *Astragalus tener* var. *titi*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/7675>

Contra Costa Goldfields *Lasthenia conjugens*

Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.

<https://ecos.fws.gov/ecp/species/7058>

Hickman's Potentilla *Potentilla hickmanii*

Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/6343>

Marsh Sandwort <i>Arenaria paludicola</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2229	Endangered
Menzies' Wallflower <i>Erysimum menziesii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2935	Endangered
Monterey Clover <i>Trifolium trichocalyx</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4282	Endangered
Monterey Gilia <i>Gilia tenuiflora</i> ssp. <i>arenaria</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/856	Endangered
Monterey Spineflower <i>Chorizanthe pungens</i> var. <i>pungens</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/396	Threatened
Yadon's Piperia <i>Piperia yadonii</i> There is final critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/4205	Endangered

Conifers and Cycads

NAME	STATUS
Gowen Cypress <i>Cupressus goveniana</i> ssp. <i>goviana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8548	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Yadon's Piperia <i>Piperia yadonii</i> https://ecos.fws.gov/ecp/species/4205#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1/SSA](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PSSA](#)

[PFOA](#)

[PFO/SSA](#)

[PFOCh](#)

[PFO/SSAh](#)

FRESHWATER POND

[PUBHh](#)

RIVERINE

[R4SBA](#)

[R4SBC](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.