

APPENDIX A

Notice of Preparation and Comments Received



**NOTICE OF PREPARATION
FOR THE HUNTER SUBDIVISION PROJECT
ENVIRONMENTAL IMPACT REPORT**

COMMENT PERIOD: March 6, 2018 through April 9, 2018.

*All persons and public agencies are invited to submit written
comments as to the scope and content of the EIR.*

This Notice of Preparation (NOP) initiates the environmental review process in accordance with the California Environmental Quality Act (14 California Code of Regulations [CCR] Section 15082) for a land development project in the City of St. Helena (City). The City will be the Lead Agency and will commission the preparation of an Environmental Impact Report (EIR) for the Hunter Subdivision project (proposed project). The purpose of an NOP is to provide sufficient information about the proposed project and its potential environmental impacts to allow agencies and interested parties the opportunity to provide a meaningful response related to the scope and contents of the EIR, including mitigation measures that should be considered and alternatives that should be addressed (State CEQA Guidelines 14 CCR Section 15082[b]). The project description, location, and probable environmental effects of the proposed project are briefly described below.

Providing Comments

The City is soliciting comments from responsible and trustee public agencies, private organizations, and individuals regarding the scope and content of the EIR for 30 days. Because of time limits mandated by State law, comments should be provided no later than 5:00 PM on **April 9, 2018**. Please send all comments to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department
1480 Main Street
St. Helena, CA 94574
Email: NHoush@cityofstheleena.org

Agencies that will need to use the EIR when considering permits or other approvals for the proposed project should provide the name of a contact person, phone number, and email address in their comment. Each responsible and trustee agency must also provide the City with specific detail about the scope and content of the environmental information related to the responsible or trustee agency's area of statutory responsibility that must be included in the EIR. (CEQA Guidelines, § 15082, subd. (b).)

Comments provided by email should include “Hunter Subdivision Project NOP Scoping Comment” in the subject line, and the name and physical address of the commenter in the body of the email.

Public Scoping Meeting

A public scoping meeting will be held by the City to inform interested parties about the proposed project, and to provide agencies and the public with an opportunity to provide comments on the scope and content of the EIR. Following a brief presentation of the project description and an overview of the CEQA process the floor will be opened to citizens, agency representatives and other individuals to provide comments directly to staff and the consultant team regarding the scope of the EIR. Additionally comment cards will be available to provide written comments to staff and consultants and will be accepted both at the meeting and afterward at City Hall.

The meeting time and location are as follows:

March 12, 2018
6:00 p.m. to 7:30 p.m.
City of St. Helena Fire Department
1480 Main Street
St. Helena, CA 94574

The meeting space is accessible to persons with disabilities. Individuals needing special assistive devices will be accommodated to the City’s best ability. For more information, please contact Noah Housh (at the contact information above) at least 48 hours before the meeting.

Project Location

The project site is located in the northeast portion of the City, at the eastern terminus of Adams Street, north of Starr Avenue and west of the Napa River (Assessor’s Parcel 009-030-057), see Figure 1, Project Location.

Project History

The environmental review process for the proposed project started in June 2011 when a NOP was prepared and circulated. The Draft EIR was released for public review in May 2012 and the City’s Planning Commission held hearings in July and August 2012 to take comments on the adequacy of the EIR. A Final EIR was prepared in September 2013, but due to new project information and a request from the applicant representative, the City opted to continue the item. From 2013-2016 the Draft EIR was updated to include some new information however the revised draft was never completed and therefore the revised Draft EIR was not released for public review or comment. Due to the age of the overall document and analysis, staff recommended that the project be reanalyzed through a new EIR process, and this NOP is intended to inform the public a new EIR analysis has been initiated.

Separately, the City completed the construction of the Flood Protection Project in 2011, which consisted of river channel improvements, a levee, and floodwall construction along the Napa River adjacent to the project site. On November 5, 2012, the Federal Emergency Management Agency (FEMA) accepted the Flood Protection Project and revised the Flood Insurance Rate Map (FIRM), such that the project site is no longer located within a 100-year flood zone.

Project Description

The proposed project includes a request to approve a Tentative Map to subdivide the existing 16.9-acre parcel into 51 single-family lots, one 3.4-acre parcel, and a 0.06-acre remainder parcel. The 51 single-family lots would typically range in size from 7,000 to 8,000 square feet, with some larger corner and cul-de-sac lots. The single-family lots could be developed with single-family market-rate housing and may include, under City and state housing law, the construction of an Accessory Dwelling Unit (ADU).¹ In order to meet the minimum density requirements for the site, at least 87 dwelling units must be built as a part of the project. Information from the applicant identifies 51 single family homes, and at least 11 ADUs are proposed to be built on the single-family lots, with the remaining 25 required units proposed to be constructed on the 3.4 acre parcel, as a multifamily development likely in the form of duplex units. This combination of single-family homes, ADUs and multifamily homes is proposed to meet the 87 total units required to be constructed in by projects' Medium Density Residential (MDR) General Plan and Medium Density Residential (MR) zoning designations.

Properties designated as MDR by the General Plan typically are used for residential purposes, for example, single-family attached and detached homes, secondary residential units, and similar and compatible uses. This designation permits densities of 5.1 to 16.0 dwelling units per acre (du/acre). The project proposes the minimum allowable density of 5.1 du/acre, although the maximum density allowed on the site 16.0 du/ac, allowing up to 270 dwelling units based on the 16.9 acre parcel size. The City is in the process of updating its General Plan, however the project will be evaluated under the City's adopted 1993 General Plan, based on the timing of the application.

The project site is zoned MR. The MR district is consistent with the MDR General Plan land use designation. This district provides for single-family detached homes, ADUs, supportive and transitional housing, and other similar uses found consistent with the General Plan and MR district, as permitted land uses. Conditional land uses include single-family housing where the minimum density would otherwise require two units or more and new attached duplex and/or triplex units.

The project design also includes onsite water, sewer and storm drain infrastructure to tie into the City's existing system and the extension of Adams Street and Starr Avenue to connect to the City's roadway system, in keeping with the City's 1993 General Plan Circulation Element.

¹ Accessory Dwelling Units are also known as granny flats, in-law units, or secondary units.

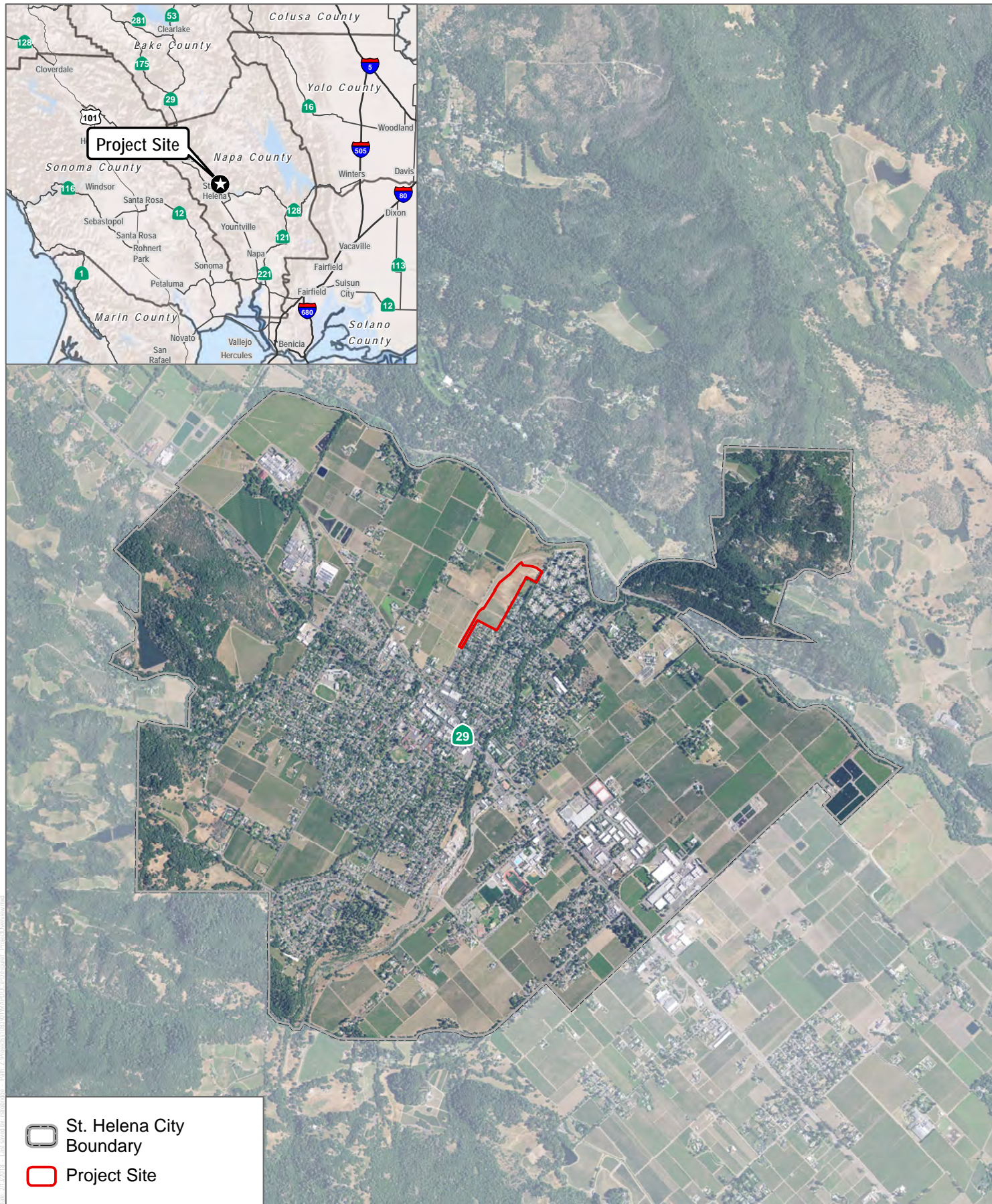
Anticipated project approvals required to construct all units proposed in the project include: Tentative Map, Final Subdivision Map, Conditional Use Permit, Design Review, and Allocations under the City's Growth Management System.

To date, the applicant has filed a Tentative Map application requesting that the City subdivide the existing 16.9 acre parcel into 52 individual residential lot including 51 single-family residential lots and one 3.4 acre parcel for 25 multifamily homes. The applicant has indicated an intent to create affordable units on the 3.4-acre parcel and provide an Affordability Agreement.

Potential Environmental Effects

The EIR will describe the reasonably foreseeable and potentially significant adverse effects of the proposed project (both direct and indirect). The EIR will also evaluate the cumulative impacts of the project when considered in conjunction with other related past, present, and reasonably foreseeable future projects. The City anticipates that the proposed project could result in potentially significant environmental impacts in the following topic areas, which will be further evaluated in the EIR:

Aesthetics	Hazards and Public Safety
Air Quality	Hydrology and Water Quality
Agricultural Resources	Land Use/Demographics
Biological Resources	Noise and Vibration
Cultural/Paleontological/Tribal Resources	Public Utilities/Energy
Greenhouse Gas Emissions	Public Services/Recreation
Geology, Soils and Seismicity	Transportation

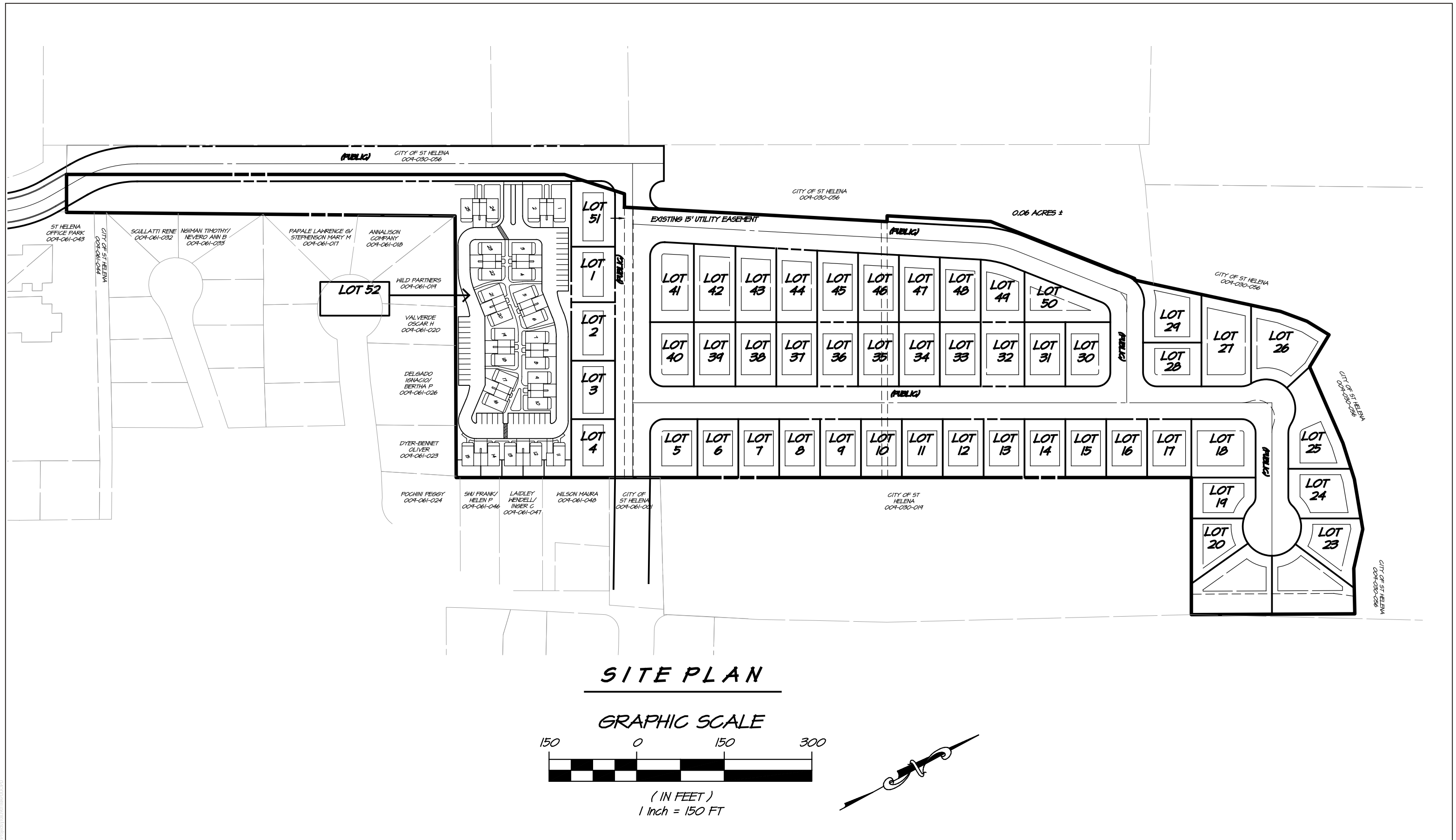


SOURCE: USDA NAIP Imagery (2016); Napa County GIS (2015)

FIGURE 1

Project Location

Hunter Subdivision Project



From: Lederer, Steven
To: [Noah Housh](#)
Cc: [Lederer, Steven](#); [Dillon, Diane](#); [Morrison, David](#); [Stangland, Steve](#); [Chapin, Craig](#); [McDowell, John](#); [Arias, Juan](#); [Erica Ahmann Smithies](#)
Subject: RE: Hunter NOP Electronic Notification
Date: Wednesday, March 07, 2018 8:49:27 AM
Attachments: [image001.png](#)

Mr. Housh,

Thank you for the opportunity to provide input on the NOP for the Hunter Ranch Development. The County may provide other comments later, but one specific area of concern the County has is traffic and circulation as it relates to impacts on Silverado Trail. In conjunction with Highway 29, Silverado Trail is the primary method vehicles have for traversing the valley from north to south, and the only one that bypasses the large traffic delays caused by St. Helena.

The EIR should study all practical methods for avoiding increasing traffic impacts on Silverado Trail. It is also necessary to point out that the County's General Plan contains many policies on maintaining the rural character of the valley, part of which is avoiding the installation of traffic signals wherever possible. Should the EIR find that any changes are needed on Silverado Trail (such as at Pope Street or perhaps creation of a new access), we strongly recommend solutions such as roundabouts or something similar in lieu of traffic signals.

We look forward to continue to participate in this process.

Steve Lederer
Director, Napa County Public Works

From: Housh, Noah
Sent: Tuesday, March 06, 2018 5:18 PM
To: Housh, Noah <nhoush@cityofsthelena.org>
Subject: Hunter NOP Electronic Notification

Information Only; Please Do Not Reply All

Greetings,

At the recently held neighborhood meeting for the Hunter Residential Subdivision, you provided your email contact information indicating you would like to be notified of future project activities.

Attached please find the formal Notice of Preparation initiating the Environmental Impact Review (EIR) process for this project.

As was identified at the neighborhood meeting, a scoping meeting for the EIR is scheduled for Monday, March 12, 2018, from 6:00 – 7:30 pm at the St Helena Fire Department (1480 Main Street). This meeting will provide an opportunity for individuals to speak directly to the California Environmental Quality Act (CEQA) consultants regarding the scope of the EIR analysis.

Alternatively, if you are unable to attend this meeting, please feel free to provide your written comments to me (electronically or hard copy) any time before April 9, 2018, to ensure they are considered in the EIR analysis. My contact information is provided in the notice, and in the signature below

After the initial analysis is completed, a draft EIR will be published for a 45-day public review and comment period, during which the public will have an additional opportunity to comment on the environmental analysis and resulting document. This is tentatively scheduled to occur in late spring or early summer, 2018.

These comments will then be used to finalize the document making modifications or expanding the analysis, as appropriate. Further, a response to each comment will be provided in the Final draft EIR for the project, which will then be taken before the Planning Commission for review and action at a public hearing tentatively proposed to be held in late summer or early fall of 2018.

Please forward this message to anyone you feel may be interested in the Hunter Residential Subdivision EIR process. Thank you for your attention to this matter.



NOAH HOUSH

PLANNING & COMMUNITY IMPROVEMENT DIRECTOR

City of St. Helena | Planning & Community Improvement Department

1480 Main Street | St. Helena, CA 94574

Direct: (707) 968-2659 | NHoush@cityofstheleena.org | <http://cityofstheleena.org/planning>

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From: Sandra Lowry
To: [Cindy Tzafopoulos](#)
Cc: [Noah Housh](#); [Mark Prestwich](#)
Subject: HUNTER EIR
Date: Thursday, April 12, 2018 4:48:17 PM

Gentlemen,

I am writing on behalf of my husband, Cecil Lowry, and myself. Our address is 1175 Starr Avenue and we moved here in July, 1997. We are opposed to yet another development near our home on Starr Avenue.

The EIR should look carefully at traffic and parking. More developments mean more cars and trucks coming and going and where will they park? Already our neighborhood is impacted by overflow trucks and automobiles from the Hunts Grove residents parking up and down Starr and Meadowcreek Circle. We are additionally impacted by speeding vehicles up and down Starr at all times of the day and night, making crossing the street to visit a neighbor a hazard. The crosswalk at Starr and Meadowcreek Circle is basically ignored. Most importantly, all the traffic comes to a dead stop on Pope Street because of the Pope Street bridge. I believe the last EIR decided traffic was an unmitigable issue.

The EIR must look at the Hunter Project in terms of water consumption. Previous EIR study suggested a water neutrality by installing low flush toilets. Is this a joke? More people means more water use in common sense terms.

The proposed development will have many of the homes built behind the levee, in an area at serious risk of liquification, not to mention flooding, a disaster waiting to happen.

Thank you for listening. Sandra Lowry

From: John Milliken
To: [Cindy Tzafopoulos](#)
Cc: [Noah Housh](#); [Mark Prestwich](#)
Subject: Hunter EIR Scoping Comments
Date: Thursday, April 12, 2018 11:14:19 AM
Attachments: [C001_SENT_Hunter_Comment_Ltr.pdf](#)
[NPS_Urban-facts_final.pdf](#)
[Response to Response.docx](#)

Hunter EIR Scoping Comments 4/12/18

Please find listed below areas that should be included in the scope of the new EIR. In addition, I have attached comments from a CEQA Attorney and my own comments prepared in response to the original DEIR. Also attached is an informational report prepared by the EPA that reviews how to protect water quality from Urban Runoff. These attachments detail many of the shortcomings of the original DEIR and I would like them included for consideration for the scoping of the new EIR.

Design, Implementation and Administration of the Affordable Units

It will be very difficult to conduct a thorough EIR that subscribes to CEQA standards until the design, implementation, and administration of the affordable housing components are fully understood. How and who is going to build them? Will they have to built before the market rate houses? How large will they be and how many occupants will they have. How many bedrooms, bathrooms, and parking spaces will there be? Are they going to be rentals or owner occupied? Will the multi-family units need zoning variances or conditional permits? Will the 10 lots with Granny units be deed restricted or under the control of the owner? What mechanisms are in place to ensure that the 10 granny units are indeed made available as affordable and when will they be built. If the project qualifies for a density bonus by right, should the EIR anticipate this and factor in the potential impact of additional units? All of this should be explained and understood BEFORE the EIR is started so that there are no surprises that could derail this second attempt at completing an EIR for this project. It is one thing to draw boxes on a sub-division map and designate them as affordable for development concessions. It is quite another to adequately explain how this will all work within the parameters of existing regulations and requirements. And, without this information, preparing an informed EIR will be incredibly difficult.

Design and Implementation of a controlled intersection at the Pope Street Bridge and Silverado Trail

Well after the completion of the last DEIR, the applicant claimed they had new information and that they would submit a design and pay for this intersection (along with approval from the County) to mitigate traffic impacts. Will information on how this will be accomplished (or is even practical) be provided BEFORE the start of the new EIR?

Plans for mitigating loss of State Designated Prime Agricultural Land

Well after the completion of the last DEIR, the applicant claimed that they had new information for a plan for offsetting the loss of Prime Agricultural Land. Will this information be provided BEFORE the start of the new EIR?

Impacts of Traffic Through Neighborhoods

Beyond traffic count studies, will the new EIR take into account traffic that will utilize the Adams and Starr extensions to circumvent traffic delays on the Silverado Trail and Highway 29. The advent of apps like Waze and Google Maps will re-direct increasing amounts of traffic through neighborhoods. Residents of Hunts Grove will now have to cross a busy intersection upon exiting their development. This is a particular concern for the safety of children and pedestrians who now do not face crossing a street in order to walk to/from school or shopping.

Loss of open space and safe access to the Napa River Walk for pedestrians and dog walkers

Once Starr is extended to meet Adams, residents and visitors who currently use the undeveloped city owned lot to access the River walk will be faced with sharing their walk with traffic and parked cars to reach the walk. This will be a significant danger to children and dog walkers.

John Milliken

jmzin@comcast.net

707-963-8134 (Office) 707-486-4266 (Mobile\Text)

1256 Hudson Ave.

St. Helena, CA 94574

July 12, 2012

Via U.S. Mail and email

Greg Desmond, Interim Planning Director
City of St. Helena
Planning Department
480 Main Street
St. Helena CA 94574
gregd@ci.sthelena.ca.us

Re: Hunter Subdivision Project Draft Environmental Impact Report (SCH: 2012032048).

Dear Mr. Desmond:

This office represents St. Helena Residents for Responsible Growth, an association dedicated to protecting environmental values in the St. Helena area. I am writing on behalf of St. Helena Residents for Responsible Growth to comment on the Draft Environmental Impact Report (DEIR) for the Hunter Subdivision Project (Project) pursuant to the California Environmental Quality Act ("CEQA," codified at Pub. Resources Code, §§ 21000, et seq.) and to object to the approval of the Project.

I. PLANNING AND ZONING CODE VIOLATIONS

All land use decisions must be consistent with a city's general plan and zoning ordinance. (*Collier v. City and County of San Francisco* (2007) 151 Cal.App.4th 1326, 1333, citing Gov. Code, § 65860, subd. (a)(2); *Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 355. See also *Land Waste Management v. Contra Costa County Bd. of Supervisors* (1990) 222 Cal.App.3d 950, 957-958 "[i]ssuance of a permit inconsistent with zoning ordinances or the general plan may be set aside and invalidated as ultra vires".) The proposed Tentative Subdivision Map and related residential construction violate the designated land use of the Hunter property established in the St. Helena Zoning Ordinance and General Plan.

A. The Project Violates the St. Helena Zoning Ordinance.

The Tentative Subdivision Map includes a 3.4-acre parcel for the future construction of 25 multi-family units ("Lot 52"). (DEIR 49-50.) The "conceptual" residential development depicted in the Tentative Subdivision and Grading Map includes 7- and 9-unit multi-family apartment buildings, consisting of somewhere between 30,000 to 45,000 square feet of building area, plus covered and surface parking. (DEIR 50; Figure III-4.)

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Under the St. Helena Zoning Ordinance, the land use designation for the Project site is Medium Density Residential (MR). MR districts provide for “single-family detached homes, accessory dwelling units, limited agricultural uses and compatible uses.” (DEIR 45. See also (St. Helena Municipal Code (Mun. Code), § 17.40.020.) With respect to the construction of new primary residences, the only permitted use is “[n]ew construction of one single-family dwelling on parcels where the minimum density is 1.99 units or less.” (Mun. Code, § 17.40.020.) Conditional uses in MR districts (relevant to new primary residences), which require approval of a use permit, are limited to “[n]ew construction of one single-family dwelling on parcels where the minimum density is 2.0 units or greater” and “[n]ew attached duplex or triplex units.” (Mun. Code, § 17.40.030.)

Multi-family dwellings, which are defined as a residential structure with “four or more” dwelling units, are not among the allowable uses in MR districts. (Mun. Code, § 17.04.160. See also Mun. Code, § 17.44.010 [In contrast to the MR designation, High Density Residential (HR) districts “provide[] for single-family and multifamily residential units, group quarters and compatible uses.”].)

The proposed multi-family parcel conflicts with the Zoning Ordinance because multi-family development is not an “allowable use” in MR districts—even with a conditional use permit, residential development may not exceed three attached units. (Mun. Code, §§ 17.40.020; 17.40.030.) The proposed tentative subdivision map depicts 7- and 9-unit multi-family apartment buildings. (DEIR Figure III-4.) This violates the Zoning Ordinance provision that “[n]o land . . . shall be used, designated or intended to be used for any purpose or in any manner other than that which is permitted by this title, the regulations of the applicable zoning district . . . , and any conditions of approval imposed upon any permit authorized by this title.” (Mun. Code, § 17.16.040(A).)

Nor does this Project fall within the “flag lot”¹ provisions of the Zoning Ordinance. A “[f]lag lot” (also known as a “panhandle lot”) means a lot which [1] has less than the minimum required frontage on a public or private street, [2] is connected to a public or private street by a narrow strip of land and [3] has the largest portion of the lot situated behind adjoining lots which front on the same public or private street.” (Mun. Code, §§ 17.04.160 [Definitions]; 17.40.030.) In short, a flag lot is a parcel of land that is accessible only by a long narrow strip leading from a main road.

Lot 52, as depicted on the Tentative Subdivision Map, includes none of these features. Lot 52 is accessed off Adams Street, just west of its intersection with Starr Avenue. (DEIR 50; Figure III-4.) The lot has 197 feet of frontage on Adams Street, not including the strip of land extending south along Adams Street upon which vineyards will remain. (DEIR Figure III-4.) The minimum required frontage in MR districts is 70 feet. (Mun. Code, § 17.40.060.) Lot 52 is not connected to

¹ The DEIR refers to the multi-family lot as a “flag lot,” but contains no discussion of the relevance of that term.

Adams Street by a “narrow strip of land.” Although there is a narrow strip of land extending from the lot along Adams Street, this “panhandle” does not connect the remainder of the lot to Adams Street or otherwise provide access to Lot 52. (DEIR Figure III-4.) Finally, the largest portion of Lot 52 is not situated behind adjoining lots which front on the same street. The single-family lots to the east of Lot 52 front on Starr Avenue, while Lot 52 fronts on Adams Street. (DEIR 50, Figure III-4.) Thus, to the extent that the City views Lot 52 as a “flag lot” permitting departure from any MR district development standards, it is incorrect.

B. The Project Is Inconsistent With the General Plan.

The proposed Project also conflicts with the General Plan. The 1993 General Plan, currently in effect, classifies the Project site as Medium Density Residential (MDR). (DEIR 45.) Like the MR zoning designation, the MDR classification provides for “single-family” residential development: properties designated as MDR are used for “single-family attached and detached homes, secondary residential units, and similar and compatible uses.” (DEIR 45.)

The proposed multi-family parcel thus conflicts with the General Plan because multi-family residential development is not included in “single-family attached and detached homes, secondary residential units, and similar and compatible uses.” (DEIR 45, citing St. Helena, City of, 1993. *General Plan, Land Use and Growth Management Element*.)

II. VIOLATIONS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. The DEIR Does Not Describe Housing Construction Plans In Sufficient Detail to Conduct Project-Level Impacts Analysis.

The DEIR violates CEQA because it purports to be a “Project” EIR for “full buildout” of the Hunter Subdivision, but the DEIR’s project description only includes “project-level” information about the subdivision itself and the construction of roads, utilities, and landscaping. In contrast, the DEIR’s discussion of housing construction is entirely theoretical. Any information about the location, size, height, footprint, and massing of residential structures is “assumed” based on generally-applicable development standards. This is inadequate for project-level review under CEQA.

The actions described in detail in the EIR are (1) subdivision of the property; (2) grading/construction of a retaining wall; (3) street construction; and (4) the construction of utilities infrastructure and tree planting. (DEIR 49-59; Figure III-4 [Tentative Subdivision and Grading Map]; Figure III-6 [Utility Plan]; Figure III-7 [Landscaping Plan].) The landscaping and infrastructure construction is planned to begin immediately after approval of the Final Map and “related improvement plans”—presumably the Utility and Landscaping Plans—and will be completed within an 18-month time period. (DEIR 59.)

The proposed tentative map and related plans, while indicating the location of proposed single-family lots (Lots 1-51), do not indicate where houses will be constructed on those lots or the

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proposed size, height, design of such structures. (See DEIR Figure III-4 [Tentative Subdivision and Grading Map]; Figure III-5 [Street Sections]; Figure III-6 [Utility Plan]; Figure III-7 [Landscaping Plan].) Nor do they indicate which lots will include “granny-units” or the size and location of those structures. (See *id.*) And, while three apartment buildings are depicted on Lot 25 in the Tentative Map, the plan for multi-family housing (including not only a site plan, but also the number of buildings, units per building; building height, location, and design; and parking and access) is “not yet determined.” (DEIR 50; Figure III-4 [Tentative Subdivision and Grading Map].) There is no “phasing” plan for the proposal and/or construction of housing. (DEIR 59.)

Despite the fact that the DEIR’s Project description does not include any housing construction that would be subject to design review or applications for building permits, the DEIR includes “Design Review” and “Building Permits” in the list of “approvals and actions necessary for the proposed project.” (DEIR 59-60.) Rather than clearly disclosing that the DEIR neither describes nor assesses the impact of the applicant’s plan for housing construction as part of the proposed Project, the DEIR states that “specific residential building designs” would be presented for review and approval in the future as part of the City’s Design Review process. (*Id.* [“Future building designs would be subject to approval by the City, which includes Design Review of proposed construction, including the exterior design and location of individual dwellings, landscaping and related features.”].) This improperly characterizes the most fundamental features of a construction project (i.e., the location, height, and size of proposed structures) as mere “design” elements.²

In lieu of a project-level description of a particular proposal for housing construction, the EIR states that “it is anticipated” that structures proposed in the future will conform to the St. Helena

² Characterizing fundamental details about future construction projects as “design features” appears to be an attempt to cast residential construction proposals as “final designs” that may be approved after CEQA review. (See, e.g., *Dry Creek Citizens Coalition v. County of Tulare* (1999) 70 Cal.App.4th 20, 35-36 [upholding an EIR for a mining project where the EIR included a “general description of [stream] diversion structures . . . coupled with approval of final designs after the project is approved”].) This situation here, however, is readily distinguishable from *Dry Creek Citizens*. Foremost, in that case, the stream diversion structures, as mitigation measures for a mining project, were actually proposed for the agency’s approval. (*Id.*) Here, housing construction is “not being proposed at this time or as part of this application.” There, the actual technical and environmental characteristics of the structures were “described and illustrated” in the EIR. (*Id.*) Here, the applicant did not provide, and the DEIR does not include, even basic information regarding actual plans for the construction of homes or structures on the Project site. Finally, in *Dry Creek Citizens*, there was no evidence that “more detailed engineered drawings” would facilitate understanding of the proposed project’s environmental impacts and such drawings may supply “extensive detail beyond that needed for evaluation and review of the environmental impact.” (*Id.* at p. 36.) The DEIR here does not contain the basic information about housing construction needed to assess environmental impacts. This is not a failure to include “enough detail”—it is the failure to include any description of future construction projects.

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Zoning Ordinance's standards and requirements for Medium Density Residential (MR) districts. (DEIR 57.) The fact that future construction projects should comply with local planning and zoning rules does not provide any information about what will actually be proposed and approved and a description of those rules is utterly inadequate for even a "general description of the project's technical, economic, and environmental characteristics."³ CEQA clearly mandates a description of the proposed project itself—not just the rules with which future proposals must comply or parameters within which future construction proposals should fit. (CEQA Guidelines, § 15124⁴.) This information is essential for a realistic analysis and mitigation of impacts at a project level.

Indeed, it is "crucial" for the public and the government decision maker to know "what the 'project' is that the decision maker is approving":

"[O]nly through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal . . . and weigh other alternatives in the balance" . . . "[a]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR."

(*Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 201, quoting *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192-193.)

The DEIR violates this fundamental CEQA requirement by purporting to analyze housing construction at a "project-level" in the absence of the project details necessary to do so, as described in this letter with respect to impacts on particular resource areas. It is true that, under CEQA, an agency must describe and assess the impact of all activities associated with a proposed project, including reasonably foreseeable future activities that may change its impacts. (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 396 (*Laurel Heights I*)). The general review of future projects at the time that a related or precursor project is approved,

³ Moreover, the only Zoning Ordinance provisions specifically mentioned in the project description are height limits for single-family homes ("principal dwellings") and accessory structures: 30 and 15 feet, respectively. (DEIR 57.)

⁴ Guidelines, section 15124 states: "The description of the project shall contain the following information but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact. [¶] ... (c) A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities. [¶] (d) A statement briefly describing the intended uses of the EIR. [¶] (1) This statement shall include, to the extent that the information is known to the lead agency, [¶] (A) A list of the agencies that are expected to use the EIR in their decision-making, and [¶] (B) A list of permits and other approvals required to implement the project. [¶] ... (2) If a public agency must make more than one decision on a project, all its decisions subject to CEQA should be listed, preferably in the order in which they will occur..."

however, does not discharge the agency's CEQA obligation to conduct "detailed" review of the future projects when details become available.

B. Aesthetic Resources.

1. The DEIR Lacks Project-Specific Information Necessary To Analyze and Mitigate the Aesthetic Impacts of Future Housing Construction Projects.

The DEIR's analysis of the aesthetic impacts of future housing construction is based on conjecture, not project-specific facts. The aesthetic impacts analysis is largely based on "[c]ross sections of the site, based on the Tentative Map provided by the project applicant." (DEIR 65.) The DEIR asserts that

The cross sections are intended to convey a realistic impression of the project in terms of future building location, scale and massing based on the details included in the Tentative Map.

(DEIR 65.) The Tentative Map, however, does not include any details regarding the scale and massing of future housing construction. (DEIR Figure III-4.) At most, the Map indicates that single-family homes of unknown size, height, and footprint could be constructed somewhere within each of the 7000-12814 square-foot single-family lots. (DEIR Figure III-4.) Nothing on the Map indicates which lots will include "granny units" or the size, height, and footprint of such structures. (*Id.*) There is no concrete information, at all, regarding the size, layout, and massing of structures on the multi-family lot. (DEIR Figure III-4.) Moreover, the cross sections do not intersect with the multi-family lot and thus do not provide even a general or conceptual assessment of the visual impacts of multi-family apartment buildings. (See DEIR Figures IV.A-7, IV.A-8.)

The DEIR states that, "because the project under review is a subdivision without specific designs for proposed structures, the sections do not portray the exact architectural design of the structures on the project site." (DEIR 65.) This is misrepresentation by omission. In reality, the project under review is a subdivision without any proposed structures, and the cross sections not only do not portray the "exact architectural design," they do not portray even the most basic features—including the location and size of structures—of any housing construction that may occur in the future.

CEQA requires "the presentation of information sufficient to understand the environmental impacts of the proposed project and to permit a reasonable choice of alternatives so far as environmental aspects are concerned." (Guidelines, § 15156; *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.) Basic information about the location, size, and height of the single- and multi-family structures to be constructed is vital for a realistic, project-level assessment of the aesthetic impacts threatened by the construction of housing.

Without this information, one cannot fully understand the nature and extent of the impacts of residential development on scenic vistas and the visual character of the area. As a result, the DEIR is fundamentally inadequate, depriving the public and decision makers of their right, under CEQA, to review and comment on potentially significant aesthetic impacts and mitigation measures for the visual impacts of a particular structure (such as restrictions on the location, height, and/or massing to preserve views).

2. The DEIR Does Not Adequately Describe the Affected Environment.

The DEIR does not adequately describe the affected environment, which must identify “sensitive receptors” in the Project area. As explained by visual impact expert Harry Benke, the DEIR fails to provide any information about the number of “sensitive receptors” in the area and the quality of their views. (Exhibit 3 [July 2, 2012 Letter of Harry Benke of Visual Impact Analysis LLC] at pp. 1-2.) This information is essential to a determination regarding the significance of any views impaired by project. (*Id.*)

3. The DEIR Does Not Adequately Analyze Impacts To Scenic Vistas.

Under CEQA, a project has a significant impact on visual resources if it has “a substantial adverse effect on a scenic vista.” (Appendix G of the CEQA Guidelines, Question A.1; DEIR Table IV.A-1.) The Initial Study identifies this is a “potentially significant” impact, explaining that:

Proposed dwellings that could be constructed within the subdivision could block existing views to the north from existing dwellings south of the project site. The potential for a substantial impact to existing views will be analyzed in the EIR.

(DEIR Appendix A at p. 14.) The City defines “scenic vistas” to include views of the “surrounding agricultural open space,” “vineyard[s], hillsides, creeks, and major landscape features.” (DEIR 66, citing 1993 General Plan Policy 4.5.1.⁵)

The DEIR’s analysis of impacts to scenic vistas is incomplete because it discusses only impacts on public views of hillsides, ignoring impacts to other scenic vistas within the City’s threshold of significance—including agricultural open space, vineyards, creeks, and major landscape features. (DEIR 80.) Specifically, the DEIR states that residential structures may decrease the amount of hillside visible at two public view points (depicted in Figures IV.A-2c [intersection of Starr Avenue and Hunt Avenue] and Figure IV.A-2d [Paseo Grand Drive and Del Rio Court]); but that “at no point would hillside views from public viewpoints be entirely blocked by the project.” (DEIR 80.) The DEIR then concludes: “[a]s a result, the introduction of the proposed project would not significantly alter these views, and the project would not have a substantial adverse effect on a public scenic vista.” (DEIR 80.)

⁵ The 1993 General Plan is currently in effect. The DEIR heavily references a Draft General Plan Update, which has not yet been adopted and thus does not reflect existing City policy.

Although it appears obvious that two-story single family residences and multi-family apartment buildings would block and/or obscure views of surrounding open space, vineyards, and the Napa River, the DEIR does not describe or analyze the significance of impacts to these views. As a result, the DEIR fails as an informational document because it does not disclose and analyze impacts to all scenic vistas, as they are defined by the City's own threshold of significance.

Furthermore, the DEIR discusses only the impact of structures on scenic vistas—not the impacts of trees or other landscaping features. Based on the proposed Landscaping Plan (Figure III-7), visual impacts expert Harry Benke found that the combination of residential structures and trees, particularly when they mature, would likely “wholly eliminate” views of hillsides by motorists, pedestrians, and cyclists at the intersection of Hunt Avenue and Starr Road. The DEIR must disclose, analyze, and mitigate this significant impact of the Project.

Finally, the DEIR fails to explain the reasoning behind its conclusion that a “substantial adverse effect on a scenic vista” occurs only when a view is “completely blocked.”

4. The DEIR's Analysis of Visual Quality Impacts Is Not Supported By Substantial Evidence.

As in its discussion of impacts to scenic views, the DEIR's analysis of impacts to the “visual quality of the site or the area” also considers whether the Project would impact views. Here, the DEIR states that future housing construction would not “entirely block” views of the hillsides and the Howell Mountains, relying on two projected site cross sections. (DEIR 85.)

As explained by Mr. Benke, the cross sections include “only profiles of houses and a ground profile of the project area,” and do not demonstrate any relationship between the “visibility of the surrounding hills and mountains,” view points, and the extent to which the project may impair these views. (Exhibit 3 at p. 3.) Indeed, the diagrams do not provide any information about what is visible beyond the Project from any particular viewpoint—including the perceived height of the hillsides in relation to the structures. Additionally, the cross sections show nothing regarding the visual impacts of the affordable (multi-family) housing units because they do not intersect that portion of the site. (*Id.*)

Furthermore, the projected cross sections do not provide any information regarding how or to what extent the Project would block existing views of surrounding open space and vineyards.

As a result, the DEIR's discussion and significance determination is comprised only of the bare conclusion, unsupported by facts or analysis, that the Project would not “entirely block” hillside views. The DEIR does not serve its information disclosure purpose and, thus, is inadequate. (See *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351, 1388.)

5. The DEIR Employs An Improper Baseline In Determining that Impacts to Visual Quality of the Site and Project Area Are Insignificant.

The DEIR's analysis of impacts to the visual quality of the site and area employs an improper baseline to conclude that the impact will be insignificant and ignores evidence demonstrating the contrary.

On one hand, the DEIR states that although the project will result in development "similar in scale and form to the residential development around the site and in St. Helena," eliminating the existing agricultural land and open space will cause "a significant impact on the visual character of the site." (DEIR 81.) The DEIR further explains that residential construction will block existing views of the undeveloped project site, open space, vineyards, and hillsides. (DEIR 85.)

On the other hand, ignoring all evidence that development will eliminate and block views of open space and agricultural land, the DEIR concludes that the project will not "substantially degrade the visual quality of the site and its surroundings" because (1) under the General Plan, the project site is designated for medium density residential (MDR) development and the character of new residential buildings should be compatible with surrounding development; and (2) "urban development of similar types and densities are located east and south of the project site." (DEIR 86-87.) These statements do not provide an adequate basis for the City's conclusion that visual impacts are less than significant.

First, the General Plan's MDR land use designation and policy that new buildings should conform to the character of older neighborhoods have no bearing on impacts to the existing visual quality of the site and area. Indeed, it is well established that aesthetic impacts analysis must be based on a comparison "actual existing physical conditions." (*Woodward Park Homeowners Ass'n, Inc. v. City of Fresno* (1997) 150 Cal.App.4th 683, 709-710 ["in assessing the impacts of a project proposed for an undeveloped piece of property, agencies should compare project impacts against the existing environment, rather than some hypothetical, impacted future environment that might occur without the project under existing general plan and/or zoning designations."].) Impacts analyses based on "hypothetical allowable conditions" contemplated by an existing plan—such as that here—applies an improper baseline which "can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts...." (*Id.*)

It is likewise irrelevant, for purposes of environmental review, that the "Design Review process will ensure that the single-family homes and multi-family buildings are in character that is compatible with the surrounding development." (DEIR 86.) As an initial matter, ensuring "compatibility" with other development does nothing to ameliorate the obstruction of views and destruction of the beauty of the existing open space/agricultural setting caused by the construction of housing. Moreover, reliance on "postapproval mitigation measures adopted during the subsequent design review process" significantly undermines CEQA's goals of full disclosure and informed decision making and, thus, constitutes improper deferral of environmental assessment. (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92-93, quoting *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1605, fn. 4.)

Second, the vast majority of the project site is bounded by open space, agricultural, and low density residential uses. (DEIR Figure IV.A-7.) The “multi-family” lot in southern portion of the site, is bounded by low density residential uses—a sharp contrast to multi-family apartment buildings. (DEIR Figure IV.A-7.) Only a fraction of the site is bounded by “higher” density residential uses—the trailer park located to the east, a use which, in contrast to the 30 foot-tall buildings allowed on the Project site, includes only one-story structures. (DEIR Figure IV.A-7.) In light of the major differences between reasonably foreseeable Project development and surrounding uses, it is unclear how exactly the design review process would ensure “compatibility” with the character of existing neighborhoods.

The DEIR’s focus on General Plan consistency and similarities between future construction and existing residential uses is not only misplaced, it improperly minimizes the adverse aesthetic impacts caused by altering the project site and obstructing and/or blocking views of open space, vineyards, hillsides—impacts which the DEIR identifies as “significant.” (DEIR 85.) The purpose of CEQA review is to disclose and mitigate adverse environmental impacts, not to mask or dilute significant adverse impacts by shifting focus to the project’s merits.⁶ On the whole, even taken as program-level review, the DEIR is “legally inadequate as an informational document because it fail[s] to analyze consistently and coherently the impacts of the project relative to leaving the land in its existing physical condition.” (*Woodward Park Homeowners Ass’n, Inc. v. City of Fresno* (1997) 150 Cal.App.4th 683, 709-710.)

C. Hydrology and Water Quality

1. The DEIR Does Not Adequately Analyze Impacts to Related to Groundwater.

The DEIR states that an on-site well will be used to supply “separately plumbed landscape irrigation systems” in the Hunter Subdivision, estimating that demand will be 25 acre feet (AF) per year. (DEIR 274, 298.) As detailed below, the DEIR’s analysis of the impacts of groundwater use is deeply flawed and, with respect to some significant impacts, nonexistent. The City must correct and complete its analysis in a revised DEIR and recirculate the DEIR for public review and comment.

⁶ Moreover, for every General Plan policy with which the Project would (according to the DEIR) comply, there is one with which it demonstrably will not. Policy 4.5.1, for example, provides: “The sense of a strong connection to the surrounding agricultural open space and hillsides must be preserved in the future. Views of vineyard, hillsides, creeks and major landscape features should be maintained...” (See Exhibit 3 at pp. 3-4.) Construction on the Project site will block views of vineyards, the Napa River, and open space; and it will obstruct views of hillsides. (DEIR 80, 85.)

a. The DEIR Does Not Include Project Details Necessary For Project-Level Review of Future Construction Projects.

The estimated demand for irrigation water, which requires information regarding the amount of land that must be irrigated, was based on “assumed” information about building foot print, drive ways, and other impervious surfaces and number and size of units. (DEIR 295-297.) As noted above in section II.A, this represents a failure to provide required information for a project-level EIR.

b. The DEIR Employs An Improper Baseline In Its Analysis of Groundwater-Related Impacts.

Water has not been extracted from the well for use on the Project site for many years. (DEIR 274.) Accordingly, the “actual existing physical condition” to which the Project must be compared for purposes of assessing its impacts is zero groundwater extraction from the on-site well. (*Woodward Park Homeowners Ass’n, Inc. v. City of Fresno* (1997) 150 Cal.App.4th 683, 709-710; Guidelines, § 15125, subd. (a) [“[A]n EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published . . . from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.”] (emphasis added)].)

Courts have approved the use of projected future conditions as a baseline for traffic impacts when a project will not begin causing such impacts until years in the future and the environmental setting will be substantially different at that time. (See, e.g., *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351.) Courts have also held that a “temporary lull or spike in operations that happens to occur at the time environmental review for a new project begins should not depress or elevate the baseline.” (*Id.* at p. 1375, quoting *Save our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 127, 104.)

But nothing in CEQA permits use of a “previous usage” baseline where the previous use ceased entirely many years before environmental review began. If such were the case, then any impact could be deemed insignificant on the ground that it only slightly exceeded the most intensive previous use of the land, regardless of the actual, existing environmental condition at the time of environmental review. This, like use of a “hypothetical allowable conditions” baseline for land use impacts, “can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts...” (*id.*)—especially when it involves a discontinued previous use which was and is substantially more intensive than the existing use.

Moreover, the selection of a baseline that deviates from the existing physical conditions must be supported by substantial evidence, which the DEIR does not provide. The baseline for use of the on-site well was determined based on an estimated demand historical “demand” for water that provides no information about how that demand has, historically, met. It is quite likely that historic agricultural water needs were met, at least in part, with surface water because (1) the property

adjoined the river prior to the flood control project and likely had riparian water rights and (2) the property contained a pond, now filled in, that was likely used to store surface water.

Despite the fact that well use records exist, are maintained by the City, and were provided to the applicant during the environmental review process, there is absolutely no evidence regarding the historic use of the well. The DEIR somewhat craftily states that “active management of the well for irrigation” has ceased, but never states when exactly that use ceased or the extent to which the well was in fact used for irrigation. (DEIR 277.) Accordingly, the estimated historic demand for irrigation water (22 AF per year) says nothing about either existing or historic groundwater use because there is no evidence that groundwater supplied that demand. The EIR must analyze impacts based on a comparison of the existing use of the well (0 AF per year) and post-project use (25 AF per year).

Further, the DEIR includes a confusing discussion of irrigation demands for vineyards before and after the flood control project, which seems to suggest that the existing on-site vineyards are irrigated with groundwater from the on-site well (at 11 AY per year). (AR 276.) Careful reading of the DEIR, however, indicates that this is false. The DEIR explicitly states that “active management of the well for irrigation has ceased.” (AR 274.) The DEIR does not disclose the current source of irrigation water for the vineyards. The obfuscating language in the DEIR’s discussion violates the basic requirement that the “EIRs shall be written in plain language . . . so that decision-makers and the public can rapidly understand the documents.” (Guidelines, § 15140.)

c. The DEIR Does Not Include Any Facts About the On-Site Well or the Local Aquifer and/or Water Table.

The DEIR states that the Project’s groundwater use will not “deplete groundwater supplies” and that the “existing on-site well, previously used for agricultural purposes, has the capacity to serve more water than is needed on-site.” (DEIR 233, 298.) However, the DEIR does not provide any facts about the capacity of the well to support this conclusion. Nor does the DEIR provide any factual information about the water production capability of the aquifer supporting the wells. Further, as discussed above, while it may be true that the well produces more water than is “needed on-site” the City extracts water for use “off site” and the DEIR must analyze the well’s capacity to serve both and the impacts of doing so on the aquifer.

The record indicates that this information is available. In fact, the City provided the developer with information regarding the production quantity, rate, and quality of the well on the property (though that information is not presented in the DEIR). (See, e.g. March 25, 2011 Letter from St. Helena to Ryan Gregory re Completeness of Hunter Tentative Map Application (2010-40), p. 1. See also General Plan Update Final PEIR 2030 at p. 5-13 (Revisions to DEIR, October 2010) [The City maintains a groundwater level monitoring program in the area that monitors groundwater levels. (City of St. Helena, 2010; West Yost Associates, 2010b)]].)

This information must be disclosed in the DEIR and used to assess the Project's direct and cumulative groundwater impacts on groundwater levels and supply. It is not enough to simply describe past water demands and assume that future increased uses will have a similar impact.⁷

d. The DEIR Does Not Adequately Analyze the Project's Interference With Groundwater Recharge.

The DEIR discloses that the Project "would introduce new impervious surfaces, which could interfere with groundwater recharge by diverting some precipitation to the storm drainage system." (DEIR 233.) It concludes that the impact is less than significant, however, because "the area of additional impervious surface would be considered insignificant compared to the area of the groundwater basin." (DEIR 233.)

There is no factual support for this conclusion. In particular, the DEIR does not disclose the size of the "groundwater basin," the rate and extent to which the currently existing grasslands on the project site permit groundwater recharge, or the amount of water that the new impervious surfaces will prevent from percolating into the aquifer. (See DEIR 233.)

Moreover, it is improper to conclude that an impact is insignificant based on its relative contribution to a larger environmental impact. Where a project may cause an incremental increase in the nature or extent of an impact—such as interfering with recharge of an aquifer—the EIR must determine whether the Project contributes to a significant cumulative impact. Courts have consistently rejected the "ratio approach" to impacts analysis demonstrated here, which focuses on the proportional contribution of an individual project to a larger general impact, such as an individual project's contribution to the overall loss of a resource over a wide geographic area. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692.) This invalid approach inevitably understates the severity of real, additive, incremental cumulative impacts, and instead quantifies a pseudo-cumulative "impact" that an individual project may cause. CEQA requires instead an assessment of the incremental, collective, or combined effect of both the project at issue, past projects, contemporary projects, and reasonably foreseeable actions, within a scope of analysis relevant to the project's impact—in this case, loss of grasslands habitat within the County.

The Board's analysis of grasslands habitat loss understates the severity and significance of cumulative impacts and the necessity for mitigation measures, and impedes meaningful public review and participation. (See *Citizens to Preserve the Ojai v. Board of Supervisors* (1985) 176 Cal.App.3d 421, 431-432.)

⁷ Indeed, the hydrographs upon which the DEIR relies were prepared as part of Napa County's analysis of groundwater resources, yet the County explicitly requested that the DEIR include an "explanation and analysis of any groundwater use that may occur as a result of the project." (DEIR Appendix A [Scoping Comments Summary Report at p. 10].)

Finally, the DEIR's assertion that "landscaping around the structure and pavements would be pervious and would allow infiltration of rainfall" fails to address the issue. (DEIR 233.) The inquiry for purposes of impacts analysis must focus on the extent to which the Project will prevent recharge—the fact that some unquantified part of the Project will not contribute to the problem is not informative. Additionally, the DEIR's assertion that irrigation on the pervious surfaces "would result in additional infiltration" is misguided. The water used for irrigation will be extracted from the same aquifer that the Project will interfere with recharge of and a significant amount of that water will be lost to evapotranspiration. (DEIR 295-296.)

e. The DEIR's Analysis of Groundwater-Related Impacts Is Incorrect and Incomplete.

The DEIR states:

Groundwater is a reliable resource in the area and will continue to reliably serve as part of the City's water supply portfolio in the future without concern of overdraft. As documented in the February 2011 report to the County of Napa Conservation Development and Planning Department regarding groundwater conditions throughout the County, "Groundwater levels have been generally stable [in the St. Helena region] over time and do not exhibit any long-term trends." Based on this and other information from the report, the City's target average use of 450 AF per year (AF/year) is conservative and well within the capacity of the groundwater basin for the foreseeable future. Figure IV.K-1 shows the current groundwater trends in the area as presented in the county groundwater study.

(DEIR 274.) This is flawed for numerous reasons.

First, the DEIR fails to discuss the increasing decline in summer water levels over time in the St. Helena subarea aquifer. As Mr. Kammon explains, the hydrographs from the February 2011 Report (reproduced in the DEIR) demonstrate that numerous wells in the St. Helena area have experienced "marked declines in the groundwater table elevation over the past four decades," and that the drops in the summer water table increase "progressively in magnitude over time." (Exhibit 1 [Greg Kammon July 12, 2012 Letter] at pp. 3-7.) In light of the St. Helena data, the "local area aquifer is not stable and may be reflecting the effects of depleted groundwater supplies, which is contrary to the conclusion in the DEIR of stable groundwater conditions reproduced." (*Id.* at p. 7.)

Second, well-documented decreases in summer stream flow in the Napa River indicate that the groundwater levels are in decline. (*Id.* at 7-8.) During the dry summer months, stream flow is supplied by groundwater alone. When groundwater pumping lowers the groundwater table, it may disconnect the river from the groundwater supply. (*Id.*) Napa River flow records from a gauge located a short distance downstream of the Hunter Project site indicates that the river channel ran completely dry during August and September of 2007, 2008 and 2009. (*Id.* at p. 8.) This has only happened one other time since 1929—during the drought of 1976-1977. (*Id.*) 2007-2009 were drier than average, but did not approach the severe drought conditions observed in the 70s. (*Id.*)

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Accordingly, the stream flow declines signal declines in the water table due to increased groundwater pumping. (*Id.*)

This is of particular concern in the Project area. The State Water Board delineated areas in which groundwater extraction has the potential to deplete stream flow. (*Id.* at pp. 7-8.) The Project site is located within a “potential stream flow depletion zone.” (*Id.* at p. 8.) In connection with the delineations, the Board developed a method for determining whether a particular groundwater extraction would, in fact, adversely impact stream flows. (*Id.* at p. 9, citing Stetson Engineering, February 28, 2008 Technical Memorandum at p. 9.) In addition to disclosing the potentially significant impact of groundwater extraction on Napa River stream flows in the DEIR, the City must analyze the direct and cumulative impacts of increased groundwater pumping from the on-site well in accordance with this method.

Third, as noted by St. Helena Mayor Del Britton, local wells have been going dry. (*Id.* at 10.) In addition to analyzing potential impacts on stream flow, the EIR must disclose and analyze whether any reductions in the local aquifer or water table level related to increased pumping from the on-site well may impair the production rate of pre-existing nearby wells. (DEIR 231.) Completely ignoring the CEQA threshold of significance, the DEIR does not analyze Project-specific impacts on the local aquifer or water table levels at all, much less impacts to other wells.

In lieu of the required analysis, the DEIR simply concludes that the Project will not cause any groundwater-related impacts because, “generally,” conditions in the area are stable. This does not provide any information about the actual impacts of the Project and, combined with the improper “historic use” baseline, demonstrates complete abdication of the City’s CEQA obligation to analyze impacts in good faith and to “use its best efforts to find out and disclose all that it reasonably can.” (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, quoting Guidelines, § 15144.)

Finally, it is improper to rely on the City’s safe yield studies to assess the impacts of the Project’s groundwater extraction and use. The City’s studies were based solely on the supply and demand for potable water and explicitly exclude from their analyses both (1) private wells and (2) the City’s extraction from wells for nonpotable park and irrigation purposes (such as its use of the on-site well). (See April 11, 2012 Staff Report [April 5, 2012 Technical Memorandum at p. 8].) In short, pumping from the on-site well is not within the scope of the City’s analysis of safe yield from local groundwater sources.

f. The DEIR Fails to Consider the Cumulative Impacts of Other Groundwater Extractions.

An EIR must disclose and analyze the impacts of a project in conjunction with other past, present, and probable future projects. (Guidelines, § 15065(a)(3).)

The City currently pumps an undisclosed amount of water from the on-site well to irrigate vegetation planted as part of the flood control project, and it appears that the City will continue to

do so in the future. (DEIR 274.) For purposes of assessing impacts caused by pumping from the on-site well, the DEIR must add the City's use to the Project's projected 25 AF per year and determine whether the combined extractions are within the well's capacity, would result in a lowering of the water table or aquifer, or would impair the production of other nearby wells in the vicinity.

Further, as discussed above, the City extracts groundwater from other wells to supply local demand for potable water. The City's groundwater extractions, as well as reasonably foreseeable increases in groundwater extraction to meet growing demands (see April 11, 2012 Staff Report), must be described in the DEIR and analyzed to assess the combined impacts of the Project and the City's groundwater use.

2. The DEIR Does Not Analyze the Impacts of Discharging Increased Storm Runoff Into the Napa River.

The City's General Plan requires review of development plans to ensure that new development provides adequate storm drainage infrastructure and that post-project runoff is limited to pre-project peak flow rates for the five- and ten-year storms." (DEIR 234.) Under CEQA, a project causes a significant impact if it may alter the existing drainage pattern so as to "increas[e] the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site." (DEIR 232.)

As discussed above, the Project will create new impervious surfaces on the Project site, which will divert precipitation (i.e. stormwater runoff) into a storm drainage system, rather than permitting the water to percolate into the soil. (DEIR 233 [New impervious surfaces on the project site include buildings, access roadways, bicycle and pedestrian pathways, and surface parking lots. "The placement of new impervious surfaces would create stormwater runoff."].) The storm drainage system will divert water directly into the Napa River until doing so is prevented by high flows. (DEIR 212.) As a result, the amount of stormwater entering the river from the project site at any given time will be higher than it was prior to the construction of new impervious surfaces. Only when the river reaches extremely high volumes will the runoff be held in a detention basin to avoid flooding at the Project site. (DEIR 212.) At that point, water held in the detention basin will be pumped back into the river. (DEIR 212.)

The DEIR, which purports to address this impact at DEIR page 233 (DEIR 231) does not analyze whether post-project stormwater runoff will exceed pre-project rates or whether the additional runoff may increase the rate or amount of flow in the Napa River so as to cause erosion, siltation, or flooding downstream of the Project site. Instead, the DEIR states that:

The proposed project would change the existing drainage pattern on-site as the site would change from largely agricultural to residential. However, the drainage pattern introduced by the project would not modify streams or rivers as none currently traverse the project site. As discussed under Stormwater Drainage Systems, below, the proposed project would include installation of a storm drainage system that would be connected to the City's drainage system. The modification would not cause

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significant erosion or flooding because runoff would be controlled and collected in storm drain pipes and discharged in accordance with City requirements. This potential impact would be considered less than significant.

(DEIR 233-234.)

As indicated by the underlined phrases above, the DEIR's analysis is improperly limited to impacts on the Project site. The threshold of significance requires analysis of "off-site" impacts as well. In this case, the DEIR must, but does not, consider impacts caused by discharging increased runoff into the Napa River.

Nor does the storm drainage system address the problem:

The major storm drain infrastructure in the project vicinity was constructed as part of the Flood Protection Project for future project use. It includes a storm drain running through the project site within the future Starr extension right-of-way and an existing detention basin immediately north of the project on City-owned property. The Starr storm drain and the detention basin have been sized to accommodate the proposed project based on runoff coefficients associated with its planned residential density, so there is sufficient capacity to serve the project and detention of post-project runoff is not necessary. Furthermore, the Starr extension storm drain was sized to accommodate drainage from the area south of the pipe and the detention basin for drainage from that area between the pipe and the basin.

(DEIR 234.)

All this means is that the storm drain system was designed to move the increased stormwater runoff created by the Project into the river. It says nothing about the extent to which the increased runoff may increase peak flows in the Napa River, thereby causing erosion and flooding downstream. As explained by hydrologist Greg Kamman: "Although the DEIR does address the adequacy of the internal project storm drainage capacity, it fails to evaluate or address how the project may substantially increase the rate or amount of flow in receiving waters and downstream areas. Potential impacts from increase storm water runoff includes, increased downstream water levels and flood hazards along with increased erosion potential and water quality impacts." (Exhibit 1 [Greg Kammon July 12, 2012 Letter] at p. 10.)

Particularly important with respect to impacts to salmonid habitat and water quality in the Napa River, as discussed below, the DEIR must analyze whether its stormwater discharges may contribute to channel incision caused by an increase peak flows. "Channel incision" refers to the downcutting of a river—erosion of the bed and banks the stream channel—resulting sedimentation. (*Id.* at p. 10; Exhibit 2 at pp. 3-4.) It is caused by increases in the magnitude of peak stream flows. (*Id.*) As documented by the State Water Board, channel incision is a primary cause of degradation of the Napa River stream channel and a primary source of sediment pollution. (Exhibit 2 at pp. 3-4.)

D. Biological Resources

1. The DEIR Entirely Fails To Analyze Potentially Significant Impacts to Protected Fish Species in The Napa River.

Despite the Project's potentially significant impacts on water quality and stream flow in the Napa River, the DEIR does not analyze, whatsoever, the potentially significant impacts of the Project to special status fish species in the Napa River. Failure to disclose and analyze this vital environmental impact is fatal to the DEIR's adequacy as an informational document. The Project's potential impacts to protected anadromous fish must be disclosed, analyzed, and mitigated.

The Napa River in the vicinity of the project site and in downstream reaches contains habitat suitable for rearing, spawning, and migration of two protected fish species: fall-run Chinook salmon (*Oncorhynchus tshawytscha*) and federally protected Central California Coastal steelhead (*Oncorhynchus mykiss*). (Exhibit 2 at pp. 2-3, citing Napa County Resource Conservation Department 2008, Leidy et al. 2005.) The section of the Napa River adjacent to the Project site is deemed "the most important spawning and nursery area for steelhead in the main stem Napa River." (*Id.* at p. 3.) Recent surveys identified abundant spawning habitat and juvenile chinook in St. Helena, about two miles south of the Project site. (*Id.*) Herculean efforts—including habitat restoration, major projects to remove fish migration barriers, and new sediment pollution limits—are currently underway within the Project area to protect and aid in the recovery of these species. (*Id.*)

The DEIR's only mention of chinook salmon and steelhead occurs in DEIR Table IV.D-1: "Special Status Plant and Wildlife Species That May Occur, or Are Known to Occur in Habitats Similar to Those Found on the Hunter Subdivision Project Area." (DEIR 132-133.) Therein, the DEIR tersely described the status and habitat requirements of these species, and then summarily concludes with respect to the likelihood of their occurrence:

"Not Present. No perennial aquatic habitat present in the project area."

(DEIR 132-133.)

In light of many surveys documenting chinook and steelhead in the Napa River either directly adjacent to or slightly downstream of the Project site, not to mention the millions of dollars and countless hours that have been and currently are devoted to protecting these species on the St. Helena stretch of the Napa River, the DEIR is plainly wrong.

It may be that the DEIR is engaging in a game of semantics by either (1) defining "project area" so narrowly that it includes only the actual Project site (as it did with respect to stormwater runoff impacts [(DEIR 233-234)], or (2) limiting the scope of its analysis to "perennial" habitat—a concept that is not explained in the DEIR. (See also DEIR 383 [defining the geographic area considered for cumulative biological impacts as the "City of St. Helena"].) On either count, the DEIR violates CEQA.

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CEQA broadly defines the relevant geographical environment as “the area which will be affected by a proposed project.” (*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 384-385, citing Pub. Resources Code, § 21060.5.) Consequently, “the project area does not define the relevant environment for purposes of CEQA when a project’s environmental effects will be felt outside the project area.” (*County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582-1583.) Thus, the City is mistaken to the extent it believes that it has no obligation under CEQA to consider geographically distant environmental impacts of the Project.

As explained by fisheries biologist Jeffery Hagar, the Project may adversely impact salmon and steelhead in numerous ways: (1) increasing stormwater runoff, thereby increasing the magnitude of peak flows in the Napa River and causing erosion of the stream bed and banks, increasing fine sediment loads, eroding spawning sites and damaging developing salmon and steelhead embryos; (2) reducing summer stream flow necessary to support fish species by interfering with groundwater recharge and increased groundwater pumping from the on-site well. (Exhibit 2 at pp. 3-4.) Mr. Hagar explains that in recent years, the Napa River has run completely dry in late summer months, a condition which previously occurred only once in an extreme drought. (*Id.* at p. 5.) Mr. Hagar concluded that increased stormwater discharge and stream flow reduction threatened by the Project may “adversely impact existing spawning, rearing, and migration habitat for salmon and steelhead from the project site downstream to the mouth of the Napa River.” (*Id.* at pp. 5-6.)

Under Guidelines section 15065, subdivision (a), an agency must find that a project has a significant effect on the environment if the project has the potential to “reduce the number or restrict the range of an endangered, rare or threatened species.” (*Napa Citizens, supra*, 91 Cal.App.4th at p. 381.) And, because CEQA placed the burden on the agency to study and determine whether a project will cause a significant impact, once the issue of impacts to a protected species is identified, the “burden shifts to the [City] to investigate the effect of the Project on that species.” (*Id.* at pp. 385-386.) The DEIR must disclose and evaluate potential project impacts on fishery resources in the Napa River.

2. The DEIR Does Not Adequately Analyze Impacts to Special Status Plants and Species Habitat.

The DEIR acknowledges that the Project will result in the loss of the currently existing grasslands habitat on the site, but concludes that the impacts of habitat loss are insignificant because of the “small size” of the property and because there is “alternative” habitat on the opposite side of the levee. (DEIR 141.) The DEIR does not cite any facts in support of its analysis.

As explained in the Napa County’s analysis of ecosystems within the County, grassland habitat supports a wide diversity of plant and wildlife species and performs many important

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ecosystem functions.⁸ (Exhibit 6 [Napa County Baseline Report, Chapter 4 “Biological Resources”] at p. 4-19.) However, grasslands in the County “have in the past and continue today to be lost to residential, commercial, and industrial development, and conversion to agriculture uses other than grazing.” (*Id.*) Less than 20% of grasslands in the Bay Area are protected, they have already undergone a severe decline in Napa County, and they “continue to be highly threatened by development.” (*Id.*)

The DEIR improperly limited its analysis of the impact of destructing grasslands to the Project site and adjacent land. CEQA requires analysis of not only indirect impacts, but also the cumulative impacts. Proper analysis of the impact of habitat loss must include consideration of the abundance (or lack thereof) of the habitat in the region, the extent to which that habitat is threatened or in decline, and the extent to which the Project contributes to a cumulative impact by participating in the impact. The DEIR must analyze and disclose whether the Project’s destruction of grasslands is a considerable contribution to a significant County-wide cumulative impact.

Additionally, by determining significance based on the “small size” of the property, the DEIR employ a “ratio approach” to impacts analysis that has been unequivocally rejected by the courts. The ratio approach focuses on the proportional contribution of an individual project to a larger general impact, such as an individual project’s contribution to the overall loss of a resource over a wide geographic area. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692.) This invalid approach inevitably understates the severity of real, additive, incremental cumulative impacts, and instead quantifies a pseudo-cumulative “impact” that an individual project may cause. CEQA requires instead an assessment of the incremental, collective, or combined effect of both the project at issue, past projects, contemporary projects, and reasonably foreseeable actions, within a scope of analysis relevant to the project’s impact—in this case, loss of grasslands habitat within the County.

The Board’s analysis of grasslands habitat loss “understates information concerning the severity and significance of cumulative impacts impedes meaningful public discussion and skews the decisionmakers perspective concerning the environmental consequences of a project, the necessity for mitigation measures, and the appropriateness of project approval.” (*Citizens to Preserve the Ojai v. Board of Supervisors* (1985) 176 Cal.App.3d 421, 431-432.)

⁸ Among other things, grasslands not only provide habitat, but also perform an important role in maintaining stream systems because they maintain water quality through soil retention and by filtering out sediment and nutrients from run off; prevent flooding and minimize channel erosion by slowing surface runoff; and increase infiltration to groundwater. (Exhibit 6 [Napa County Baseline Report, Chapter 4 “Biological Resources”] at p. 4-19.)

E. Geology and Soils

1. The DEIR's Discussion of Subsidence Impacts is Flawed and Unsupported.

Under CEQA, a significant impact exists if project may expose people or structures to substantial risk of loss, injury, or death involving subsidence. (DEIR 178.) Subsidence is the lowering of the land-surface elevation and may result in increased flooding hazards, damage to underground utilities and damage to stormwater and sanitary sewer drainage. (DEIR 174.) Subsidence is generally caused by groundwater pumping (DEIR 174.)

Although the Project will pump groundwater from the on-site well, the DEIR concludes that the potential for subsidence is less than significant because the "demand is expected to be much less than the "historical agricultural demand by irrigation of vineyards." (DEIR 180.) This conflicts with the DEIR's discussion of groundwater use, which discloses that the Project demand is *greater* (25 AF per year) than historical uses (22 AF per year)—certainly not "much less." (DEIR 277.) Additionally, for the same reasons discussed above, it is improper to use "historical" or past use as a baseline for determining this Project's impacts.

The DEIR also states that "[t]here are no significant agricultural or industrial activities proposed that would result in the substantial pumping withdrawal of water from the underlying aquifer that could contribute to future subsidence on the project site." (DEIR 180.) This too conflicts with the DEIR and documents relied on therein, which indicate that the City pumps groundwater from wells in the area to supply local demand for potable water and, moreover, pumps water from the on-site well for irrigation purposes. (DEIR 247; Exhibit 8 [April 5, 2012 Technical Memorandum at p. 8].) As discussed above, the DEIR must consider the impacts of its groundwater extraction in conjunction with the impacts of the City's groundwater extraction.

Thus, the DEIR's analysis of subsidence is legally flawed and entirely unsupported fact. The DEIR must be revised to include a proper analysis of this potentially significant impact and recirculated for public review and comment.

F. Hazards and Public Safety

1. The DEIR Does Not Adequately Describe the Existing Environmental Conditions.

The DEIR discloses that the soil on the Project site may be contaminated with hazardous materials from prior agricultural use of the land—including metals such as mercury, copper, lead, and/or arsenic and persistent organic compounds such as DDT. (DEIR 208 [Impact HAZ-1]. See also Exhibit 5 [Letter of Saul Bloom dated July 6, 2012] at pp. 3, 6-9.) "Exposure to these chemical residues during site grading and development activities could potentially affect the health and safety of construction workers and the general public. If left in place, residues could also affect future residents at the project site." (DEIR 208 [Impact HAZ-1]. See also Exhibit 5 at pp. 4-5.)

Maps of the Project site indicates that there is a water body directly adjacent to the site and a well and filled pond on the site itself. (Exhibit 5 at pp 6-9.) However, the DEIR does not describe whether metals and/or persistent organic compounds in the soil have leached into the surface or groundwater. (*Id.* at pp. 5-6.) This is of particular concern because the applicant intends to use groundwater extracted from the well at the project site for all irrigation and other outdoor water needs.

Finally, although acknowledging that stormwater runoff may be contaminated with hazardous materials (DEIR 222), the DEIR fails to disclose whether the drainage ditch in the Project area contains hazardous materials deposited by storm runoff and how any such materials may impact human health.

2. The DEIR Improperly Defers Analysis of Hazardous Material Impacts.

Rather than studying the soil on the site and disclosing any hazardous materials and their risks to the public, the DEIR calls for a future study to be conducted as a condition of approval for grading and building permits:

Shallow soil samples shall be collected by a qualified environmental professional within all areas of the project area proposed for residential uses and analyzed for pesticides and herbicides in accordance with DTSC's Interim Guidance for Sampling Agricultural Properties. . . . any detected organic compounds or metals above naturally-occurring concentrations must be evaluated in a human health risk assessment as described in the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual or in comparison to California Human Health Screening Levels (CHHSLs).

(DEIR 208-209.)

The DEIR improperly discusses this environmental investigation and analysis as a "mitigation measure." A mitigation measure, however, is a way to reduce or avoid impacts that have been identified and disclosed in the DEIR—not the study of the nature and extent of the impact itself. Moreover, while it may be appropriate, in some cases, to defer the selection of particular mitigation measures until after project approval, "[d]eferred mitigation" is permitted only "where practical considerations prohibit devising [mitigation] measures early in the planning process." (*Gentry, supra*, 36 Cal.App.4th at p. 1394, accord *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92-93.) And even then, the EIR must still "(1) undert[ake] a complete analysis of the significance of the environmental impact, (2) propose[] potential mitigation measures early in the planning process, and (3) articulate[] specific performance criteria that would ensure that adequate mitigation measures were eventually implemented." (*CBE, supra*, 184 Cal.App.4th at p. 95.) As discussed above, these conditions are not met here.

There is no reason that soil sampling and any necessary risk assessment cannot be conducted now and included in this DEIR. The location of soils to be excavated as part of the grading process

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and the location of communities that may suffer the health consequences of disturbing the materials are both known. (DEIR Figure III-4.) Moreover, it is not as though soil disturbance will occur only as part of a future, yet-to-be planned construction project. Approval of a grading plan is one of the activities currently presented for the City's approval and is the first step in developing the site. (DEIR 118.) There is no reason, practical or otherwise, to defer analysis and public disclosure of this important public health risk, nor does the DEIR provide a reason for doing so. Additionally, shallow soil sampling and analysis may be completed in a reasonable period of time (Exhibit 5 at p. 6) and, at any rate, must be conducted prior to grading the property.

CEQA requires an agency to "use its best efforts to find out and disclose all that it reasonably can." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, quoting Guidelines, § 15144.) The failure to study and disclose any hazardous materials on the project site, as well as the extent to which their disturbance threatens public health, constitutes a clear violation of the City's CEQA obligations.

G. Land Use Impacts.

1. The DEIR Entirely Fails To Analyze Land Use Impacts.

The DEIR states that land use impacts "were excluded from detailed analysis in the EIR because it was determined in the Initial Study and during the scoping period that the[y] would be less than significant." (DEIR 2, 377 [further stating, incorrectly, that "[a] detailed description of the project's impacts related to [land use] is provided in the Initial Study."].) The Initial Study concludes, without elaborating, that:

The proposed project is consistent with land use designations and applicable goals and policies of the St. Helena General Plan, site zoning and other applicable land use regulatory documents. There are no significant impacts associated with land use policy planning impacts.

(*Id.*) Accordingly, the Initial Study and DEIR contain only the City's bare conclusion that the Project is consistent with land use designations and, thus, will not cause land use impacts.

"[T]he EIR must contain facts and analysis, not just the agency's bare conclusions or opinions." (*Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351, 1388, quoting *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935.) "[T]he public and decision-makers, for whom the EIR is prepared, should . . . have before them the basis for [an agency's] opinion so as to enable them to make an independent, reasoned judgment." (*Id.*, quoting *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.)

Indeed, even where an impact is determined to be insignificant, the EIR (or attached Initial Study) "shall contain a statement briefly indicating the reasons that [] possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."

(Guidelines, § 15128; Pub. Resources Code, § 21100.) The EIR and Initial Study do not provide any reasons for the City's conclusion that the Project is consistent with the General Plan and Zoning Ordinance's "land use designations."

2. The DEIR Fails To Disclose Significant Land Use Impacts.

As discussed above, with the Project violates the City's Zoning Ordinance and is inconsistent with the General Plan because the project calls for multi-family development which is prohibited in districts designated for medium density residential uses (MR and MDR, respectively.)

Under CEQA, a project has a potentially significant impact, which must be analyzed in an EIR, if it may "[c]onflict with a[n] applicable land use plan, policy or regulation (including, but not limited to the general plan . . . or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect." (DEIR Appendix A [Initial Study] at p. 30.) A DEIR must "identify any inconsistencies between the Project and the General Plan." (*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 355-356, citing Guidelines § 15125, subd. (d).)

Failure to disclose and analyze the Project's significant land use impacts renders the DEIR insufficient as an informative document. The DEIR must be revised to disclose and properly analyze the Project's inconsistency with the City's land use designations and recirculated for public review and comment.⁹ (See *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351, 1388 [An "EIR 'must present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made.'"].)

⁹ Conflict with land use designations also makes the proposed Project inconsistent with the project objective to "[s]ubdivide the site consistent with the City's General Plan and Zoning for the site to accommodate residential development." (DEIR 48.) This is the sole "project objective" that the "environmental superior alternative" identified in the DEIR—the "Residential/Agricultural Preserve Alternative"—would not meet. This alternative would reduce the number and size of parcels in the proposed subdivision and, instead, reserve a 6.48-acre parcel overlooking the Napa River for agricultural or open space use. (DEIR 370-372.) The Residential/Agricultural Preserve Alternative would reduce impacts to agricultural, hydrology, traffic, air quality, biological resources and water quality. (DEIR 376.) The DEIR concludes that this alternative "would meet all the project objectives except consistency with the City's General Plan and Zoning for the site" because a General Plan Amendment (from MDR to OS (Open Space)) and Rezoning (from MR to AP (Agriculture Preserve)) would be required. (DEIR 376.)

3. The DEIR Lacks Project-Specific Information Necessary To Analyze the Land Use Impacts of Future Housing Construction Projects.

Two bodies of information are necessary to determine whether a project is inconsistent with a general plan or zoning ordinance: (1) the policies, rules, and standards embodied in the General Plan and Zoning Ordinance and (2) relevant details of a proposed project. The analysis requires only a simple comparison of these two bodies of information to determine whether or not the project is consistent with the Plan and/or Ordinance. But, it should go without saying, a comparative analysis is impossible if one set of information is not available.

Such is the case here with respect to future housing construction projects. The Zoning Ordinance includes numerous standards for residential structures, including yard, setback, and building location and height regulations. (Mun. Code, § 17.16.040(B).) The height of principal buildings in MR districts, for example, is limited to 30 feet; accessory buildings to 15 feet. (Mun. Code, § 17.40.060(A).) Maximum lot coverage (the land area covered by all buildings or structures on a lot) is 45%. (Mun. Code, § 17.40.060(A).)

To analyze whether a particular construction project is consistent with these standards, there must be a proposal that specifies the size and height of the proposed structures. Without this information, there is no way to determine whether a particular building construction project is, in fact, consistent with the City's land use rules. Here, concrete construction projects have not been proposed and, as a result, the details necessary to determine their consistency with the Zoning Ordinance's development standards for MR districts.

The DEIR, in many places, purports to describe the future construction projects by reference to applicable development standards and "analyzes" impacts based on an assumption that future proposals will conform thereto. (See, e.g., DEIR 57 [stating that structures will be consistent with Zoning Ordinance height limits for single-family homes and accessory structures].) While such a theoretical or "conceptual" approach may be proper for program-level review of development proposals that do not yet exist, it is utterly inadequate for a project-level EIR. This is especially true with respect to land use impacts—the General Plan and Zoning Ordinance consistency determination, in particular. Under the DEIR's approach, that inquiry would essentially amount to a determination that the Plan and Ordinance are consistent with themselves, which does not constitute a realistic assessment of any specific construction project.

The purpose of an EIR is "to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment." (§ 21061; see also *Environmental Planning & Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 354.) Accordingly, an EIR's validity depends, in large part, upon "whether it provides the information necessary for the decisionmakers and the public to understand the nature and environmental consequences of the [p]roject." (*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 355-356.)

This DEIR does not, and cannot in the absence of proposed construction projects, contain the detail necessary to conduct realistic, project-level review of the potential land use impacts of “full buildout” of the Hunter Subdivision. (DEIR 59-60.) As a result, the City’s approval of future construction proposals, including design review for dwellings and building permits, must be preceded by additional CEQA review.

H. Traffic Impacts.

As explained as explained in the attached review of the DEIR by Civil and Traffic Engineer Dan Smith, the DEIR does not include the full traffic study prepared for the Hunter Subdivision and the DEIR does not explain or summarize many important and fundamental assumptions underlying the traffic study’s conclusions. (Exhibit 4 [July 9, 2012 Letter of Dan Smith].) By presenting only the study’s conclusions, the DEIR fails to provide any facts or rational supporting the findings therein and the DEIR fails as an informational document.

1. The DEIR’s Baseline For Traffic Impacts Is Not Explained or Supported.

The DEIR estimated existing conditions by

Conducting November 2011 traffic counts at 11 key intersections during the weekday AM and PM peak commute periods, and Saturday PM peak period. Counts were then factored to fall harvest conditions in order to present peak season traffic conditions.

(DEIR 301, 310.) However, as explained by Civil and Traffic Engineer Dan Smith, the DEIR does not explain how the counts were “factored” or the bases for the factors used:

[T]he adjustment factors and the derivation thereof is completely unexplained in the DEIR. Consequently, the public has no way of assessing whether or not the adjusted baseline counts adequately represent peak harvest season conditions.

(Exhibit 4 at p. 1.) As a result, it is impossible to determine whether the figures in the DEIR accurately reflect existing conditions. By failing to explain baseline assumptions, the EIR does not “present information in a manner calculated to reasonably inform the public and decisionmakers about the project, which contributed to its inadequacy as an informational document.” (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 95.) Indeed, because the existing conditions are an integral component of impacts analysis—the baseline against which Project-related traffic projections are compared—the DEIR’s failure to provide any explanation of the methodology or bases for its existing condition figures renders the entire analysis unreliable.

Additionally, the map of the Project area prepared by the City’s traffic consultant as part of its analysis incorrectly depicts Railroad Avenue as being continuous from Hunt Avenue to Pope Street, whereas, in actuality, Railroad Avenue dead-ends south of Hunt, about halfway to Pope. (Exhibit 4 [July 9, 2012 Letter of Dan Smith] at p. 2, citing DEIR Figure IV.L-1.) If the traffic impacts analysis included this nonexistent road extension in its underlying assumptions—a matter

not revealed in the DEIR—the analysis is, of course, not representative of reality. Failure to clearly define the Project area, as considered in the traffic analysis, renders the DEIR inadequate as an informational document.

J. Public Review.

The City impaired the public's right to fully and meaningfully review the adequacy of the DEIR's findings and scope by withholding basic information referenced and relied upon in the DEIR. Not only were the documents referenced in the DEIR unavailable for the entire comment period, the City refused to provide them, despite repeated requests.

On July 3, 2012, I requested access to the DEIR's appendices and a range of other materials referenced in the DEIR, which were not included with the copy of the DEIR posted at the City's website. These documents include technical information forming the basis of the DEIR's impacts analysis, such as the complete traffic study, the 2012 St. Helena water metering study used to calculate the Project's potable water demand, an assessment of the existing conditions on the Project site, the geotechnical reports prepared for the Project site in 2009 and 2011, and many others. Thereafter, the City posted the DEIR's appendices on its website and mailed this office a CD containing the DEIR and its appendices. However, the CD and website still do not include the requested reference materials. On July 5, 2012, our client's member, Mr. Chuck Vondra, contacted the City, again providing the City with the requested list of documents referenced in the DEIR. I again sent this list to the City on July 6, 2012.

On July 10, 2012, the City emailed a revised list of documents referenced in the DEIR and two documents that had been revised earlier in the week. The City asserted that this comprised all of the information previously requested. However, we did not request two newly revised studies and a revised *list of* references—we requested the actual documents referenced and relied upon in the DEIR. We made clear that these documents were necessary to review the adequacy of the DEIR's impacts analysis.

The City also asserted that all of the material previously requested has been available in a CD at the City's desk since the my initial request. However, the CD left at the front desk, at my request, was to be identical to the one mailed to my office. As stated, the CD mailed to my office does not include any of the material cited in the DEIR's "references" section—it includes only the DEIR and its appendices.

On July 12, 2012, another of our client's members, Mr. Greg David, went to City Hall and again requested the documents referenced in the DEIR (including those previously requested, documents included in the new DEIR references list, and the versions of two recently "revised" documents that were actually relied upon in the DEIR¹⁰). The attendant told Mr. David that only

¹⁰ One of the recently "revised" documents included in the City's July 10, 2012 email—"53a - City of St. Helena 2012. Meter Study"—contains only data from the City's water metering study.

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Greg Desmond or Gary Broad, the city Manager, could provide the requested material and directed him to complete a form with his name, contact information, and information sought. The City did not furnish the CD, which purportedly contained all of the information sought, to Mr. David.

In a July 11, 2012 letter, a law firm representing the City as City Attorney asserted that the City need not make the documents referenced in the DEIR available during the public comment period—even if these documents include the underlying data, studies, surveys, and analysis that form the basis of the DEIR's analysis and conclusions. (July 11, 2012 letter of Karen Murphy at pp. 1-2.) In the City's view, it need only share with the public documents "incorporated by reference" into the DEIR. This is absurd.

Under CEQA Guidelines section 15087, subdivision (c), agencies must make "copies of the EIR and all documents referenced in the EIR" available for public review during the public review period. (Guidelines, § 15087, subd. (c) (emphasis added).) The documents must be "readily accessible to the public during the lead agency's normal working hours." (*Id.*)

Section 15087 is not limited to the documents "incorporated by reference" pursuant to Guidelines section 15150, nor would that make any sense in light of the nature of material that may be so incorporated. Under section 15150, "[a]n EIR . . . may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public." (Guidelines, § 15150, subd. (A) (emphasis added).) Many of the documents "referenced in" the DEIR are not publicly available—the traffic analysis, geotechnical surveys of the property, and the City's water meter study, for example—and thus may not be "incorporated by reference. Further, it is nonsensical to read CEQA as requiring an agency to make available documents which are already publicly available, but permitting concealment of those which are not. This runs contrary to the most fundamental disclosure and transparency purposes of CEQA.

Instead, the technical information, data, and analysis underlying the DEIR's discussion and conclusions must be available to the public. While it need not be included in the body of an EIR, it must, at a minimum, be included in appendices:

The information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily

It is entirely inappropriate to "revise" the data upon which the DEIR relied after circulation of the DEIR. The City must release earlier version of this document to enable the public to determine the adequacy of the DEIR in light of the data upon which it relied. Data which has been made to conform to the DEIR's analysis and conclusions is utterly meaningless.

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available for public examination and shall be submitted to all clearinghouses which assist in public review.

(Guidelines, § 15147 (emphasis added).)

That the City failed to include the relevant technical data and analysis relied upon in the DEIR in its appendices, no doubt, violates Guidelines section 15147 and handicaps the public's ability to fully and meaningfully review the DEIR. But the City's steadfast refusal to provide this information upon specific request, combined with a hollow justification for failure to so, demonstrates something far more insidious—willful concealment of the information necessary to assess the City's CEQA compliance. This is beyond the pale.

The City is required by law to renote CEQA's full, statutory 45-day comment period on the DEIR, after it makes the documents referenced in the DEIR available for public review. (Pub. Resources Code, § 21091, subd. (a).) Any failure to do so would impermissibly violate CEQA's most fundamental disclosure and public participation objectives and procedures. (Guidelines, § 15088.5, subd. (a)(4); *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130 (*Laurel Heights II*); *Mountain Lion Coalition v. Fish & Game Com.* (1989) 214 Cal.App.3d 1043, 1052.)

Thank you for your attention to this matter.

Very Truly Yours,



Kelly A. Franger

enclosures:

Exhibits 1-8, in relevant part, are attached in hardcopy hereto. Full copies of all exhibits, along with sub-exhibits to the letters of Mr. Kammon and Mr. Hagar are located on the CD submitted herewith, as per your July 12, 2012 discussion with Amelia Mooney of this office. We will submit all exhibits and sub-exhibits in hard copy upon request.

EXHIBIT 1



July 10, 2012

Thomas N. Lippe
Lippe Gaffney Wagner LLP
329 Bryant Street, Suite 3D
San Francisco, CA 94107

Subject: Review of Draft EIR
Hunter Subdivision Project, St. Helena, CA
SCH: 2012032048

Dear Thomas:

I am a hydrologist with over twenty five years of technical and consulting experience in the fields of geology, hydrology, and hydrogeology. I have been providing professional hydrology services in California since 1991 and routinely manage projects in the areas of surface- and groundwater hydrology, water supply, water quality assessments, water resources management, and geomorphology. Most of my work is located in the Coast Range watersheds of California, including the Northern and Southern San Francisco Bay Counties. My areas of expertise include: characterizing and modeling watershed-scale hydrologic and geomorphic processes; evaluating surface- and ground-water resources/quality and their interaction; assessing hydrologic, geomorphic, and water quality responses to land-use changes in watersheds and causes of stream channel instability; and designing and implementing field investigations characterizing surface and subsurface hydrologic and water quality conditions. I co-own and operate the hydrology and engineering consulting firm Kamman Hydrology & Engineering, Inc. in San Rafael, California (established in 1997). I earned a Master of Science in Geology, specializing in Sedimentology and Hydrogeology as well as an A.B. in Geology from Miami University, Oxford, Ohio. I am a Certified Hydrogeologist (CHg) and a registered Professional Geologist (PG).

I have reviewed the Hunter Subdivision Project Draft EIR (DEIR)(SCH: 2012032048), prepared by Urban Planning Partners, Inc. for the City of St. Helena and dated May 29, 2012. The purpose of this letter is to provide you with an independent opinion regarding potential significant hydrologic impacts to the environment associated with the proposed project. In addition to reviewing the DEIR, I have reviewed the following documents and rely on technical information contained in these documents to help formulate my opinions:

- City of St. Helena, 2011, Water supply and demand conditions update. Staff report to Mayor and City Council, April 12, 2012, 64p.
- City of St. Helena, 2005, City of St. Helena stormwater management standards, construction and post-construction. September 13, 46p.

- Duarte, J., 2012, Council critical of water report. Article in St. Helena Star, April 19.
- Luhdorff & Scalmanini Consulting Engineers, 2011, Executive Summary, Napa County comprehensive groundwater monitoring program. Prepared for Napa County, February, 35p.
- Luhdorff & Scalmanini Consulting Engineers, 2011, Napa County groundwater conditions and groundwater monitoring recommendations. Prepared for Napa County, Department of Public Works, February, 608p and 1 plate.
- Nakano, G. and Connell, J., 2005, 2005 Napa Valley Resources Study, Napa County Municipal and Industrial Demands, Incorporated areas. Technical Memorandum No. 2 prepared for Don Ridenhour, Project Manager, by West Yost & Associates, October 19, 68p.
- Nakano, G. and Connell, J., 2005, 2005 Napa Valley Resources Study, Napa County Incorporated areas Water Supplies. Technical Memorandum No. 4 prepared for Don Ridenhour, Project Manager, by West Yost & Associates, October 19, 28p.
- Nakano, G. and Connell, J., 2005, 2005 Napa Valley Resources Study Project, Comparison of demand projections and supply capacities. Technical Memorandum No. 6 prepared for Don Ridenhour, Project Manager, by West Yost & Associates, October 19, 66p.
- Nakano, G. and Connell, J., 2005, 2005 Napa Valley Resources Study Project, Potential local and regional water supply projects. Technical Memorandum No. 7 prepared for Don Ridenhour, Project Manager, by West Yost & Associates, October 19, 28p.
- Napa County Dept. of Conservation, Development and Planning, 2009, Napa County General Plan (2008), Conservation Element: Water Resources. June 23.
- Stetson Engineers, Inc., 2008, Methodology and sources of information, delineation of subterranean streams and potential streamflow depletion areas – policy for maintaining instream flows in Northern California coastal streams. Draft technical memorandum, May 16, 49p.
- Stetson Engineers, Inc., 2008, Approach to delineate subterranean streams and determine potential streamflow depletion areas – policy for maintaining instream flows in Northern California coastal streams. Technical memorandum, February 28, 10p.
- Stetson Engineers, Inc., 2008, Delineation of subterranean streams and potential stream depletion areas, Saint Helena Quadrangle. February 20, 1 map sheet.
- United States Geological Society (USGS), 2012, USGS Surface-Water Data for California, monthly discharge statistics for USGS gauge #11456000, Napa River near St. Helena, CA, retrieved July 1, 2012, 18:38 EDT, http://waterdata.usgs.gov/ca/nwis/dv/?site_no=11456000&agency_cd=USGS&referred_module=sw.

Based on my review of the DEIR and the documents and data listed above, it is my professional opinion that the project has the potential to impart significant adverse impacts to vicinity groundwater and summer surface water base flow in the Napa River.

In addition, storm water runoff from the project site has the potential to increase flood risks along the Napa River as well as within the project boundaries. The rationale for these opinions is provided below.

1.0 Potential Depletion of Groundwater and Napa River Base Flows

The DEIR does not provide an evaluation of the potential project induced changes in groundwater conditions and associated summer base flows in the Napa River due to the combined effects of increased domestic household demands on the City's water supply and increased pumping from the on-site irrigation well. The DEIR states the following at the top of page 274:

Groundwater is a reliable resource in the area and will continue to reliably serve as part of the City's water supply portfolio in the future without concern of overdraft. As documented in the February 2011 report to the County of Napa Conservation Development and Planning Department regarding groundwater conditions throughout the County, "Groundwater levels have been generally stable [in the St. Helena region] over time and do not exhibit any long-term trends." Based on this and other information from the report, the City's target average use of 450 AF per year (AF/year) is conservative and well within the capacity of the groundwater basin for the foreseeable future. Figure IV.K-1 shows the current groundwater trends in the area as presented in the county groundwater study.

I disagree with the DEIR's contention that groundwater conditions are stable within the Napa Valley within the project vicinity for the following reasons.

- A) Careful examination of the hydrographs (plots of groundwater table elevations over time) presented in DEIR as figure IV.K-1 and the report from which these figures were taken (Luchdorff & Scalmanini's 2011 groundwater conditions letter report cited above) indicate that there are numerous wells in the St. Helena area that display marked declines in the groundwater table elevation over the past four decades. Three of the six St. Helena Subarea well hydrographs presented in the DEIR figure IV.K-1 contain only a decade of monitoring data and don't capture long-term changes.

To aid in further discussion, the available hydrographs presented in the DEIR figure are reproduced here, as copied from the Appendix of the Luchdorff & Scalmanini report. In reviewing the hydrographs there are a number of features that are similar in each. First, the hydrographs plot water levels measured in both winter and summer periods and the annual variability in water level reflects the seasonal rise and decline between winter wet and summer dry conditions. It also appears that winter water table levels are very shallow as indicated by the relatively low depth-to-water values provided on the right-hand Y-axis of each graph. Of the hydrographs presented below, only Hydrograph A and D display no clear decline in groundwater levels over time. Although Hydrograph A only captures the last decade, Hydrograph B, which spans a similar period as Hydrograph A, indicates a clear decline in the groundwater levels since about 2002. Hydrographs C, E and F all display remarkably similar traits that suggest significant depletion in groundwater levels over time. First, prior to about 1974, there is relatively little seasonal fluctuation in water levels suggesting groundwater levels remained relatively stable and shallow year-round. After 1974, Hydrographs C, E and F all display a dramatic increase in the seasonal fluctuation in

water levels and although the winter water levels return to a similar shallow condition each year, the summer water table drop increases progressively in magnitude over time.

The cause for declining summer water levels over time in the St. Helena subarea aquifer is not clear and may be related to increased groundwater withdrawal and/or reduced groundwater recharge. Regardless of the cause, it appears to me that the local area aquifer is not stable and may be reflecting the effects of depleted groundwater supplies, which is contrary to the conclusion in the DEIR of stable groundwater conditions.

Hydrography A

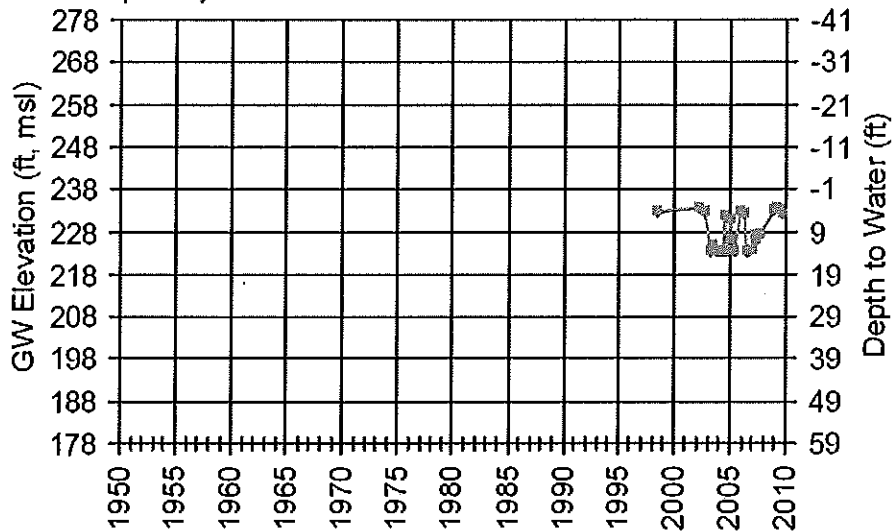
WellID: T0605500168RW-1

RPE: 236.51 ft, msl

SWN: Unknown

Source: Geotracker

Subarea: Napa Valley Floor-St. Helena



Hydrography B

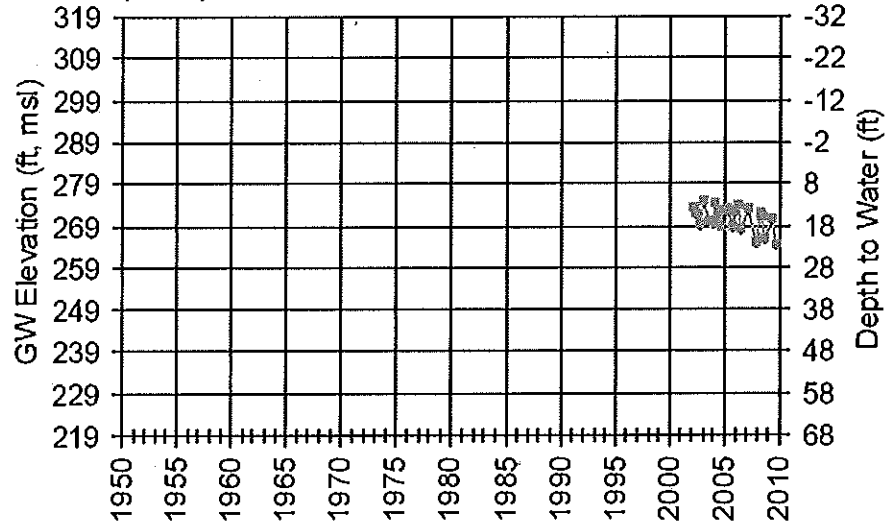
WellID: T0605500143MW-1

RPE: 286.61 ft, msl

SWN: Unknown

Source: Geotracker

Subarea: Napa Valley Floor-St. Helena



Hydrography C

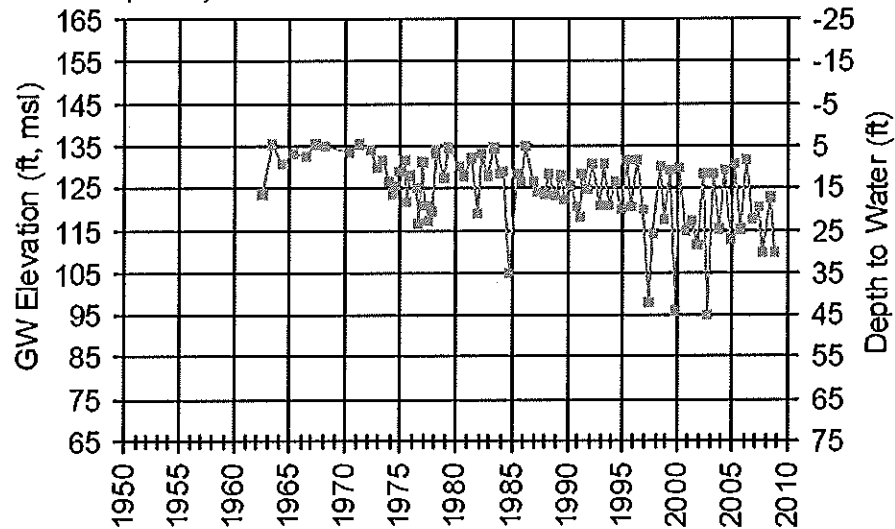
WellID: NapaCounty-132

RPE: 140 ft, msl

SWN: 007N005W14B002M

Source: NapaCounty

Subarea: Napa Valley Floor-St. Helena



Hydrography D

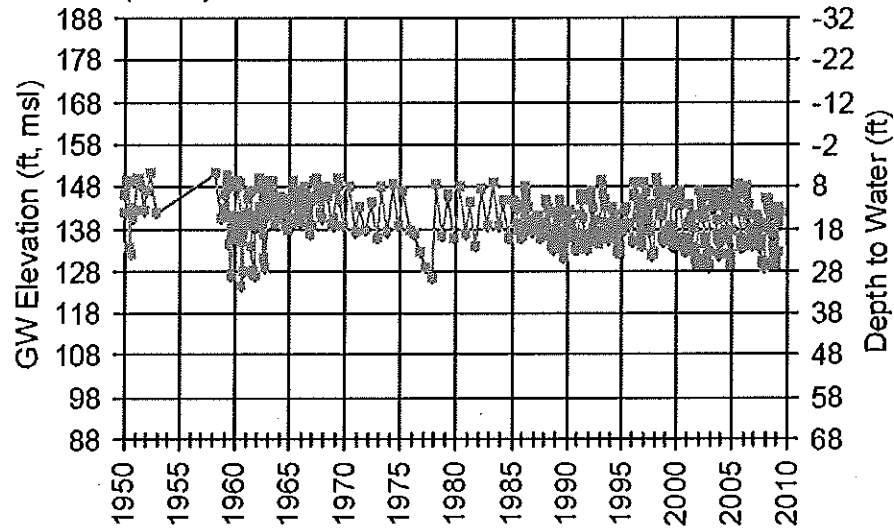
WellID: 07N05W09Q002M

RPE: 155.5 ft, msl

SWN: 007N005W09Q002M

Source: DWR

Subarea: Napa Valley Floor-St. Helena



Hydrography E

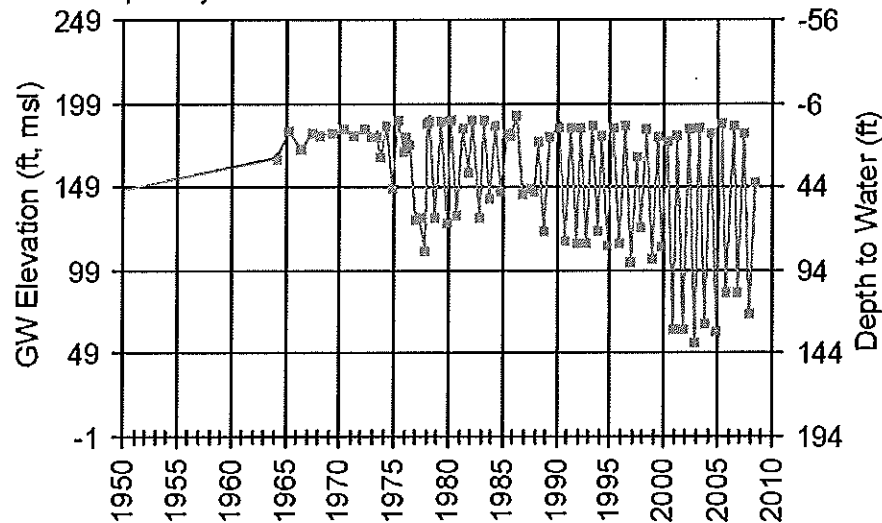
WellID: 07N05W16N002M

RPE: 193.1 ft, msl

SWN: 007N005W16N002M

Source: DWR

Subarea: Napa Valley Floor-St. Helena



Hydrography F

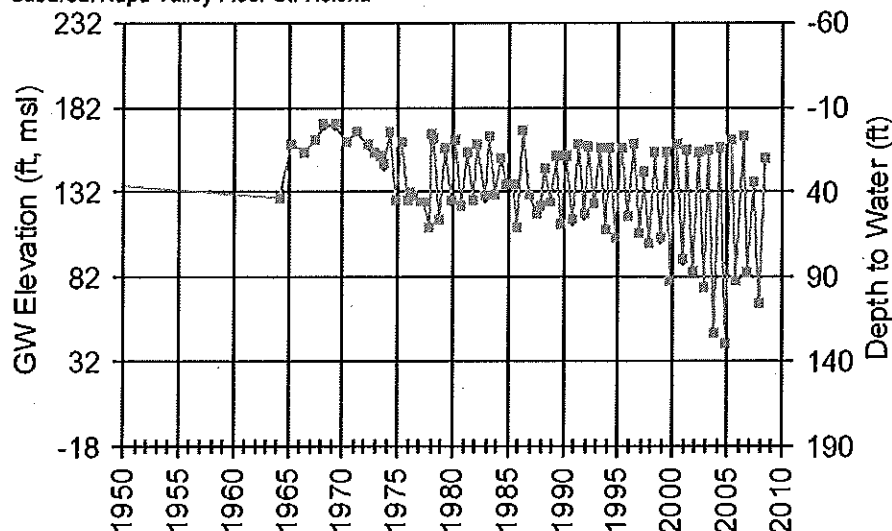
WellID: 07N05W16L001M

RPE: 171.8 ft, msl

SWN: 007N005W16L001M

Source: DWR

Subarea: Napa Valley Floor-St. Helena



- B) Another reason I believe shallow groundwater conditions are depleted within the project area is based on review of available stream flow records on the Napa River within the St. Helena groundwater sub-basin. Because the local area groundwater levels are very shallow, it is very likely that there is considerable surface water – groundwater interaction between the Napa Valley alluvial aquifer and the Napa River. During the winter rains, rainfall and high river flows infiltrate and recharge the aquifer, leading to the high winter groundwater levels illustrated in the hydrographs above. During the summer when river flows are low, it is very common for groundwater from alluvial aquifers to recharge the river channels, maintaining the perennial (year-round) flows. This relationship gets disrupted when development leads to groundwater pumping, which lowers the groundwater table, effectively disconnecting groundwater recharge into the river channel. Locally, within the Napa River, this relationship is further complicated by river releases from the upstream Kimball Creek and Ball Canyon Reservoirs.

In working on behalf of the California Department of Water Resources to develop a minimum instream flow policy for the State, Stetson Engineers (see citations above) have completed comprehensive studies and mapping of Northern California coastal streams to delineate Potential Stream Depletion Areas (PSDA). PSDA's are areas where topography and geologic conditions indicate that groundwater pumping could cause stream depletion and adversely impact (deplete) instream flows and associated aquatic habitat. Based on their work in Napa Valley, Stetson classified the entire

Napa River valley between the city of St. Helena and the River, including the entire Hunter Project area, as a Potential Stream Depletion area¹.

Table 1 presents the average monthly and annual flow rates (cubic feet per second; cfs) in the Napa River as reported by the United States Geological Survey for their stream flow monitoring gauge #11456000 on the Napa River near St. Helena (a short distance downstream of the Hunter Project site) for measurements collected since October of 1929. These monthly data are organized according to Water Year². Of particular interest in this data set is the complete dry-down of the river channel during August and September of 2007, 2008 and 2009. In addition, the river completely dried down in July of 2007 and 2008 as well as October of 2009. The only other time the river has dried down during the summer-fall period was in 1976 and 1977, in response to the severe drought when average annual flow rates at the USGS gauge were 5.0- and 1.9-cfs, respectively. Although 2007-2009 were drier than average years (average annual flow rates of 29.6-, 60.2- and 44.3-cfs, respectively), they did not approach the severe drought condition experienced in 1976-77. In reviewing the flow record presented in Table 1, there were no other historic occurrences during comparably dry periods when the river dried up. Therefore, apart from some other reason that the river was depleted of flow (such as cessation of upstream reservoir releases or construction dewatering) it is reasonably plausible that the depleted summer aquifer conditions that have evolved over time and as indicated in the groundwater level hydrographs above, have lead to the summer dry-down of the Napa River in the project vicinity.

- C) As presented in the DEIR, water supply studies by West Yost (see citations above) have concluded that future water demands within the City of St. Helena will exceed the City's water supply safe yield estimate of 1950 acre-feet/year (AF/yr). Until 2009, City water use has exceeded the safe yield estimate. The DEIR contends that, because recent annual water use totals have been declining and falling below the safe yield threshold, there is sufficient water to support new development. A problem I foresee in this conclusion is that the DEIR has not presented an analysis of supply and demand estimates based on future development scenarios (e.g., Likely Build-out and Full Build-out scenarios) like those being used by the City to revise their General Plan update. In short, the DEIR proponents have not demonstrated that the increases in project water demands (i.e., the combined effect of increased domestic demands and increased groundwater pumping from their irrigation well) alone, or in combination with projected future development, will not exceed the City's safe yield estimate; substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a continued lowering of the local groundwater table. In addition, the project

¹ Stetson Engineers further define Potential Stream Depletion Areas as areas where stream and adjacent alluvial aquifers are hydraulically connected, where groundwater pumping can potentially deplete streamflow.

² The USGS defines a water year as the 12-month period October 1, for any given year through September 30, of the following year. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1999 is called the "1999" water year.

TABLE 1: Average Monthly and Annual Flow Rates at USGS Stream Gauge:
Napa River near St. Helena (WY1930 – WY2011)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Ann Avg
1930	0.1	0.5	320.7	201.5	162.7	174.2	26.2	13.4	4.8	1.8	0.5	0.4	75.6
1931	0.4	0.5	1.0	31.1	9.0	27.9	8.6	4.0	0.8	0.1	0.1	0.1	7.0
1932	0.1	0.1	340.3	159.0	105.7	24.5	13.6	10.6	4.6	1.4	0.3	0.1	55.0
1939													
1940	0.1	0.1	0.2	306.6	863.7	485.3	139.1	22.9	11.5	4.8	2.6	1.3	153.2
1941	0.9	2.8	444.0	683.0	537.3	328.0	489.1	38.8	14.5	7.7	4.4	3.1	212.8
1942	1.6	3.5	337.5	371.0	826.3	137.0	242.8	51.7	15.9	7.0	3.2	1.6	166.6
1943	1.2	22.1	95.0	525.3	140.9	142.4	45.5	22.4	8.9	4.3	1.9	0.7	84.2
1944	0.5	1.1	2.6	20.5	200.4	230.5	24.8	13.9	7.0	2.8	1.3	0.6	42.2
1945	0.7	21.8	39.1	47.5	361.8	156.1	48.2	18.1	6.4	3.0	1.3	1.1	58.6
1946	1.3	42.5	479.1	152.2	49.1	44.2	40.8	12.1	4.3	1.6	0.9	0.5	69.0
1947	0.5	11.8	42.8	7.7	115.7	133.4	43.6	9.3	4.1	1.0	0.7	0.2	30.9
1948	3.3	4.5	4.8	53.0	10.4	87.5	227.8	60.6	15.3	4.1	1.8	0.8	39.5
1949	0.7	1.6	23.9	28.7	107.1	388.0	34.5	12.7	3.0	1.9	1.2	0.5	50.3
1950	0.4	0.6	3.4	205.4	359.4	91.0	48.5	13.9	4.5	1.3	0.9	0.5	60.8
1951	2.3	137.3	450.4	384.8	175.0	120.6	24.5	21.5	6.2	2.8	1.3	0.9	110.6
1952	1.1	22.2	360.7	770.6	310.1	263.5	46.2	16.9	6.3	2.7	1.4	1.0	150.2
1953	0.6	1.8	445.8	618.0	47.6	115.7	67.7	35.0	11.6	3.3	1.7	1.3	112.5
1954	2.0	12.9	9.8	284.8	316.5	197.5	185.0	23.8	7.0	1.9	1.3	0.3	86.9
1955	0.5	23.5	60.3	86.8	39.5	24.9	41.4	16.8	4.1	0.9	0.2	0.0	24.9
1956	0.1	0.8	1088.0	847.6	728.8	92.4	31.7	24.8	6.1	1.7	0.9	0.1	235.2
1957	2.8	3.1	3.6	21.5	220.3	144.5	39.0	75.3	14.6	2.4	0.8	0.6	44.1
1958	22.3	14.5	82.8	293.8	1107.0	378.3	490.7	29.7	11.4	4.3	1.7	0.9	203.1
1959	1.0	1.7	2.8	77.5	274.3	39.2	14.9	5.5	0.9	0.1	0.0	1.1	34.9
1960	0.6	0.9	2.1	28.3	456.3	186.4	37.6	13.2	3.0	0.7	0.2	0.5	60.8
1961	0.3	3.0	28.5	71.9	182.9	116.4	41.7	12.6	3.9	0.5	0.4	0.4	38.5
1962	0.2	4.4	34.6	31.2	509.1	229.7	32.4	10.3	2.8	1.1	0.6	0.1	71.4
1963	178.9	13.9	143.6	321.4	393.6	162.2	367.2	45.9	14.1	4.3	2.6	1.2	137.4
1964	3.0	75.3	18.8	168.3	32.8	22.2	10.5	5.0	2.4	0.5	0.3	0.2	28.3
1965	1.0	40.7	685.7	607.6	67.6	24.9	148.1	27.5	8.5	2.6	1.8	1.4	134.8
1966	1.4	33.3	86.8	457.7	198.9	62.3	27.5	11.5	4.1	1.4	0.4	0.8	73.8
1967	1.1	68.4	352.6	753.2	158.3	234.6	317.2	53.9	27.3	6.5	2.6	1.5	164.8
1968	2.1	6.2	32.5	257.1	267.8	170.7	27.6	10.7	3.0	0.7	1.6	1.1	65.1
1969	1.8	4.6	239.1	905.7	696.6	192.6	52.3	19.1	7.4	2.9	2.1	1.3	177.1
1970	3.9	4.8	354.0	1338.0	240.8	174.7	24.0	10.5	4.4	2.3	1.1	1.2	180.0
1971	2.6	174.5	737.2	298.3	50.1	132.6	47.9	18.0	7.2	2.4	1.2	0.7	122.7
1972	0.7	3.0	47.9	53.3	98.4	38.5	20.8	9.1	3.2	1.1	0.3	0.5	23.1
1973	7.1	64.4	104.0	690.9	470.6	205.6	39.1	13.9	6.0	2.4	0.8	1.1	133.8
1974	8.5	414.5	279.6	474.8	158.9	556.4	219.5	24.6	10.1	5.8	3.1	2.9	179.9
1975	3.0	3.8	16.3	25.5	541.7	486.9	79.6	24.4	8.1	3.9	1.8	1.9	99.7
1976	5.7	7.8	6.4	6.5	7.5	10.3	11.4	3.5	1.2	0.0	0.0	0.2	5.0
1977	0.5	1.7	2.4	3.7	4.3	7.5	1.8	0.9	0.1	0.0	0.0	0.0	1.9
1978	0.0	39.9	145.7	755.5	429.3	294.1	90.5	26.2	8.3	2.8	1.4	1.3	149.6
1979	1.1	2.1	2.4	124.5	343.2	137.3	53.9	30.6	7.1	2.7	1.4	0.7	58.9
1980	7.2	14.2	124.0	564.1	619.2	179.6	40.9	17.2	6.5	2.2	1.1	0.8	131.4
1981	1.0	1.8	50.6	232.6	111.6	120.1	40.5	12.6	3.0	0.8	0.8	0.4	48.0
1982	3.2	222.5	598.4	477.7	444.1	329.4	583.9	38.8	14.4	5.9	2.8	6.4	227.3
1983	8.6	155.7	283.0	540.6	867.4	1144.0	145.8	93.0	19.5	7.3	3.4	2.4	272.6
1984	3.4	297.8	757.9	121.7	85.9	84.8	32.9	13.4	7.3	2.8	3.5	1.1	117.7
1985	3.1	125.0	70.1	42.5	219.0	100.9	45.9	13.0	6.3	0.7	1.0	1.7	52.4
1986	1.7	6.4	30.6	136.0	1798.0	442.5	44.8	19.9	7.7	3.6	1.6	2.7	208.0
1987	2.2	2.2	3.7	14.0	117.3	136.3	24.3	7.9	2.8	0.8	0.4	0.2	26.0
1988	0.8	4.3	151.7	253.3	39.2	14.1	12.1	9.1	4.9	1.1	0.5	0.4	41.0
1989	0.5	21.6	33.2	24.3	12.5	378.4	42.1	13.9	5.6	1.5	0.6	0.8	44.6
1990	6.6	8.2	4.7	72.8	98.3	38.0	12.8	27.1	14.1	3.2	0.9	0.5	23.9
1991	0.8	1.6	2.2	2.2	8.6	484.8	46.7	15.5	4.7	2.0	0.7	0.3	47.5
1992	1.1	2.0	5.5	9.3	229.7	136.8	33.6	11.9	4.2	1.9	0.4	0.2	36.4
1993	2.0	2.2	135.2	779.9	398.4	105.8	48.3	21.1	15.6	3.3	1.0	0.4	126.1
1994	0.5	3.1	42.3	35.3	144.2	31.2	14.1	8.8	2.9	0.5	0.2	0.1	23.6
1995	0.1	10.6	48.1	1186.0	148.3	929.4	108.3	104.7	20.0				
1996													
1997													
1998													
1999													
2000									7.7	2.9	0.8	0.4	
2001	3.5	5.0	5.4	48.6	229.8	164.4	20.8	8.3	2.0	0.5	0.4	0.2	40.7
2002	0.2	38.2	481.7	332.5	79.2	97.8	31.5	14.0	3.9	0.8	0.3	0.3	90.0
2003	0.1	4.2	792.5	355.5	115.3	121.0	135.2	126.1	18.6	4.9	1.5	0.5	139.6
2004	0.3	3.9	306.0	222.4	615.3	106.3	29.4	12.8	3.6	1.2	0.4	0.2	108.5
2005	3.3	7.6	236.1	286.5	144.6	281.2	79.0	130.9	28.2	7.1	1.5	0.6	100.5
2006	1.0	3.4	680.1	399.7	242.4	521.1	441.2	46.2	13.6	4.0	1.1	0.3	196.2
2007	0.4	3.9	42.5	15.6	210.9	58.0	16.4	6.3	1.4	0.0	0.0	0.0	29.6
2008	0.3	1.1	32.3	363.2	262.4	42.8	13.4	6.2	1.3	0.0	0.0	0.0	60.2
2009	0.0	2.6	9.6	5.7	284.7	195.0	8.5	21.8	2.9	0.6	0.0	0.0	44.3
2010	3.3	1.3	9.4	384.8	213.2	181.0	219.6	35.0	11.4	3.1	1.1	0.1	89.6
2011	13.8	16.7	293.0	103.8	274.6	706.0	77.0	24.5	21.8	5.9	1.7	0.2	128.3
Long-Term Annual Average													93.7

proponents have not completed even the simple analytical solutions presented by Stetson Engineers in their February 28, 2008 Technical Memorandum as the "Jenkins" approach to quantify the potential stream depletions in the Napa River due to pumping of on-site and City production wells. This analysis is likely necessary given how close the project irrigation well is to the Napa River (approximately 2000-feet), given the statement by Stetson that, "The depletion rate for any specific time is most influenced by the distance of the pumping well from the stream." (see bottom of page 9 of Stetson's February 28, 2008 Technical memorandum).

- D) A final line of evidence that groundwater conditions are depleted in the project vicinity comes from a statement that Mayor Del Britton provided to the St. Helena Star, where he states, "he's talked to three or four people who've had their wells go dry." The seasonal dry-down of wells reported by the Mayor would certainly be consistent with the pattern of declining summer water levels in local area wells presented in Hydrographs B, C, E and F, above. The St. Helena Star article (April 19, 2012) also quotes a couple Council Members who are skeptical about the West Yost conclusion that the local aquifer would be able to sustain increased pumping to boost water supply.

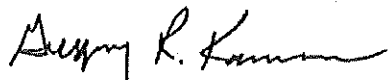
2.0 Potential Increase in Peak Flows on Napa River

The DEIR does not present any technical analyses or rationale about whether the project will increase storm water flow in the Napa River (receiving water) in response to the creation of increased impervious areas. Although the DEIR acknowledges County General Plan and City Stormwater Management Standards, there is no discussion or presentation of the necessary analyses or findings related to increases in peak flood flow and hazards to receiving water bodies. For example, as stipulated in the City's 2005 Stormwater Management Standards, projects that create over 10,000 square feet of new impervious surfaces are required to prepare a Stormwater Runoff Management Plan. Yet, even with the creation of what appears to be well over 10,000 square feet of road alone, it appears that the project proponents have not completed the necessary analyses or plan nor have they evaluated if the project will increase the magnitude of the 5- and 10-year storm flows or base flood elevations in the Napa River³. Although the DEIR does address the adequacy of the internal project storm drainage capacity, it fails to evaluate or address how the project may substantially increase the rate or amount of flow in receiving waters and downstream areas. Potential impacts from increase storm water runoff includes, increased downstream water levels and flood hazards along with increased erosion potential and water quality impacts.

³ As presented in the table on page 227 of the DEIR, Implementing Action PF3.E of the County Draft General Plan Update states, "At the time of development review, require that post-project runoff be limited to pre-project peak flow rates for the five-year and ten-year storms as a condition of approval."

If you have any questions or wish to discuss these opinions and conclusions further, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Greg R. Kamman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Greg Kamman
Principal Hydrologist

EXHIBIT 1-1

Greg Kamman, PG, CHG
Principal Hydrologist



EDUCATION	1989	M.S. Geology - Sedimentology and Hydrogeology Miami University, Oxford, OH
	1985	A.B. Geology Miami University, Oxford, OH
REGISTRATION	No. 360	Certified Hydrogeologist (CHG.), CA
	No. 5737	Professional Geologist (PG), CA
PROFESSIONAL HISTORY	1997 - Present	Principal Hydrologist/Vice President Kamman Hydrology & Engineering, Inc. San Rafael, CA
	1994 - 1997	Senior Hydrologist/Vice President Balance Hydrologics, Inc., Berkeley, CA
	1991 - 1994	Project Geologist/Hydrogeologist Geomatrix Consultants, Inc., San Francisco, CA
	1989 - 1991	Senior Staff Geologist/Hydrogeologist Environ International Corporation, Princeton, NJ
	1986 - 1989	Instructor and Research/Teaching Assistant Miami University, Oxford, OH

SKILLS AND EXPERIENCE

As a hydrologist with over twenty years of technical and consulting experience in the fields of geology, hydrology, and hydrogeology, Mr. Kamman routinely manages projects in the areas of surface- and ground-water hydrology, stream and wetland habitat restoration, water supply, water quality assessments, water resources management, and geomorphology. Areas of expertise include: stream and wetland habitat restoration; characterizing and modeling basin-scale hydrologic and geologic processes; assessing hydraulic and geomorphic responses to land-use changes in watersheds and causes of stream channel instability; evaluating surface- and ground-water resources and their interaction; and designing and implementing field investigations characterizing surface and subsurface conditions. In addition, Mr. Kamman commonly works on projects that revolve around sensitive fishery, wetland, animal and/or riparian habitat issues and problems. Thus, Mr. Kamman is accustomed to working within a multi-disciplined team and maintains close collaborative relationships with biologists, engineers, planners, architects, lawyers, and various agency staff.

PROFESSIONAL SOCIETIES & AFFILIATIONS	American Geological Institute Society for Ecological Restoration International California Native Plant Society
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EXHIBIT 2



Hagar Environmental Science

11 July, 2012

Thomas N. Lippe
Lippe Gaffney Wagner LLP
329 Bryant Street, Suite 3D
San Francisco, CA 94107

RE: DEIR, Hunter Subdivision Project, St. Helena, California

Dear Mr. Lippe:

I am a fisheries biologist with over twenty-seven years of technical and consulting experience in California, primarily in the Central Coast region. I provide information, analysis, and research services to water resource agencies, utilities, public agencies, environmental organizations, and private clients. My primary areas of expertise are in fisheries and aquatic issues as they relate to water resource management and aquatic species conservation. Specialized technical services have included fish population and fish habitat assessments; development of fisheries and water resource management and restoration plans; permitting of habitat restoration and passage improvement projects; fish passage assessment and remediation; Endangered Species Act compliance; habitat conservation plans; and CEQA/NEPA documentation. I am the principal and senior biologist of Hagar Environmental Science (since 1994). I earned a Master of Science in Zoology at the University of Wisconsin Center for Limnology and a Master of Science in Water Resources Management from the University of Wisconsin Institute for Environmental Studies, Madison, Wisconsin.

I have reviewed the Hunter Subdivision Project Draft EIR (DEIR) (SCH: 2012032048), prepared by Urban Planning Partners, Inc. for the City of St. Helena and dated May 29, 2012. In particular, I focused on the project's potential effects on fish and other aquatic life, especially fall-run Chinook salmon (*Oncorhynchus tshawytscha*) and federally protected Central California Coastal steelhead (*Oncorhynchus mykiss*). In addition to reviewing the DEIR, I have reviewed the following documents and rely on technical information contained in these documents to help formulate my opinions:

Kamman, Greg. 2012. Review of Draft EIR Hunter Subdivision Project, St. Helena, CA. SCH: 2012032048.
Letter to Thomas N Lippe, dated July 9, 2012

Law Offices of
Lippe Gaffney Wagner LLP
RE: Hunter Subdivision DEIR
July 9, 2012
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Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical distribution and current status of steelhead/rainbow trout (*Oncorhynchus mykiss*) in streams of the San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, CA.

Napa County Resource Conservation District. 2008. Napa River Salmon Monitoring Program, Spawning Year 2007 Report.

Napa County Resource Conservation District and Jones & Stokes Associates. 2006. Zinfandel Lane Bridge Fish Passage Assessment, Final Report. Prepared for U.S. Army Corps of Engineers, San Francisco District, San Francisco, California. Project # 105309, December, 2006


Napolitano, M, S. Potter, and D. Whyte. 2009 Napa River Sediment TMDL and Habitat Enhancement Plan, Staff Report. California Regional Water Quality Control Board, San Francisco Bay Region, Oakland, CA. September 16, 2009.

Stillwater Sciences and W. Dietrich. 2002. Napa River Basin Limiting Factors Analysis, Final Technical Report. Prepared for San Francisco Bay Water Quality Control Board, Oakland, California and California State Coastal Conservancy, Oakland, California. June 14, 2002

My review of the DEIR and the other documents lead me to conclude that the DEIR is deficient in that it does not address the potential for adverse impacts of the project on special status fish species including salmon and steelhead occupying habitat in the Napa River in the vicinity of the project site and in downstream reaches.

The DEIR does not evaluate potential adverse effects of the project on habitat for salmon and steelhead in the Napa River.

The DEIR states that Chinook salmon and steelhead are not present and that no perennial aquatic habitat is present in the project area. This would be a very narrow and inappropriate definition of the project area. The project site is in the Napa River watershed and is close to and hydrologically connected with the Napa River. According to the DEIR, stormwater generated on the site will be collected and discharged to the Napa River, either by gravity drainage through the levee culvert or pumping from the detention basin. In addition, there are potential project induced changes in groundwater conditions and associated summer base flows in the Napa River due to the combined effects of increased domestic household demands on the City's water supply and increased pumping from the on-site irrigation well. These project related effects have a potential adverse impact on salmon and steelhead habitat in the Napa River from the project site downstream to the estuary.



Both Chinook salmon and steelhead occupy the Napa River in the vicinity of the project

The Napa River supports runs of fall-run Chinook salmon and federally protected Central California Coast ESU steelhead. It is within the critical habitat designation for Central California Coast ESU Steelhead.

The Napa River in the vicinity of the project site and in downstream reaches contains habitat suitable for rearing, spawning, and migration of Chinook salmon and steelhead (Napa County Resource Conservation Department 2008, Leidy et al. 2005). The Napa River from Zinfandel Drive (just south of St. Helena) upstream to a mile north of Calistoga has been considered by CDFG staff to be the most important spawning and nursery area for steelhead in the main stem Napa River (Day 1961 cited in Leidy et al. 2005). Surveys conducted by the California Department of Fish and Game have identified steelhead in this reach of the Napa River and in tributaries including nearby Sulphur Creek and York Creek (Leidy et al. 2005). Sulphur Creek flows through the City of St Helena to its confluence with the Napa River just downstream of the project site. Recent surveys have indicated a run of 400 to 1000 fall-run Chinook salmon (*Oncorhynchus tshawytscha*) spawning annually in the main stem Napa River between St. Helena and Napa and in several tributary streams as well as a high abundance of juvenile salmon (Napa County Resource Conservation District 2008). An exceptionally high number of steelhead redds and young-of-year steelhead were observed in the main stem in May 2008 (Napa County Resource Conservation District 2008).

Multiple entities are working to restore and improve habitat conditions in the Napa River for the benefit of salmon and steelhead. For example a \$1 million project was recently completed to improve migration passage at the Zinfandel Road Bridge. This project received funding and other support from the California Coastal Conservancy, U.S. Army Corps of Engineers, Napa County Resource Conservation District, public officials, local landowners, and environmental groups. Additional funding is being sought by the California Coastal Conservancy for additional restoration work in the Napa River and from the National Oceanic and Atmospheric Administration to fix another 20 barriers in the watershed (St. Helena Star, November 23, 2011). A group of 23 property owners with property that borders the Rutherford Reach, the 4.5-mile stretch of the Napa River between St. Helena and Oakville, are allowing prime land to return to a natural state in order to help preserve the ecology of the river. The southern part of the river has also been undergoing restoration as former salt ponds along the river are being restored to their natural state.

The project will discharge stormwater to the Napa River with likely impacts to water quality and sediments.

The project has the potential to generate increased stormwater runoff and deliver it to the Napa River, exacerbating conditions that degrade habitat for salmon and steelhead and limit their populations. Increases in impervious areas as a result of the project (roof surfaces, pavement, etc.) have the effect of increasing the magnitude of storm peaks which in turn results in greater erosion of


the stream bed and banks, incision of the channel, increasing fine sediment loads, eroding spawning sites and damaging developing salmon and steelhead embryos.

The California Water Quality Control Board has designated the Napa River as impaired due to excess sediment which adversely effects beneficial uses including recreation (i.e., fishing), cold freshwater habitat, fish spawning, and preservation of rare and endangered species (Napolitano et al. 2009). In a joint study conducted by the Water Board and the State Coastal Conservancy, two adverse impacts of erosion and sedimentation on salmon and steelhead habitat were documented. These were: 1) Low permeability values indicating a high concentration of fine sediment in the streambed, and 2) Channel incision in main stem Napa River (Stillwater Sciences and Dietrich, 2002). The study found that "Channel incision, which occurs in Napa River and lower reaches of its tributaries, has greatly reduced the quantity and quality of spawning and rearing habitat for salmon, and appears to be a key factor limiting Chinook salmon reproductive success and smolt survival under current conditions (Stillwater Sciences and Dietrich, 2002). High concentrations of fine sediment deposited in the streambed at potential spawning and rearing sites for salmon and/or steelhead in the Napa River and its tributaries causes high rates of egg and larval mortality during incubation, and also degrade the quality of juvenile rearing habitat for steelhead and salmon. Increases in the amount of fine sediment deposited in the streambed are contributing to the decline of what appears to be a very small run of steelhead. Other factors including poor flow persistence during the spring and dry season and poor habitat access appear to be even more important controls on steelhead productivity and survival in the Napa River watershed at present" (Napolitano et al. 2009).

The DEIR needs to address the effects of the project on storm flows in the Napa River and related increases in sediment deposition. This analysis needs to acknowledge and be informed by the magnitude of existing sediment problems in the Napa River as demonstrated by the State mandated program to control sediments in the Napa River, the Napa River TMDL administered by the San Francisco Bay Regional Water Quality Control Board.

The project will contribute to flow reduction in the Napa River.

The project may impact flow in the Napa River in a few different ways. Impervious surfaces cause water to run off the land surface and into local drainage networks, reducing the amount of rainfall that infiltrates into the ground and thereby reducing the amount of groundwater inflow to streams during the dry season. The residential development will also result in increased demand on local water supplies. I refer to the review of the project by Greg Kamman which states that, in Mr. Kamman's opinion, the project has the potential to impart significant adverse impacts to vicinity groundwater and summer surface water base flow in the Napa River due to the combined effects of increased domestic household demands on the City's water supply and increased pumping from the on-site irrigation well.



Mr. Kamman presents flow data for the Napa River as reported by the United States Geological Survey for their stream flow monitoring gauge #11456000 on the Napa River near St. Helena (a short distance downstream of the Hunter Project site) for measurements collected since October of 1929. These data indicate the complete dry-down (zero flow) of the river channel during August and September of 2007, 2008 and 2009, in July of 2007 and 2008, and in October of 2009. Mr. Kamman notes that the only other time the river has dried down during the summer-fall period was in 1976 and 1977, in response to the most severe drought of record. Mr. Kamman concludes that it is reasonably plausible that the depleted summer aquifer conditions that have evolved over time and as indicated in the groundwater level hydrographs he presents, have led to the summer dry-down of the Napa River in the project vicinity.


The Hunter Subdivision project has the potential to exacerbate this situation to the detriment of habitat conditions for salmon and steelhead.

Increased stormwater discharge and flow reduction have potential adverse effects on habitat for Chinook salmon and steelhead.

Salmon and steelhead require flowing streams with large amounts of gravel and cobble substrate to complete their life cycles. Gravel and cobble provide the ideal substrate for incubating salmon and steelhead eggs because there is space for the eggs to develop and for movement of freshwater through the gravels to supply oxygen and carry off metabolic wastes. Larger size cobbles also provide hiding spaces and protection from high flows for developing young (fry). Cobbles and gravels also provide habitat for microscopic and larger plants and algae (periphyton and macrophytes) that support small aquatic animals (benthic invertebrates) and in turn provide forage for fish. Sediment suspended in the water column has a myriad of effects from reduction of light that inhibits photosynthesis and primary production, abrasion and suffocation of periphyton and macrophytes, disruption of respiration and modification of behavior of invertebrates, coating and smothering of eggs and larvae, and in sufficient volume, filling the voids in the substrate and trapping developing eggs and fry of fish including salmon and steelhead.

Salmon and steelhead also require suitable macro-habitat conditions including a mixture of shallow swift-flowing riffles and runs; deeper, slower velocity habitat in pools; and ample amounts of cover and structure such as boulders, tree roots and downed trees. Increased amounts of fine sediment can lead to habitat simplification with large amounts of low velocity, shallow habitat that is not suitable for salmon or steelhead. This can occur in concert with increased storm flows from urban runoff that both increase sediment supply through erosion of the stream bed and banks and through channel incision.

The Hunter Subdivision project has the potential to adversely impact existing spawning, rearing, and migration habitat for salmon and steelhead from the project site downstream to the mouth of the Napa River. The DEIR needs to acknowledge and evaluate potential project impacts on fishery

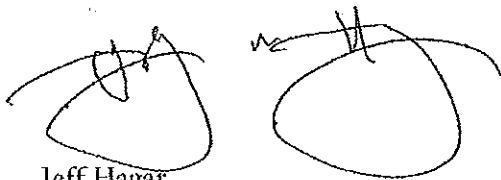


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resources of the Napa River. It should evaluate the potential for project related changes on winter storm peaks and dry-season flow reduction. These impacts should be evaluated for their contribution to existing sediment problems in the Napa River and efforts by the San Francisco Bay Regional Water Quality Control Board to reduce sediment impacts through the TMDL for sediments in the Napa River. Impacts of the project also need to be addressed in the context of ongoing efforts to stabilize and recover fall run Chinook salmon populations and to protect and restore Central California Coast steelhead populations under the Federal Endangered Species Act and the California Endangered Species Act. The DEIR should also recognize the efforts of multiple entities to restore habitat conditions in the Napa River to support salmon and steelhead and the potential for project related impacts to interfere with these efforts. The DEIR needs to provide mitigation measures to eliminate the potential for increase in storm peaks such as project elements that provide for stormwater retention and infiltration, collection and storage of stormwater for landscape irrigation, and other measures. The DEIR also needs to provide an evaluation of how increased water needs of the project can be met without further reduction of dry-season flow in the Napa River and provide mitigation measures that meet this objective including incorporation of water conservation features in the development, use of recycled water, reliance on sources other than the on-site wells, and other measures. In recent years, many innovative approaches have been developed for minimizing impacts from stormwater runoff and better management of water resources to avoid depletion of stream flows (see for example the Occidental Arts and Ecology Center Water Institute, <http://www.oaecwater.org/>). Mitigation measures should be developed in light of these approaches.

The City needs to analyze the contribution of this project to cumulative effects of ongoing development and past habitat degradation. The effects of this project on habitat conditions in the Napa River occur within the context of efforts by multiple entities to reverse these trends and adverse effects on protected steelhead should be mitigated to less than significant levels.

Best Regards,

The image shows two handwritten signatures. The signature on the left is a stylized, cursive script that appears to read 'Jeff Hagar'. The signature on the right is a more fluid, cursive script that also appears to read 'Jeff Hagar'. Both signatures are written in dark ink.

Jeff Hagar
Principal Biologist

EXHIBIT 2-1



Hagar Environmental Science

Statement of Qualifications

Company Overview

Since its inception in 1994, Hagar Environmental Science (HES) provides information, analysis, and research services to water resource agencies, utilities, public agencies, environmental organizations, and private clients. Our primary areas of activity are consulting on fisheries and aquatic issues as they relate to water resource management and aquatic species conservation. Specialized technical services include:

- ◆ fish population and fish habitat inventories,
- ◆ development of fisheries and water resource management and restoration plans,
- ◆ permitting of habitat restoration and passage improvement projects,
- ◆ fish passage assessment and remediation
- ◆ Endangered Species Act compliance, and
- ◆ CEQA/NEPA documentation.

Environmental resource planning and decision-making are conducted in complex social arenas that involve laws and regulations, economic constraints, political considerations, scientific knowledge, and individual values. HES is committed to the concept that the best plans and decisions are based on full and reliable information. While it is sometimes necessary to make decisions based on less than complete information, HES strives to obtain and utilize complete, relevant, accurate, and objective information to inform environmental decisions and planning. We focus on determining the information that is most needed and presenting that information in a way that is accessible and understandable to all involved in the process.

Our areas of operation include California and the Pacific Northwest and we have particularly strong experience in the California Central Coast region. HES is fully permitted to collect and handle protected steelhead, coho salmon, and tidewater goby. Our approach to projects emphasizes teaming arrangements with other specialists to provide interdisciplinary problem solving tailored to client and project specific needs.

Representative HES Project Experience

City of Santa Cruz Habitat Conservation Plan, 2005-present, for City of Santa Cruz Water Department. HES is providing technical support to assist the City, NOAA Fisheries, and California Department of Fish and Game in development of the City's HCP. HES is integrating existing information with ongoing field surveys implemented by us to develop conservation strategies that maximize anticipated benefits to fishery resources while maintaining the City's ability to operate within water supply constraints. Field surveys include habitat assessment using the California Salmonid Stream Habitat Restoration Manual methods and Instream flow assessment for spawning and rearing steelhead and coho salmon using the PHABSIM component of the Instream Flow Incremental Methodology (IFIM), and evaluation of migration passage obstacles using the Thompson methodology and approaches developed by Powers and Orsborn.

Salinas Valley Water Project Fishery Evaluations, 1994 –present. The Monterey County Water Resources Agency is developing the Salinas Valley Water Project to stop seawater intrusion, manage nitrate contamination in the ground water, provide adequate water supplies to meet current and future (year 2030) needs, and hydrologically balancing the ground water basin in the Salinas Valley. As part of this process, Hagar Environmental Science has completed fishery studies and environmental documentation for fishery resources of the Salinas River Basin. HES conducted studies in the Salinas River and its tributaries to determine the presence, distribution, and relative abundance of steelhead spawning populations and evaluated habitat conditions for suitability for steelhead spawning, rearing and migration. Tasks completed by HES have also included monitoring of stream temperature and its relationship to stream flow; evaluation of water quality conditions in the Salinas River Lagoon and project effects on its potential to support rearing steelhead; stream flow requirements for steelhead migration; and potential effects of a surface diversion alternative on steelhead migration, steelhead rearing, and other fish populations. HES worked closely with project planners and engineers to ensure that project alternatives would achieve project objectives without harming remnant steelhead runs within the Salinas River Basin. HES was also involved in consultation with the National Marine Fisheries Service on steelhead and provided technical information on steelhead and steelhead habitat for the Biological Assessment for the project.

Calaveras Dam Replacement Project, 2005-2008, for San Francisco Public Utilities Commission. HES is the fisheries lead as part of the project team for environmental impact assessment and permitting. Key tasks include the integration of extensive background information to address project compliance with environmental regulations, implementation of field surveys to resolve information gaps, and coordination with ongoing fisheries investigations conducted by the client and its consultants. Fisheries surveys included habitat assessment for over 16 miles of streams using modified Level IV effort as described in The California Salmonid Stream Habitat Restoration Manual and an instream flow assessment for steelhead and native rainbow trout spawning using the PHABSIM component of the Instream Flow Incremental Methodology (IFIM).

Carmel and Salinas River Flood Control, Steelhead Monitoring Plan, January 2001-present. Flood Control activities conducted by Monterey County entail artificial breaching of the Carmel River mouth when river flows raise the lagoon elevation to a predetermined level. Artificial breaching anticipates the natural opening of the lagoon that is imminent. There has been concern that artificial breaching has the potential to impact the lagoon ecology, and particularly steelhead, since it may cause the lagoon to open somewhat earlier and at a lower elevation than would otherwise occur. Hagar Environmental Science developed a monitoring

program to evaluate the effect of this activity on lagoon ecology and determine how future flood management should be undertaken to minimize adverse impacts to steelhead trout, a threatened species. HES has conducted pre- and post-breach steelhead population and water quality assessment during the winter of 2001-2002 in the Carmel River Lagoon and 2002-2003 in both the Carmel and Salinas lagoons according to this program.

Aptos Creek Watershed Assessment and Enhancement Plan, 2001-2003, for Coastal Watershed Council and California Coastal Conservancy. In this recently completed assessment for the Coastal Watershed Council, HES teamed with specialists in hydrology, geomorphology and vegetation to complete a thorough evaluation of habitat conditions and limiting factors for steelhead and coho salmon. HES completed a habitat assessment for over 16 miles of stream in the Aptos Creek watershed. HES used the habitat assessment data together with existing information and information developed by other team members on hydrology, geomorphology, and riparian over-story to complete a limiting factors analysis and worked with the team to develop a list of high priority restoration projects. The practicality of addressing key limiting factors was weighed against the relative benefits to be expected.

Steelhead Habitat Assessment for the San Pedro Creek Watershed, 2001-2002. HES conducted an assessment of the San Pedro Creek Watershed for the San Pedro Creek Watershed Coalition. The assessment included a review of existing information, habitat survey for the mainstem and major tributaries, assessment of factors most likely to limit steelhead, and recommendations for habitat protection and enhancement in the watershed.

Wilder Ranch State Park Habitat Assessment and Aquatic Vertebrate Survey, 2001-2002. Under contract to California State Parks, HES conducted a survey of streams within Wilder Ranch State Park as part of a statewide biological resources monitoring program being developed by State Parks. Surveys involved stream reach classification, habitat assessment using the California Salmonid Stream Habitat assessment methodology, and development of abundance and distribution information for aquatic reptiles, amphibians, and fish using both visual observation and electrofishing. The objective of the Wilder Ranch surveys was to provide a baseline inventory of habitat conditions and aquatic vertebrate populations in Park streams and to develop a long term aquatic monitoring program. The monitoring program will be developed to provide Park Managers with information to identify changes in the areal extent and quality of aquatic habitat and changes in the presence or abundance of key aquatic taxa.

Fish Habitat and Fish Population Assessment for San Lorenzo Creek, Alameda County, 1999 – 2002. The Alameda County Public Works Agency has initiated a pilot watershed study for San Lorenzo Creek. As a part of this work Hagar Environmental Science is conducting a fisheries habitat and fish population assessment. The objectives of fisheries investigations were to develop a comprehensive understanding of the existing condition of fish populations and their habitat in the San Lorenzo Creek watershed; identify major factors that limit the native fish populations; develop aquatic resource objectives and quantifiable indicators that can be used to monitor the health of fish populations over time; identify and prioritize potential sites to enhance, protect and restore habitat for native fish communities; and understand how sediment and flow affect fish habitat. HES trained County staff in habitat assessment methods, provided oversight and supervision for the habitat assessment, developed and implemented a fish sampling program, provided guidance on implementation of a stream temperature monitoring network, and coauthored the final report.

Stream Reach and Aquatic Habitat Inventory in the Guadalupe River, Coyote and Stevens Creeks, Santa Clara County, 1999. The Santa Clara Valley Water District (SCVWD) has been

engaged in a multi-party dispute resolution process identified as the Fisheries and Aquatic Habitat Collaborative Effort (FAHCE). The FAHCE has conducted various investigations to identify factors limiting the production of chinook salmon and steelhead inhabiting streams in the SCVWD service area. Hagar Environmental Science teamed with ENTRIX, Inc. to complete the stream reach and aquatic habitat inventory. HES worked with the FAHCE committee and project team to develop project specific field protocols and provided field training in these protocols for survey crews. HES also provided field oversight and survey calibration and verification as part of the project quality assurance and quality control program.

Aquatic Resource Inventory of Oakland Streams, 1998. Hagar Environmental Science conducted aquatic habitat and fishery surveys in 11 streams in the City of Oakland to identify sensitive resources and factors potentially influencing aquatic resource conditions. Stream reaches were surveyed to evaluate instream and watershed conditions. Aquatic habitat conditions were described including habitat features, substrate, cover, suitability for rearing and migration of fish, presence of aquatic invertebrates, bank conditions, riparian vegetation and surrounding land-use. Fish abundance and distribution was assessed by electrofishing. The presence of sensitive resources and factors potentially influencing aquatic life were described as a first step in determining impacts of stormwater on beneficial uses of local creeks.

Coastal Lagoon Ecological Assessment Project, 2004, for Santa Cruz County Resource Conservation District . HES is teamed with Swanson Hydrology and Geomorphology in a collaborative project with NOAA Fisheries, USGS, The City of Santa Cruz, Santa Cruz County, and the California Coastal Conservancy in a pilot study to assess ecological processes in several lagoons associated with coastal streams in central California. HES is conducting fisheries assessments including development of sampling protocols and description of fish community profiles, species presence and relative abundance. We are also using PIT tag technology to assess growth rates and movement of steelhead using lagoons for rearing. This information will be used together with hydrologic, water quality, plankton, and aquatic invertebrate monitoring data to assess potential limiting factors for steelhead and tidewater goby in these lagoons and as a basis for developing management actions to enhance lagoon habitat.

Branciforte Creek Flood Control Channel Maintenance. 2003-present, for City of Santa Cruz. The City of Santa Cruz maintains the U.S. Army Corps of Engineers Branciforte Creek Flood Control Channel Project. Maintenance requires periodic removal of sediment and associated wetland vegetation from the channel to maintain flood conveyance capacity. Recent collections of tidewater goby in the San Lorenzo River lagoon have raised questions concerning the possibility for tidewater goby to be present in the Branciforte Creek FCC project area. Permitting for the project requires NOAA Fisheries to quantify the amount of take of Central California Coast steelhead that may be present in the flood control channel. HES was contracted to develop steelhead population estimates and monitor temperature conditions in the FCC. Recent collections of tidewater goby in the San Lorenzo River lagoon have raised questions concerning the possibility for tidewater goby to be present in the Branciforte Creek FCC project area. HES recently completed reconnaissance level surveys to determine whether tidewater goby are likely to be present in the FCC.

Mountain Charlie Gulch Steelhead Monitoring Program, 2003-2005 for the City of Santa Cruz Water Department. The City of Santa Cruz Water Department manages lands adjacent to Mountain Charlie Gulch. In the summer of 2002, the Water Department implemented a steelhead passage improvement project in portions of the Creek on City property. In order to assess the effectiveness of passage improvement projects and to develop better information on the status and limiting factors for steelhead/rainbow trout populations in Mountain Charlie Gulch, the City

contracted with HES to develop and implement a steelhead monitoring project for portions of Mountain Charlie Gulch on City property. The purpose of the monitoring program is to: describe habitat conditions in the stream and evaluate potential for supporting steelhead; estimate the abundance of steelhead/rainbow trout of different age classes in the study reach and compare abundance upstream and downstream of the passage improvement project; compare visual methods and electrofishing population assessment for accuracy and cost; and, provide recommendation for a standard monitoring protocol that can be repeated by the City in the future to monitor changes in habitat conditions and steelhead populations.

Gateway Pedestrian Bridge, 2004, for John Gilchrist and Associates (CALTRANS Project). A pedestrian bridge crossing the San Lorenzo River in the vicinity of Gateway Mall is proposed. This reach of the San Lorenzo River is known to support threatened Central California Coastal ESU steelhead/rainbow trout (*Oncorhynchus mykiss*). Recently, endangered tidewater goby (*Euicylogobius newberryi*) have been collected downstream in the San Lorenzo River lagoon. HES conducted surveys in the vicinity of the proposed bridge to assess the potential for presence of *O. mykiss* and *E. newberryi* and prepared a report documenting findings.

Boulder Creek Seasonal Dam Fish Passage Improvement, 2004-present, for Boulder Creek Recreation and Park District. The Boulder Creek Seasonal Dam, located on the San Lorenzo River in Boulder Creek (Santa Cruz County), was typically installed during the summer months to create a recreational swimming area for the community. Historically, the Boulder Creek Recreation and Park District (District) obtained a Streambed Alteration Permit issued by the California Department of Fish and Game (CDFG) to install and operate the seasonal dam. The most recent permit expired in June 2003. To obtain a new permit the District is required to evaluate fish passage at the project site and potentially improve the dam to provide bi-directional year round passage of juvenile and adult steelhead. HES is working with Fall Creek Engineering, Inc. and John Gilchrist & Associates to assist the District in improving seasonal fish passage at the dam and to obtain the state and federal permits that will be required to operate the dam. As part of this work HES has evaluated habitat conditions within the impoundment area to determine the effect of the impoundment on rearing habitat for juvenile steelhead, and evaluated the existing apron in the center of the dam for passage by adult and juvenile steelhead.

Tucker Road Ford Passage Improvement Project, 2005- . for Santa Cruz County RCD. HES participated in a multidisciplinary team of consultants lead by Fall Creek Engineering to analyze fish passage and prepare plans to restore steelhead passage at an at-grade road crossing of the West Branch Soquel Creek. HES conducted a habitat condition and passage analysis at the crossing to document existing passage conditions and anticipate post-project improvements. HES used an analytical computer program (FishXing, version 2.1, Six Rivers Watershed Interaction Team, November 1999) to evaluate elements of the crossing.

LLNL Arroyo Mocho Passage Improvement Project, 2002-2003. for University of California, Lawrence Livermore National Laboratory. HES participated in a multidisciplinary team of consultants lead by Fall Creek Engineering to analyze fish passage and prepare plans to restore steelhead passage at an at-grade road crossing of the Arroyo Mocho near Livermore. HES conducted a passage analysis at the crossing to document existing passage conditions and anticipate post-project improvements. HES also developed mitigation and monitoring guidelines for fish passage. HES used an

analytical computer program (FishXing, version 2.1, Six Rivers Watershed Interaction Team, November 1999) to evaluate elements of the crossing.

Biological Assessment and Fish Relocation for the Lower Codornices Creek Restoration Project, 2004- . Lower Codornices Creek is a small urbanized watershed tributary to San Francisco Bay in the cities of Berkeley and Albany. HES prepared a Biological Assessment to address project elements for the protection and enhancement of a steelhead/rainbow trout population in the creek. The BA was used by NOAA Fisheries to support issuance of a Biological Opinion allowing project implementation. As part of this work, HES re-located steelhead/rainbow trout from the project area to temporary holding locations in other parts of the stream. HES took samples from a few of these fish and has arranged to have them analyzed at UC-Davis for age, growth rates, and life-history/ancestral origin (sea-run steelhead or non-migratory rainbow trout).

Alameda Creek Steelhead Restoration, 1999 -- 2004. Working with the Alameda Creek Fisheries Restoration Workgroup, Hagar Environmental Science teamed with AMS to complete an assessment of the feasibility of restoring a steelhead trout population in the Alameda Creek watershed. The Workgroup includes members representing County flood control and water districts, resource agencies, municipalities, and citizens groups. The assessment documented historical use of the watershed by steelhead, evaluated current habitat conditions and fish populations, and considered existing beneficial uses of the watershed for water supply, flood control, and recreation and potential conflicts between these uses and restoration of steelhead. The assessment provided a set of findings and recommended nine essential actions necessary for steelhead to complete their life cycle in the watershed, five additional restoration actions to increase the likelihood of successful restoration, and seven follow-on technical investigations to reduce technical uncertainties. The assessment met with approval from all members of the Workgroup and the Workgroup is proceeding with implementation of the recommendations. The primary recommendations involve passage improvement at several sites, modification of recreational fisheries management, and evaluation of alternative water delivery scenarios to enhance migration conditions for steelhead while meeting water supply and quality needs.

Hosler Fish Relocation, 2000. Hagar Environmental Science completed fish relocation for steelhead/rainbow trout in Soquel Creek (Santa Cruz County) as part of a streambank stabilization project for a private property owner.

Wilder Ranch State Park Fish Relocation, 2000. Hagar Environmental Science completed fish relocation for steelhead/rainbow trout in Wilder Creek (Santa Cruz County) as part of a dam removal and streambank stabilization project in Wilder Ranch State Park sponsored by California State Parks.

Mill Creek Fish Relocation, 2000. Hagar Environmental Science completed fish relocation for steelhead/rainbow trout in Mill Creek (Pilarcitos watershed, San Mateo County) as part of a dam removal and streambank stabilization project in Burleigh Murray Ranch State Park sponsored by California State Parks. Tissue samples were collected from steelhead/rainbow trout for genetic analyses by the National Marine Fisheries Service.

Arroyo Leon Fish Passage Enhancement Project, 2000-present. HES participated on a multi-disciplinary team managed by the San Mateo County Resource Conservation District and Pilarcitos Creek Advisory Committee to evaluate fish passage and steelhead rearing issues at two seasonal dams on Arroyo Leon. The team developed preliminary engineering designs and specifications for improvements at these dams; identified potential environmental impacts and

permitting conditions associated with the project alternatives; and incorporated mitigation measures and protective provisions developed in consultation with the National Marine Fisheries Service and California Department of Fish and Game. HES conducted site surveys and evaluated design alternatives for their potential effects on steelhead populations in Arroyo Leon.

Salinas River Flood Maintenance Program, 2000. Hagar Environmental Science provided review and assisted with establishment of guidelines for implementation of 2000 River Maintenance Program involving removal of vegetation and sandbars from the Salinas River channel. HES also provided technical assistance to landowners by completing channel marking and mapping and preparation of permit application packages submitted to National Marine Fisheries Service.

Potrero Road Tide Gate Configuration and Performance Study, 2000. As part of the Performance Study conducted by Schaaf & Wheeler Consulting Civil Engineers for MCWRA, HES evaluated fish passage issues at the Potrero Road tide gates, Old Salinas River channel and Salinas River Lagoon. HES provided relevant background information on steelhead migration and recommended measures to enhance existing conditions.

Old Salinas River Channel Dredging, 2001. Hagar Environmental Science was called in to relocate all fish, particularly steelhead/rainbow trout, from the Old Salinas River Channel prior to dredging and subsequent deepening of the channel. The dredging is part of on-going maintenance work conducted by the Monterey County Water Resources Agency, Salinas, California

Apanolio Creek Fish Passage, 2000-2002. As part of a restoration project team, Hagar Environmental Science evaluated conditions in Apanolio Creek for steelhead/rainbow trout including an assessment of instream habitat conditions and presence of structural barriers to steelhead migration at two small diversion dams and a culvert. The restoration project is sponsored by the San Mateo County Resource Conservation District. HES worked with the restoration project engineering contractor to assess biological conditions and develop, screen, and select alternative restoration plans for each passage barrier.

Santa Clara Valley Water District Stream Maintenance Program EIR and Section 7 Consultation, 2000-2002. The Stream Maintenance Program is designed to meet the District's flood protection and water supply mandates. The District is pursuing multi-year environmental permitting to conduct these activities. Hagar Environmental Science developed background information and impact analyses on steelhead and chinook salmon in Santa Clara Valley streams as part of this work. HES also developed a mitigation program and best management practices for the bank protection and repair component of the stream maintenance program. HES was also involved with coordination and consultation on steelhead and chinook salmon with National Marine Fisheries Service as part of Section 7 Endangered Species Act (ESA) compliance on the multi-year permit for stream maintenance activities.

Long-Term Contingency Water Supply Plan for the Monterey Peninsula, 1999 –2000. The California Public Utilities Commission developed a long-term water supply contingency plan (Plan B) as an alternative to a proposed dam on the Carmel River. As part of the Plan B consultant team, Hagar Environmental Science evaluated the Carmel River steelhead resource and effects of current project operations on Carmel River aquatic resources and worked with the team to develop specific objectives and criteria for evaluating alternative water supply components, identify and analyze potential water supply components, and develop a strategy for meeting water supply needs as an alternative to the proposed dam.

Guadalupe River Fish Ladder and Fish Screen at the Alamitos Drop Structure, 1998. for Santa Clara Valley Water District. HES completed permit acquisition including U.S. Army Corps of Engineers 404 Nationwide Permit pre-construction notification, California Department of Fish and Game streambed alteration agreement, and Regional Water Quality Control Board water quality certification.

Guadalupe River Fish Barrier Removal Project, 1998. for Santa Clara Valley Water District. HES completed permit acquisition including U.S. Army Corps of Engineers 404 Nationwide Permit pre-construction notification, California Department of Fish and Game streambed alteration agreement, and Regional Water Quality Control Board water quality certification, and CEQA categorical exemption.

Hillsdale Bridge Removal Project, 1999-present. Completed permit acquisition including U.S. Army Corps of Engineers 404 Nationwide Permit pre-construction notification, California Department of Fish and Game streambed alteration agreement, and Regional Water Quality Control Board water quality certification, and CEQA Initial Study/Negative Declaration.

Synthesis and Analysis of Information Collected on the Fishery Resources and Habitat Conditions of the Lower Santa Ynez River, 1996-1998. Hagar Environmental Science worked with Hanson Environmental, Inc. to compile and synthesize hydrology, water quality, habitat, and fishery resource data collected over a four year period in the Santa Ynez River and Santa Ynez River lagoon. The purpose of this work was to summarize a wide range of available data, determine what conclusions could be supported by the information available, and make recommendations for the direction of ongoing studies conducted by the Santa Ynez River Technical Advisory Committee. Hydrologic conditions including precipitation, reservoir storage and elevation, spill, controlled releases, river flows, tributary flows, and breaching of the Santa Ynez River lagoon were described and summarized. Water temperature and dissolved oxygen data were evaluated to characterize seasonal trends and patterns, inter-annual variations, longitudinal gradients, diel fluctuations, analysis of potentially stressful water temperatures, evaluation of potential cold water refuges. The relationship of water quality variables to river flows was also evaluated. Habitat characteristics including depth, substrate, areal extent of habitat type units, riparian vegetation, instream vegetation, substrate, passage barriers, and other habitat features in the mainstem Santa Ynez River and its tributaries were summarized. Fishery resources were characterized in terms of species presence, longitudinal distribution, seasonal distribution and abundance, upstream and downstream migration, and rainbow trout/steelhead stock of origin. Water quality, habitat, and flow conditions were evaluated to determine observable effects on fishery resource condition, identify potentially limiting factors, and recommend appropriate modifications to the long-term study plan.

South Delta Barrier Project, 1995. HES worked with a team of biologists to evaluate monitoring methods for the California Department of Water Resources (CDWR) South Delta Barrier Project. Monitoring data collected by CDWR and CDFG were analyzed to evaluate the relationship between placement of barriers in South Delta channels and direct loss of fish at the Central Valley Project and State Water Project Delta export pumping facilities. Experimental design and study methods were critically reviewed and evaluated. Several years of monitoring data were evaluated to determine potential impact of temporary barriers on fish salvage at the export pumps. Statistical analyses were performed using fish salvage and pumping data during periods with and without barriers in Middle River and Old River. Fish species of particular interest were winter-run chinook salmon, delta smelt, longfin smelt, striped bass, Sacramento

splittail, and fall run chinook salmon. Problems with the study plan were identified and recommendations for study modifications were presented.

Sausal Creek Steelhead/Rainbow Trout Studies. 1995-98. For Kendall-Jackson Winery, Ltd. Conducted field investigation to determine flow requirements, summer habitat conditions, and population inventories for steelhead in this Russian River tributary. Assisted in preparation of testimony for water rights proceeding.

Status of Steelhead Populations in California, 1996. Hagar Environmental Science contributed to a special report for the Association of California Water Agencies (ACWA) describing the status of steelhead populations in California in regards to the Endangered Species Act. The report was submitted on behalf of ACWA to the National Marine Fisheries Service to provide information for their determination as to whether to list steelhead as threatened or endangered under the federal Endangered Species Act.

Additional Selected Project Experience for Jeff Hagar

Sacramento River Basin Chinook Salmon Productivity Model 1985-1988. For the National Marine Fisheries Service Jeff Hagar analyzed population and life history data for chinook salmon and developed input data and assumptions for Sacramento River Basin Chinook Salmon Productivity Model. This project included evaluation of ocean harvest and natural mortality rates; factors influencing upstream migration including passage at dams; factors influencing spawning, hatching and emergence success; factors influencing rearing and migration success. Mr. Hagar worked with a modeler to develop model structure and incorporate existing measured population parameters and relevant environmental variables and developed conceptual relationships between environmental variables and chinook salmon productivity.

Lower Mokelumne River Project FERC Proceeding, 1994. Provided technical support to EBMUD in its proceeding to resolve FERC proposed license modifications to operations of the Mokelumne River Project. Completed critical review of FERC FEIS and comparative analysis of FERC and EBMUD alternatives using analytical tools developed under the direction of Jeff Hagar. Participated in technical meetings with FERC staff at Oak Ridge National Lab to resolve technical issues related to management of river flows and resulting habitat conditions for chinook salmon and steelhead populations in the Lower Mokelumne River

Lower Mokelumne River Management Plan, 1990 - 1994. As a consultant, Jeff Hagar served as project manager for the development of the Lower Mokelumne River Management Plan for EBMUD Updated Water Supply Management Program. He supervised preparation of technical documents including EIS/EIR sections and technical appendices. He contributed to studies evaluating chinook salmon and steelhead in the Mokelumne River, including estimation of spawning escapements, run-timing, factors influencing run size, timing and enumeration of smolt emigration, factors influencing rearing success and smolt emigration, and mortality factors. Mr. Hagar worked with a team of hydrologists, biologists, and engineers to develop and evaluate management strategies for chinook salmon and steelhead in the Lower Mokelumne River, California using an integrated application of an instream temperature model and reservoir model to a reservoir/tailwater system. Mr. Hagar served as a member of the Mokelumne River Technical Advisory Committee to establish a long term management plan for the Mokelumne River and provided technical information and analysis to negotiations between EBMUD and California Department of Fish and Game to determine management of flows in the Mokelumne River.

Entrainment of Fish at Eastern Sierra Hydroelectric Facilities, 1988. As part of FERC license review, Jeff Hagar developed and implemented special studies and conducted analyses to document the magnitude and significance of entrainment of trout at representative hydroelectric facilities in the Eastern Sierra Nevada.

RESUME

Jeffery M. Hagar, Principal/Senior Biologist

Jeff Hagar has worked since 1985 as a fisheries consultant in California. He provides expertise on projects involving significant or complex fisheries issues, generally working with multi-disciplinary teams involving environmental planning, engineering, hydrology, geomorphology, and/or legal components. Services include biological surveys such as population abundance and habitat characterization, fish passage assessment and remediation, special studies in fisheries, development of resource management and restoration plans, permitting of habitat restoration and passage improvement projects, preparation of NEPA and CEQA documentation, and endangered species act compliance. Mr. Hagar has been involved in projects throughout California including the Sierra, Eastern Sierra, Central Valley, Sacramento-San Joaquin Delta, and San Francisco Bay. Mr. Hagar has particularly extensive experience in coastal streams of Central and South Central California including the Santa Ynez River, Salinas River and Russian River, as well as numerous smaller streams. Much of his current work involves issues relating to management of threatened and endangered species, particularly coastal steelhead. Mr. Hagar has worked closely with representatives of California Department of Fish and Game, National Marine Fisheries Service, and US Fish & Wildlife Service on compliance with the Endangered Species Act within these streams and has all required permits for collecting and handling steelhead, coho salmon, and tidewater goby.

Jeffery M. Hagar
Principal
Senior Fisheries Biologist

EXPERTISE

- Fisheries population census, habitat assessment, aquatic inventories and fish passage assessment
- Resource management plans
- Habitat restoration planning and permitting
- Endangered Species Act compliance
- Preparation of technical documents including CEQA/NEPA and resource management planning
- Riverine habitat analysis using hydrologic, stream temperature, and reservoir operations analysis
- Fisheries population modeling
- Critical review and evaluation of technical information

PROFESSIONAL HISTORY

1994 - present Principal/Senior Biologist
 Hagar Environmental Science

1991 - 1993 Senior Fisheries Biologist
 BioSystems Analysis, Inc., Tiburon, California

1989 - 1991 Fisheries Biologist
 East Bay Municipal Utility District, Oakland, California

1985 - 1989 Aquatic Ecologist/Fisheries Biologist
 BioSystems Analysis, Inc., Sausalito, California

EDUCATION

M.S. Zoology, 1984
 University of Wisconsin, Madison, Center for Limnology

M.S. Water Resources Management, 1984
 University of Wisconsin, Madison, Institute for Environmental Studies

B.S. Biological Aspects of Conservation, 1979
 University of Wisconsin, Madison

PERMITS AND CERTIFICATIONS

California Department of Fish & Game Scientific Collecting Permit 801111-04

National Marine Fisheries Service Section 10 Permit for Scientific Research, Permit 1105 including Endangered Species Act take authorization for Central California Coast Steelhead, South-Central California Coast Steelhead, Central California Coast Coho Salmon

US Fish and Wildlife Service 10(a)(1)(A) Federal Fish and Wildlife Permit TE089980-0 including take of tidewater goby (*Eucyclogobius newberryi*)

EXHIBIT 3

July 2, 2012

Tom Lippe
Lippe Gaffney Wagner LLP
329 Bryant St.; Suite 3D
San Francisco, CA 94107

Re: Review of Aesthetic Resources Section DRAFT EIR: Hunter Subdivision Project

Dear Mr. Lippe:

In accordance with your request to evaluate the adequacy of the "Aesthetics" section of the Draft EIR for the proposed Hunter Subdivision in the City of St. Helena, below are my comments. They are based upon the following: (1) review of the Project Description chapter and the "Aesthetics" section of the Hunter Subdivision Draft EIR; (2) June 18, 2012 field reconnaissance of the proposed development site and its viewshed; (3) a review of the City of St. Helena General Plan U(GP) update and associated EIR (1993); (4) my extensive experience with preparation and peer review of numerous CEQA documents, with specific focus upon visual impact analysis.

- 1) General Comments and Impressions. The evaluation of the potential impact of the proposed project, contained in the "Aesthetics" section of the DEIR, does not appear to be very well organized and written. Components of the evaluation (e.g., setting; significance criteria as applied to views from private areas) are not sufficiently described and/or defined. Potential impacts are not adequately analyzed. "Mitigation" of possible project effects are a listing of GP policies that are general, by their nature, rather than being more specific to a project-level of environmental analysis. Furthermore, a review of the policies indicates inconsistencies amongst their objectives when applied to the proposed subdivision development.
- 2) Visual Setting and Viewshed. The visual setting and viewshed are not adequately identified and described. A number of view areas and locations (residences and trailer park on the south side of the project site, the pedestrian trail along the eastern extension (beyond the locked gate) of Adams Street, and public views at the Adams Street terminus and the Hunt Avenue/Starr Avenue intersection) are identified. In addition, screening by vegetation and structures is also noted to describe the general quality of views, placing particular importance upon locations with public access.

However, after a brief description of what a "view corridor" is, there is little mention of the specific "sensitive receptors" in the area, their number, and the quality of their views. Adequate description of the existing viewshed and its physical characteristics is required to provide a sound baseline for the evaluation and extent of visual impacts that likely will occur from the implementation of the proposed project. Typically, areas in proximity to the proposed development parcel, including privately-owned properties (see item #3, Significance Criteria,

below) should be surveyed to disclose information that include, but are not limited to, the following:

- how many residences and businesses comprise the viewshed?
- although the area is generally flat, several residences appear to have second-story decks and balconies with “superior” views across the project site located to the south and southwest that are not obscured by trees and other vegetation (shown in the DEIR photos, figures IVA-3b and 3-3d). What is the current quality of views and features visible from these residences?
- what is the distance from residential view areas to the project site (important when determining the amount of view obstructed by project structures and landscaping)?
- will the quality of views change when leaves have fallen from trees during part of the year?
- how much user activity occurs on the trail that presently runs east from the current terminus of Adams Street? From the publicly accessible street (Del Rio Court) within the trailer park that parallels part of the southern boundary of the project site?

Onsite reconnaissance of the project and vicinity on June 18, 2012 indicate that there are prominent views across the expanse of the project site from at least several residences as well as views from Del Rio Court through sizeable gaps in the trees lining the southern boundary of the proposed development parcel.

The DEIR also omits a discussion and description of the views from a winery (David Fulton Winery and Vineyards, which has a tasting room accessible to public visitation) and several residences on the south side of Fulton Lane, less than 1,000 feet away from the northern perimeter of the project boundary. Existing vineyards within the proposed development site are visible from Fulton Lane. From Fulton Lane near the winery, single-family residences, including several two-story structures with decks and balconies are readily apparent (see attached photos Fig.1 and Fig. 2).

- 3) Significance Criteria. The DEIR indicates that the significance criteria used to analyze the impacts of the proposed project upon the existing environment, including aesthetic/visual considerations is based upon the CEQA Guidelines (Appendix G, Environmental Checklist Form). However, for Aesthetics, item I.a, of the CEQA Checklist, which poses the question, “...Would the project have a substantial adverse effect on a scenic vista?...” the text in the Hunter Subdivision DEIR has been changed so that the word, “public” has been inserted before the term “scenic vista.” As a result, it appears that there is a distinction between the significance of public compared to private views. According to CEQA case law (Ocean View Estates Homeowners Ass’n, Inc. v. Montecito Water Dist. (2004) 116 Cal.App.4th 396, 401-403), the level of significance for private views must be evaluated.
- 4) Impacts Analysis. The DEIR aesthetics impact analysis is inadequate. Although public views of the mountains to the north of the pedestrian trail would not be entirely blocked by part of the development (i.e., landscaping trees), it is likely that the view from one of the current public locations -- the intersection of Hunt Avenue/Starr Road identified in the DEIR-- would be wholly eliminated rather than merely obscured as stated in the DEIR. Figure III-7, Hunter

Subdivision Project EIR Landscaping Plan, appears to indicate that residential structures and trees, particularly when they mature, would likely remove any distant views from the intersection travelled by motorists, pedestrians, and cyclists.

Moreover, consistent with comment #3, above, views from several residents along the southern boundary of the project site will probably also lose all or much of their view of the remaining nearby vineyards and Mayacamas Mountains to the north. Figure III-7 indicates that the backs of proposed residences would only be about 30 feet from the fence line of existing residences. These new residential structures would have a maximum height of 30 feet and as much as an additional four feet of elevation above the current ground level resulting from planned grading. Combined with several rows of landscape trees, that will probably exceed 30 feet upon maturity, and the views of the mountains from the second-story decks and balconies of existing residences, along with one-story dwellings, will be significantly obscured if not entirely eliminated. The illumination from night-time lighting of new residences, street lighting, and vehicle traffic in relatively close proximity to the existing residences will pose a significant impact.

Page 81, section (3) Visual Character of the DEIR states that "...As a result [of converting vineyards/agricultural land to residential development], there would be a significant impact on the visual character of the site..." Cross-sections are presented to demonstrate that views of the mountains would not be entirely blocked. The cross-sections are inadequate, only profiles of houses and a ground profile of the project area are shown and nothing for the affordable housing units. Since the cross-sections do not show any relationship to the mountains in the distance, they do not support any findings of visibility of the surrounding hills and mountains.

5) Mitigation Measures. The mitigation of potential visual impacts from the implementation of the proposed project are largely based upon the policies set forth in the "Community Design Element" of the 1993 General Plan Update. Rather than specific details for the implementation of a project-level residential development (in which the zoning ordinances applicable to a MDR land use are likely more relevant), the GP Update policies are intended to provide an overall framework that provides objectives and goals for managing the land uses, the form, character, and appearance of the entire community. Furthermore, the objectives and policies typically represent actions that the City must take to ensure that the General Plan goals and objectives are achieved rather than measures to be implemented by an applicant.

As such, the policies included in the Hunter Subdivision DEIR as mitigation measures are often inconsistent or irrelevant to the proposed housing development project or will result in potentially significant impacts unless contradictory objectives are reconciled. An example would be Policy 4.3.27, to "...encourage large specimen street trees and generous landscaping to shade homes and the street..." which could result in vegetation that screens significant views from existing nearby residents. Policy 4.5.1, "...The sense of a strong connection to the surrounding agricultural open space and hillsides must be preserved in the future. Views of vineyard, hillsides, creeks and major landscape features should be maintained..." would be affected by the proposed project which would remove vineyards, potentially block views of agricultural open spaces and hillsides for existing residents. Policy 4.6.1 to "...Retain key undeveloped open space areas where views to the vineyard and hills can be maintained.

Require that these areas be planted in vines or other low vegetation..." would eliminate

currently expansive views from the pedestrian trail and open space extending east from the terminus of Adams Street by planting of landscaping, including large trees.

The Hunter Subdivision DEIR further includes Community Design objectives policies from the ongoing Draft General Plan Update effort being conducted by the City. Since the GP Update is currently a draft that has not been approved by the City of St. Helena, the policies would not have any applicability as mitigation measures for the proposed project and should be deleted. In accordance with CEQA Guidelines (section 15125(a)), either the publication of the Notice of Preparation, or the date on which the preparation of the EIR is undertaken, serves as the baseline date for the environmental analysis.

Sincerely,



Digitally signed by Harry Benke
DN: cn=Harry Benke, o, ou,
email=hbenke@visualimpactana
lysis.com, c=US
Date: 2012.07.03 18:44:49 -07'00'

Harry Benke
Visual Impact Analysis LLC

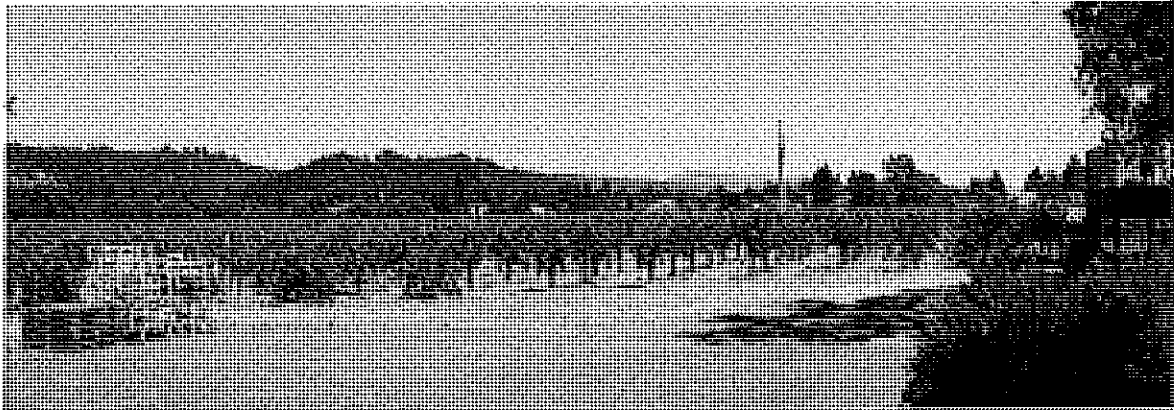


Fig. 1 Fulton Lane with second story houses on the far project side.



Fig. 2 David Fulton Winery Visitors area overlooks the project

EXHIBIT 3-1



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Harry Benke

Owner/Partner - Visual Impact Analysis LLC

Senior Project Manager - Visual Analysis Expert / Photosimulation Production / Visual Resources Inventory (VRI)

Qualifications Summary

Harry Benke is the Project Director for the visual analysis services provided by Visual Impact Analysis LLC. Mr. Benke personally executes, or oversees the execution of all VRI, report analysis and photosimulations. He has extensive experience in the issues of project development, NEPA and CEQA, and in the specific issues of visual impacts and BLM's VRM. His talents in mathematics, design, and his years of computer programming combine for a unique ability to understand, address, and accurately simulate, matters of visual impact significance.

He has an extensive knowledge of multiple engineering disciplines and their interaction as they relate to project design and to visual resources. His understanding of complex engineering issues allows Mr. Benke to effectively support and participate with a project team.

Mr. Benke is highly experienced and sensitive to lighting, shadowing, masses and surrounding components. His teaching of 3D computer modeling along with his computer programming and computer language skills, help him to develop evolving new methodologies and apply new technologies to visual analysis.

Mr. Benke has participated in over 250 visual impact analysis projects.

Education, Training

BLM Visual Resource Management Training; Course 8400-05, Las Vegas, NV 2009

Instructor/3D Computer Modeling-Computer Arts Institute, San Francisco, CA 1986-88

Sculpture - California College of the Arts, Oakland, CA 1972-75

Mathematics - Drexel University, Philadelphia, PA 1968-72

Professional Affiliations

American Mathematical Society

Mathematical Association of America

Professional History

Visual Analyst – Visual Impact Analysis LLC 1989 - Present

Areas of specialty

- CEQA analysis and practice of Aesthetics Analysis [Visual Impact Analysis]
- Photosimulations – from detailed realism to massing
- Visual Resource Inventories / VRI based on BLM VRM
- Shadow Studies
- Night Lighting Simulations
- Digital Terrain Models (DTMs)
- Nighttime LED Signage Simulations
- Signage Simulations and Studies
- SMARA Reclamation Simulation
- Peer Review
- Panoramic Digital Photography
- Color Selection Studies and Camouflage Techniques
- Exhibits and Simulations for Negotiated Legal Documents
- Scenic Quality Assessments
- Visually Sensitive Design Strategies
- Landscape and Vegetation Simulation
- Reclamation and Restoration Simulations
- Visual Mitigation Strategies
- GIS support

Instructor/3D Computer Modeling-Computer Arts Institute, San Francisco, Ca 1986 To 88

- Taught among the first publicly offered courses in the U.S. in 3D modeling and computer graphics.

EXHIBIT 4



SMITH ENGINEERING & MANAGEMENT

July 9, 2012

Mr. Tom Lippe
Lippe Gaffney Wagner LLP
329 Bryant St.; Suite 3D
San Francisco, CA 94107

**Subject: Hunter Subdivision Project Draft Environmental Impact Report, St Helena,
CA (SCH# 2012032048)**

P12006

Dear Mr. Lippe:

Per your request, I have reviewed the Draft Environmental Impact Report (hereinafter "the DEIR") and supporting documentation for the proposed Hunter Subdivision (hereinafter "the Project") in the City of St. Helena (hereinafter "the City"). The focus of my review is in regard to matters involving traffic and circulation. My qualifications to perform this review include registration as both a Civil and Traffic Engineer in California and 44 years professional consulting practice in these fields. I have prepared, reviewed, and commented on the traffic and circulation components of numerous environmental impact documents under the California Environmental Quality Act (hereinafter "CEQA"), working for Lead Agencies, Responsible Agencies and private citizens and organizations. I am familiar with the Project vicinity, having performed numerous assignments in the Napa Valley and personally visited the area extensively. My professional resume is attached. My comments follow.

The DEIR Traffic Study Adjustments to Traffic Counts Are Not Adequately Explained

The DEIR Traffic Impact Study is based on traffic counts taken in November of 2011. The count data was then purportedly "adjusted" to represent peak October harvest season traffic. However, the adjustment factors and the derivation thereof is completely unexplained in the DEIR. Consequently, the public has no way of assessing whether or not the adjusted baseline counts adequately represent peak harvest season conditions. Hence, the DEIR is inadequate as an information document.

Figure IV.L-1 Misrepresents the Local Street Network

Figure IV.L-1 represents Railroad Avenue as being continuous from Hunt Avenue to Pope Street. In actuality, Railroad Avenue dead-ends south of Hunt, about halfway to Pope. Please correct the figure. Please also respond as to whether the DEIR traffic study assigned any Project or other traffic to the non-existent portion of Railroad north of Pope. If such errant assignments have been made, the traffic study will need to be completely revised.

The DEIR Traffic Analysis Fails To Consider the Impacts of Railroad Operations on Traffic

The DEIR's sole assessment of rail operations issues is limited to consideration of whether the temporary blockages of emergency access to the Project site when train passage obstructs the grade crossings of Adams, Hunt and Pope is a significant public safety impact. The finding of less than significant impact based on the opinion of the City's Fire Chief, based solely in the context of present Wine Train schedule, utterly fails to reckon with the possibility that the Wine Train could add runs or to consider that queues on east-west streets blocked during train passage could extend into Main Street, thereby obstructing north-south traffic on this vital circulation artery. There is virtually no separation between the Wine Train trackway and the intersections of Adams Street and Hunt Avenue with Railroad Avenue. The respective queue storage distance on Adams and Hunt between their intersections with Railroad Avenue and their intersections with Main Street is about 254 feet (storage for 10 to 12 cars) and about 135 feet (storage for 5 to 6 cars). On Pope Street, the separation between the trackway and Main Street is only about 56 feet (sufficient for storage of only a 2 to 3 car queue, even less if a large truck were in the mix). Obviously, if the Wine Train were to add a train or change train schedule so that a train passed through the grade crossings of these streets, available queue storage could easily be exceeded, obstructing Main Street. This would be both a significant public safety impact and a significant traffic impact. Because of the plausibility of such circumstances, the DEIR traffic study is inadequate without analysis of train-passage related eastbound queues on the above-named streets with- and without the Project in the current and 2030 scenarios. Such an analysis should be performed, and if it reveals any significant impacts, the revised document should be recirculated in draft status.

The DEIR's Analysis of Left Turn Queue Storage Issues Is Inadequate

The DEIR only analyzes queue length and adequacy of queue storage capacity at left turn lanes that would logically be used by Project traffic. However, at any intersection where the Project adds traffic and increases overall delay, this can also cause queues on left turn storage lanes only logically used by non-project traffic to exceed available storage lengths. Consequently, the DEIR should have

also analyzed the queue storage adequacy for the northbound left at Fulton-Madrona and Main, the northbound left at Adams and Main, and the northbound left at the compound intersection of Pope, Mitchell and Main. Without such an analysis, the DEIR traffic study is inadequate. If the revised traffic study finds significant impacts at any of these locations, it should be recirculated in draft status.

The DEIR Fails To Analyze Residential Traffic Impacts of the Project

Many of the streets that would carry Project traffic are residential in character. The entirety of the DEIR traffic impact analysis is focused on traffic service metrics: congestion, delay and levels of traffic service (LOS). Although the discussion of Construction Traffic Impacts¹ essentially admits that traffic effects on the quality and amenity of residential can be an impactful condition, no attempt has been made to estimate, disclose and mitigate the Project's traffic impacts on residential quality of life along the affected streets, even though widely recognized and employed metrics for evaluating those impacts exist. The DEIR is deficient in its failure to assess residential traffic impacts.

The DEIR's Basis for the Estimates of 2030 Traffic Is Not Adequately Explained

The DEIR narrative explains that "a small annual growth rate was applied to through volumes to account for regional growth from 2011 to 2020". Nowhere does the DEIR disclose what this "small annual growth rate" is or what factual basis was used to substantiate it. The DEIR narrative also indicates that "to project growth to Year 2030 conditions, a growth rate developed by the City, 0.75 percent per year, was applied to Year 2020 volumes at all intersections for a 10-year period." Again, the DEIR fails to provide any substantiation for the assumed growth rate over the last 10 years of the forecast. Hence, the public has no basis for judging whether the 2030 forecasts are reasonable or not. Hence, the DEIR is deficient as an information document.

The Trip Distribution for The Project and for Other Planned and Approved Developments Is Not Adequately Explained in the DEIR

The manner in which the trip distribution for the Project's generated trips was estimated is only vaguely described in the DEIR narrative.² The actual trip distribution is not documented in narrative or figures. Only end result traffic volumes at intersections are documented. The manner of estimation and actual distribution of trips from other approved or planned projects is not documented at all. Hence the public is provided no reasonable basis of judging whether or not the DEIR's estimates of trip distributions reasonably conform

¹ DEIR page 337.

² DEIR pages 335 and 336.

to recognized traffic patterns in the Project vicinity. Consequently, the DEIR is inadequate as an information document.

Study Maps Inadequate To Assess Project Conformity with General Plan Roadway Improvements

On pages 328 and 329, the DEIR traffic analysis lists certain road development provisions in the City's General Plan that individual development projects such as Hunter Subdivision must demonstrate conformity with. However, for 6 of the 9 road development projects listed from the General Plan that the Project must demonstrate general consistency with, the map illustrations presented in the DEIR lack identification of street names and other landmarks that define the limits of those General Plan roadway development projects. Since most of the project limits are undefined on the DEIR map work, the public has no basis for judging whether or not the Project has potential non-conformity with those General Plan projects. Consequently, the DEIR is inadequate as an information document in this regard.

There Is No Indication How High Pedestrian Volumes Are Considered In DEIR Traffic Analysis

The DEIR identifies the fact that there are high pedestrian volumes at some study intersections and documents these in Appendix E Figures IV.E-1, IV.E-2 and IV.E-3. Please explain how the high pedestrian volumes are taken into account in the LOS calculations, particularly for the intersections of Adams with Main, Adams with Railroad, Hunt with Main, Hunt with Railroad, and for the compound intersection of Pope and Mitchell with Main.

DEIR Fails to Document Actual LOS Calculations

The above issue regarding consideration of high pedestrian volumes gives rise to the further observation that this subject DEIR does not provide as an appendix, all of the LOS calculation sheets and, where performed, queue calculation sheets. Such appendix provision is customary with most DEIRs in most Lead Agencies. Indeed, the City only posted the meager 12 pages of tables and figures contained in Appendix E on its web site where it would be broadly available to the public only 8 days before the expiration of the 45 day period for filing comments on the DEIR. The lack of the LOS calculation sheets and the late posting of the DEIR appendices is inconsistent with the transparent process CEQA demands and renders the DEIR inadequate as an information document.

Diversions of Non-Project Traffic Inadequately Documented

The DEIR assumes that the new roadway connections provided by the Project (the connection of Starr through to Adams) will alter the routes of some non-project traffic and indicates that these diversions will have beneficial effects at some study intersections. However, it only documents the diverted volume changes at the study intersections, not the overall flow patterns of diversions. This makes it impossible for the public to determine whether the assumed patterns and numbers of non-project trip diversions are reasonable or not. This also renders the DEIR inadequate as an information document.

Pope Street – Silverado Trail Intersection Mitigation Unsatisfactory

Mitigation measure TRAF-1 proposes that the Project pay a fair share contribution to striping a right turn lane from southbound Silverado Trail to Pope Street westbound. However, there are several things wrong with this mitigation.

First, according to the DEIR narrative, the proposed mitigation only offsets the Project's contribution to the deficiency at this intersection. However, the Project is claiming the full benefit of the improvement while only contributing a fair share payment. Also, there are many other approved projects in the City and elsewhere in the region that are potential fair share payers who may claim the full benefit of the purported improvement. In essence, the City appears to be attempting to use one band-aid to staunch the bleeding of multiple wounds.

Second, current aerial and site photography shows that the proposed right turn lane already exists. The Project cannot claim the benefit of creating something that is already there.

Third, there is a simple and effective short term solution to reducing delay at the subject intersection. This involves creating a raised "pork-chop" island separating the southbound through lane from the southbound right turn lane on Silverado Trail. The island would create a shelter enable advancing the stop line on eastbound Pope to the edge line of the southbound through lane on Silverado. With the stop line advanced, vehicles attempting to turn right from eastbound Pope to southbound Silverado could do so even when vehicles attempting to turn left from Pope to Silverado northbound are awaiting breaks in both directions of traffic on Silverado. This improvement would remain of benefit when the intersection ultimately becomes signalized.

Vine Trail Issue Not Clearly Resolved

The DEIR identifies that the Project would conflict with the Vine Trail portion of Napa County's Countywide Bikeway Plan, Napa County Regional Park Open Space District's Master Trail Plan and the City's Draft General Plan Circulation Element because the Project does not specifically provide for the Vine Trail along the extensions of Starr Avenue and Adams Street. As mitigation (TRAF-7) the DEIR proposes that the Project provide Class II signed and striped bike lanes along the Starr Avenue and Adams Street roadway extensions. However, it is not clear that the proposed Class II bike lanes will provide the "family friendly" environment that the Vine Trail is intended to provide. The City should clarify whether or not the Project Sponsor will be required to provide the Class 1 bike facility along Starr Avenue that is held out as a vague possibility in the concluding discussion of Impact TRAF-7.

DEIR Should Have Considered Project With Connection of Adams to Silverado Trail

The City clearly plans ultimate connection of Adams Street to Silverado Trail. Even though the City at this time has no clear funding commitment for such a connection, given the location of the Hunter Project and the fact that such a roadway connection could have dramatic consequences for the quality and livability of the residential units proposed, as well as significantly increased traffic demands at key study intersections such as Adams with

Mr. Tom Lippe
July 9, 2012
Page 6

Railroad and Adams with Main, the DEIR should, at a minimum, should have evaluated the Project with the Adams-Silverado connection in place as an alternative Year 2030 scenario. Without such an analysis, the DEIR is deficient.

Conclusion

Based on all of the points noted in detail above, we are convinced the DEIR traffic analysis of the Project's significant impacts and mitigation needs is inadequate. Particularly problematic are the inadequacies as an information document and the absence of a long-range analysis scenario with the Adams-Silverado connection in place. The traffic analysis should be completely redone in light of all of the above comments and observations herein and the DEIR should be recirculated in draft status.

Sincerely,

Smith Engineering & Management
A California Corporation



Daniel T. Smith Jr., P.E.

EXHIBIT 4-1



SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr. **President**

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)
California No. 938 (Traffic) Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

TRAFFIC • TRANSPORTATION • MANAGEMENT

5311 Lowry Road, Union City, CA 94587 tel: 510.489.9477 fax: 510.489.9478

Transportation Centers. Project manager for Daly City Intermodal Study which developed a \$7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking.

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al.* Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pci WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard *et al.*, U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

EXHIBIT 5



Arc Ecology

Environment, Economy, Society, & Security

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"The moral arc
of the universe
is long,
but it bends toward
justice"
Reverend Martin Luther
King Jr.
Where Do We Go From
Here?
August 1966

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COMMENTS

From: Saul Bloom
To: Kelly Franger and Tom Lippe
Date: 7/6/12

Hunter Subdivision Project Draft EIR SCH: 2012032048
Prepared For The City Of St. Helena May 29, 2012

Overview

Below are Arc Ecology's comments on the Hunters Subdivision Project Environmental Impact Report. I wanted to note that the development of these comments was challenging because from a hazardous substances/ property contamination perspective there was very little data provided to comment upon. This is unfortunate as there are virtually no other sources of information available with which to check this document. I conducted an on-line search for materials and several of the pictures of the site were obtained independently through Google Earth.

Site Characterization

"The project site contains approximately 16.9 acres of land, is relatively flat, and is currently undeveloped. The site is generally rectangular with a "panhandle" extension that connects the site to Adams Street west of the panhandle. Approximately 40 percent of the site is under cultivation with a vineyard and the remainder is vacant. No trees, rock outcroppings or other significant natural features exist on the site. Figures III-2 shows an aerial view of the project and Figure III-3 shows views of the site from two different vantage points. The eastern portion of the site is currently located within a 100-year Flood Hazard area as mapped by the Federal Emergency Management Agency (FEMA). This portion is mapped on Figure III-4. There is also a drainage ditch located along the northern edge of the property that is likely jurisdictional waters of the U.S.¹"

EIR Page 41. (Figure III—1 on following page)

As regards potential soil contamination the Hazards section of the EIR reports:

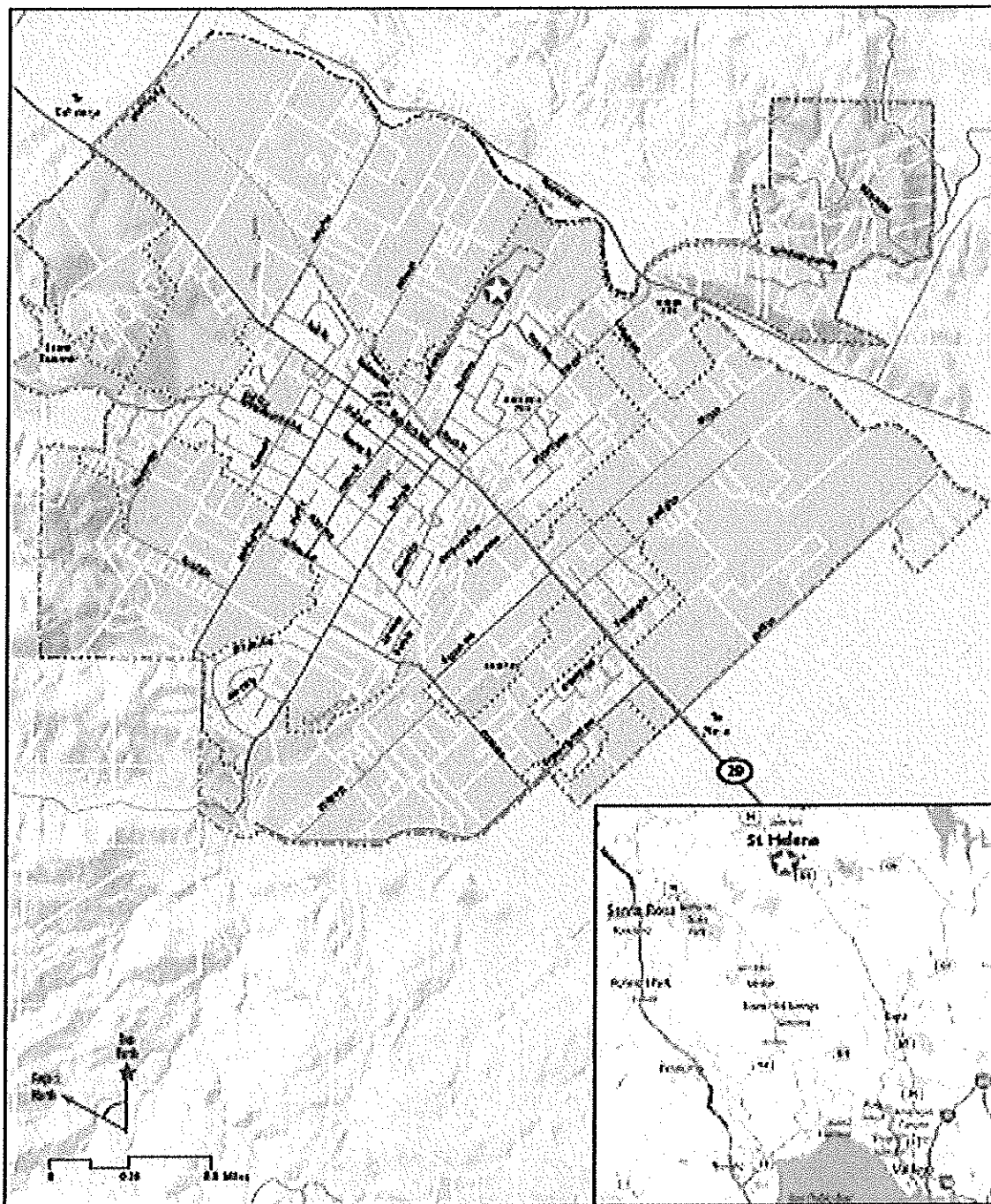
"H. HAZARDS AND PUBLIC SAFETY

1. Setting

a. Existing Conditions

Hazardous materials may be present in the subsurface as a result of past and present land uses. Exposure to such materials could adversely affect the health of construction workers and/or the public during project construction.

Hazardous materials issues at the project site were evaluated by reviewing historical land use infor-



Source: City of St. Helena Draft General Plan 2020; and Google Earth, 2011.





- | | |
|--|--|
|  Project Location |  City Limits, City of St. Helena |
|  Project Site |  Urban Limit Line, City of St. Helena |

Figure III-1
Hunter Subdivision Project EIR
Project Location and Regional Vicinity Map

mation, reviewing regulatory agency hazardous material records, and a site reconnaissance performed by a BASELINE Environmental Consulting professional geologist on November 3, 2011.

(1) Historical Land Uses

Potential hazardous materials issues associated with historical land uses at and near the project site were evaluated by reviewing historical aerial photographs from 1940, 1958, 1965, 1973, 1982, 1993, 1998, 2005, 2006, and 2009 and historical topographic maps from 1945, 1960, and 1993. 2,3 ...

² Environmental Data Resources (EDR), 2012. Aerial Photo Decade Package, Hunter Property Subdivision, Inquiry Number 3231027.5.

³ Environmental Data Resources (EDR), 2011. Historical Topographic Map Report, Hunter Property Subdivision, Inquiry Number 3231027.4."

EIR Page 197

"In summary, the primary historical land uses identified at the project site were agricultural. Aerial photos from 1940 and 1958 show orchards and what appear to be field crops on the project site; and photos on and after 1965 show rows of plants indicative of vineyards. It is likely that agricultural chemicals were applied to the project site at this time.

Prior to 1950, inorganic pesticides that contained elevated concentrations of heavy metals, such as arsenic, were commonly used in California agriculture. After 1950, organochlorine pesticides (e.g., DDT, chlordane) were commonly used in California agriculture until about the mid-1970s. Residues from inorganic and organochlorine pesticides used in the past have the potential to persist for many decades in shallow soils and can affect human health or the environment⁴. Chemical residues in shallow soils, if present, could affect development of the project site by posing a health risk to construction workers and future residents.

Environmental Data Resources, Inc. (EDR), an environmental resource service, was contracted to conduct a search of federal, state, and local regulatory agency records pertaining to past and present hazardous material uses and releases at the project site and nearby properties.⁵ No records of sites using, storing, or disposing of hazardous materials were identified within ¼-mile of the project site. No reported hazardous materials releases were identified within ¼-mile.

Eight hazardous materials release sites were identified between ¼-mile and 1 mile from the project site. Six sites were listed due to leaking USTs; releases from this type of sites typically do not migrate more than about 250 feet from the release.⁶ Other releases were being investigated and remediated under low priority cleanup programs, such as the Water Board's Spills, Leaks, Investigations, and Cleanups (SLIC) program and DTSC's Voluntary Cleanup Program (VCP). No high priority hazardous release sites, such as National Priority List (Superfund) sites, were identified in the project vicinity. The findings of the regulatory agency record search indicate that no reported hazardous materials release would have the potential to affect soils and groundwater at the project site."

EIR Pages 198-199

Comment 1: I find it curious that the potential for hazardous waste and contaminated sites on the property seem to be entirely focused on aerial photographs and topographical maps dating back to 1940.

"(1) Historical Land Uses

Potential hazardous materials issues associated with historical land uses at and near the project site were evaluated by reviewing historical aerial photographs from 1940, 1958, 1965, 1973, 1982, 1993, 1998, 2005, 2006, and 2009 and historical topographic maps from 1945, 1960, and 1993. 2,3 ..."

According to the Saint Helena Chamber of Commerce Website the town of Saint Helena began in 1854 and by 1915 was a popular tourist attraction. Given the age of the town and the length of time many toxic and hazardous materials such as arsenic persist in the soil the historic overview included in the hazards section should have included a summary of the results of a title/ deed search from the Hall of Records or County Clerk as would be typical in an EIR.

Comment 2: The EIR fails to provide information cited as relevant to the characterization of the site.

While the information in the afore quoted section provide a reasonable overview:

- The EIR reports photographic information it does not provide, and reports on which this section was based which are not included.
- There is generally no particular way we as a reviewer of the EIR would be able to determine the relevance of this information to the current state of the property's contamination, the hazards posed to the public and how it might change the project.

Comment 3: Hazards Section Proposed Mitigation is helpful in that a commitment is made to addressing pollution found on the site, however it substitutes a commitment to addressing a potential problem for providing meaningful data and analysis for public review.

- The EIR states that a risk assessment "will be subject to review and/ or approval by DEM and/ or other regulatory oversight agencies" absent is any commitment to public engagement which lies at the core of the CEQA process.
- The EIR proposes the following as a mitigation but the proposal comes after the fact and provides Arc Ecology as reviewer of this document no assistance in informing us about the site's conditions or whether any of the proposed controls or other forms of mitigation are adequate.

"Exposure to these chemical residues during site grading and development activities could potentially affect the health and safety of construction workers and the general public. If left in place, residues could also affect future residents at the project site."

Mitigation Measure HAZ-1: As a condition of approval for construction and grading permits for the project site, the following subsurface investigation and follow-up analysis shall be performed to evaluate agricultural chemical residues in site soils:

- *Shallow soil samples shall be collected by a qualified environmental professional within all areas of the project area proposed for residential uses and analyzed for pesticides and herbicides in accordance with DTSC's Interim Guidance for Sampling Agricultural Properties⁹.*
- *The sampling shall be conducted prior to site grading and development activities. As specified in the Interim Guidance, any detected organic compounds or metals above naturally-occurring concentrations must be evaluated in a human health risk assessment as described in the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual or in comparison to California Human Health Screening Levels (CHHSLs).*
- *The risk assessment shall describe measures that must be implemented to ensure that any potential added health risks to construction workers, maintenance and utility workers, site users, and the general public as a result of hazardous materials are reduced to a cumulative risk of less than 1×10^{-6} (one in one million) for carcinogens and a cumulative hazard index of 1.0 for non-carcinogens, or as required by a regulatory oversight agency.*
- *The risk assessment will be subject to review and/or approval by DEM and/or other regulatory oversight agencies.*
- *The potential risks to human health in excess of these goals would be reduced either by remediation of the contaminated soils (e.g., excavation and off-site disposal) and/or implementation of institutional controls and engineering controls (IC/EC). IC/EC may include the use of a construction risk manage-*

ment plan (for mitigating exposures during construction and maintenance of the project), hardscape (buildings and pavements), importation of clean soil in landscaped areas to eliminate exposure pathways, and/or deed restrictions. If IC/EC are implemented, an Operations and Maintenance Program must be prepared and implemented to ensure that the measures adopted are maintained throughout the life of the project. If IC/EC are implemented, the Operations and Maintenance Program will be subject to review and approval by DEM and/or other regulatory oversight agencies. Implementation of the above mitigation measure would reduce this impact to a less-than-significant level. (LTS)

EIR Pages 208-209

Comment 4: The EIR fails to provide the public with relevant data regarding the contamination of the property which could have been knowable at the time of publication.

Arc Ecology is frustrated with the lack of actual data in the EIR. Instead of providing a summary of which chemicals contaminate the property and the extent to which contamination is documented, the EIR instead substitutes a list of hazardous and toxic chemicals known to have been broadly used throughout the State and might be present at this location. At 16.9 acres this is a relatively small site and better site specific characterization of toxic and hazardous contamination should have been provided. While sparse, there is sufficient background information to help guide even a small scale preliminary sampling effort to inform the EIR:

- *"In 1940, the project site and vicinity were primarily agricultural. Five rectangular sewage disposal ponds, totaling about 3 acres, were located to the east of the project site..."*
- *Between 1965 and 1973, the sewage disposal ponds were filled in...*
- *Between 1973 and 1982, a small pond (approximately 50 feet in diameter) was constructed in the southeast corner of the project site.*
- *Prior to 1950, inorganic pesticides that contained elevated concentrations of heavy metals, such as arsenic, were commonly used in California agriculture. After 1950, organochlorine pesticides (e.g., DDT, chlordane) were commonly used in California agriculture until about the mid-1970s. Residues from inorganic and organochlorine pesticides used in the past have the potential to persist for many decades in shallow soils and can affect human health or the environment⁴. Chemical residues in shallow soils, if present, could affect development of the project site by posing a health risk to construction workers and future residents."*

EIR Page 198

Given that these sites were known and that it was understood that the possibility of contamination could impact the project site, to perform its informational role the EIR should have provided the public with a study that assessed the nature of the contamination, the extent of the contamination and the health risks associated with the contamination.

Comment 5: A preliminary sampling study could have easily been mounted to inform the EIR prior to its publication thereby affording reviewers such as Arc Ecology an opportunity to evaluate the possible impacts on the project as cited in the quote from EIR Page 198 above.

The EIR with rare exception provides only annual dates and withholds information on the month of a documents publication. For example:

³ Environmental Data Resources (EDR), 2011. Historical Topographic Map Report, Hunter Property Subdivision, Inquiry Number 3231027.4."

Even though from reading the EIR it is difficult to know when in 2011 this document was produced it is nevertheless clear from this citation as well as other documents cited in the EIR that there was sufficient information on hand and adequate time to create and execute at the very least a preliminary sampling program. Given that the location of sites on and around the project like the former sewage ponds, the adjacent drainage ditch, and the agricultural history were known it would in our view take less than nine months to assemble, gain approval for, and execute a discrete sampling program to inform the EIR.

Such data is necessary for evaluating the impacts of hazards on the project than the information provided in the EIR.

Comment 4: Areas of Concern

The map below shows Arc Ecology's areas of concerns relatively to hazardous materials impacts on the project site. The area within blue figure is the project site itself and the flood detention pond, the project site is known to be potentially impacted by agricultural pollutants. The red circles denote ponds. Such bodies of water are known to collect agricultural runoff and therefore concentrate the pollutants. They are also frequently the site of past disposal of other chemical contaminants. The area inside the yellow rectangles are the mobile home park and a portion of an adjacent development. Little is said about these sites in the EIR.



The large red circle is shown as a body of water. From a look in Google Earth, it's a pond although it could easily be a drainage ditch or something else. The concern is that this body of water could be contaminated with both agricultural (pesticides etc) and other liquid or heavy metal pollutants which could have already leached into the project area.

The small red circle is also shown as a body of water and is referred to in the EIR as a pond, but there is no further description of it except that it is reported to have been excavated and filled in 2005 but apparently still contains or collects water.

The EIR makes it clear that the small pond on the property is not lined (although it doesn't say so directly). The EIR is silent on the condition of the body of water in the large red circle on adjacent property.

The mobile home park is of concern because of the potential for broken or improperly constructed sewer/ water transport connections to contaminate the groundwater.

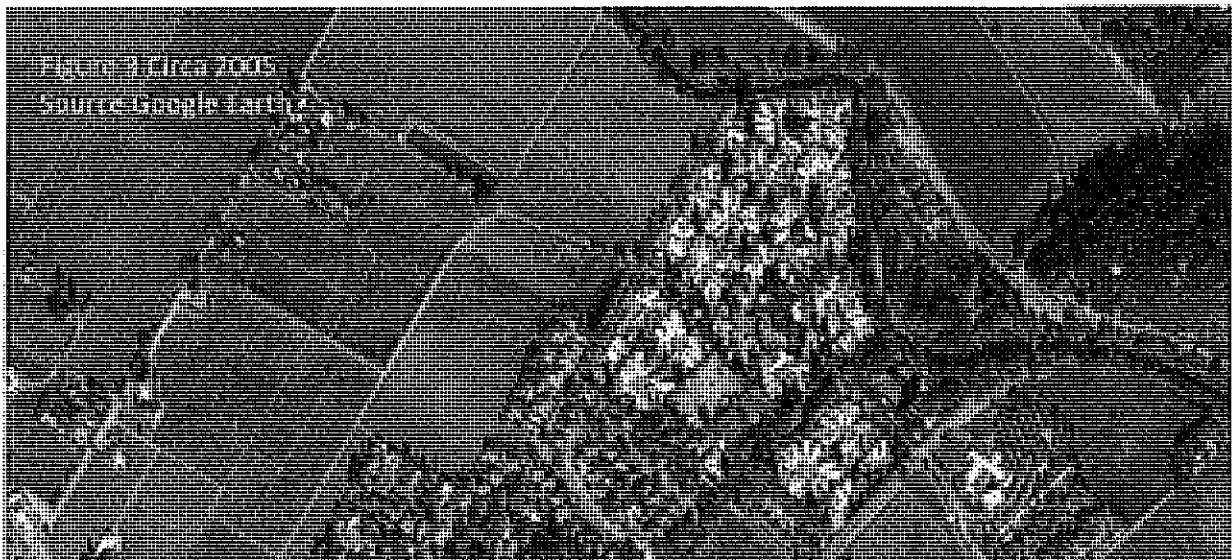
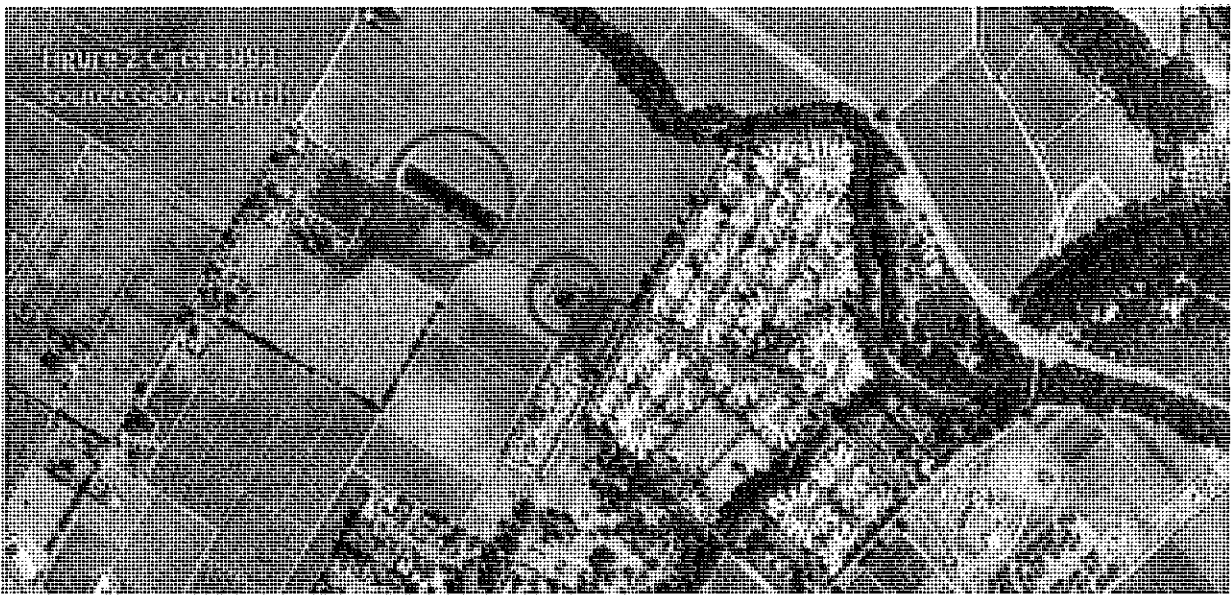
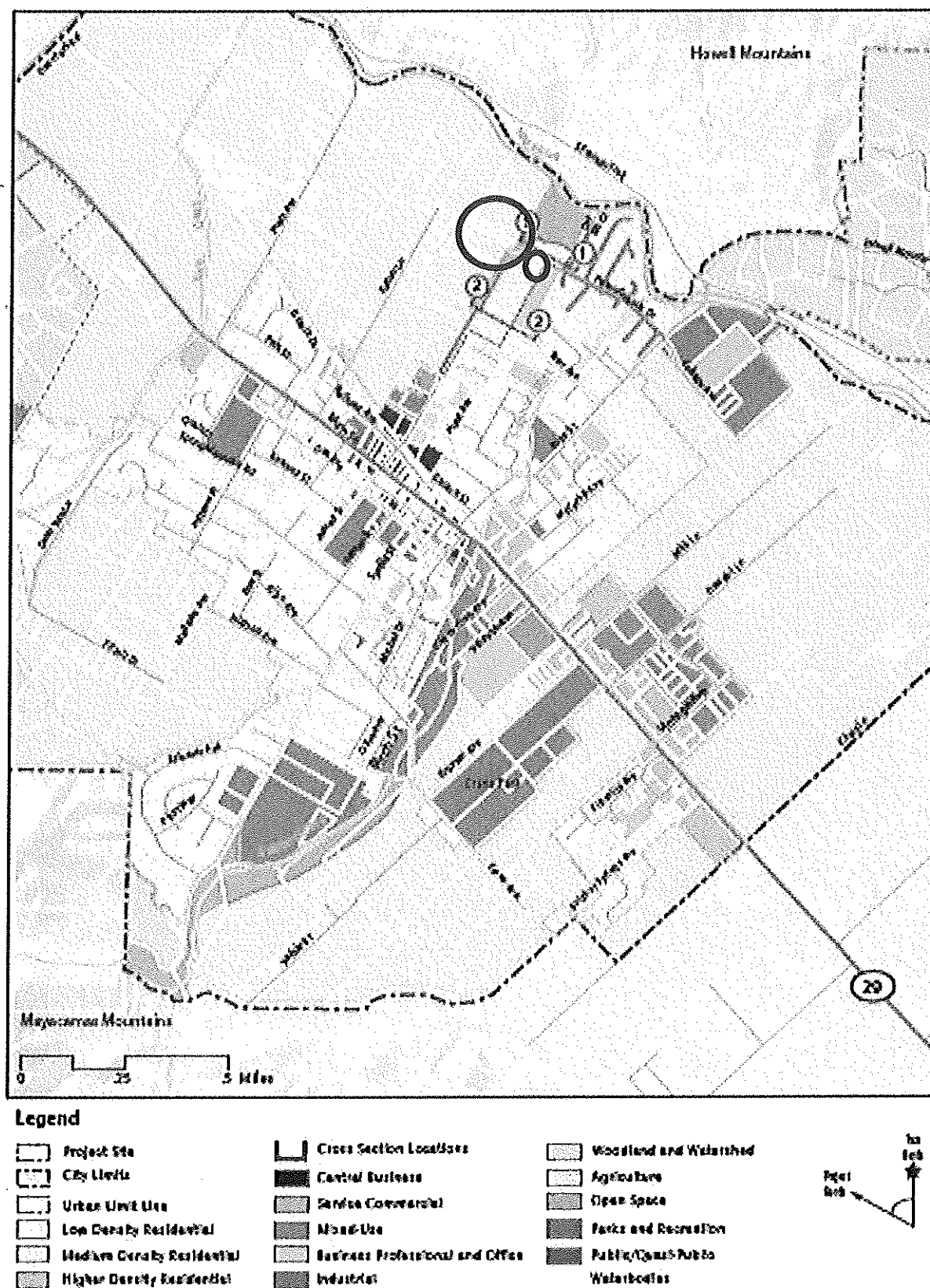


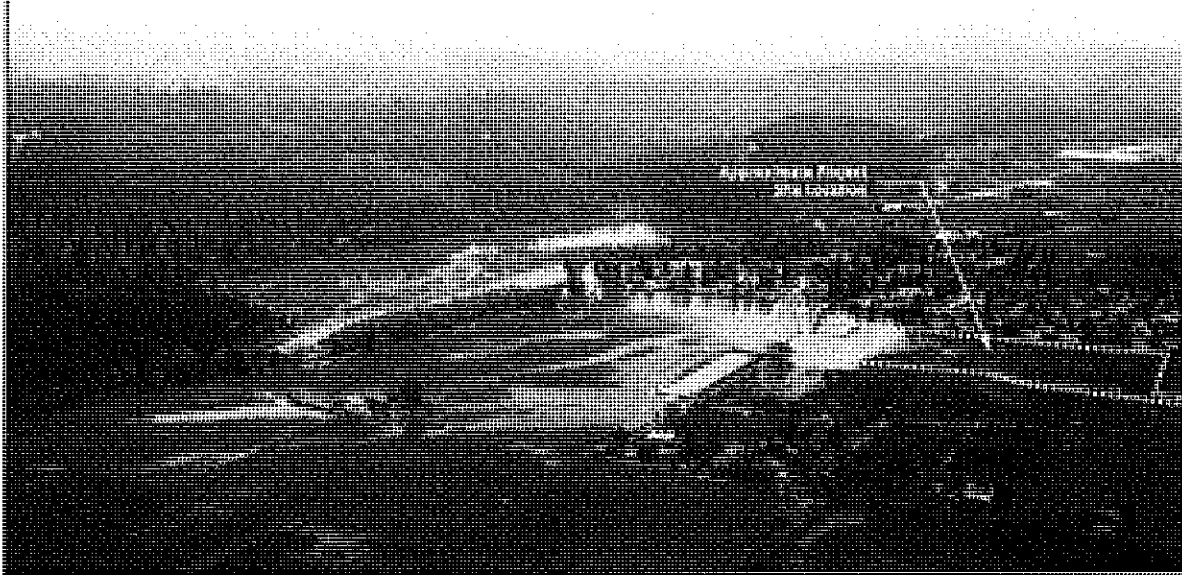
Figure 4 From EIR Identifying Ponds as existing bodies of water



Source: City of St. Helena Draft General Plan 2030.

Figure IV.A-7
Hunter Subdivision Project EIR
Locations for Cross Sections

Figure 5 from EIR



Source: City of St. Helena Public Works Department, Photo Dated: December 13, 2005.

Figure IV.I-2
Hunter Subdivision Project EIR
Historic Flooding 2005

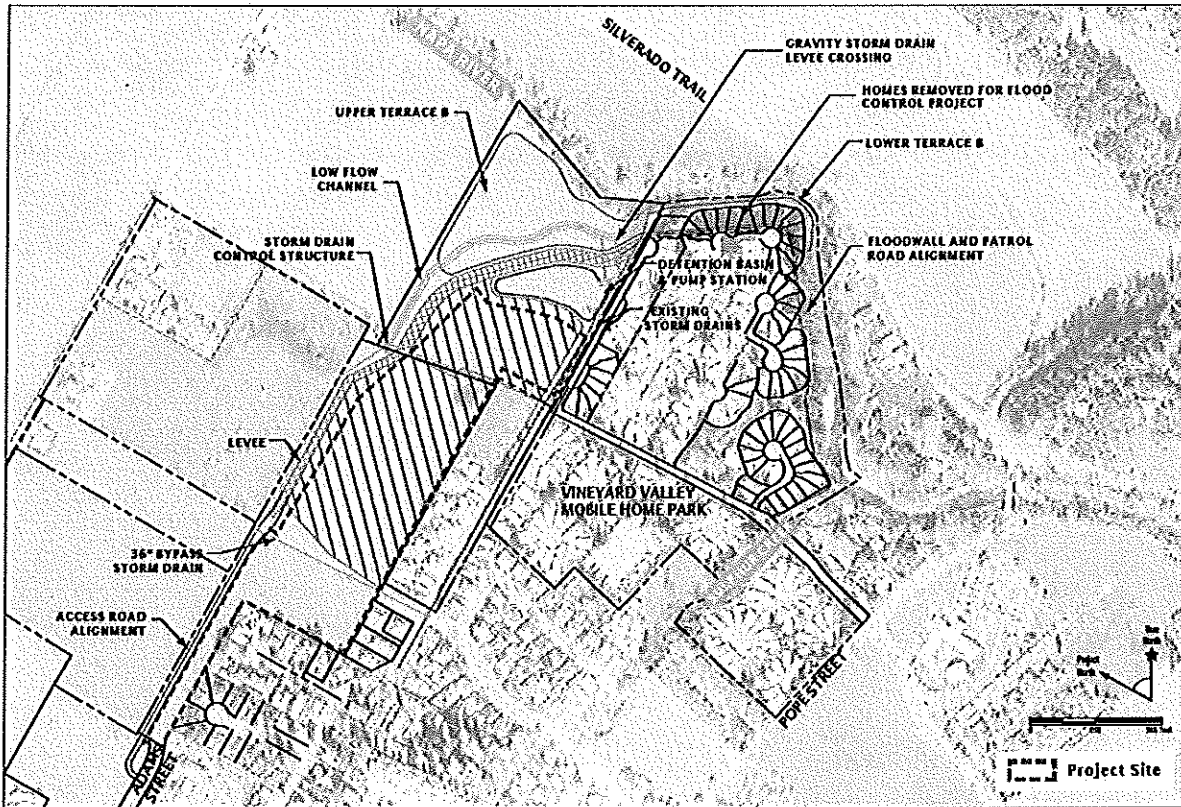
Figure 5 illustrates why these ponds are of concern relative to the project. Both are clearly visible in the photo above. During the flooding of 2005 river water overran the embankments of the ponds and a portion of the property was flooded. If contaminated some portion of the collected or disposed pollutants in these ponds seems likely to have been carried onto the property. If contaminated, some of this pollution seems likely to have seeped into the water table.

The EIR reports:

"An existing well near the southeastern end of the property is proposed to be maintained in place and used for irrigation of the project's exterior landscaping areas, pending City approval. The project would be designed not to exceed 0.4 AF/year/dwelling based on the installation of increasingly efficient and lowerwater- using fixtures and appliances. For further detail on proposed project water demands, see Section IV.K Public Services, Recreation and Utilities

EIR Page 56.

However the EIR does not discuss what the quality of this water is nor does it discuss any potential contamination issues from the ponds shown above or any other source.



Source: Comprehensive Flood Protection Project, Project Overview Schematic, City of St. Helena, June 2011.

Figure IV.I-1
Hunter Subdivision Project EIR
Hydrologic Features



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Figure IV.I-3
Hunter Subdivision Project EIR
Current Pre-Flood Control Project Regulatory 100-Year Flood Hazard Area



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Figure IV.I-4
Hunter Subdivision Project EIR
100-Year Flood Hazard Area with Flood Control Project

Qualifications

Arc Ecology is a nonprofit public interest technical services provider to environmental and economic justice communities throughout Northern California. Arc Ecology funds its nonprofit community service mission in part through the provision of fee-based technical consultation to projects or entities engaged in activities consistent with our organizational mission—
www.arcecolony.org.

Brief Sample of Relevant Consulting Projects:

The following projects involved the review of Superfund Remedial Investigation and Response Documents/ Plans and Environmental Impact Statements and Reports.

- 2011-2012: Bayview Hunters Point Community Environmental Technical Advisor. India Basin Neighborhood Association, US Environmental Protection Agency Technical Assistance Grant. Hunters Point Shipyard CERCLA remedial response program US Navy.
- 2001-2010: San Francisco Redevelopment Agency/ San Francisco Department of Environment. Bayview Hunters Point Community Environmental Technical Advisor. Hunters Point Shipyard CERCLA remedial response program US Navy.
- 1995-2000: Monterey Community Technical Environmental Advisor. Fort Ord Toxics Project. US Environmental Protection Agency Technical Assistance Grant. Fort Ord CERCLA remedial response program US Army.

Awards and Citations:

- 2007 American Society of Landscape Architects National Award for Research, Planning & Community Engagement: Hargreaves Associates/ Arc Ecology "*From Pollution to Parklands:*" A planning analysis for public park designs for the Hunters Point Shipyard.
- 2009 Boston Architectural Society - Citation for Research, Planning & Community Engagement: Bionic/ Arc Ecology "*Alternatives for Study:*" A critical planning analysis of the redevelopment plans for the Hunters Point Shipyard.
- 2009 Northern California Chapter of American Society of Landscape Architects - Award for Research, Planning & Community Engagement: Bionic/ Arc Ecology "*Alternatives for Study:*" A critical planning analysis of the redevelopment plans for the Hunters Point Shipyard.

Saul Bloom, Executive Director/ CEO

The following projects involved the review of Superfund Remedial Investigation and Response Documents/ Plans and Environmental Impact Statements and Reports.

- 1984-present - Arc Ecology Executive Director and CEO
- 1994-2005 - Restoration Advisory Board Membership: Alameda Naval Air Station, Hunters Point Naval Shipyard, Oakland Army Base, Presidio Army Base, Treasure Island Naval Station.
- 1994-2008 - Chair Environment and Reuse Subcommittee, Hunters Point Shipyard Citizens Advisory Committee
- 1994-1999 Member - East Bay Conversion and Reinvestment Commission
- 1994-1998 Member - California EPA Base Closures Environmental Advisory Committee
- 1989 - 1994 Member - Technical Review Committee Presidio Army Base

Expert Testimony:

2000 - US Congressional Advisory Hearing - *Community Engagement in Base Closure Cleanup*

1996 - Committee on the Environment, Philippine Senate, *Pollution Impacts of Closing Bases*.

1995 - Parliamentary Inquiry on Military Base Pollution, UK

1991 - Subcommittee on Military Construction US House Armed Services Committee: *Pollution Impacts on Base Realignment and Closures Time Schedule*

1986 - Subcommittee on Water and Energy Policy US House Interior Committee: *Pollution of San Francisco Bay Area Military Bases*

EXHIBIT 6

Table 4-3 indicates how land cover types were grouped into the biotic communities that follow. Table 4-4 summarizes the acreage of each biotic community within each evaluation area, and in the County as a whole. Map 4-3 depicts the distribution of these biotic communities in the County.

GRASSLAND

DISTRIBUTION

Grassland is a relatively common land cover in the County, covering over 53,700 acres or nearly 11% of the County (Map 4-3 and Table 4-3). Large grassland areas are most common in southeastern portion of the County, around the cities of American Canyon and Napa, in Jamieson/American Canyon, Napa Valley Floor, and Napa River Marshes Evaluation Areas. These three evaluation areas contain about 13% of the grassland in the County. The Pope Valley and Knoxville Evaluation Areas in the north together contain about 15% of the County's grassland. However, grassland also occurs elsewhere throughout the County in large patches on flat to gently rolling hills.

TYPES

Three grassland assemblages exist within the County: annual grassland, native grassland and serpentine (punchgrass) grassland. Of these assemblages, both native grassland and serpentine grassland are considered sensitive communities. Vernal pools, which provide habitat for a number of special-status species, are found in some grassland areas.

ANNUAL GRASSLAND

GENERAL DISTRIBUTION

Non-native annual grassland has only been present in the County since about the mid-1800s, when non-native grasses and forbs introduced from Europe largely replaced the native grassland vegetation (Heady 1988). This land cover has increased in extent and distribution throughout the County since that time, as non-native grasslands have replaced the native grasslands previously present and woodlands that have been cleared. Today, annual grassland covers slightly over 10% of the County (approximately 51,000 acres) and is found scattered throughout the County. The largest and least fragmented annual grasslands in the County are located in the Jamieson/American Canyon Evaluation Area, in the southeastern part of the County. The Pope Valley Evaluation Area, in the north-central part of the County, also contains significant unfragmented annual grasslands.

COMMON PLANTS

California annual grassland, or nonnative grassland, is an herbaceous plant community dominated by nonnative annual grasses (Holland 1986, Sawyer and Keeler-Wolf 1995). In the County, the dominant grasses include wild oat (*Avena*) species, brome (*Bromus*) grasses, wild barley (*Hordeum*) species,

Italian ryegrass (*Lolium multiflorum*), medusa head (*Taeniantherum caput-medusae*) and annual fescue (*Vulpia*) species.

Species composition of the annual grassland is highly diverse and includes many other native and nonnative forbs. Common species in the County include many clover (*Trifolium*) species, filaree (*Erodium*) species, miniature lupine (*Lupinus bicolor*), Douglas's lupine (*Lupinus nanus*), slender cottonweed (*Micropus californicus* var. *californicus*), birdsfoot trefoil (*Lotus corniculatus*), evening snow (*Linanthus dichotomus*), California poppy (*Eschscholzia californica*), purple owl's-clover (*Castilleja densiflora*), valley tassels (*Castilleja attenuata*), blow wives (*Achyrrachaena mollis*), buttercup (*Ranunculus* spp.), star thistle (*Centaureum* sp.), and smooth cat's-ear (*Hypochaeris glabra*).

Barbour and Witham (2004) point out that the conservation value of annual grasslands is generally underestimated. While dominated by nonnative grasses, these grasslands also provide habitat to many native forbs (nine of the common forbs listed above are native).

The annual flora of annual grasslands has the following cycle: germination after the first fall rains, growth in winter, flowering and fruit set in spring, and survival as seeds buried in the soil during the summer drought (Heady 1988). In general, species composition varies according to annual rainfall, slope, exposure, soil type, and the presence of disturbance (Pitt and Heady 1978, Heady 1988). Vernal pools and other seasonal wetlands sometimes occur in this community.

COMMON WILDLIFE

A variety of reptiles, including the western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), and gopher snake (*Pituophis catenifer*) are characteristic of annual grassland.

Mammals typically found in this land-cover type include the black-tailed jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), Bott's pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotis*), California vole (*Microtus californicus*), and coyote (*Canis latrans*).

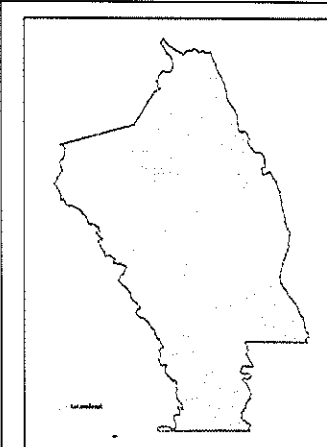
Common birds that breed in annual grassland habitats include the western kingbird (*Tyrannus verticalis*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophila alpestris actia*), Savannah sparrow (*Passerculus sandwichensis*), western bluebird (*Sialia mexicana*), Say's phoebe (*Sayornis saya*) and western meadowlark (*Sturnella neglecta*). Annual grassland also provides important foraging habitat for the golden eagle (*Aquila chrysaetos*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), white-tailed kite, red-tailed hawk (*Buteo jamaicensis*), and wintering ferruginous hawk (*Buteo regalis*).

Non-native annual grasslands vary in productivity for wildlife depending on soil type, adjacent land use, and management regime. Different species of wildlife and plants benefit from different grazing intensities or mowing regimes, and frequencies of burning. Annual grasslands can be extremely productive wildlife habitats, providing abundant seed and insects as a food source for small mammals and birds, which in turn provide prey for numerous raptors and other predators.



Blue-eyed grass (*Sisyrinchium bellum*). Species composition of the annual grassland is highly diverse and includes many native and nonnative forbs.

Napa County is home to many wildlife species, including many rare, threatened and endangered species.



Schematic map of County showing distribution of native grassland.

Table 4-3. Napa County Biotic Communities and Associated Land Cover Types

Page 1 of 2

Land Cover Type	Biotic Community	ICE Map Code	MCV Biotic Community (used in ICE map)	Area (in acres)	Percentage of County
Grassland	Annual Grassland	4502	Sparse Bush Lupine / Annual Grasses / Rock Outcrop NFD Alliance	5	0.00
	Annual grassland and Native grassland	7100	Upland Annual Grasslands & Forbs Formation	12,153	2.39
	Annual grassland and Native grassland	7120	California Annual Grasslands Alliance	39,174	7.72
	Native grassland	7101	Perennial Bunchgrass Restoration Sites	256	0.05
	Serpentine grassland	7130	Serpentine Grasslands NFD Super Alliance	2,119	0.42
Total Grassland				53,706	10.58
Chaparral/scrub	Chaparral	2127	California Juniper Alliance	2	0.00
	Chaparral	4301	Scrub Interior Live Oak - Scrub Oak - (California Bay - Flowering Ash - Birch Leaf Mountain Mahogany - Toyon - California Buckeye) Mesic East County NFD Super Alliance	11,037	2.18
	Chaparral	4302	Mixed Manzanita - (Interior Live Oak - California Bay - Chamise) West County NFD Alliance	8,609	1.70
	Chaparral	4321	Chamise Alliance	30,914	6.09
	Chaparral	4322	Chamise - Wedgeleaf - Ceonothus Alliance	7,106	1.40
	Chaparral	4501	Coyote Brush - California Sagebrush - (Lupine spp.) NFD Super Alliance	42	0.01
	Chaparral	4503	Lotus scoparius Alliance (post-burn)	29	0.01
	Chaparral	4300	Sclerophyllous Shrubland Formation	3,277	0.65
	Total Non-serpentine Chaparral			61,017	12.03
	Serpentine Chaparral	4303	Leather Oak - White Leaf Manzanita - Chamise Xeric Serpentine NFD Super Alliance	26,985	5.32
	Serpentine Chaparral	4304	Leather Oak - California Bay - Rhamnus spp. Mesic Serpentine NFD Alliance	4,399	0.87
	Serpentine Chaparral	4305	White Leaf Manzanita - Leather Oak - (Chamise - Ceonothus spp.) Xeric Serpentine NFD Super Alliance	8,005	1.56
	Serpentine Chaparral	4306	California Bay - Leather Oak - (Rhamnus spp.) Mesic Serpentine NFD Super Alliance	7,175	1.41
	Total Serpentine Chaparral			46,566	9.18
	Total Chaparral/scrub			107,583	21.20
Oak Woodland	Deciduous Oak woodland	3121	Black Oak Alliance	2,572	0.51
	Deciduous Oak woodland	3122	Blue Oak Alliance	44,104	8.69
	Deciduous Oak woodland	3123	Valley Oak Alliance	2,903	0.57
	Deciduous Oak woodland	3124	Oregon White Oak Alliance	1,124	0.22
	Evergreen Oak Woodland	1101	California Bay - Madrone - Coast Live Oak - (Black Oak Big - Leaf Maple) NFD Super Alliance	18,252	3.60
	Evergreen Oak Woodland	1122	Canyon Live Oak Alliance	662	0.13
	Evergreen Oak Woodland	1124	Tanbark Oak Alliance	245	0.05
	Evergreen Oak Woodland	1201	Coast Live Oak - Blue Oak - (Foothill Pine) NFD Association	26,374	5.20
	Evergreen Oak Woodland	1202	Interior Live Oak - Blue Oak - (Foothill Pine) NFD Association	18,084	3.56
	Evergreen Oak Woodland	1221	Coast Live Oak Alliance	13,139	2.59
	Evergreen Oak Woodland	1222	Interior Live Oak Alliance	5,297	1.04
	Evergreen Oak Woodland	2128	Sparse California Juniper-Canyon Live Oak-California Bay-California Buckeye / Steep Rock Outcrop NFD Alliance	516	0.10
	Evergreen Oak Woodland, Deciduous Oak Woodland	1223	Mixed Oak Alliance	28,703	5.66
	Total Oak Woodland			161,976	31.92

NAPA COUNTY BASELINE DATA REPORT

Table 4-3. Continued

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Land Cover Type	Biotic Community	ICE Map Code	MCV Biotic Community (used in ICE map)	Area (in acres)	Percentage of County
Riparian woodland	Mixed Willow woodland	3221	Mixed Willow Super Alliance	542	0.11
	Mixed Willow woodland	5222	Brewer Willow Alliance	272	0.05
	Valley Oak woodland	3101	Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest NFD Association	5,721	1.13
	Valley Oak woodland	3102	Valley Oak - Fremont Cottonwood - (Coast Live Oak) Riparian Forest NFD Association	558	0.11
	White alder woodland	3201	White Alder (Mixed Willow - California Bay - Big Leaf Maple) Riparian Forest NFD Association	967	0.19
Total Riparian Woodland				8,060	1.59
Coniferous forest	Cypress forest	2125	Sargent Cypress Alliance	2,044	0.40
	Cypress forest	2124	McNab Cypress Alliance	2,387	0.47
	Douglas-fir/Redwood Forest	2201	Coast Redwood - Douglas-fir / California Bay NFD Association	2,876	0.57
	Douglas-fir/Redwood Forest	2222	Douglas-fir Alliance	17,280	3.41
	Douglas-fir/Redwood Forest	2224	Douglas-fir - Ponderosa Pine Alliance	9,195	1.81
	Douglas-fir/Redwood Forest	2230	Coast Redwood Alliance	324	0.06
	Pine forest	2122	Knobcone Pine Alliance	5,892	1.16
	Pine forest	2123	Ponderosa Pine Alliance	168	0.03
	Pine forest	2126	Sugar Pine - Canyon Oak NFD Association	3	0.00
	Pine forest	2121	Foothill Pine Alliance	1,874	0.37
	Pine forest	2104	Foothill Pine / Mesic Non-serpentine Chaparral NFD Association	939	0.19
Total Coniferous forest				42,984	8.47
Aquatic	Freshwater wetlands	6402	(Bulrush - Cattail) Fresh Water Marsh NFD Super Alliance	271	0.05
	Freshwater wetlands	6403	(Carex spp. - Juncus spp. - Wet Meadow Grasses) NFD Super Alliance	282	0.06
	Salt Marsh	6501	Saltgrass - Pickleweed NFD Super Alliance	3,550	0.70
	Streams and reservoirs	9400	Water	28,804	5.68
	Streams and salt marsh	9002	Riverine, Lacustrine and Tidal Mudflats	389	0.08
Total Aquatic				33,296	6.56
Rock Outcrop	Rock Outcrop	9001	Rock Outcrop	1,687	0.33
	Serpentine Rock Outcrops	9003	Serpentine Barron	51	0.01
Total Rock Outcrops				1,739	0.34
Agricultural Cropland	Agricultural Cropland	9200	Agricultural Cropland	64,423	12.70
Total Agricultural Cropland				64,423	12.70
Developed Lands	Developed Lands	9100	Urban or Built-up	26,461	5.21
	Developed Lands	9300	Vacant*	1,782	0.35
Total Developed Lands				28,244	6
Other	Other	9999	Other	1,159	0.23
	Other	1100	Winter-Rain Sclerophyll Forests & Woodlands Formation	620	0.12
	Other		blank	3,221	0.63
Non-native woodland	Non-native woodland	1123	Eucalyptus Alliance	408	0.08
Total Other				5,408	1.07
Total				507,419	100

Notes:

* Vacant refers to areas that are unvegetated, apparently due to human disturbance.

Table 4-4. Distribution of MVC Biotic Communities Across Napa County's Thirteen Evaluation Areas

Community Type	Biotic Community	MCV Biotic Community (used in ICE map)	Acreage by Evaluation Areas												Southern Interior Valleys	Western Mountains
			Angwin	Beryessa	Cameros	Central Interior Valleys	Eastern Mountains	Jamieson/Ameri- can Canyon	Knoxville Area	Livermore Ranch Area	Napa River Marshes	Napa Valley Floor	Pope Valley			
Grassland	Annual Grassland	Sparse Bush Lupine / Annual Grasses / Rock Outcrop NFD Alliance	0	0	0	0	0	0	0	0	0	0	0	5	0	
	Annual grassland and Native grassland	Upland Annual Grasslands & Forbs Formation	122	539	833	586	644	2,060	1,327	18	1,314	1,612	1,737	835	526	
	Annual grassland and Native grassland	California Annual Grasslands Alliance	52	5,132	552	1,764	7,723	5,917	5,613	298	84	1,047	3,861	3,877	3,254	
	Native grassland	Perennial Bunchgrass Restoration Sites	0	0	0	0	0	0	256	0	0	0	0	0	0	
	Serpentine grassland	Serpentine Grasslands NFD Super Alliance	0	539	0	152	150	0	853	2	0	5	360	2	54	
Total Grassland			174	6,211	1,385	2,502	8,517	7,978	8,049	318	1,399	2,663	5,959	4,718	3,835	
Chaparral/Scrub	Chaparral	California Juniper Alliance	0	2	0	0	0	0	0	0	0	0	0	0	0	
	Chaparral	Scrub Interior Live Oak - Scrub Oak - (California Bay - Flowering Ash - Birch Leaf Mountain Mahogany - Toyon - California Buckeye) Mesic East County NFD Super Alliance	0	5,693	0	620	1,364	0	2,324	0	0	0	226	810	0	
	Chaparral	Mixed Manzanita - (Interior Live Oak - California Bay - Chamise) West County NFD Alliance	221	68	6	113	4,252	0	31	2,038	0	1	178	82	1,619	
	Chaparral	Chamise Alliance	183	9,543	0	2,072	9,286	0	5,517	341	0	9	1,010	919	2,035	
	Chaparral	Chamise - Wedgeloaf - Ceonothus Alliance	0	3,201	0	129	137	0	3,329	7	0	0	200	103	0	
	Chaparral	Coyote Brush - California Sagebrush - (Lupine spp.) NFD Super Alliance	0	0	0	0	17	20	0	0	0	0	0	0	5	
	Chaparral	Lotus scoparius Alliance (post-burn)	0	29	0	0	0	0	0	0	0	0	0	0	0	
	Chaparral/Scrub	Sclerophyllous Shrubland Formation	0	0	30	17	3,046	0	0	0	0	8	0	174	2	
	Total Non-serpentine Chaparral			404	18,536	36	2,951	18,102	20	11,200	2,386	0	18	1,614	2,088	3,661
	Serpentine Chaparral	Leather Oak - White Leaf Manzanita - Chamise Xeric Serpentine NFD Super Alliance	0	6,442	0	2,729	1,084	0	11,650	66	0	2	4,829	9	176	
	Serpentine Chaparral	Leather Oak - California Bay - Rhamnus spp. Mesic Serpentine NFD Alliance	0	761	0	1,050	359	0	1,602	22	0	0	503	6	96	
	Serpentine Chaparral	White Leaf Manzanita - Leather Oak - (Chamise - Ceonothus spp.) Xeric Serpentine NFD Super Alliance	0	1,465	0	793	681	0	3,359	93	0	6	1,473	24	111	
	Serpentine Chaparral	California Bay - Leather Oak - (Rhamnus spp.) Mesic Serpentine NFD Super Alliance	0	1,699	0	1,107	372	0	2,054	33	0	22	1,558	7	324	
	Total Serpentine Chaparral			0	10,367	0	5,679	2,496	0	18,664	215	0	30	8,363	45	707
	Total Chaparral/Scrub			404	28,903	36	8,630	20,598	20	29,864	2,601	0	48	9,977	2,133	4,368
Oak Woodland	Deciduous Oak woodland	Black Oak Alliance	298	156	0	700	395	0	32	161	0	0	386	392	50	
	Deciduous Oak woodland	Blue Oak Alliance	1	17,721	0	2,551	2,442	0	10,409	236	0	218	2,889	7,478	157	
	Deciduous Oak woodland	Valley Oak Alliance	0	212	54	253	268	20	401	0	0	248	1,179	62	205	
	Deciduous Oak woodland	Oregon White Oak Alliance	0	0	0	0	102	0	0	0	0	112	0	0	910	
	Evergreen Oak Woodland	California Bay - Madrone - Coast Live Oak - (Black Oak Big - Leaf Maple) NFD Super Alliance	10	265	22	693	4,649	25	0	396	0	526	458	791	10,416	
	Evergreen Oak Woodland	Canyon Live Oak Alliance	28	83	0	6	314	0	9	111	0	0	0	112	0	
	Evergreen Oak Woodland	Tanbark Oak Alliance	44	0	0	124	9	0	0	0	0	0	68	0	0	
	Evergreen Oak Woodland	Coast Live Oak - Blue Oak - (Foothill Pine) NFD Association	45	831	0	5,944	9,279	0	0	165	0	866	2,095	7,050	0	

NAPA COUNTY BASELINE DATA REPORT

Table 4-4. Continued

Page 2 of 3

Community Type	Biotic Community	MCV Biotic Community (used in ICE map)	Acreage by Evaluation Areas												
			Angwin	Bermyessa	Cameros	Central Interior Valleys	Eastern Mountains	Jamieson/Ameri- can Canyon	Knoxville Area	Livermore Ranch Area	Napa River Marshes	Napa Valley Floor	Pope Valley	Southern Interior Valleys	Western Mountains
	Evergreen Oak Woodland	Interior Live Oak - Blue Oak - (Foothill Pine) NFD Association	0	10,937	0	1,240	0	0	5,574	59	0	0	273	0	0
	Evergreen Oak Woodland	Coast Live Oak Alliance	5	338	105	558	5,837	355	0	0	0	1,283	169	1,000	3,489
	Evergreen Oak Woodland	Interior Live Oak Alliance	0	3,994	0	172	9	0	1,045	0	0	0	16	61	0
	Evergreen Oak Woodland	Sparse California Juniper-Canyon Live Oak-California Bay-California Buckeye / Steep Rock Outcrop NFD Alliance	0	241	0	0	0	0	266	0	0	0	0	10	0
	Evergreen Oak Woodland, Deciduous Oak Woodland	Mixed Oak Alliance	480	3,519	30	2,548	8,571	0	405	969	0	704	3,087	2,630	5,759
Total Oak Woodland			911	38,397	212	14,789	31,877	399	18,143	2,098	0	3,956	10,622	19,586	20,987
Riparian woodland	Mixed Willow woodland	Mixed Willow Super Alliance	0	49	21	51	34	66	26	0	1	90	115	31	58
	Mixed Willow woodland	Brewer Willow Alliance	0	30	0	15	74	0	90	17	0	0	47	0	0
	Valley Oak woodland	Valley Oak - (California Bay - Coast Live Oak - Walnut - Ash) Riparian Forest NFD Association	0	261	226	624	410	42	575	0	1	1,957	683	558	383
	Valley Oak woodland	Valley Oak - Fremont Cottonwood - (Coast Live Oak) Riparian Forest NFD Association	0	0	87	0	40	13	51	0	0	270	36	60	0
	White alder woodland	White Alder (Mixed Willow - California Bay - Big Leaf Maple) Riparian Forest NFD Association	0	19	1	52	450	0	5	99	0	27	26	35	252
Total Riparian Woodland			0	359	336	742	1,008	121	747	116	2	2,345	908	684	692
Coniferous forest	Cypress forest	Sargent Cypress Alliance	0	961	0	51	1	0	98	0	0	0	933	0	0
	Cypress forest	McNab Cypress Alliance	0	26	0	10	0	0	2,225	43	0	0	84	0	0
	Douglas-fir/Redwood Forest	Coast Redwood - Douglas-fir / California Bay NFD Association	12	0	0	0	105	0	0	13	0	0	70	0	2,675
	Douglas-fir/Redwood Forest	Douglas-fir Alliance	26	0	0	89	4,688	0	0	1,563	0	878	89	0	9,949
	Douglas-fir/Redwood Forest	Douglas-fir - Ponderosa Pine Alliance	1,350	0	0	317	2,557	0	0	2,515	0	22	2,299	0	137
	Douglas-fir/Redwood Forest	Coast Redwood Alliance	0	0	0	8	23	0	0	0	0	18	24	0	253
	Pine forest	Knobcone Pine Alliance	0	0	0	0	2,545	0	40	2,263	0	19	267	0	758
	Pine forest	Ponderosa Pine Alliance	133	0	0	0	10	0	0	0	0	0	25	0	0
	Pine forest	Sugar Pine - Canyon Oak NFD Association	0	0	0	0	0	0	0	3	0	0	0	0	0
	Pine forest	Foothill Pine Alliance	31	278	0	57	389	0	82	237	0	5	643	1	154
	Pine forest	Foothill Pine / Mesic Non-serpentine Chaparral NFD Association	0	418	0	30	33	0	209	152	0	8	10	18	61
Total Coniferous forest			1,552	1,680	0	562	10,351	0	2,655	6,788	0	947	4,443	19	13,986
Aquatic	Freshwater wetlands	(Bulrush - Cattail) Fresh Water Marsh NFD Super Alliance	4	0	15	15	33	4	3	0	14	27	123	32	1
	Freshwater wetlands	(Carex spp. - Juncus spp. - Wet Meadow Grasses) NFD Super Alliance	1	10	0	10	54	37	67	1	0	1	40	60	0
	Freshwater wetlands	Vernal pools	None mapped**	Present**	Present**	None mapped**	Present**	Present**	Present**	None mapped**	Present**	Present**	Present**	Present**	Present**
	Salt Marsh	Saltgrass - Pickleweed NFD Super Alliance	0	0	9	0	0	127	0	0	3,407	7	0	0	0
	Streams and reservoirs	Water	94	18,714	258	152	1,171	54	275	11	6,326	681	528	442	99
	Streams and salt marsh	Riverine, Lacustrine and Tidal Mudflats	0	4	0	0	6	0	169	0	198	0	11	0	0
	Total Aquatic		99	18,728	282	177	1,264	222	514	13	9,946	716	701	534	100

Table 4-4. Continued

Page 3 of 3

			Acreage by Evaluation Areas												
Community Type	Biotic Community	MCV Biotic Community (used in ICE map)	Angwin	Berryessa	Cameros	Central Interior Valleys	Eastern Mountains	Jamieson/Ameri- can Canyon	Knoxville Area	Livermore Ranch Area	Napa River Marshes	Napa Valley Floor	Pope Valley	Southern Interior Valleys	Western Mountains
Agricultural Cropland	Agricultural Cropland	Agricultural Cropland	773	267	7,377	2,593	4,168	4,318	569	114	701	30,343	5,455	1,505	6,242
Total Agricultural Cropland			773	267	7,377	2,593	4,168	4,318	569	114	701	30,343	5,455	1,505	6,242
Rock Outcrop	Rock Outcrop	Rock Outcrop	0	18	0	9	864	0	73	533	0	9	29	27	95
	Serpentine Rock Outcrops	Serpentine Barren	0	9	0	0	1	0	35	2	0	0	5	0	0
Total Rock Outcrops			0	27	0	9	865	0	108	535	0	9	34	27	95
Developed Lands	Developed Lands	Urban or Built-up	921	845	584	400	1,632	2,569	511	43	1,455	16,059	276	174	892
	Other	Vacant	4	92	21	36	305	207	50	25	158	589	13	13	270
Total Developed Lands			921	845	584	400	1,632	2,569	511	43	1,455	16,059	276	174	892
Other	Non-native woodland	Eucalyptus Alliance	0	0	104	0	4	183	0	0	23	65	0	0	29
	Other	Winter-Rain Sclerophyll Forests & Woodlands Formation	0	0	0	0	518	0	0	0	0	0	0	2	0
	Other	Unknown	5	198	28	51	289	6	178	33	79	55	51	149	38
	Other	blank	0	0	257	2	81	101	121	818	1,657	0	41	22	123
Total Other			9	290	410	89	1297	497	349	876	1,917	709	105	186	460
Total			4,843	95,707	10,622	30,491	81,605	16,123	61,610	13,501	15,420	57,795	38,479	29,565	51,657

Notes:

* Vacant refers to areas that are unvegetated, apparently due to human disturbance.

** Vernal pool acreage is not mapped with sufficient accuracy to report here. However, presence or absence of mapped vernal pools is indicated.



A variety of reptiles, including the common garter snake (*Thamnophis sirtalis*), are characteristic of annual grassland.

Although once extensive in the greater Bay Area and Central Valley, invasion by exotic annual grasses and improper livestock grazing has led to the decline of this land cover type.

SPECIAL-STATUS SPECIES

Appendices B and C provide a list of special-status plants and animals species potentially occurring in annual grassland. Showy Indian clover (*Trifolium amoenum*), bent-flowered fiddleneck (*Amsinckia lunaris*), dwarf downingia (*Downingia pusilla*), adobe lily (*Fritillaria pluriflora*), Colusa layia (*Layia septentrionalis*), northern harrier, and the white-tailed kite are among the special-status species that use annual grasslands in the County for habitat.

In total, 38 special-status plants and 18 special-status animals utilize annual grassland habitat type in the County.

NATIVE GRASSLAND

GENERAL DISTRIBUTION

Native grasslands dominated by a mixture of annual and perennial grasses, such as small fescue (*Vulpia microstachys*), purple needlegrass (*Nasella pulchra*), and nodding needlegrass (*Nasella cernua*), likely occurred in the County in most areas currently occupied by annual grassland (Heady 1988, Wester 1981). Although once extensive in the greater Bay Area and Central Valley, invasion by exotic annual grasses and improper livestock grazing has led to the decline of this land cover type. Some native grasslands contain high concentrations of wildflowers and are referred to as *wildflower fields*. Wildflower fields are recognized as a sensitive community by the DFG.

Historical records do not provide definitive data on the distribution of native perennial grasslands, but research indicates human use of fire may have had a profound impact on the distribution and extent of historic grasslands. Prior to European settlement, native perennial grasslands in the County were likely subject to regular burning by Native American people. Keeley (2002) surmises that because dense scrub or chaparral had little value to Native Americans, they used periodic burning to clear shrubs and provide habitat for fire tolerant native grasses. Keeley (2002) also implies that the current mosaic of grassland is likely a result of historic vegetation management that favored open grasslands over chaparral.

Starting in 1769, another human-made change to the landscape occurred with the introduction and spread of many nonnative plants throughout California. These plants include Mediterranean annual grasses and herbs such as wild oats, bromes, barleys (*Hordeum*), ryegrass (*Lolium*), and thistles (*Centaurea*, *Cirsium*) (Bartelome and Gemmill 1981). European settlers grazing livestock in the study area likely became more widespread after the gold rush of the 1850s. The combination of livestock grazing, drought, and spread of exotic grasses and herbs dramatically altered the native grasslands that occurred in the County prior to the 1850s (Heady 1988). Grazing by livestock and wildlife continues today in almost all of the grasslands in the County, although less intensively than in the past. While most grasslands in the County are dominated by nonnative annuals, small patches of native grasses, below the resolution of the land cover map, are found in many of these grasslands (Rugyt, personal communication; Callizo, personal communication).

It is difficult to estimate the overall acreage of native grassland remaining in the County, but it is likely on the order of thousands of acres, not tens of thousands, covering less than 1% of the County. One significant area of native grassland in the County is located in the Wantrup Preserve in Pope Valley.

COMMON PLANTS

Native grassland is an herbaceous grassland community in which perennial grasses such as purple needlegrass or nodding needlegrass are dominant or co-dominant species (Holland 1986, Sawyer and Keeler-Wolf 1995). In the County, native grassland generally occurs as patches within the larger annual grassland complex. Accordingly, native grassland contains an abundance of nonnative annual grasses mixed with perennial grasses and forbs.

Species commonly found associated with native grassland in the County include slender wild oats (*Avena barbata*), one-sided bluegrass (*Poa secunda*), prairie junegrass (*Koeleria macrantha*), California golden violet (*Viola pedunculata*), common lomatium (*Lomatium utriculatum*), California poppy, Douglas's lupine (*Lupinus nanus*), notched clover (*Trifolium blidum*), blue dicks (*Dichelostemma capitatum*), oolow (*Dichelostemma congestum*), harvest Brodiaea (*Brodiaea elegans*), smooth tidy tips (*Layia chrysanthemoides*) and arroyo lupine (*Lupinus succulentus*).

COMMON WILDLIFE

The wildlife that use native grassland are the same as those that use annual grassland (see *Common Wildlife* discussion in *Annual Grassland* above).

SPECIAL-STATUS SPECIES

The same special-status species that potentially occur in annual grassland potentially occur in native grassland. However, the likelihood of occurrence for these species is much higher (Appendices B and C). Three subclasses of native grassland are considered sensitive by DFG: creeping ryegrass (*Leymus triticoides*) grassland, purple needlegrass grassland, and one-sided bluegrass grassland. Moreover, the very limited extent of this vegetative community in the County clearly makes native grasslands a sensitive community from a local standpoint.

SERPENTINE BUNCHGRASS GRASSLAND

GENERAL DISTRIBUTION

Serpentine bunchgrass grassland has always been a rare plant community in the landscape (McCarten 1987). Residential and vineyard development, particularly in the last 35 years, has slightly reduced serpentine habitat in the County (California Natural Diversity Database 2004). While serpentine soils are not prime agricultural lands, they may sometimes be used for vineyards, as the serpentine soils provide a natural source of desired stress to the vines (e.g., Silver Oak's Geyserville Vineyard, Louis Martini Winery in St. Helena).

Today serpentine grassland covers about 2,100 acres or 0.5% of the County, making this a sensitive habitat from a local standpoint. Moreover, three subclasses of serpentine grassland found in the County (i.e., creeping ryegrass grassland, purple needlegrass grassland, and one-sided bluegrass grassland) are considered sensitive by DFG. The Knoxville and Berryessa Evaluation Areas contain about 65% of the County's serpentine grassland.

COMMON PLANTS

Serpentine bunchgrass grassland occurs on soils derived from serpentinite and generally has less overall vegetation cover, and less cover of non-native species than the other grasslands discussed (McNaughton 1968, Holland 1986). As a result, the amount of forage provided is lower. The native bunchgrasses typically occur in patches of both single and multiple species (McCarten 1987).

As with other grasslands in the County, the dominant grasses late in the season are nonnative annual grasses, primarily medusa head, goatgrass (*Aegilops triuncialis*) and foxtail brome (*Bromus madritensis*) are nonnative annual grasses, primarily slender wild oats, Italian ryegrass, soft chess (*Bromus hordeaceus*), and foxtail barley (*Hordeum murinum* ssp. *leporinum*). However, nonnative annuals are much less dominant in serpentine areas (Harrison et al. 2003).

Patches of native grasses, including purple needlegrass, small fescue, California melic (*Melica californica*), and one-sided bluegrass and squirreltail grass (*Elymus multisetus*), are scattered throughout. Herbaceous species characteristic of serpentine bunchgrass grassland in the County include California goldfields (*Lasthenia californica*), hayfield tarweed (*Hemizonia congesta*), navaretia (*Navaretia* spp.), willow herb (*Epilobium brachycarpum*), fringed sidalcea (*Sidalcea diploscyph*), warty spurge (*Euphorbia spathulata*), bull clover (*Trifolium fucetum*), lotus (*Lotus* spp.), delphinium (*Delphinium* spp.), annual mountain dandelion (*Agoseris heterophylla*), owl's clovers (*Castilleja* spp.), California plantain (*Plantago erecta*), and blue dicks.

The characteristics of native bunchgrasses in serpentine habitat are generally similar to those in non-serpentine habitats, although serpentine populations may be more tolerant of heavy metals present in the soil and may have lower growth rates compared to non-serpentine populations (Huntsinger et al. 1996).

COMMON WILDLIFE

The types of wildlife that use serpentine bunchgrass grassland are the same as those that use annual grassland (see discussion above). Serpentine grasslands are less productive for wildlife, however, due to the reduced forage and cover available.

SPECIAL-STATUS SPECIES

Serpentine grassland provides habitat to the same suite of special-status wildlife species found in other grassland types. However, 13 special-status plant species are preferentially associated with serpentine grasslands (Appendix B). These species appear to be adapted to the low nutrient levels and high levels of toxic minerals in serpentine soils. Tiburon Indian paintbrush (*Castilleja affinis* ssp. *neglecta*) and Jepson's milk-vetch (*Astragalus rattanii* var. *jepsonianus*) are two of the special-status plant species found in serpentine grasslands.

ECOSYSTEM PROCESSES

The primary sources of disturbance to annual, native, and serpentine grasslands are grazing, fire, and recreation.

Annual grasslands appear to be relatively stable, recovering rapidly following cessation of disturbance (White 1966). Burning appears to have little long-term effect on annual grassland (Heady 1988, Kyser and Di Tomaso 2002). Grazing also appears to have little effect, although overgrazing may affect the species composition (Heady 1988). Both grazing and burning may serve to maintain grasslands, which may otherwise convert over time to chaparral (Keeley 2002).

Non-serpentine native grasslands in the County are generally found as small patches in a mosaic of annual nonnative grasslands. There is great interest throughout California in using disturbance as a tool to increase cover and diversity of native grasses in California grasslands. The effects of disturbance on native species composition, however, are not clear. It appears that the effects of grazing and burning vary depending on their timing and intensity. Some studies have shown that grazing and burning may result in increased numbers of exotic species in non-serpentine grasslands (Harrison et al. 2003). Other studies indicate that these disturbances can result in an increase in cover of native bunchgrass species compared to annual grasses (Bartolome et al. 2004, Dyer 2003).

GRAZING

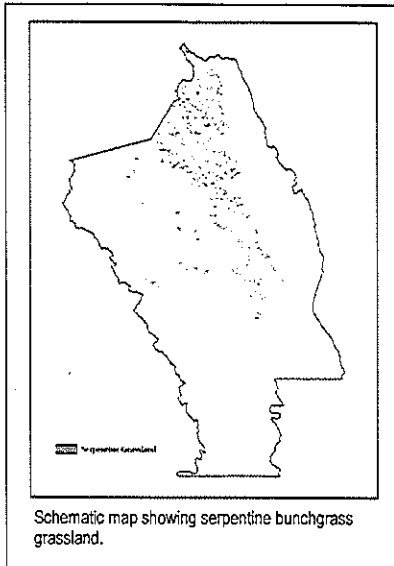
Grazing may have little effect on species diversity in serpentine grasslands (Harrison 1999) or it may alter the species composition, favoring species that are more tolerant of grazing (McCarten 1987). Because invasive nonnatives generally are not tolerant of serpentine soils (with the important exception of goatgrass and medusa head), these species are less invasive in serpentine bunchgrass grasslands than in non-serpentine grasslands (Harrison 1999). Serpentine substrates in the County, as in the San Francisco Bay Region generally, are lighter and more plastic than other crust and mantle rocks, due to their alteration by hydrothermal activity in the subduction zone (Elder 2001). This may explain the observation that serpentine areas appear to be more prone to slumping than non-serpentine areas, and large slumps with accompanying erosion may be present in serpentine bunchgrass grasslands.

FIRE

Grasslands are considered a fire-tolerant community type (Howard 1998). The direct effect of fire on grassland is to remove essentially all of the aboveground biomass. Fires in grassland are therefore described as stand-replacing fires. The immediate effect of this biomass removal on annual grasses is negligible, as they have typically completed their growth cycle before fires occur (Howard 1998). Perennial bunchgrasses suffer a temporary loss of foliage, but regenerate immediately through tillering and regrowth of green foliage that typically remains in the center of grass tussocks (Steinberg 2002).

The immediate effect of a fire in grasslands is typically an increase in annual forb germination and flowering and an increase in overall productivity in response to the light and nutrients made available by the removal of the mulch layer (Harrison et al. 2003). In the 2–3 years following a fire, the elimination of

Serpentine bunchgrass grassland has always been a rare plant community in the landscape. Residential and vineyard development, particularly in the last 35 years, has slightly reduced serpentine habitat in the County.



Schematic map showing serpentine bunchgrass grassland.



A controlled burn of a grassland.

the mulch layer may shift the species composition of grasslands towards annual forbs and small-seeded species such as purple needlegrass (*Nasella pulchra*) and little quakinggrass (*Briza minor*) (Steinberg 2002, Howard 1998). In the absence of heavy grazing, however, a heavy mulch layer will be re-established in approximately three years, and this effect will disappear. Burning appears to have little long-term effect on annual grassland (Heady 1988, Kyser and Di Tomaso 2002, Paysen et al. 2000). In grasslands that are already dominated by non-native annual grasses, non-natives may increase their dominance following fire by outcompeting natives for the newly available space and light. Native grasses may increase their dominance in serpentine grasslands following fire through the same mechanism (Harrison et al. 2003). More discussion on fire is in *Fire Ecology*, included in this report. See Chapter 18.

RECREATION

Recreational use of grasslands in the County includes hunting, bird watching, hiking, mountain biking, horseback riding, and off highway vehicle (OHV) use. OHVs in the County are restricted to the Knoxville area. Recreation may reduce habitat value for wildlife, due to increased human disturbance. Recreation may increase the frequency of fire, as increased access may lead to a greater number of ignitions. Recreation may increase the spread of noxious weeds to areas not yet infested by them, as humans often transport weed seeds on their vehicles and clothing. If recreation is not properly managed through appropriate trail maintenance and prevention of off-trail use, it may be a source of erosion, reducing grassland productivity and degrading streams.

ECOSYSTEM FUNCTIONS

The primary ecosystem functions of grassland in the County are the following:

- maintain water quality through soil retention and by filtering out sediment and nutrients from run-off;
- prevent flooding and minimize channel erosion by slowing surface runoff;
- increase infiltration to groundwater;
- provide wildlife habitat;
- provide fodder for grazing livestock; and
- provide opportunities for recreation, including but not limited to hunting, bird-watching, hiking, horseback riding, and OHV use.

The key characteristics of grassland habitat that enhance these functions are a high-cover of native herbaceous vegetation, a low-cover of woody vegetation, and low to moderate levels of disturbance.



Grasslands in the County provide opportunities for recreation, including horseback riding.

THREATS

The main threat to grasslands today and in the past has been conversion to urban or agricultural uses other than grazing. Non-native invasive species also constitute a threat.

HABITAT CONVERSION

Grasslands in the County have in the past and continue today to be lost to residential, commercial, and industrial development, and conversion to agriculture uses other than grazing. Overlaying the County's 1993 and 2002 vineyard datalayers with the land cover layer indicates that approximately 2,662 acres of grassland (5% of the County's grasslands) were converted to vineyard during this period. Only 0.7 acre of the grasslands converted to vineyards were mapped as serpentine grassland.

While loss of annual grasslands to development is generally not regarded as a significant impact, the San Francisco Bay Area Gap Analysis (Wild 2002) identified annual grasslands as in need of protection for several reasons: less than 20% of grasslands in the Bay Area are protected, this community supports a wide diversity of plant and wildlife species, they have already undergone a severe decline in the County, and they continue to be highly threatened by development.

INVASIVE SPECIES

Grasslands in the County are threatened by the spread of noxious weeds. While non-native annual grasses have dominated much of the grassland in the County for over a century, noxious weeds such as yellow star-thistle (*Centaurea solstitialis*) and Harding grass (*Phalaris aquatica*) may further reduce the cover of native species and degrade habitat for wildlife. Yellow star-thistle reduces grassland forage value and depletes soil moisture levels (Gerlach and DiTomaso 2005). Harding grass can increase fire intensity (Harrington and Lanini 2005). Of particular concern is the spread of barbed goatgrass (*Aegilops triuncialis*) in serpentine grasslands, which have in the past had lower cover of non-native annual grasses and which are critical to the special-status plant species that are endemic to this habitat.

CHAPARRAL/SCRUB

DISTRIBUTION

Chaparral/scrub is the second most common land cover in the County, covering approximately 107,000 acres or 21% of the County (Map 4-3 and Table 4-3). This community is dominated by woody shrubs, with less than 10% cover of trees, and generally occurs in settings that are too hot, dry, rocky, and steep to support tree-dominated habitats (Holland 1986). They occur especially on south and southwest-facing slopes.

Chaparral/scrub occurs on a wide variety of rock types including recent volcanic rocks with shallow soils, serpentinite, slates, and metamorphosed volcanic rock; they do not occur on alluvial soils. The

parent material, particularly serpentinite, often influences species composition. Chaparral shrubs have thick, stiff, leathery evergreen leaves, called sclerophylls, an adaptation to heat and drought.

Chaparral/scrub forms over 20% of the total land area of seven of the 13 evaluation areas. It is particularly abundant in the Knoxville Area, forming almost half of the land cover there. Chaparral/scrub is found throughout the rest of the County and is a dominant land cover in five other evaluation areas, forming between one-fifth and one-third of the land cover in the Berryessa, Central Interior Valleys, Eastern Mountains, Livermore Ranch, and Pope Valley Evaluation Areas.

TYPES

Thorne and his colleagues (2004) recognize 12 alliances within the chaparral/scrub group in the County. Two alliances are dominated by chamise (*Adenostoma fasciculatum*), six are mixed chaparral types, and four are serpentine chaparral (Table 4-3).

Mixed serpentine chaparral is considered a sensitive community by the State of California (California Department of Fish and Game 2000) and a conservation priority for the Bay Area by Wild (2002). The DFG designation of mixed serpentine chaparral corresponds to the four serpentine chaparral alliances found in the County. Moreover, mixed serpentine chaparral was given a high conservation priority score by Wild (2002) (7 out of 10). Vernal pools, which are also a sensitive community, are sometimes found in chaparral/scrub areas of the County (e.g., in Pope and Foss Valleys).

The three most common chaparral/scrub types present are chamise chaparral, leather oak–white leaf manzanita–chamise (a serpentine chaparral), and scrub interior live oak–scrub oak (*Quercus berberidifolia*).

Cypress woodland and foothill pine (*Pinus sabiniana*) woodland are often found in close proximity to chaparral. Foothill pine forest frequently contains chaparral species in the understory. The adaptation of these coniferous forest communities to fire and their ability to grow in steep areas with thin soils results in their association with chaparral communities.

For discussion purposes the chaparral/scrub group has been divided into 3 major sub-groups: chamise-dominated chaparrals (two types), mixed chaparrals (five types), and serpentine chaparrals (four types).

CHAMISE CHAPARRAL

Chamise chaparrals occupy the most extreme, dry, steep south facing slopes and are climax communities, whereas mixed chaparrals occur on more mesic sites.

DOMINANT PLANTS

Chamise-Dominated Chaparral

In the two chamise-dominated chaparrals, the chamise alliance and the chamise-wedge leaf ceanothus alliance, chamise is the dominant species. In chamise alliance, chamise is the sole dominant; other shrubs present in small amounts include toyon (*Heteromeles arbutifolia*), buckbrush (*Ceanothus* spp.), sticky monkeyflower (*Mimulus aurantiacus*), coyote brush (*Baccharis pilularis*) and manzanitas (*Arctostaphylos* spp.).

In the chamise-wedge leaf ceanothus alliance, chamise is co-dominant with wedge leaf ceanothus (*Ceanothus cuneatus*), with associate species similar to those present in chamise alliance. The ground layer is generally sparse in both chamise-dominated types because of the typically continuous canopy cover.

Mixed Chaparral/Scrub

Five types of mixed chaparral/scrub are mapped (Table 4-3), three of which are classified as evergreen sclerophyllous chaparral. The two remaining types are deciduous (deer brush) or microphyllous (coyote brush–California sagebrush [*Artemisia californica*]) and are both very small in extent in the County.

The sclerophyllous chaparral types are dominated by various species of shrubby oaks: interior live oak (*Quercus wislizenii*), leather oak (*Quercus durata*) and scrub oak or manzanitas, and others. Associate species are highly variable depending on type and physical site characteristics, and include California bay (*Umbellularia californica*) on more mesic sites and chamise on xeric sites. Other shrubs present as associates include birch-leaf mountain mahogany (*Cercocarpus betuloides*), flowering ash (*Fraxinus dipetala*), coffeeberry (*Rhamnus* spp.), pitcher sage (*Lepechinia calycina*), toyon, sticky monkeyflower, chaparral pea (*Pickeringia montana*), poison oak (*Toxicodendron diversilobum*) and several *Ceanothus* species as minor components.

Serpentine Chaparral

Four types of serpentine chaparral are recognized on the ICE map, and together they form almost 10% of the total land cover of the County (Table 4-3). Serpentine chaparral grows on infertile soils derived from serpentinite rock that have a unique mineral composition with high concentrations of iron and magnesium and low concentration of nutrients such as nitrogen and calcium (Kruckeberg 1984). These harsh soils support a distinctive flora, including many endemic species: Ten percent of California's endemic plants are confined to serpentine soils (Skinner and Pavlik 1994).

The dominant shrubs of serpentine chaparral are usually leather oak, chamise (*Adenostoma fasciculatum*), or white leaf manzanita (*Arctostaphylos viscida*). Species composition is related to aspect, mineral content, and soil moisture levels, and the transition between chaparral types can be subtle. On more mesic, north-trending sites, California bay becomes a dominant, with smaller components of toyon, foothill pine, and cypress species (*Cupressus* spp.). On xeric sites, chamise may be dominant. Other shrubs present include musk brush (*Ceanothus jepsonii* var. *albiflorus*), silk-tassel bush (*Garrya conchodonta*), toyon, deer brush (*Ceanothus integrifolius*), and fremontia (*Fremontodendron californicum*). Scattered emergent foothill pine trees are generally present.

Chamise chaparrals occupy the most extreme, dry, steep south facing slopes and are climax communities, whereas mixed chaparrals occur on more mesic sites.

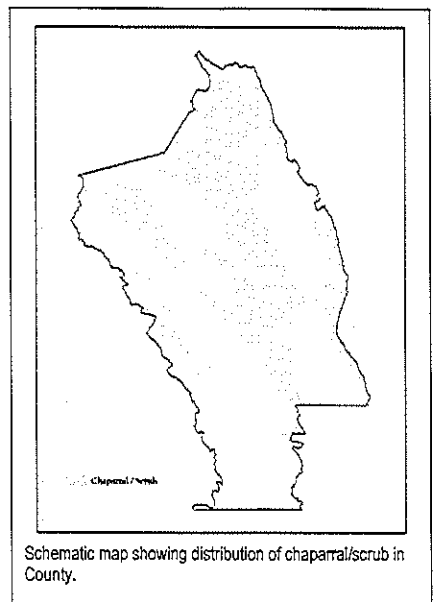


EXHIBIT 7



*The City of St. Helena will conduct city affairs
on behalf of our citizens using an open and creative process.*

March 25, 2011

Ryan Gregory
Reichers Spence & Associates
1515 Fourth Street
Napa CA 94559

Re: Completeness of Hunter Tentative Map Application (2010-40)

Dear Mr. Gregory,

Debra Hight, Assistant Director of Public Works, and I have reviewed all the Hunter Tentative Map application re-submittal materials that were received by City of St. Helena staff on February 24, 2011, with your transmittal letter dated February 23, 2011. We have concluded that your letter dated February 23, 2011, and all related materials submitted with the letter, meet all of the City of St. Helena's Subdivision Ordinance and Tentative Map handout application requirements.

For ease of reference, I am attaching annotated copies of my two prior Incompleteness Letters, dated December 23, 2010 and January 15, 2011, that specify how the various previously outstanding completeness items have been satisfied. I have made similar annotations to a copy of your transmittal letter. All of those annotated copies are attached for your information. Also attached is the memorandum dated March 24, 2011 from Debra Hight stating that the Public Works Department finds that you have addressed the completeness review items requested in my letter dated January 15, 2011. That letter of mine included all of the completeness items requested by Ms. Hight representing the Public Works Department. Lastly, please do not forget the information in the attached September 16, 2010 communication from DSI, the firm that provides contract Building Official and Fire Marshall services.

There are some items previously requested from your team that we agreed at our City-Applicant teams meeting on February 4, 2011, were to be provided by the City of St. Helena Public Works Department. Those items include:

- Information about the production quantity, rate and quality of the well on the property. That well was used by the City and its contractors during construction of the City Flood Control Project. City Engineer John Ferons stated on February 4, 2011, that he would gather any available well information for your and

Planning staff's use, as that would be the only and most recent such information available. (Item e., pg. 3 in your February 23, 2011 letter)

- City Engineer John Perons also stated on February 4, 2011, that he would provide information regarding the drainage report prepared for the City Flood Control Project that includes analysis of the Hunter property as fully developed consistent with the current St. Helena General Plan. You need that report from the City to confirm the analysis done for the sizing of the detention basin. (Your Item g., pg. 4)
- Likewise, you have requested a copy of that existing drainage report for the City Flood Control Project, as that report would have included 10-, 50- and 100-year storm events detention requirements. You need a copy of that report to confirm the analysis done for the sizing of the detention basin. (your Item h., pg.4)
- Planning staff's use, as that would be the only and most recent such information available. (Item e. in your February 23, 2011 letter)
- City Engineer John Perons also stated on February 4, 2011, that he would provide information regarding the drainage report prepared for the City Flood Control Project that includes analysis of the Hunter property as fully developed consistent with the current St. Helena General Plan. You need that report from the City to confirm the analysis done for the sizing of the detention basin.
- Likewise, you have requested a copy of that existing drainage report for the City Flood Control Project, as that report would have included 10-, 50- and 100-year storm events detention requirements. You need a copy of that report to confirm the analysis done for the sizing of the detention basin.

The only other previous request for a completion item that you met in a different way than requested concerns note 3 on Sheet TM-1. Instead of changing the text of that note, you provided the requested information about current one-hundred year floodplain on the appropriate TM sheets.

If you have any questions, please contact me prior to April 1, 2011. As of that date, Greg Desmond, currently Senior Planner, will be the City of St. Helena's Acting Planning Director.

Sincerely,

Anne Cronin Moore AICP

cc: Mary Neilan, City Manager
John Truxaw, City Attorney
Greg Desmond, Senior Planner
John Perons, Director of Public Works/City Engineer
Debra Hight, Assistant Director of Public Works
Clay Clement, Applicants' Attorney
Ken Blackman (via email as requested)

City of St. Helena • 1480 Main Street, St. Helena, CA 94574
Phone: (707) 967-2792 • Fax: (707) 963-7748 • Website: www.ci.st-helena.ca.us

Project File



City of St. Helena
Planning Department
1480 Main Street
St. Helena, CA 94574
(707) 967-2792

TENTATIVE PARCEL MAP

Office Use Only - Do Not Write in this Area

File Number 2010-40
General Plan Medium Density Residential Zoning MR/FLP
Flood Plain Overlay
Background Files LA 2008-04 / Flood Control Project
Related Applications _____

Initial Deposit Received \$1500 Received By CC

Please Type or Print

Project Name Hunter Subdivision Site Address Dennis Hunter

APN 009 030 057 Site Area _____ Sq. Ft. (or) 16.92 Acres

☐ Residential ☐ Commercial ☐ Industrial

of Lots Existing 1
of Lots Proposed 53

Units

Construction

Existing units	<u>0</u>	Existing square footage	<u>0</u>
Existing units to be demolished	<u>0</u>	Existing s.f. to be demolished	<u>0</u>
Proposed units	<u>76</u>	Proposed square footage	_____
Total residential units:	<u>76</u>	Total square footage	_____

New Units

Single-family attached 0 Multi-family (2-4 units) 0 Mobile homes 0
Single-family detached 51 Multi-family (5+ units) 25 Accessory dwellings 0

Property Owner(s) Dennis Hunter
(Last Name, First Name)
Mailing Address 900 College Avenue
City Santa Rosa State CA ZIP Code 95401
Phone Number 707.579.0120

Applicant(s) Ben & Kelly Vanzutphen
(Last Name, First Name)
Mailing Address 237 Lorraine Court
City Healdsburg State CA ZIP Code 95448
Phone Number 707.431.8582

NOTE: Additional property owners and/or applicants (name, address, phone number, and signature) shall be attached to the application. In the case of a partnership, all general and limited partners shall be identified. In the case of a corporation, all shareholders owning 10% or more of the stock and all officers and directors shall be identified.

If you would like project correspondence and notice of meetings to be sent to parties other than the applicant, please list their names, address and telephone numbers on a separate sheet.

I, BEN VANZUTPHEN, hereby file this application for a development project and agree to pay any and all processing fees imposed by the St. Helena Municipal Code and City Council Resolutions (as they may be amended from time to time).

Staff time is billed at an hourly rate and the initial deposit may not be sufficient for processing your application. If expended staff time exceeds the initial deposit, you will be notified that additional funds are required. Applications with a negative balance at the time of the public hearing will be continued until the balance is paid in full.

In the event the property owner is different from the applicant, the property owner must sign to indicate her/his/its consent to the filing and agreement to be liable with the applicant for payment of the processing fees.

Failure to pay all accumulated fees by the time of public hearing will result in a continuance or denial of the project.

A finance charge of 12% per annum shall accrue on any balance unpaid after 30 days.

In the event the City is required to take legal action to enforce any of the terms and conditions of this application, Applicant and Property Owner agree to pay to City reasonable attorney fees and costs incurred in such action.

We, the owner and the applicant, will defend, indemnify and hold the City, its agents, officers, and employees harmless from any claim, action or proceeding to attack, set aside, void or annul an approval of the City concerning the project, as long as the City promptly notifies the applicant of any such claim, action or proceedings and the City cooperates fully in the defense. We have also reviewed the requirement to disclose the complete list of partners and/or shareholders.

Date: 9/9/10 Applicant's
Signature: [Signature]
x [Signature]
x [Signature]

ATTACHMENT 7



Napa County Department of Environmental Management CUPA-Related Business Activities Form

Business Name: HUNTER SUBDIVISION

Business Address: _____

Contact: BEN VANRUTPHEN

Phone #: 707.431.0582

A. HAZARDOUS MATERIALS

Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in AST's and UST's or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70)?

☐ YES ☒ NO

B. UNDERGROUND STORAGE TANKS (UST's)

1. Own or operate underground storage tanks?

☐ YES ☒ NO

2. Intend to upgrade existing or install new UST's?

☐ YES ☒ NO

C. ABOVE GROUND STORAGE TANKS (AST's)

Own or operate AST's above these thresholds:

- Any tank capacity with a capacity greater than 660 gallons, or
- The total capacity for the facility is greater than 1,320 gallons?

☐ YES ☒ NO

D. HAZARDOUS WASTE

1. Generate hazardous waste?

☐ YES ☒ NO

2. Recycle more than 220 lbs/month of excluded or exempted recyclable materials (per H&SC §25143.2)?

☐ YES ☒ NO

3. Treat hazardous waste on site?

☐ YES ☒ NO

4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?

☐ YES ☒ NO

5. Consolidate hazardous waste generated at a remote site?

☐ YES ☒ NO

E. OTHER

1. Does the business activity include car fleet washing, mobile detailing, auto-body related activities?

☐ YES ☒ NO

2. Does the business handle Extremely Hazardous Substances in amounts that would qualify for the Risk Management Program? Some examples and their thresholds common to Napa County include: Ammonia - 500 lbs, Sulfur Dioxide - 500 lbs, Chlorine - 500 lbs.

☐ YES ☒ NO

HUNTER SUBDIVISION PROJECT DESCRIPTION

GENERAL INFORMATION

The subject property is a 16.9-acre parcel (APN 009-030-057) located north of Hunt Avenue and east of Adams Street. The site is bounded by single-family homes to the west and southwest, a mobile-home park to the southeast, the flood control project to the east and a City-owned parcel (for access to the flood control project) to the north. There is existing vineyard over a portion of the property with the remaining land being vacant and recently disturbed/graded as part of the flood control project.

The owner, Mr. Dennis Hunter, seeks approval to subdivide the parcel into 51 single-family residential lots, 11 of those with affordable granny units, and a parcel designated for a future 25-unit workforce/affordable housing development. The parcel currently has a *Medium Density Residential Zoning* and General Plan designation allowing for a density range of 5.1 to 16.0 du/acre and maximum yield of 270 du. The proposed 87 units (51 lots + 11 granny units + 25 future multi-family units) results in a density of 5.1 du/acre thereby meeting the minimum requirement.

In terms of development standards, the resulting lots meet or exceed all the shape, size and setback requirements of the MR zoning district. Houses are not being proposed at this time or as part of this application. The affordable units will be deed restricted for a minimum of 30 years (per SB 1818). This project is a housing development entitled to a density bonus and multiple incentives and concessions under the provisions of Government Code §65915.

As indicated above, there are a few remainder parcels being proposed as part of this subdivision. Parcel A is 3.13 net acres and will be set aside for a future 25-unit multi-family development. There is also a small sliver of land along the north PL that is Parcel B.

The project will be served by new public streets including the interconnection of Starr Avenue to Adams Street. These streets are classified as collectors and have been designed to the 60-foot right-of-way standard. All other streets are designed to the minor residential standard (56'). Adams Street is shown on the City-owned parcel with a small portion lying on the subject property.

In terms of utilities, there is an existing sanitary sewer in Hunt Avenue and new water and storm drain lines that run through the property, all of which are accessible for connection by the new project. There are also existing dry utilities nearby in Hunt Avenue and in Adams Street for service of gas, electric, cable and phone to the project. There is an existing well near the southeastern end of the property that is proposed to be maintained in place and used for irrigation of the project's landscape areas. It is a high-producing well that it also capable of supplying additional water to the project should it be found necessary.

HUNTER SUBDIVISION PROJECT DESCRIPTION

The grading design for the project, as shown on the Tentative Map, is based on the Soil Stockpile Grading Plan dated January 2009 prepared by Mead & Hunt for the flood control project. The grades have been set to utilize the pad that is being constructed and to achieve an earthwork balance in an effort to avoid future offhaul of material. The fill slope along the south and southeast property lines being constructed will be replaced by a retaining wall and drainage swale, also as shown on the Tentative Map. The grading and drainage design has been coordinated with the flood control project based on feedback from and a field meeting with Jon Lander.

It is anticipated that site improvements for the project will be complete within one and one-half years after the approval of the project's entitlements.

HISTORY OF PRIOR KNOWN DEVELOPMENT ACTIVITY

The architectural firm Dahlin Group was retained in May of 2005 to prepare a Master Plan for the site. Following several meetings with City Staff, at Staff's suggestion, the design work was halted to allow for the completion of the General Plan Update program. On May 23, 2006 the Civil Engineering firm Riechers Spence & Associates (RSA) was retained to start Tentative Map work but again at the suggestion of City Staff the work was halted to permit the completion of the General Plan Update program.

In June of 2007 the City first contacted Mr. Hunter with a request for right of entry to the property to explore Indian remains identified in their Cultural Resources Study. The City explained that their flood control project was a life-safety project for the senior residents of the mobile home park. Mr. Hunter signed the right of entry (without charge) on October 11, 2007.

During the summer of 2006 the City again contacted Mr. Hunter to see if he would consider allowing the spoils from the flood control project to be placed on his property. This action would reduce the cost of the flood control project to the City. Mr. Hunter agreed subject to the fill being placed in a compacted form, suitable for development. It was the City's estimate that 37,000 cubic yards of fill would be available. A grading plan was prepared by Civil Design and submitted to the City and a Soils Report for the site was prepared by Miller Pacific Engineering Group.

In the spring of 2008 the City again approached Mr. Hunter to see if he was interested in a possible trade in lieu of the purchase of his property for the flood control project. A number of meetings were held and a lot line adjustment agreed upon. Land was appraised and a price was established. The Agreement of Purchase and Sale was signed in December of 2008.

In the fall of 2007 the City again approached Mr. Hunter asking if he would support placing an Assessment District on property benefiting from the flood control project. Additional money was required to complete the City's project. Mr. Richard McDonnell

Assessment District 3

HUNTER SUBDIVISION PROJECT DESCRIPTION

of Vineyard Valley Mobile Home Park, on Marcy 21, 2008 protested the Assessment District which constituted a majority protest and killed the Assessment District. Mr. Hunter agreed to the Assessment District which would place a lien of \$586,084.96 on his property.

All of the meetings with the City to this point, including meetings held with Councilman Eric Sklar in attendance, envisioned development of the Hunter parcel. The values of property arrived at for the land trade/sale with the City was based on developable land prices. And, the placement of City fill on the Hunter property was to be done consistent with the future urban development of the parcel. Furthermore, to accommodate development and as part of the land swap, the City's Flood Control Project:

- Removed grape vines along the north side of the property for the extension of Adams Street and through the middle of the site where Starr Avenue was to be extended.
- Moved the water main from the center of the property to the location of the future Starr Avenue right-of-way.
- Up-sized the retention pond and pumps to serve the developed Hunter parcel.
- Created an easement and moved the sewer line.
- Created an easement to facilitate the extension of Starr Avenue.

In September of 2009 architect Mark Scheurer was retained as designer of the project and Mark met with City Staff. In December of 2009 the design work was again put on hold to allow for the completion of the General Plan Update program. The Civil Engineering firm RSA then rejoined the development team.

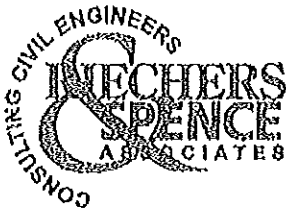
At the present time the right-of-way for Adams Street has been graded and rocked, the right-of-way for Starr Avenue has been cleared and the water utility installed. The easterly half of the Hunter property has been used as a construction staging area by the City and is devoid of any vegetation. And the stockpile is currently being placed and compacted on the eastern portion of the site (per the stockpile Plan referenced above). The ground water well on the site previously used for irrigation of the grape vines is presently used by the City (free of charge) to start the landscape required by their flood control project.

before application completed

Dennis R. Hunter

Applicant or Property Owner Signature

Sept 9, 10
Date



#4110047.0

September 9, 2010

City of St. Helena Planning Department
1480 Main Street
St. Helena, CA 94574

RE: Hunter Subdivision-
Tentative Subdivision Map Submittal

To Whom It May Concern:

On behalf of our client, Dennis Hunter, and applicant, Ben and Kelly vanZutphen, we are submitting the following items to initiate concurrent processing of both a Conceptual Map review and a Tentative Subdivision Map application for a subdivision on Mr. Hunter's property. Per the City's checklist, the following items are included in this package:

- (20) 24x36 copies of the Conceptual Map
- Completed application form, with property owner and applicant signatures
- Written Statement, signed and dated
- (13) 24x36, (13) 11x17 & (1) 8-1/2x11 copies of the Tentative Subdivision Map, including:
 - a. Cross Sections
 - b. Grading Plan/Contour Map
- (13) 24x36, (13) 11x17 & (1) 8-1/2x11 copies of the Landscape Plan, including,
 - a. Fence/Wall details
- Site Photos
- A mailing list of all owners of property within a 300' radius of the subject property
- Current Preliminary Title Report
- Napa County Solid Waste Disposal Info Form
- Processing Fee Initial Deposit of \$1,500

Additional items to accompany the Subdivision Map (not already included above) are:

- Listed Item #8- A cost estimate for all off-site improvements

rsacivil.com

1541 Third Street Napa, CA 94559
P: 707.252.3301 F: 707.252.4966

RSA ~ CELEBRATING

30

YEARS OF CIVIL ENGINEERING

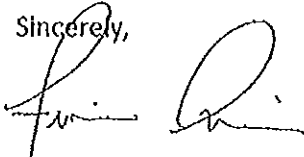
Lastly, for your easy reference, the following technical and environmental studies are attached which were performed as part of the flood control project:

- Geotechnical Report
- Army Corps 404 Permit
- Archeological Report

to sell
Note that, as described in the written statement, homes or structures are not proposed as part of this application. Mr. Hunter seeks approval of the subdivision only at this time. So, the floor plans and presentation plans/exhibits listed in the checklist are not included in this package.

Please call if you have any questions in regards to this submittal, and we'll connect you with the applicant and/or the property owner.

Sincerely,



Francis Adrias, PE
Project Manager

cc: Dennis Hunter w/ enclosure
Ben vanZutphen

Job No. 4110047.0
Date: Sept 8, 2010
By: JCP

*Cawlyn Mason Debbie Don
Walter Sue Melany Mathew
Terry*



HUNTER SUBDIVISION - OFFSITE IMPROVEMENTS

St. Helena, California

OPINION OF PROBABLE CONSTRUCTION COSTS

Based on DESIGN REVIEW PLANS

Prepared By: Riechers Spence and Associates, Dated: Sept 8, 2010

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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A. GRADING AND STREET WORK

Mobilization	1	l.s.	\$ 8,000.00	\$ 8,000.00
Clearing and Grubbing	1	l.s.	\$ 5,000.00	\$ 5,000.00
Rough Grading	1,800	c.y.	\$ 6.00	\$ 10,800.00
Overexcavation & Recomaction	1	l.s.	\$ 5,000.00	\$ 5,000.00
Finish Grading - Streets	10,830	s.f.	\$ 0.30	\$ 3,249.00
Asphalt Concrete *	200	ton	\$ 100.00	\$ 20,000.00
Class II Aggregate Base *	270	c.y.	\$ 45.00	\$ 12,150.00
Saw-cut and conform	160	l.f.	\$ 4.50	\$ 720.00
Traffic Striping and Signage	1	l.s.	\$ 2,000.00	\$ 2,000.00
Traffic Control	1	l.s.	\$ 5,000.00	\$ 5,000.00
Erosion Control	1	l.s.	\$ 15,000.00	\$ 15,000.00
Subtotal				\$ 86,919.00

B. CONCRETE WORK

Standard Curb and 12" Gutter	580	l.f.	\$ 25.00	\$ 14,500.00
Pedestrian Ramp, (Caltrans - Case A)	1	each	\$ 1,600.00	\$ 1,600.00
4" Thick Concrete Sidewalks	1,940	s.f.	\$ 7.00	\$ 13,580.00
Subtotal				\$ 29,680.00

C. SEWER SYSTEM WORK

8" PVC Sanitary Sewer Pipe	175	l.f.	\$ 42.00	\$ 7,350.00
Sanitary Sewer Manhole	1	each	\$ 4,000.00	\$ 4,000.00
Connect to existing sewer system	1	l.s.	\$ 1,200.00	\$ 1,200.00
Subtotal				\$ 12,550.00

E. WATER WORK

8" PVC Water Pipe	40	l.f.	\$ 48.00	\$ 1,920.00
Connect to existing water system	1	l.s.	\$ 1,200.00	\$ 1,200.00
Subtotal				\$ 3,120.00

Total \$ 132,269.00
15% Contingency \$ 19,840.35
GRAND TOTAL \$ 152,109.35

* Pavement section is assumed. Actual section will be based on the projects geotechnical report recommendations.

DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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NOTES:

1. This estimate of probable construction costs is prepared as a guide only and is subject to possible change. It has been prepared to a standard of accuracy, which, to the best of our knowledge and judgment, is sufficient to satisfy our understanding of this estimate.
2. This estimate does not include the following:
 - a. Comcast, Pac-Bell, AT&T and PG&E (dry utilities) costs.
 - b. Relocation of power poles.
 - c. Landscaping/hardscape costs.
 - d. City of St. Helena fees.
 - e. Detention facilities or maintenance costs.
 - f. Cost associated with environmental mitigations.
 - g. Fence relocations.
 - h. Phased construction or out-of-regular-sequence construction.
 - i. Land costs, acquisition of right of way, easements, and/or rights of entry.
 - j. Costs associated with high groundwater or inclement weather conditions.
 - k. Costs associated with limitation on construction access.
 - l. Demolition of existing structures or facilities.
3. Costs presented herein represent an opinion based on historical information and previous bid prices on current projects. No provision has been made for inflation.

EXHIBIT 8

STAFF REPORT



DATE: April 11, 2012
TO: Mayor and City Council
FROM: City Staff
RE: Water Supply and Demand Conditions Update

Summary

Discussion of City water supply and demand conditions related to certification of the General Plan Update EIR and adoption of the General Plan Update document.

Background

The General Plan Update process has been underway since late 2008. The process was initiated through a public workshop in early 2009 followed by monthly General Plan Update Steering Committee meetings throughout 2009 and 2010. In early 2010, there was another public workshop followed by two Town Hall meetings and a communitywide survey. Public hearings for the adoption of the General Plan Update document and Certification of the General Plan Update EIR were initiated in August of 2010.

November 9, 2010 City Council Meeting

On November 9, 2010, the City Council held a public hearing on the General Plan Update EIR and declared that Mitigation Measure Utilities 1-a (page 4.R-20) which outlines a conservation program intended to result in a reduction in annual water demand of 495 AF is not feasible and that even with the remaining mitigation measures (Mitigation Measures 1-b, 1-c, 1-d), the impact of the increased demand for water from new development would be significant and unavoidable. Because the City Council determined that these specific measures would not mitigate this impact, additional and/or revised mitigation measures were required. Staff was directed to work with the Infrastructure Committee and consultants to develop appropriate measures. At that meeting the City Council approved the General Plan Update document and directed staff to re-circulate the EIR once it had resolved the water-related issues. The minutes from the November 9, 2010, City Council meeting are attached.

Safe Yield Committee

At their meeting on December 14, 2010 the City Council appointed the Safe Yield Committee to ascertain the annual safe yield of the City's water system. The goal of the committee was to determine, at the present time, if potable water usage was below, above or equal to the safe yield of the potable water system. The meaning of safe yield was defined by the Planning Commission and approved by the City Council during the review/approval process of the General Plan Update during the fall of 2010. The definition is as follows:

The safe annual yield of the St. Helena water supply system is that quantity of water which can be reliably delivered on an annual basis through most rainfall years, including a Dry Year (rainfall at 22" to 25.9") without undue hardship on water customers through water shortage restrictions. It is recognized that the safe annual yield, as so defined, could place significant

*John Wiley Thomas, Planning Director
April 11, 2012
Page 1 of 1*

hardship on water customers in a Critically Dry Year (rainfall at 21.9" or less) or in periods of two or more consecutive Dry Years."

The Safe Yield Committee presented their recommendations to the City Council at their meeting on March 22, 2011. The Committee determined that the annual safe yield of the City's potable water supply system is currently 1,950 acre feet. To calculate annual demand, the Committee recommended using a five-year rolling average. As shown in the table below, the supply/usage balance equation yielded a deficit of 206 acre feet in FY 09-10 and 133 acre feet in FY 10-11. It is interesting to note that actual water demand in both of these years was lower than the annual safe yield of 1,950 acre feet. Because the five-year rolling average is used in the equation, it takes some time for reductions in water usage to "catch up" in the calculated surplus/deficit. As shown in the italicized projections in the table below, if water demand remains at the FY 10-11 level, water emergency restrictions could potentially be lifted in July 2012. Furthermore, a surplus of 107 acre feet could be realized at the end of FY 12-13.

Fiscal Year	Water Use (acre feet)	Unaccounted for Water (UAF) ¹ (acre feet)	Annual Total Water Use (acre feet)	5-Year Rolling Average Total Water Use ² (acre feet)	Surplus/ (Deficit) (acre feet)
2005 - 2006	1,853	327	2,180		
2006 - 2007	2,026	358	2,384		
2007 - 2008	1,894	334	2,228		
2008 - 2009	1,807	319	2,126		
2009 - 2010	1,581	279	1,860	2,156	(206)
2010 - 2011	1,573	206	1,779	2,083	(133)
<i>2011 - 2012 est.</i>	<i>1,573</i>	<i>206</i>	<i>1,779</i>	<i>1,915</i>	<i>35</i>
<i>2012-2013 est.</i>	<i>1,573</i>	<i>206</i>	<i>1,779</i>	<i>1,843</i>	<i>107</i>

¹Unaccounted for water is estimated at 15% of total water use for FY 05-06 through FY 09-10 years 2006 to 2010. UAF water for FY 10-11 is the actual usage.

²The five-year rolling average for FY 09-10 is computed by averaging water use and adding 15% UAF water use (water use 5-year average ÷ .85). The five year rolling average for FY 11-12 and FY 12-13 projections use 12% UAF water use in the calculation (water use 5-year average ÷ .88).

Update on Water-Related Activities in 2011

In its final report dated March 27, 2011, the Safe Yield Committee recommended the City develop a new system for triggering water emergencies, and on October 25, 2011 the Council adopted a new Water Shortage Emergencies Ordinance, amending Chapter 13.04 Water Service Systems, Article 2, Water Shortage Emergencies. The new ordinance incorporated the definition of Safe Annual Yield and added a new definition for Supply/Usage Balance, as follows:

"Supply/Usage Balance" is the difference between the Safe Annual Yield and total current usage. Total current usage is average usage as determined by taking total metered potable water supply entering the water system's distribution system over the last five fiscal years, divided by five. The city shall calculate that the Supply/Usage Balance as soon after the end of each fiscal year as is practicable, as well as at any time that there is a material change in potable water supply. The Balance is positive when the Safe Annual Yield exceeds total current usage. The Balance is negative, or in Deficit, when the Safe Annual Yield is less than total current usage.

*2011 Water Shortage Ordinance
April 11, 2012
Page 2 of 2*

The ordinance establishes three water shortage emergency phases with increasing water use restrictions. Phase I water regulations are triggered when the supply/usage balance is in deficit, as is currently the case. Under Phase I regulations, water customers are prohibited from expanding or installing new water-using appliances, plumbing, or improvements, such as landscaping and pools, unless the installation will result in no increase in water use. Replacement fixtures and appliances must be water-efficient. In addition, new water connections for new development may only be approved if the projected water demand for the project can be offset by a corresponding reduction in the existing water demand on the City water system.

City of Napa Water Agreement. On November 8, 2011, the city adopted and amended its water supply agreement with the City of Napa to provide 600 acre-feet per year (afy) under all hydrologic conditions through the end of 2035. This is a significant change from the previous three tier system. The net effect is to provide more water in a critically dry year, the same amount of water in a dry year, and less water in wet, normal and below normal years.

Water Rate Increase. On July 1, 2011, new water rates went into effect which increased rates by an average of 56%. The new rates have a higher tiered rate structure than the previous water rates and should encourage increased water conservation. The impact of the new water rates on water demand is not yet known, as the most recently reported supply/usage balance covers the period before the new water rates went into effect.

Discussion

Building on the information developed by the Safe Yield Committee, the City requested West Yost Associates to prepare a report that would supplement and update the information contained in the 2010 Water Supply Plan (West Yost Associates, October 2010). The West Yost technical memorandum, dated April 5, 2012, is attached to this staff report.

The technical memorandum shows that, without water conservation measures, the metered water demand is projected to increase from 1,875 afy (2,080 afy including unaccounted for water) to 2,116 afy (2,350 afy including unaccounted for water) by the year 2030 under the likely build-out scenario, an increase of approximately 270 afy in total projected water use (Table 1-1). Staff notes that the 2010 metered water use and total water use estimates incorporated in the report are significantly higher than the actual water use figures for 2010, but approximate the five-year rolling average.

The technical memorandum describes the existing revised potable water supply under different hydrologic conditions, and compares water demand projections to water supply, given the new water shortage emergency regulations. Table 3-3 shows that total potable water supply is not capable of providing reliable supplies under all hydrologic conditions for the likely build-out scenario, except during a critically dry year, due to a combination of the impact of the Phase III water shortage emergency restrictions and increased groundwater pumping. The technical memorandum assumes the City's current groundwater use practice of using groundwater for up to 20 percent of the water supply in most years, and 30 percent in dry and critically dry years.

Beginning on page 13 of the technical memorandum, West Yost explores several strategies to mitigate the water supply deficit between the potable water supply and projected water demand

under the likely build-out scenario. One strategy is to increase groundwater pumping; according to West Yost, it appears that the City could increase groundwater pumping by at least several hundred acre-feet per year – enough to reduce or eliminate the water supply deficit – and not exceed the perennial yield of the groundwater basin. West Yost cites a 2050 Napa Valley Water Resources Study that indicates that groundwater levels in the Napa Valley Groundwater Basin, including the St. Helena area, have been stable over 55 years and that there is no indication that the perennial yield has been exceeded. Furthermore, the perennial yield of the basin has been estimated as being anywhere from 21,000 afy to almost 30,000 afy, with a volume in storage of over 200,000 acre-feet. Although only a portion of the total basin recharge and storage would be attributable to the immediate area around St. Helena, the City's long-term pumping average of 450 afy is not a significant draw on the groundwater basin, amounting to approximately 2% of the annual basin recharge. Water Strategy 1, discussed below, would increase pumping to 650 afy, or approximately 3% of the annual basin recharge.

The technical memorandum reviews the Water Use Efficiency Recommendations discussed in the 2010 Water Supply Plan, and concludes that these options still apply. The recommendations and corresponding potential water savings listed below would be refined once a water conservation plan is fully developed and implemented.

- Hire a full-time Water Conservation Coordinator (necessary to achieve reductions listed below)
- Modify rate structure to increase high tier rates (unspecified)
- Update the new construction offset program, 227 afy
- Fully develop the meter leak detection and monitoring program, 90 afy
- Establish an Irrigation Advisory Service, 60 afy
- Promote "Smart Irrigation Controllers," 77 afy
- Adopt requirements for "ultra-efficient" plumbing fixtures for new development and rebates to existing users, 15 afy
- Provide incentives for replacement of turf, 13 afy
- Provide incentives for roof water catchment, 13 afy

These measures total 425 afy, although additional water use reductions are likely to occur from the higher water rates already imposed and potential restructuring of high-tier water rates to discourage water waste. In regard to the meter leak detection and monitoring program, staff notes that while the City's recent customer water meter upgrade has contributed to the drop in unaccounted for water from approximately 15% to 12% (an estimated 72 acre-feet in FY 10-11), more work could be done. In particular, the City could conduct a comprehensive leak survey and repair and upgrade leaking water pipes in the municipal system.

In section 4.1, the technical memorandum describes five water supply strategies the City Council could adopt to ensure sufficient and reliable water supplies to meet needs of the likely build-out scenario. These strategies provide several points on a continuum between low water conservation action plans combined with more groundwater use than the current practice, to high water conservation action plans combined with lower groundwater use than the current practice. These strategies, described in detail on pages 15 and 16 of the technical memorandum, are:

*2010 Water Supply Strategic Plan
Appendix A
Page 5 of 7*

Strategy 1: Minimize water conservation, resulting in an average long-term groundwater pumping of 650 afy, and no long-term water conservation measures under the likely build-out scenario.

Strategy 2: Hold groundwater to the historical average of 450 afy, resulting in a need for long-term water conservation of 277 afy under the likely buildout scenario (13% of projected demand).

Strategy 3: Hold supply to 2008 levels, resulting in a long-term average groundwater pumping of 481 afy and long-term water conservation measures of 243 afy under the likely building scenario (12% of projected demand).

Strategy 4: Maximize water conservation, resulting in average groundwater pumping of 251 afy and long-term water conservation measures of 495 afy under the likely build-out scenario (24% of projected demand).

Strategy 5: Hold water supply to 1,950 afy and keep the long-term average groundwater pumping to 450 afy, as recommended by the Safe Yield Committee. This results in the need for long-term water conservation measures of 360 afy under the likely buildout scenario (17% of projected demand).

The potential for a water surplus as early as FY 2012-13, and increasing in FY 2013-14, came to light subsequent to West Yost articulation of the 5 Strategies above. West Yost should opine on whether such a water surplus could further reduce the need for groundwater pumping or conservation outlined in the above 5 strategies.

Next Steps

The City Council may select one of the five water strategies described above in order to move forward with the process of certifying the General Plan Update EIR. The Water Use Efficiency Recommendations described above are sufficient to balance water supply and demand for all strategies under the likely build-out scenario except Strategy 4, and in fact, exceed the water conservation amount required under these measures. Strategies 1, 2, 3 and 5 require water conservation measures that would reduce projected demand from 12% to 17%. As described in the attached memo on State Water Regulations, the Water Conservation Act of 2009 requires the state to reduce urban per capita water use by 20% by the year 2020. While the St. Helena Water Enterprise has less than 3,000 connections and is not required to comply with the reporting requirements of SBX 7-7, the City is required to comply with state regulations designed to meet this water reduction goal, including the State Water Efficient Landscape Ordinance and the 2010 CALGreen Building Code, which requires a reduction of indoor water use by at least 20% for all new construction projects. Local water conservation efforts, in concert with these state regulations, could help to bring projected water supply and demand in balance.

Strategies 1 and 3 require an increase in long-term average groundwater pumping to 650 afy and 481 afy, respectively. This would represent an increase of 200 afy and 31 afy above the historical long-term average of 450 afy. In order to determine the feasibility of increasing

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groundwater production, the City could solicit proposals from qualified groundwater hydrogeologists to conduct a comprehensive groundwater assessment that augments the findings from the studies cited in the technical memorandum. The study would provide a better understanding of the long-term yield characteristics of the St. Helena groundwater basin analysis, and could include: an assessment of historical groundwater level, quality, and production data; volumetric assessments of the basin to quantify groundwater availability; and development of a groundwater budget in consideration of present and future water demand and anticipated yields of municipal water supply wells.

While choosing its preferred water supply strategy, the City Council should bear in mind that, due to the recent amendments to the Water Shortage Emergencies Ordinance, new development requiring additional water supplies must prove, through a water demand analysis report, that the proposed development will not create additional water demand. It is envisioned that this practice will be followed until water supply and demand are brought into balance. The rolling five-year average used to calculate "current" water demand in the supply/usage equation ensures that conservation efforts and restructured water rates must translate into real and long-lasting reductions in water demand before new development will be approved.

Recommended Council Action

The City Council should select one of the five strategies analyzed in the West Yost Technical Memorandum dated April 5, 2012, and direct staff to prepare the document(s) necessary for the City Council to certify the General Plan Update EIR. The City's EIR consultant has determined that recirculation of the EIR will not be required if the City Council selects one of the five water strategies.

Alternatives

If the Council chooses not to adopt one of the five water supply strategies analyzed in the West Yost technical memorandum, there will be insufficient water to serve new development under the likely build-out scenario of the draft General Plan Update. The City would then have the following options to consider:

Option One: Reduce all general plan growth to zero. This would require a rewrite of the General Plan Update and EIR and would potentially be in conflict with the City's adopted housing element.

Option Two: Modify the General Plan Update likely build-out scenario to a lower level of growth that can be accommodated with some increase in water supply, achieved through water conservation, increased groundwater pumping, and/or regulations requiring new development to offset existing water usage in the community. This would also require a rewrite of the General Plan Update and EIR, but, depending on the decision the Council makes in regard to the above factors, may be less extensive than Option One.

Option Three: Shorten the term of the General Plan Update, in concert with some mix of water conservation and increased groundwater pumping. Reducing the General Plan horizon to the year 2020, for example, would reduce projected water demand by 120 afy. The water

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conservation measures and/or increased groundwater pumping requirements described in Water Strategies 1-5 would therefore be reduced by 120 afy.

Fiscal Impact

Staff and consultant time to prepare documents to certify the General Plan Update EIR and adopt the General Plan Update. A rewrite of the General Plan Update and EIR could be costly and take a significant amount of time. Staff would need to develop cost estimates with its consultants in consideration of Council's action and the scope of changes that are required.

Attachments

West Yost Associates Technical Memorandum, April 5, 2012
State Water Regulations Memorandum, February 21, 2012
City Council Minutes from the Meeting of November 9, 2010

Distributed Previously

Final General Plan Update Document
Final General Plan Update PEIR

MEMORANDUM

Date: February 21, 2012
TO: Gary Broad, City Manager
FROM: Christine O'Rourke, Consultant
SUBJECT: State Water Regulations

The purpose of this memorandum is to provide a summary of state water regulations that are designed to improve water efficiency and conservation.

State Water Efficient Landscape Ordinance (AB 1881)

In 2009, the state adopted a new model water efficient landscape ordinance and required all agencies to either adopt it or develop an ordinance that was as efficient as the state's ordinance. The state ordinance went into effect on January 1, 2010. The ordinance applies to: 1) new construction and rehabilitated landscapes for public agencies, commercial development projects, and developer-installed residential projects of 2,500 square feet or greater that require a building or landscape permit, plan check or design review; and 2) new construction landscapes installed by a home-owner or home-owner's contractor that are 5,000 square feet or greater and require a building or landscape permit, plan check, or design review.

The state model ordinance is designed to reduce landscape water use to the lowest practical amount and set an upper water budget that may not be exceeded. Ordinance requirements include the following elements:

- Water-use calculated based on the maximum applied water allowance. Any plants may be used as long as the water budget is not exceeded.
- Smart controllers that use evapotranspiration or soil moisture data.
- Dedicated meters for projects with 5,000 square feet or more of landscape area (except single family homes).
- Rain shut-off sensors.
- No overhead spray for narrow planting areas less than 8' wide.
- 24-inch setback from hard surfaces for overhead spray heads.
- No turf allowed on slopes exceeding 25% unless the toe area is permeable.
- 2" of mulch in most planting areas.

The state reports that several local agencies have adopted ordinances more stringent than the model ordinance. Some of the local provisions include:

- The ordinance applies to all new construction and rehabilitated irrigated landscape areas equal to or greater than 1,000 square feet.
- The ordinance applies to all new landscapes regardless of size or occupancy type.
- The ordinance limits the allowable turf area to 25% of the irrigated area, unless the project applicant chooses to develop a water budget.

- The ordinance requires at least 80% of the plants in non-turf areas to be native plants, low-water using plants, or no-water using plants, unless the project applicant chooses to develop a water budget.
- The ordinance requires dedicated irrigation meters at all accounts with landscaping that exceeds 5,000 square feet.

2010 CALGreen Building Code

In 2010, the state adopted the CALGreen Building Code which went into effect on January 1, 2011. The code requires a reduction of indoor water use by at least 20%, and provides both prescriptive and performance methods to meet the requirement.

For indoor water use, projects may either show a 20% reduction in water use using the worksheets provided in the code or install the following high-efficiency fixtures:

- Showerheads with a maximum water rate flow rate of 2.0 gallons per minute at a pressure of 80 psi.
- Lavatory faucets with a maximum flow rate of 1.5 gallons per minute at 60 psi.
- Kitchen faucets with a maximum flow rate of 1.8 gallons per minute at 60 psi.
- Toilets that use a maximum of 1.28 gallons per flush.
- Urinals that use a maximum of 0.5 gallons per flush.

In addition, the code requires that irrigation controllers must be weather or soil-based controllers capable of delaying an irrigation cycle during wet weather.

Some local agencies have adopted additional requirements. The Marin Municipal Water District, for example, requires high-efficiency clothes washers and pool covers for all new outdoor swimming pools, as well as high-efficiency fixtures for commercial applications.

Water Conservation Act (SBX 7-7)

Senate Bill X 7-7 requires the state to achieve a 20% reduction in urban per capita water use by the year 2020. The Act requires urban water agencies with 3,000 service connections or sales of 3,000 acre feet to calculate baseline per capita water use and develop water use targets for 2020.

A retail water supplier should also provide a general description in their Urban Water Management Plan of how the supplier intends to reduce per capita water use to meet its urban water use target. An example of the Conservation Measures Description for an Urban Water Management Plan is attached as Appendix A to this memorandum.

Agencies that are not in compliance with the Act by July 1, 2016, are not eligible for state water grants and loans. Failure to meet the 2020 targets will be a violation of the law subject to administrative or judicial proceedings. The City is not currently required to comply with this law, but it may be required to do so in the future.

Appendix A

Marin Municipal Water District 2010 Urban Water Management Plan Conservation Measure Descriptions

Table 3-15 Conservation Measure Descriptions		
Customer Sector	Name of Measure	Description
SF, MF	Residential Water Surveys - Indoor	This is the indoor component of indoor and outdoor water surveys for existing single-family and multi-family residential customers. Normally those with high water use are targeted and provided customized report to homeowner.
SF, MF	Residential Water Surveys - Outdoor	This is the outdoor component of indoor and outdoor water surveys for existing single-family and multi-family residential customers. Normally those with high water use are targeted and provided customized report to homeowner.
SYSTEM	UFW Reduction	The District will increase efforts to find and repair leaks in the distribution system and take other actions (such as meter replacement) to reduce water losses. A ten year program to reduce unaccounted for water by 3.0 percent is proposed for this measure.
IRR	Water Budgets	90% - 100% of all irrigators of landscapes with separate irrigation accounts would receive a monthly or bi-monthly irrigation water use budget.
COM, INS	Large Landscape Conservation Audits	All public and private irrigators of landscapes larger than one acre would be eligible for free landscape water audits upon request.
SF	Clothes Washer Rebate	Homeowners would be eligible to receive a rebate on a new water efficient clothes washer.
SF, New SF	Public Information Program	Public education would be used to raise awareness of other conservation measures available to customers. Programs could include poster contests, speakers to community groups, radio and television time, and printed educational material such as bill inserts, etc.
COM, INS	Commercial Water Audits	High water use accounts would be offered a free water audit that would evaluate ways for the business to save water and money.
SF	Single Family Residential ULF Toilet Rebate	Homeowners would be required to replace an existing high volume toilet with a 1.6 gallon per flush efficient toilet when name account changes.
RMF	Multi-Family Residential ULF Toilet Rebate	Homeowners would be required to replace an existing high volume toilet with a 1.6 gallon per flush efficient toilet when name account changes.
SF	Single Family Toilet Ordinance	A single family toilet ordinance to replace existing toilets.
MF	Multifamily Toilet Ordinance	A multifamily toilet ordinance to replace existing toilets.
Existing Customers SF	Rain-Sensor (shut off device) Retrofit on Irrigation Controllers	Agency pays for the \$40 rain sensor, homeowner pays for the optional installation (\$35).
Existing Customers: SF & MF	High Efficiency Toilet (HET)	Provide a \$250 rebate or voucher for the installation of a high efficiency toilet (HET). HET are defined as any toilet to flush 20% less than an ultra-low flow toilet (ULFT) and include dual flush technology. Rebate amounts would reflect the incremental purchase cost.
Existing Customers: SF & Condo	Homeowner Landscaping and Irrigation Classes	Sponsor classes at stores where irrigation equipment is sold or other suitable venues on selection and installation of efficient plant material and irrigation equipment (drip irrigation, smart controllers, low volume sprinklers, etc.).
Existing Customers MF	Coin-Op Washing Machine Rebate	Provide a \$400 rebate for efficient coin-op washing machines to existing apartment complexes over a certain size with a common laundry room.

Table 3-15 Conservation Measure Descriptions		
Customer Sector	Name of Measure	Description
Existing Customers SF, Condo, MF, CII, IRR	Financial Incentives/ Rebates for Irrigation Upgrades including Smart Irrigation Controllers	For SF, Condo, MF, CII, and IRR customers with landscape, provide for rebates towards the purchase and installation of selected types of irrigation equipment upgrade including low volume sprinkler heads, check valves, smart irrigation controllers. Rebate is \$450 for residential accounts and up to \$650 for mixed use accounts and up to \$3,500 for dedicated irrigation accounts. Provide up to \$450 for SF, and up to \$3,500. Assume average rebate claimed equals to \$1,500 for non-Residential accounts.
Existing Customers: CII	Hotel Retrofit (w/ financial assistance) - CII Existing	Following a free water audit, offer the hotel a rebate for equipment identified that would save water. Provide a rebate schedule for certain efficient equipment such as air-cooled ice machines, steamers, washers, cooling towers, and spray rinse valves.
Existing Customers: CII	CII Rebates - Replace Inefficient water using equipment	Provide a rebate for a standard list of water efficient equipment. Included would be x-ray machines, icemakers, air-cooled ice machines, steamers, washers, spray valves, efficient dishwashers, replace once through cooling, add conductivity meters on cooling.
Existing Customers: CII	0.5 gal/flush urinals in existing buildings	Provide a \$350 rebate for existing buildings to encourage installation of 0.5 gal/flush urinals rather than the current standard of 1.0 gal/flush models.
SF, Condo, MF, COM, INS	Install AMS and Leak Detection Customer Notification	Install advanced metering systems (AMS) and leak detection meters. A call or email will be placed to customers if there is a leak. Will be as automated as possible by a computer program, use 1 full time staff person. Cost will be approximately \$100,000 per year.
New Customers: SF, Condo, RMF, COM, INS	Rain-sensor shut off device on irrigation controllers	Require sensor or rain shut off devices with all new automatic irrigation system installations on new homes and buildings.
New Customers: SF, Condo, RMF, COM, INS	Smart Irrigation Controller	Require developers to provide the latest state of the art SMART irrigation controllers. These SMART controllers have on-site temperature sensors or rely on a signal from a central weather station that modifies irrigation times at least weekly.
New Customers: SF, Condo, RMF, COM, INS	High Efficiency Toilet (HET)	Require developers to install a high efficiency toilet (HET). HET are defined as any toilet to flush 20% less than an ULFT and include dual flush technology.
New Customers: SF, Condo, RMF, COM, INS	Dishwasher New Efficient	Require developers to install an efficient dishwasher (meeting certain water efficiency standards, such as gallons/load).
New Customers: SF, Condo, RMF, COM, INS	Clothes washing machines requirement for new residential	Building departments would be responsible to ensure that an efficient washer was installed before new home or building occupancy.
New Customers: SF, Condo, RMF, COM, INS	Hot Water on Demand	Require developers to equip new homes or buildings with a hot water on demand system or tankless hot water heaters, such as those made by Metland Systems and others. These systems use a pump placed under the sink to recycle water sitting in the hot water pipes.

Table 3-15 Conservation Measure Descriptions		
Customer Sector	Name of Measure	Description
New Customers: SF, Condo, RMF, COM, INS	High efficiency faucets and showerheads	Require developers to install lavatory faucets that flow at no more than 1.5 gallons per minute (gpm), kitchen faucets at 2.2 gpm, showerheads at 2.0 gpm.
New Customers: SF, Condo, RMF, COM, INS	Landscape and Irrigation requirements	Enforce a regulation that specifies that homes or buildings be landscaped according to Xeriscape principals, with appropriate irrigation systems. (Combines with Smart Controller listed above). Goal is overall 25% in irrigation water use (measure 2 and 9 combined).
New Customers: MF	Multi Family Submetering	Require all new multi-family units to provide submeters on individual units. To help reduce financial impacts on tenants, regulators would be adopted that specify acceptable methods of metering and billing.
New Customers: CII	Offer new accounts reduced connection fees for installing efficient process equipment for selected businesses (restaurants, laundry mat, food/groceries and hospital)	Offer reduced water and sewer connection fees to new facilities to install water efficient equipment in new facilities that goes above and beyond the building code requirements. Model program after Santa Rosa's BAT program.
New Customers: CII	0.5 gal/flush urinals in new buildings	Require that new buildings be fitted with 0.5 gal/flush urinals rather than the current standard of 1.0 gal/flush models.

NOTE: RSF = Residential Single Family, RMF = Residential Multi-Family, NRSF = New Residential Single Family, COM = Business, INS = Institutional, IND = Industrial



TECHNICAL MEMORANDUM

DATE: April 5, 2012 Project No.: 705-04-10-04.003

TO: John Ferons, Public Works Director, City of St. Helena

FROM: Jim Connell, R.C.E. #63052

REVIEWED BY: Gerry Nakano, R.C.E. #29524

SUBJECT: 2010 Water Supply Plan—Impacts of Recent Water Supply Changes

The purpose of this technical memorandum (TM) is to document the recent changes to the City of St. Helena's (City's) potable water demand and potable water supply in support of the City's General Plan Environmental Impact Report. This TM supplements and modifies the information contained in the 2010 Water Supply Plan (West Yost Associates, October 2010). Since the 2010 Water Supply Plan was developed, the City has undertaken three tasks that affect water supply and demand planning. The three tasks are:

- Task 1. Re-negotiated the Napa water agreement
- Task 2. Amended the Water Shortage Emergency portion of the City Code
- Task 3. Set a planning policy re-defining the safe yield from the City's water supply sources

The first two tasks affect the City's water supply and demand balance and the third task impacts the availability of City supplies to serve demands, which would affect growth in the City. This TM will explore the impact that these three tasks have on water supply planning. To be clear, this TM addresses water demand and supply for the public City facilities only and does not address private groundwater wells, or private surface water supplies.

In addition, the City adopted new water rates in 2011. The new water rates have a higher tiered rate structure than the previous water rates and should help encourage water conservation, which would then reduce potable water demand.

To facilitate cross-referencing with the 2010 Water Supply Plan, this TM describes the updates in the same order as the 2010 Water Supply Plan:

- Water Demand
- Water Supplies
- Comparison of Supply and Demand

- Water Supply Strategies
- Conclusions and Recommendations

1.1 WATER DEMAND

The purpose of this section is to describe the City's estimated and projected potable water demand through two buildout scenarios presented in the draft General Plan Update.

The following topics were discussed in the 2010 Water Supply Plan:

- Recent Historical Water Demands
- Unaccounted For Water
- Land Use and Population Growth
- Per Capita Water Use
- Projected Water Demand
- Impact of City Water Shortage Emergency Phases
- State Senate Billx 7-7 Water Conservation (demand reduction through mandatory conservation)
- Projected Maximum Day Demand

Most of the topics are not affected by the new water shortage emergency code amendments (Task 2), and are only briefly re-iterated herein.

1.1.1 Recent Historical Water Demands

The recent historical metered water demands and unit water demands are discussed in Section 1.1.1 of the 2010 Water Supply Plan and not re-iterated here. This section was not affected by the City's recent work efforts.

1.1.2 Unaccounted For Water

The estimate of historical unaccounted for (UAF) water is discussed in Section 1.1.2 of the 2010 Water Supply Plan and not re-iterated here, except to indicate that historical UAF has been 14 percent to 15 percent of the total water produced, but has recently dropped to 12 percent, according to the City's Public Works Director. This recent reduction in UAF water may be due to the City's recent customer water meter upgrade program, which replaced the customer potable water meters with new meters and registers. Low level leaks are often only partially measured by water meters. The new registers include a feature that will indicate if water use does not stop for a given period of time. This feature has allowed water customers to identify and remove leaks on their side of the water meter, which has the dual effect of reducing potable water demand for that portion of the leak that was accounted for in the meter reading and reduces unaccounted for water for that portion of the leak that did not cause the meter to register. UAF water is any non-metered or non-accounted for water demand, and represents both loss of water supply and lost revenue. This water is lost mainly because of unauthorized or un-measured consumption, meter inaccuracies, and system leaks.

The City intends to reduce the UAF water to less than 10 percent of the total water supplied, a value that is close to average for a typical, well operated water system. A UAF value of 10 percent of total water supplied is the factor used in these demand projections.

1.1.3 Land Use and Population Growth

The land use and population growth estimates are presented in Section 1.1.3 of the 2010 Water Supply Plan and not re-iterated here. As in 2010, the City is contemplating two buildout scenarios: the "*Likely Buildout Scenario*" and the "*Full Buildout Scenario*". This section was not affected by the City's recent work efforts.

1.1.4 Per Capita Water Use

Recent potable water production, estimated population, and per capita water use are documented in Section 1.1.4 of the 2010 Water Supply Plan. This section was not affected by the City's recent work efforts.

1.1.5 Projected Water Demand

The projected water demand under the *Likely Buildout Scenario* and the *Full Buildout Scenario* is discussed in Section 1.1.5 of the 2010 Water Supply Plan and briefly re-iterated below, although this section was not affected by the City's recent work efforts.

1.1.5.1 Likely Buildout Scenario

The updated projected metered and total water demands for the *Likely Buildout Scenario* at several planning milestones are shown in Table 1-1 (Table 1-7 from the 2010 Water Supply Plan). As shown in Table 1-1, without water conservation measures, the metered water demand is projected to increase from 1,875 acre-feet per year (afy) to 2,116 afy by buildout, an increase of approximately 252 afy. This increase in metered water demand would require a total water supply of 2,350 afy by 2030 once a UAF water demand of 10 percent of total water supplied is added. Because the current UAF is greater than 10 percent, it is recommended that the City develop and execute a program of UAF reduction. Such programs usually include making sure all potable water system uses, whether revenue or non-revenue uses, are accounted for. Next, the City would identify and prioritize the areas of the distribution system that have the highest risk and highest likelihood of leaks (areas with a history of leakage, or older pipes in areas with high water pressure). Once likely areas are prioritized, the City would undertake a leak detection program (usually based on taking sound readings) to identify leaks in pipelines, which would then be repaired.

**Table 1-1. Total Projected Water Use at
Milestone Years – Likely Buildout Scenario, acre-feet per year
(Table 1-7 from the 2010 Water Supply Plan)**

Land Use	2008 ^(a)	2010 ^(b)	2020 ^(b)	2030 ^(b)
Residential	973	987	1,059	1,131
Commercial, Retail, Institutional	357	364	402	440
Industrial	149	149	149	149
Landscaping	83	83	83	83
Outside City Limits	313	313	313	313
Total and Projected Metered Water Demand	1,875	1,897	2,007	2,116
Unaccounted For Water (10 percent)	208	211	223	235
Total Projected Water Use	2,080	2,110	2,230	2,350

^(a) Based on average Unit Water Demands in Table 1-1 of the 2010 Water Supply Plan and actual 2008 land use.
^(b) Based on average Unit Water Demands in Table 1-1 of the 2010 Water Supply Plan and projected 2010, 2020, and 2030 land use for Likely Buildout Scenario.

1.1.5.2 Full Buildout Scenario

The updated projected metered and total water demands for the *Full Buildout Scenario* at several planning milestones are shown in Table 1-2 (Table 1-9 from the 2010 Water Supply Plan). As shown in Table 1-2, without water conservation measures, the metered water demand is projected to increase from 1,875 afy to 2,340 afy by buildout, an increase of approximately 465 afy. This increase in metered water demand would require a total water supply of 2,600 afy by 2030 once the UAF water demand is added.

**Table 1-2. Total Projected Water Use at
Milestone Years – Full Buildout Scenario, acre-feet per year
(Table 1-9 from the 2010 Water Supply Plan)**

Land Use	2008 ^(a)	2010 ^(b)	2020 ^(b)	2030 ^(b)
Residential	973	1,006	1,172	1,338
Commercial, Retail, Institutional	357	366	412	458
Industrial	149	149	149	149
Landscaping	83	83	83	83
Outside City Limits	313	313	313	313
Total Projected Metered Water Demand	1,875	1,917	2,129	2,341
Unaccounted For Water (10 percent)	208	213	237	260
Total Projected Water Use (rounded)	2,080	2,130	2,370	2,600

^(a) Based on Unit Water Demands in Table 1-1 and actual 2008 land use.
^(b) Based on Unit Water Demands in Table 1-1 and projected 2010, 2020, and 2030 land use for Full Buildout Scenario.

1.1.6 Impact of City Water Shortage Emergency Phases

The City has recently adopted amendments to its Water Shortage Emergency (WSE) code. The amendments create three WSE phases instead of the previous five phases. The intent of the amendments is to create WSE Phases that are less likely to be triggered and are more restrictive when triggered. The amended regulations are encoded in City Code Title 13.04, Article 2 Water Shortage Emergencies.

The City now has a worksheet to assist the Public Works Director in determining if water supplies are sufficient to meet demands, or if a Water Shortage Phase should be triggered.

In 2010, West Yost Associates (West Yost) reviewed the then current five Water Shortage Emergency Phases of Action and Triggers, and estimated the impact that each Water Shortage Phase would have on reducing total water demands. For this supplement to the Water Supply Study, West Yost repeated the analysis with the amended City Code and the three Water Shortage Emergency Phases of Action and Triggers.

The estimated impact of the City's current Water Shortage Emergency demand reduction measures on the total potable water demand at buildout of the *Likely Buildout Scenario* is shown in Table 1-3 (modified from Table 1-10 in the 2010 Water Supply Plan).

Table 1-3. Projected Effect of City Existing Water Shortage Emergency Phases, Year 2030 Likely Buildout Scenario (Modified from Table 1-10 from the 2010 Water Supply Plan)			
Water Shortage Emergency Phase^(a)	Estimated Demand Reduction Percent	Estimated Percent of Normal Demand^(b)	Projected Demand in 2030, acre-feet per year^(b)
No Shortage	0	100	2,350
I	10	90	2,115
II	25	75	1,763
III	37	63	1,481
^(a) Based on current City Code Title 13.04, Article 2 Water Shortage Emergencies.			
^(b) Based on Likely Buildout Scenario.			

The estimated impact of the City's current Water Shortage Emergency demand reduction measures on the total potable water demand at buildout of the *Full Buildout Scenario* is shown in Table 1-4 (modified from Table 1-11 in the 2010 Water Supply Plan).

**Table 1-4. Projected Effect of City Existing Water Shortage Emergency Phases, Year 2030 Full Buildout Scenario
(Modified from Table 1-11 from the 2010 Water Supply Plan)**

Water Shortage Emergency Phase ^(a)	Estimated Demand Reduction, Percent	Estimated Percent of Normal Demand	Projected Demand in 2030, acre-feet per year ^(b)
No Shortage	0	100	2,600
I	10	90	2,340
II	25	75	1,950
III	37	63	1,638

(a) Based on current City Code Title 13.04, Article 2 Water Shortage Emergencies.
(b) Based on Full Buildout Scenario.

1.1.7 State Senate Billx 7-7 Water Conservation

The estimation of the impacts that Senate Billx 7-7 (SBx 7-7) would have on the City's water demand if it were required to comply are described in Section 1.1.7 of the 2010 Water Supply Plan. To re-iterate, the City is not required to comply with SBx 7-7 because it serves fewer than 3,000 customers and produces less than 3,000 acre-feet of water each year. However, reducing the per capita water demand would have the impact of increasing the sustainability of the water supply and is often considered a demonstration of good stewardship of natural resources.

SBx 7-7 provides four alternative methods to calculate the target per capita water demand (defined as the total water supply divided by the total service area population). The four methods are discussed in the 2010 Water Supply Study. If the City were required to base its potable water conservation targets on the requirements of SBx 7-7, West Yost would recommend the use of Method I. With a projected service area population of 7,219 persons in 2020 and 7,654 persons in 2030 for the *Likely Buildout Scenario*, and a per capita water demand of 227 gallons per capita per day (gpcd) (80 percent of historical average of 284 gpcd), the projected total annual potable water use would be reduced from 2,230 afy to 1,841 afy by 2020 and from 2,350 afy to 1,946 afy by 2030, assuming buildout under the *Likely Buildout Scenario*. Under the *Full Buildout Scenario*, complying with Method I would reduce the projected total annual potable water use from 2,360 afy to 2,014 afy by 2020 and from 2,600 afy to 2,263 afy by 2030, because of greater projected population.

If the City were to hold development at the current level, and if it were subject to SBx 7-7, water demands would have to be reduced to approximately 1,715 afy (target per capita water demand of 227 gpcd x estimated service area population of 6,471 persons). The use of Lower Reservoir would count toward the 1,715 afy of total supply, but any use of recycled water would not, and serves to lower the per capita water demand.

1.1.8 Projected Maximum Day Demand

The City's historical and projected maximum day demand is discussed in Section 1.1.8 of the 2010 Water Supply Plan. The changes discussed in this TM do not affect the findings of the 2010 Water Supply Plan for this topic.

2.1 WATER SUPPLY

The purpose of this section is to describe the City's historical and projected potable water supply through buildout of the draft General Plan in 2030. This section addresses projected water supplies and current contractual agreements. Impacts of proposed policies, including limiting water demand to within the definition of safe yield, are discussed in Section 4 of this TM.

The current sources of potable water include Bell Canyon Reservoir, Napa Contract Water, and groundwater. The agreement with the City of Napa to provide potable water has recently been amended so that the City is guaranteed to receive 600 afy under all hydrologic conditions. Only the water supply components that are affected by the new Napa Water Agreement, which extends to 2035 and can be renewed based on renewal of the State Water Project contracts, are discussed herein.

Lower Reservoir has also been used as a source of non-potable water for landscape irrigation, and recycled water is a potential future source of non-potable water for landscape irrigation.

2.1.2 Bell Canyon Reservoir

Bell Creek (or Howell Creek in some records), as impounded in Bell Canyon Reservoir, has been the City's major water supply source for several decades. The historical and projected yield from Bell Canyon Reservoir is discussed in Section 2.1.2 of the 2010 Water Supply Plan and summarized below. This supply has not been affected by the City's recent work efforts.

The estimated Sustainable Yield is summarized in Table 2-1 (Table 2-3 from the 2010 Water Supply Plan).

Table 2-1. Estimated Sustainable Yield of Bell Canyon Reservoir (Table 2-3 of 2010 Water Supply Plan)			
Condition	Minimum Rainfall (inches)	Estimated Sustainable Yield^(a) (acre-feet per year)	Notes
Wet Years	38.5	1,100	Corresponds to 40 percent Exceedence
Normal Year	32.7	1,000	Corresponds to 60 percent Exceedence
Below Normal Year	26.0	800	Corresponds to 82 percent Exceedence
Dry Year	22.0	600	Corresponds to 90 percent Exceedence
Critical Dry Year	10.4	500	Corresponds to 100 percent Exceedence
^(a) Based on Sustainable Yield Reservoir Model described in Appendix B of the 2010 Water Supply Plan, rounded to the nearest 100 acre-feet.			

The estimated Sustainable Yields, summarized in Table 2-1, include consideration of required bypass flows and the effects of evaporation, and therefore represents the supply available to the City.

2.1.3 City of Napa Water Agreement

The City has entered into and recently amended a water supply agreement with the City of Napa to supplement dry year weather supplies. The agreement took effect in 2006 and extends through the State Water Project contract duration at the end of 2035. This contract can be renewed pending renewal of the Napa Flood Control and Water Conservation District's State Water Project contract. This most recent (third) amendment to the water supply agreement was effective in late 2011 and has one tier of water availability, providing 600 afy under all hydrologic conditions, and available year-round. This is a significantly changed condition from the three-tiered (400, afy, 600 afy, and 800 afy) original agreement as modified by the first two amendments.

2.1.4 Groundwater

According to the Master Water Plan, the City's two groundwater supply wells, known as Stonebridge Wells 1 and 2, have a combined capacity of 650 gallons per minute, which could provide 1,050 afy of potable water per year if both wells could be operated continuously (24 hours per day, for 365 days). Operating any facility at 100 percent capacity on a continuous basis is not recommended. The City will need additional groundwater production capacity to meet water delivery requirements in dry years. This supply has not been affected by the City's recent work efforts.

City practice currently restricts the production from these wells to no more than 20 percent of the total demand, except in Phase II or Phase III water shortage emergencies. The groundwater wells have historically been operated to provide approximately 20 percent of the total potable water produced. The City also maintains wells for non-potable park and landscape irrigation, but their use is restricted to small areas, and is not included in this analysis. Also not included in this analysis is the pumpage from any private groundwater wells whether located inside or outside of City limits.

2.1.5 Lower Reservoir

The City currently uses Lower Reservoir to supply non-potable water to Robert Louis Stevenson Middle School for irrigation of a portion of the playing fields, and to Spring Mountain Winery to serve a portion of their non-potable water demands. According to the Master Water Plan, non-potable water deliveries have ranged from 14 to 19 acre-feet per year from 1996 through 2002. Recently (Fiscal Year 2002-2007) annual metered water use for the two Lower Reservoir water customers has been approximately 50 afy (total for the two customers). This supply has not been affected by the City's recent work efforts.

2.1.6 Recycled Water

In the future, it is the City's intent to be able to serve portions of its non-potable water demands, currently served through the potable water system, with highly treated wastewater (Title 22 tertiary, unrestricted reuse). This highly treated wastewater will become available as funding allows for construction of the necessary treatment/process facilities at the wastewater treatment plant and the associated transmission/distribution piping network.

The use of recycled water to offset potable demands is not included in the SBx 7-7 calculation of per capita water use; therefore, any volume of existing potable water use that the City can convert to recycled water use would further reduce the City's per capita potable water use. This supply has not been affected by the City's recent work efforts (amending the water supply agreement with Napa, re-structuring the water shortage emergency phases, and defining the safe yield of the water supply). The use of recycled water continues to not be included in the water supply planning assumptions at this time.

2.1.7 Current Water Supply Balance for Planning Purposes

The existing revised (to include the new Napa Water Agreement) potable water supply for planning purposes is shown in Table 2-2. The current groundwater use practice is to use groundwater up to 20 percent of the total potable water supply in most years, and 30 percent of the total water supply in Dry and Critically Dry Years (WSE Phase II and Phase III).

Table 2-2. Estimated Current Potable Water Supply^(a), acre-feet per year (modified from Table 2-5 of the 2010 Water Supply Study)					
Water Supply^(a)	Wet Year (40 percent exceedence) No Water Shortage Emergency	Normal Year (60 percent exceedence) No Water Shortage Emergency	Below Normal Year (82 percent exceedence) Phase I WSE	Dry Year (90 percent exceedence) Phase II WSE	Critical Dry Year (100 percent exceedence) Phase III WSE
Bell Canyon Reservoir	1,100	1,000	800	600	500
Napa Water Agreement	600	600	600	600	600
Groundwater ^(a)	425	400	350	514	471
Total Potable Water Supply	2,125	2,000	1,750	1,714	1,571
^(a) Assumes groundwater will be 20 percent of total supply in most years and 30 percent of total supply in Dry and Critical Dry Years.					

It is interesting to note that the amended Napa Water Agreement results in a lower total water supply during Wet, Normal, and Below Normal Years and a greater water supply during Critical Dry Years than calculated in Table 2-5 of the 2010 Water Supply Plan because of changes to the Napa Water Agreement. Water supply during Dry Years does not change.

A comparison of available water supply and projected demand is discussed in Section 3.

2.1.8 Maximum Day Production Capacity

The maximum day production capacity is discussed in Section 2.1.8 of the Water Supply Plan. This capacity has not been affected by the City's recent work efforts.

3.1 COMPARISON OF SUPPLY AND DEMAND

The purpose of this section is to compare the potable water demand projected in Section 1 to the potable water supply described in Section 2, and to identify several possible measures that could be initiated to better match demand to available supply.

Specific water supply strategies that incorporate the measures described in this section to balance water demand and water supply are described in Section 4.

For purposes of this analysis, West Yost assumed a correlation between each City water shortage emergency phase and hydrologic condition. The assumed correlation is shown in Table 3-1.

Table 3-1. Assumed Correlation Between Hydrologic Condition and Water Shortage Emergency Phase (modified from Table 3-1 of the 2010 Water Supply Study)	
Hydrologic Condition	Water Shortage Emergency Phase
Wet Years	No Shortage
Normal Year	No Shortage
Below Normal Year	I
Dry Year	II
Critical Dry Year	III

A comparison of projected total potable water demand without water conservation to the Normal Year water supply, based on the current groundwater use practice and the *Likely Buildout Scenario* is shown in Table 3-2 for several milestone years.

Table 3-2. Comparison of Normal Year Potable Water Demand and Supply at Milestone Years – Likely Buildout Scenario, acre-feet per year (modified from Table 3-2 of the 2010 Water Supply Study)				
Land Use	2008	2010	2020	2030
Total Projected Water Use ^(a)	2,080	2,110	2,230	2,350
Total Projected Normal Year Water Supply ^(b)	2,000	2,000	2,000	2,000
Water Supply Surplus (Deficit)	(80)	(110)	(230)	(350)

^(a) See Table 1-1.
^(b) See Table 2-2.

The supply and demand comparison at buildout of the draft General Plan (2030) *Likely Buildout Scenario* is shown in Table 3-3 for several hydrologic conditions.

Table 3-3. Comparison of Potable Water Demand and Supply under Several Hydrologic Conditions – Buildout of Likely Buildout Scenario, acre-feet per year (modified from Table 3-3 of the 2010 Water Supply Study)

Water Supply ^(a)	Wet Year (40 percent exceedence) No Water Shortage Emergency	Normal Year (60 percent exceedence) No Water Shortage Emergency	Below Normal Year (82 percent exceedence) Phase I WSE	Dry Year (90 percent exceedence) Phase II WSE	Critical Dry Year (100 percent exceedence) Phase III WSE
Total Potable Water Demand ^(a)	2,350	2,350	2,115	1,763	1,481
Total Potable Water Supply ^(b)	2,125	2,000	1,750	1,714	1,571
Water Supply Surplus (Deficit)	(250)	(350)	(365)	(49)	90
^(a) See Table 1-3.					
^(b) See Table 2-2.					

As can be seen in Table 3-3, the Total Potable Water Supply, as documented in Table 2-2, is NOT capable of providing reliable supplies under all hydrologic conditions, except the Critical Dry Year, due to a combination of increased groundwater pumping and Phase III WSE demand management measures. As demands continue to rise through buildout of the *Likely Buildout Scenario*, additional supplies, or additional conservation (or more aggressive demand management measures) will be required to eliminate the identified supply deficiency through buildout of the *Likely Buildout Scenario*.

A comparison of projected total potable water demand without water conservation to the Normal Year water supply, based on the current groundwater use practice and the *Full Buildout Scenario*, is shown in Table 3-4 for several milestone years.

Table 3-4. Comparison of Normal Year Potable Water Demand and Supply at Milestone Years – Full Buildout Scenario, acre-feet per year (modified from Table 3-4 of the 2010 Water Supply Study)

Land Use	2008	2010	2020	2030
Total Projected Water Use ^(a)	2,080	2,130	2,370	2,600
Total Projected Normal Year Water Supply ^(b)	2,000	2,000	2,000	2,000
Water Supply Surplus (Deficit) ^(c)	(80)	(130)	(370)	(600)
^(a) Table 1-2.				
^(b) Table 2-2.				

The supply and demand comparison at buildout of the draft General Plan *Full Buildout Scenario* is shown in Table 3-5 for several hydrologic conditions, using the same correlation between water shortage emergency phase and hydrologic condition shown in Table 3-1.

Table 3-5. Comparison of Potable Water Demand and Supply under Several Hydrologic Conditions – Buildout of Full Buildout Scenario, acre-feet per year (modified from Table 3-5 of the 2010 Water Supply Study)

Water Supply ^(a)	Wet Year (40 percent exceedence) No Water Shortage Emergency	Normal Year (60 percent exceedence) No Water Shortage Emergency	Below Normal Year (82 percent exceedence) Phase II WSE	Dry Year (90 percent exceedence) Phase III WSE	Critical Dry Year (100 percent exceedence) Phase III WSE
Total Potable Water Demand ^(a)	2,600	2,600	2,340	1,950	1,638
Total Potable Water Supply ^(b)	2,125	2,000	1,750	1,714	1,571
Water Supply Surplus (Deficit)	(476)	(600)	(590)		(67)
^(a) See Table 1-10.					
^(b) See Table 2-5.					

As shown in Table 3-4 and Table 3-5, the City's current groundwater use practice of only providing 20 percent to 30 percent of the total potable water supply, coupled with the City's other water supply sources, cannot provide a reliable water supply for the *Full Buildout Scenario*.

The deficit between the potable water supply and the potable water demand can be mitigated by some combination of the following three measures:

- Increasing surface water supply;
- Reducing potable water demand; and
- Increasing groundwater supply.

The potential for each mitigation measure is briefly described below.

3.1.1 Increasing Surface Water Supply

Possible methods to increase the City's surface water supply are discussed in Section 3.1.1 of the 2010 Water Supply Plan.

For purposes of this study, increasing the City's surface water supply is not included in the projected water supply, as the previously described options still apply, and continue to remain unviable due to a combination of the cost of increasing the capacity of Bell Canyon Reservoir coupled with concerns over the possible regulatory increase in downstream reservoir bypass flows/releases which could lead to a net decrease in supply availability from Bell Canyon; and, the uncertainty over whether increasing the contract water supply from Napa is possible.

3.1.2 Reducing Potable Water Demand

Possible methods to decrease the City's potable water demand are discussed in Section 3.1.2 of the 2010 Water Supply Plan, and these options all still apply. The Water Use Efficiency Recommendations discussed in the 2010 Water Supply Plan are listed below:

- Hire a full-time Water Conservation Coordinator;
- Modify rate structure to increase high tier rates;
- Update the new construction offset program;
- Fully develop the meter leak detection and monitoring program (this work has been completed as of this writing);
- Establish an Irrigation Advisory Service and Promote "Smart Irrigation Controllers;"
- Adopt requirements for "ultra-efficient" plumbing fixtures for new development and rebates to existing users;
- Provide Incentives for replacement of turf (New); and
- Provide Incentives for roof water catchment (New).

The City has increased its water rates, including the higher tiers (second bullet). The next step would be to establish water budgets for all potable water customers. This step is data and staff intensive to initiate, but has been shown to reduce potable water demands while maintaining water enterprise revenues. The water budget rate structure should not be attempted prior to filling the Water Conservation Coordinator position.

3.1.3 Increasing Groundwater Supply

Based upon currently available groundwater data, and historical groundwater level trends, it appears that the City could increase groundwater pumping by at least several hundred afy per year and not exceed the perennial yield of the basin. Increased use of groundwater would provide the water supply the City requires to decrease or eliminate its water supply deficiency. In 2005, West Yost provided an assessment of the groundwater under the City area and identified possible new well locations. The assessment concluded that the City's current seasonal groundwater pumping is "well within" the perennial yield of the overall groundwater basin; however, a perennial yield estimate was not developed. Additionally, the 2050 Napa Valley Water Resources Study compiled groundwater resource data from various sources, all of which indicate that, in the main Napa Valley Groundwater Basin, including the St. Helena area, groundwater levels have been stable over the period of record (1950 to 2005) and there is no indication that the perennial yield has been exceeded. The perennial yield (i.e. annual basin recharge) of the main groundwater basin was estimated by several qualified hydrogeologists as being anywhere from 21,000 afy to almost 30,000 afy, with a volume in storage of over 200,000 acre-feet. Although only a portion of the total basin recharge and storage would be attributable to the immediate area around St. Helena, the City's long-term pumping average of 450 afy is not a significant draw on the groundwater basin.

The recent (February 2011) Napa County Comprehensive Groundwater Management Program re-iterates that groundwater levels in the main Napa Valley Groundwater Basin and in the St. Helena area have been stable over the period of record. The monitoring wells with the longest periods of record (roughly 1950 to 2010) are located north and south of the City limits.

City policies to further curtail groundwater use will further exacerbate the water supply deficit, unless paired with either an aggressive reduction in the potable water demand or increasing the available surface water supply.

The water supply strategies discussed in Section 4 provide specific opportunities for the City to evaluate the various water supply deficit reduction strategies, and balance demands and supplies under different hydrologic conditions.

3.1.4 Potable Water Production Capacity

The total potable water production capacity is discussed in Section 3.1.4 of the 2010 Water Supply Plan, and this discussion does not need to be updated.

4.1 WATER SUPPLY STRATEGIES

The purpose of this section is to describe water supply strategies that the City could adopt to ensure sufficient and reliable water supplies to meet current and future water demand needs. This section first describes the five water supply concept strategies, and then applies the strategies to the *Likely Buildout Scenario* and the *Full Buildout Scenario*. The summary tables indicate the amount of groundwater that would need to be pumped under each strategy for the Normal Year hydrologic condition, as well as the long-term water conservation and short-term water conservation action plans that would be required to balance supply and demand. This section is updated from Section 4.1 of the 2010 Water Supply Plan to include the revised water supply and Water Shortage Emergency Phases (which includes and codifies the City's definition of "safe yield"), per the City's Safe Yield Committee's estimation of 1,950 afy as the "safe yield" of the current water supply. The 1993 General Plan and the Draft 2010 General Plan Update both limit development of new water demand to within the "safe yield" of the water supply. In 1993, the "safe yield" was calculated based on the actual historical average supply from Bell Canyon Reservoir, plus an estimated volume to be withdrawn from the new Stonebridge groundwater well. In 2010 and 2011, the City's Safe Yield Committee defined "safe yield" as the Dry Year water supply, and estimated that supply to be 1,950 afy. The City's definition of Safe Yield is less stringent than the 2010 Water Supply Plan's definition of Safe Yield, which is the Critical Dry Year water supply. The City's definition of Safe Yield is similar to the 2010 Water Supply Plan's definition of "Sustainable Yield". In general, the 2010 Water Supply Plan defines the Sustainable Yield as the long-term sustainable yield considering carryover storage under various hydrologic conditions. The City has selected the Dry Year hydrologic condition (90 percent exceedence) as the Safe Yield of the water supply.

4.1.1 Water Supply Strategy Concepts

The water supply strategies discussed in the 2010 Water Supply Plan and updated below present several points on a continuum between low water conservation action plans combined with more groundwater use than current practice, and high water conservation action plans combined with lower groundwater use than current practice. In addition, in response to the Safe Yield Committee's recommendation that development be restricted when the City's total water demand exceeds 1,950 afy, an additional point on the continuum limiting water demands to 1,950 afy is discussed.

The City can either select the amount of water conservation it will require the public to implement and determine the resulting groundwater use necessary to meet demands, or choose the level of desired groundwater pumping and determine the resulting required water conservation. Additional strategies that incorporate increased or decreased surface water supplies are not being considered at this time. Four concept-level water supply strategies are suggested for discussion purposes, plus the new definition of Safe Yield of 1,950 afy is included as a fifth strategy. Two of the strategies are "bookend" strategies that minimize (Strategy 1) or maximize (Strategy 4) water conservation efforts, but without changing the "look and feel" of the St. Helena landscape. These strategies have been analyzed for both the *Likely Buildout Scenario* and the *Full Buildout Scenario*. Additional groundwater use or much more aggressive water conservation programs would be required under the *Full Buildout Scenario*.

Strategy 1: Minimize Water Conservation (results in an average long-term groundwater pumping of 650 afy):

The first strategy would be to continue current City conservation activities and not initiate any new long-term water conservation programs. Therefore, to meet demands, the annual groundwater quantity pumped would have to be increased to eliminate Normal Year supply deficits for each analyzed buildout scenario. This strategy would require a total potable water supply of 2,350 afy in Normal Years for the *Likely Buildout Scenario* and 2,600 afy in Normal Years for the *Full Buildout Scenario* (see Tables 4-2 and 4-5 respectively).

Strategy 2: Hold Groundwater to Historical Average of 450 afy:

A second strategy would be to hold average groundwater use to the current (10 year average) groundwater use of 450 afy. This strategy would require a total potable water supply of 2,043 afy in Normal Years for the *Likely Buildout Scenario* and 2,005 afy in Normal Years for the *Full Buildout Scenario* (see Tables 4-2 and 4-5 respectively). Water conservation would be required under either buildout scenario, but less conservation would be required for the *Likely Buildout Scenario* than for the *Full Buildout Scenario*.

Strategy 3: Hold Supply to 2008 Levels (results in a long-term average groundwater pumping of 481 afy):

A third strategy would be to initiate sufficient water conservation programs to keep the total potable water supply/demand to current (2008) levels (and keep each supply component at 2008 levels). This strategy would require a total potable water supply of 2,080 afy in Normal Years for both buildout scenarios. Water conservation would be required under either buildout scenario, but less conservation would be required for the *Likely Buildout Scenario* than for the *Full Buildout Scenario* (see Tables 4-2 and 4-5 respectively).

Strategy 4: Maximize Water Conservation (results in a long-term average groundwater pumping of 251 afy):

A fourth strategy would be to initiate sufficient water conservation programs to reduce the total potable water demand to the projected Normal Year surface water supply of 1,800 afy (based on the 2010 Normal Year water supply without using groundwater), thereby minimizing groundwater use. Although included in the summary tables, this strategy is not considered achievable for the *Full Buildout Scenario*, because it would require severe changes to the City landscape due to the extensive conservation and demand management programs that would have to be adopted and implemented to reduce demands to the available supplies without the use of groundwater (see Tables 4-2 and 4-5 respectively).

Strategy 5: Hold Water Supply to 1,950 afy, and keep the long-term average groundwater pumping to 450 afy:

A fifth strategy combines the concepts of some of the above strategies by limiting the total water supply to a set amount, similar to Strategy 3 and Strategy 4, except the volume is 1,950 afy instead of 2,080 afy (Strategy 3) or 1,800 afy (Strategy 4). Strategy 5 also requires the long-term groundwater pumping to not exceed the long-term historical average of 450 afy (as in Strategy 2). Although included in the summary tables, this strategy is not considered achievable for the *Full Buildout Scenario*, because it would require severe changes to the City landscape due to the extensive conservation and demand management programs that would have to be adopted and implemented to reduce demands to the available supplies without the use of groundwater (see Tables 4-2 and 4-5 respectively).

To develop a weighted average use of each water supply source under each of the water supply strategies over a variety of hydrologic conditions, West Yost applied the estimated frequency of occurrence of each hydrologic condition, discussed in Section 2 and shown in Table 4-1 (Table 4-1 from 2010 Water Supply Plan), to the five water supply strategies discussed above.

**Table 4-1. Historical Frequency of Hydrologic Conditions
(Table 4-1 in 2010 Water Supply Plan)**

Hydrologic Condition	Exceedence, percent ^(a)	Frequency of Occurrence, percent ^(b)
Wet Year	40	40
Normal Year	60	20
Below Normal Year	82	22
Dry Year	90	8
Critical Dry Year	100	10
Total		100
^(a) Percent of the years that would have more precipitation than the hydrologic condition. ^(b) To calculate a weighted average of annual groundwater use, any year drier than a "Dry Year", for example, is assumed to be a "Critically Dry Year" for planning purposes.		

The impact of the City's Water Shortage Emergency Phases was also taken into consideration when estimating the weighted average use of each water supply source. As shown in Section 1 (Table 1-3 and Table 1-4), under the strictest Water Shortage Emergency Phases, the projected short-term water conservation measures are estimated to reduce potable water demand to less than 1,489 afy and 1,638 afy under the *Likely Buildout Scenario* and *Full Buildout Scenario*, respectively.

4.1.2 Likely Buildout Scenario

The required water supply, long-term water conservation measures, and short-term demand reduction measures necessary to eliminate projected water supply deficits at buildout of the *Likely Buildout Scenario* are discussed in Section 4.1.2 of the 2010 Water Supply Study and updated below. Each scenario assumes complete removal of the projected water supply deficit that was identified in Section 3.

The Normal Year water supply and required long-term water conservation for 2030 for the five water supply strategies under the *Likely Buildout Scenario* are summarized in Table 4-2.

**Table 4-2. Possible Normal Year Water Supply Strategies,
Year 2030 Likely Buildout Scenarios, acre-feet per year^(a)
(Modified from Table 4-2 of 2010 Water Supply Plan)**

Water Supply	Strategy 1A: Minimize Required Water Conservation (Likely)	Strategy 2A: Hold Groundwater Use to Historical Average	Strategy 3A: Hold Supply to 2008 Levels	Strategy 4A: Maximize Required Water Conservation	Strategy 5A: Hold Supply to 1,950 afy
Bell Canyon Reservoir	1,000	1,000	1,000	1,000	1,000
Napa Water Agreement	600	600	600	600	600
Groundwater	550	443	480	200	350
Total Potable Water Supply/Demand	2,350	2,043	2,080	1,800	1,950
Required Long-Term Water Conservation^(b)	—	277	243	495	360
^(a) See Section 4.1.1 for a discussion of each strategy.					
^(b) Required reduction in Metered Potable Water Demand, reduction in total water demand would include UAF water.					

As the City initiates more stringent long-term water conservation measures, the ability to reduce water demand under short-term drought conditions is lessened considerably, a phenomenon known as "demand hardening." Applying the impact of the Water Shortage Emergency Phases shown in Table 1-3 to the five water supply strategies shown in Table 4-2 yields the projected required total potable water supply for the five water supply strategies under several hydrologic conditions shown in Table 4-3.

**Table 4-3. Projected Required Potable Water Supply for Five Water Supply Strategies under Various Hydrologic Conditions, Year 2030 Likely Buildout Scenario, acre-feet per year^(a)
(Modified from Table 4-3 of 2010 Water Supply Plan)**

Water Supply Strategy	Wet Year (40 percent exceedence) No Water Shortage Emergency	Normal Year (60 percent exceedence) No Water Shortage Emergency	Below Normal Year (82 percent exceedence) Phase I WSE	Dry Year (90 percent exceedence) Phase II WSE	Critical Dry Year (100 percent exceedence) Phase III WSE
Strategy 1A: Minimize Required Water Conservation (Likely) ^(b)	2,350	2,350	2,115	1,763	1,481
Strategy 2A: Hold Groundwater Use to Historical Average ^(c)	2,043	2,043	2,043	1,763	1,481
Strategy 3A: Hold Supply to 2010 Levels ^(c)	2,080	2,080	2,080	1,763	1,481
Strategy 4A: Maximize Required Water Conservation ^(c)	1,800	1,800	1,800	1,763	1,481
Strategy 5A: Hold Water Supply to 1,950 AFY ^(d)	1,950	1,950	1,950	1,950	1,950

^(a) Values shown are the Normal Year water demands subjected to the City's codified water shortage emergency phase cut backs.
^(b) See Table 1-10.
^(c) Values are the lesser of Normal Year values in Table 4-2 or the Minimize Required Water Conservation (Likely) values in this table.
^(d) As shown in Table 4-4, short-term demand reduction measures (aka Water Shortage Emergency Phases) are not necessary under this scenario.

The values from Table 4-3 were multiplied by the estimated Frequency of Occurrence in Table 4-1 to develop weighted average water supply for each water supply/demand Strategy. The resulting estimated weighted average use of each water supply source, the required long-term water conservation, and the required short-term water conservation for the five water supply strategies is shown in Table 4-4.

Table 4-4. Weighted Average Water Supply for Five Water Supply Strategies over Several Hydrologic Conditions, Year 2030 Likely Buildout Scenario, acre-feet per year^(a)
 (Modified from Table 4-4 of 2010 Water Supply Plan)

Water Supply	Strategy 1A Minimize Required Water Conservation	Strategy 2A Hold Groundwater Use to Historical Average	Strategy 3A Hold Supply to 2008 Levels	Strategy 4A Maximize Required Water Conservation	Strategy 5A Hold Supply to 1,950 afy
Bell Canyon Reservoir	914	914	914	914	900
Napa Water Agreement	600	600	600	600	600
Groundwater Use	650	450	481	251	450
Total Weighted Average Water Supply	2,164	1,964	1,995	1,765	1,950
Long-Term Water Conservation ^(b)	—	277	243	495	360
Short-Term Demand Reduction Measures ^(c)	167	71	77	31	— ^(d)

^(a) Assumes frequency of occurrence of hydrologic conditions shown in Table 3-8.

^(b) Table 4-2.

^(c) Weighted average reduction in total metered potable water demand based on a comparison of supply and demand for each hydrologic condition, and each water supply/demand strategy.

^(d) No short-term demand management measures (aka Water Shortage Emergency Phases) are required; however, groundwater pumping during a Critically Dry Year would be 850 acre-feet.

The projected water supply under Strategy 5A, which is the City's preferred policy based on the "Safe Yield" definition of 1,950 afy, is shown in Table 4-4A for several hydrological conditions.

Table 4-4A. Calculation of Weighted Average Water Supply for Water Supply Strategy 5A over Several Hydrologic Conditions, Year 2030 Likely Buildout Scenario, acre-feet per year^(a)

Water Supply	Bell Canyon Reservoir	Napa Water Agreement	Groundwater Use	Total Water Supply	Percent of Weighted Average
Wet Year (40 percent exceedence)	1,065	600	285	1,950	40
Normal Year (60 percent exceedence)	1,000	600	350	1,950	20
Below Normal Year (82 percent exceedence)	800	600	550	1,950	22
Dry Year (90 percent exceedence)	600	600	750	1,950	8
Critical Dry Year (100 percent exceedence)	500	600	850	1,950	10
Long-term Weighted Average	900	600	450	1,950	100

^(a) Assumes frequency of occurrence of hydrologic conditions shown in Table 3-8.

The recent historical average groundwater use has been approximately 450 afy (2000-2009). One of the five water supply strategies discussed above (Strategy 4A) would result in a net reduction in groundwater use over the long-term, and two (Strategy 2A and Strategy 5A) are targeted to result in the same long-term average groundwater use. Strategy 5A is intended to reduce the need for Water Shortage Emergencies; however, Strategy 5A would result in long-term average groundwater use of over 23 percent of the total water supplied (450/1,950), which is in excess of the current City policy of limiting groundwater supply to 20 percent of the total supply except during a Phase II or greater Water Shortage Emergency.

4.1.3 Full Buildout Scenario

The required water supply, long-term water conservation measures, and short-term demand reduction measures necessary to eliminate projected water supply deficits at buildout of the *Full Buildout Scenario* are discussed below. Each scenario assumes complete removal of the projected water supply deficit that was identified in Section 3.

The Normal Year water supply and required long-term water conservation for 2030 for the five water supply strategies under the *Full Buildout Scenario* are summarized in Table 4-5.

Table 4-5. Possible Normal Year Water Supply Strategies, Year 2030 Full Buildout Scenario, acre-feet per year^(a) (Modified from Table 4-5 of 2010 Water Supply Plan)					
Water Supply	Strategy 1B: Minimize Required Water Conservation ^(b) (Full)	Strategy 2B: Hold Groundwater Use to Historical Average	Strategy 3B: Hold Supply to 2008 Levels	Strategy 4B: Maximize Required Water Conservation	Strategy 5B: Hold Water Supply to 1,950 afy
Bell Canyon Reservoir	1,000	1,000	1,000	1,000	1,000
Napa Water Agreement	600	600	600	600	600
Groundwater	1,000	405	480	200	350
Total Potable Water Supply/Demand	2,600	2,005	2,080	1,800	1,950
Required Long-Term Water Conservation^(b)	—	537 ^(c)	468	720 ^(c)	585 ^(c)
^(a) See Section 4.1.1 for a discussion of each strategy. ^(b) Required reduction in Metered Potable Water Demand, reduction in total water demand would include unaccounted for water. ^(c) This level of long-term water conservation is <u>not</u> considered to be achievable without mandating harsh changes to the City landscaping and other water use policies.					

As the City initiates more stringent long-term water conservation measures, the ability to reduce water demand under short-term drought conditions is lessened considerably, a phenomenon known as "demand hardening". Applying the impact of the Water Shortage Emergency Phases shown in Table 1-4 to the five water supply strategies shown in Table 4-5 yields the projected total potable water demand for the five water supply strategies under several hydrologic conditions shown in Table 4-6.

Table 4-6. Projected Potable Water Supply for Five Water Supply Strategies under Various Hydrologic Conditions, Year 2030 Full Buildout Scenario, acre-feet^(a)
(Modified from Table 4-6 of 2010 Water Supply Plan)

Water Supply Strategy	Wet Year (40 percent exceedence) No Water Shortage Emergency	Normal Year (60 percent exceedence) No Water Shortage Emergency	Below Normal Year (82 percent exceedence) Phase I WSE	Dry Year (90 percent exceedence) Phase II WSE	Critical Dry Year (100 percent exceedence) Phase III WSE
Minimize Required Water Conservation (Full) ^(b)	2,600	2,600	2,340	1,950	1,638
Hold Groundwater Use to Historical Average ^(c)	2,005	2,005	2,005	1,950	1,638
Hold Supply to 2008 Levels ^(c)	2,080	2,080	2,080	1,950	1,638
Maximize Required Water Conservation ^(c)	1,800	1,800	1,800	1,800	1,638
Hold Supply to 1,950 AFY ^(c)	1,950	1,950	1,950	1,950	1,950
^(a) Values shown are the Normal Year water demands subjected to the City's codified water shortage emergency phase cut backs.					
^(b) See Table 1-4.					
^(c) Values are the lesser of Normal Year values in Table 4-5 or the Minimize Required Water Conservation (Full) values in this table.					

The values from Table 4-6 were multiplied by the estimated Frequency of Occurrence in Table 4-1 to develop weighted average water supply for each water supply/demand Strategy. The resulting estimated weighted average use of each water supply source, the required long-term water conservation, and the required short-term water conservation for the five water supply strategies is shown in Table 4-7.

Table 4-7. Weighted Average Water Supply for Five Water Supply Strategies over Several Hydrologic Conditions, Year 2030 Full Buildout Scenario, acre-feet per year^(a)
(Modified from Table 4-7 of 2010 Water Supply Plan)

Water Supply	Strategy 1B Minimize Required Water Conservation (Full)	Strategy 2B Hold Groundwater Use to Historical Average	Strategy 3B Hold Supply to 2008 Levels	Strategy 4B Maximize Required Water Conservation	Strategy 5B Hold Supply to 1,950 afy
Bell Canyon Reservoir	914	914	914	914	900
Napa Water Agreement	600	600	600	600	600
Groundwater Use	881	450	511	270	450
Total Weighted Average Water Supply	2,395	1,964	2,025	1,784	1,950
Long-Term Water Conservation ^(b)	—	535 ^(c)	468	720 ^(c)	585 ^(c)
Short-Term Demand Reduction Measures ^(d)	185	37	49	15	— ^(d)

^(a) Assumes frequency of occurrence of hydrologic conditions shown in Table 3-8.

^(b) Table 4-2.

^(c) This level of long-term water conservation is not considered to be achievable without mandating extremely harsh changes to the City landscaping.

^(d) Weighted average reduction in total metered potable water demand based on a comparison of supply and demand for each hydrologic condition, and each water supply/demand strategy.

^(e) No short-term demand management measures (aka Water Shortage Emergency Phases) are required; however, groundwater pumping during a Critically Dry Year would be 850 acre-feet.

The recent historical average groundwater use has been approximately 450 afy (2000-2009). One of the five water supply strategies discussed above (Strategy 4B) would result in a net reduction in groundwater use over the long-term, and two (Strategy 2B and Strategy 5B) are targeted to result in the same long-term average groundwater use.

As with the *Likely Buildout Scenario*, Strategy 5B in the *Full Buildout Scenario* results in a lower groundwater use than in recent history, assuming full use of Bell Canyon Reservoir.

Recommended short term actions are described in Section 5.

5.1 CONCLUSIONS AND RECOMMENDATIONS

The comparison of the projected water demand to the projected water supply, described above, indicates that the City is currently facing water supply shortages under the current operations unless the water demand and water supply are brought into balance. The City policy makers will have to decide what combination of water conservation, acquiring additional surface water from the City of Napa (if possible), expansion of Bell Canyon Reservoir (very expensive), and groundwater use City customers are willing to accept, achieve, and finance to balance existing and future supplies and demands. Under the *Likely Buildout Scenario*, required water conservation ranges from zero (Strategy 1A) to 495 afy (Strategy 4A). Water conservation of approximately 277 afy under Strategy 2A and 360 afy under Strategy 5A would be required to prevent an increase in groundwater use over the historical average use of 450 afy. The City's current definition of "safe yield" targets Strategy 5A (limiting groundwater pumpage to the long-term historical maximum and limiting total water demand to 1,950 afy) for water supply planning purposes. These conservation measures were previously identified in 2007 and documented in the 2010 Water Supply Study.

All strategies assume the City can pump sufficient groundwater during dry years and fully draw down Bell Canyon Reservoir when required operationally to serve the reduced demands, consistent with the City's Water Shortage Emergency Phases. To accomplish this, the City must increase its seasonal groundwater peaking capacity.

The top recommended actions that the City must approve in the short-term if conservation is to be used to reduce demands and to prevent an increase in groundwater use are:

- Hire a Water Conservation Coordinator;
- Modify and adopt a water rate structure that will ensure adequate program funding while encouraging water conservation by accounting for reduced water consumption in the base water rate and providing incentives to reduce water use; and/or
- Increase groundwater production reliability and peaking capacity.

The City's desire to keep total water supply to within the current definition of "safe yield" of 1,950 afy is reflected in Strategy 5A and Strategy 5B, discussed above. Strategy 5A limits long-term average groundwater pumping to the historical average of 450 afy and requires 360 afy of water conservation.

The long-term water conservation of 360 afy required to keep total supply less than 1,950 afy under the *Likely Buildout Scenario* is less than the value of 495 afy, which was identified in 2007 and in 2010 as the likely maximum achievable water conservation without changing the look and feel of St. Helena.

The long-term water conservation of 585 afy required to keep total supply less than 1,950 afy under the *Full Buildout Scenario* is greater than the value of 495 afy, which was identified in 2007 and in 2010 as the likely maximum achievable water conservation without changing the look and feel of St. Helena. Therefore, the City would either have to adopt a water conservation program that alters the look and feel of St. Helena, identified as not acceptable by City Council in 2007, or pump groundwater in excess of the long-term average of 450 afy, which was also identified as unacceptable by City Council.

The long-term groundwater pumping and required water conservation of the ten water supply strategies are shown in Table 4-8.

As indicated above, the City would find it extremely difficult to implement any long-term water conservation programs without a full time water conservation coordinator on staff, and an appropriate water rate structure. The City's recently adopted water rate structure (effective July 2011), with steeper tiered rates, will likely encourage some water conservation. Whether the water conservation accomplished will be persist or will be sufficient to achieve the *Likely Buildout Scenario* remains to be seen. A water budget-based rate structure will likely be needed to achieve the water conservation goals identified above. Such a rate structure requires the assignment of water budgets for every water customer, a task that almost certainly requires a Water Conservation Coordinator.

The City should explore any opportunity to increase the production capacity (and volume, if possible) of the supplemental water supplies available from the City of Napa, and increase its groundwater pumping capacity to provide increased seasonal reliability.

**Table 4-8. Weighted Average Water Supply for Ten Water Supply Strategies over Several Hydrologic Conditions,
Year 2030, acre-feet per year
(From Tables 4-4 and 4-7 of this TM)**

Water Supply	Total Weighted Average Water Supply	Weighted Average Groundwater Pumpage	Required Long-Term Water Conservation(b)	Notes
Likely Buildout Scenario (Total Projected Demand of 2,350 acre-feet per year)				
Strategy 1A: Minimize Required Water Conservation (Likely)	2,164	650	—	Requires groundwater pumping in excess of long-term average. Does not require water conservation.
Strategy 2A: Hold Groundwater Use to Historical Average	1,964	450	277	Same groundwater pumping as historical average. Water conservation of 13 percent of projected demand.
Strategy 3A: Hold Supply to 2008 Levels	1,995	481	243	Slightly more groundwater pumping than historical average. Water conservation of 12 percent of projected demand.
Strategy 4A: Maximize Required Water Conservation	1,765	251	495	Groundwater pumping would be less than long-term average. Water conservation at perceived maximum (23 percent of projected demand) without affecting look and feel of City.
Strategy 5A: Hold Supply to 1,950 afy	1,950	450	360	Same groundwater pumping as historical average. Water conservation of 17 percent of projected demand.
Full Buildout Scenario (Total Projected Demand of 2,600 acre-feet per year)				
Strategy 1B: Minimize Required Water Conservation (Full)	2,395	881	—	Requires groundwater pumping in excess of long-term average. Does not require water conservation.
Strategy 2B: Hold Groundwater Use to Historical Average	1,964	450	535	Same groundwater pumping as historical average. Water conservation of 23 percent of projected demand (not considered achievable without affecting look and feel of City).
Strategy 3B: Hold Supply to 2008 Levels	2,025	511	468	Slightly more groundwater pumping than historical average. Water conservation of 20 percent of projected demand.
Strategy 4B: Maximize Required Water Conservation	1,784	270	720	Groundwater pumping would be less than long-term average. Water conservation of 31 percent of projected demand (not considered achievable without affecting look and feel of City).
Strategy 5B: Hold Supply to 1,950 afy	1,950	450	585	Same groundwater pumping as historical average. Water conservation of 25 percent of projected demand (not considered achievable without affecting look and feel of City).

Protecting Water Quality from **URBAN RUNOFF**

Clean Water Is Everybody's Business

In urban and suburban areas, much of the land surface is covered by buildings and pavement, which do not allow rain and snowmelt to soak into the ground. Instead, most developed areas rely on storm drains to carry large amounts of runoff from roofs and paved areas to nearby waterways. The stormwater runoff carries pollutants such as oil, dirt, chemicals, and lawn fertilizers directly to streams and rivers, where they seriously harm water quality. To protect surface water quality and groundwater resources, development should be designed and built to minimize increases in runoff.

How Urbanized Areas Affect Water Quality Increased Runoff

The porous and varied terrain of natural landscapes like forests, wetlands, and grasslands traps rainwater and snowmelt and allows them to filter slowly into the ground. In contrast, impervious (nonporous) surfaces like roads, parking lots, and rooftops prevent rain and snowmelt from infiltrating, or soaking, into the ground. Most of the rainfall

The most recent National Water Quality Inventory reports that runoff from urbanized areas is the leading source of water quality impairments to surveyed estuaries and the third-largest source of impairments to surveyed lakes.

Did you know that because of impervious surfaces like pavement and rooftops, a typical city block generates more than 5 times more runoff than a woodland area of the same size?

and snowmelt remains above the surface, where it runs off rapidly in unnaturally large amounts.

Storm sewer systems concentrate runoff into smooth, straight conduits. This runoff gathers speed and erosional power as it travels underground. When this runoff leaves the storm drains and empties into a stream, its excessive volume and power blast out streambanks, damaging streamside vegetation and wiping out aquatic habitat. These increased storm flows carry sediment loads from construction sites and other denuded surfaces and eroded streambanks. They often carry higher water temperatures from streets, roof tops, and parking lots, which are harmful to the health and reproduction of aquatic life.

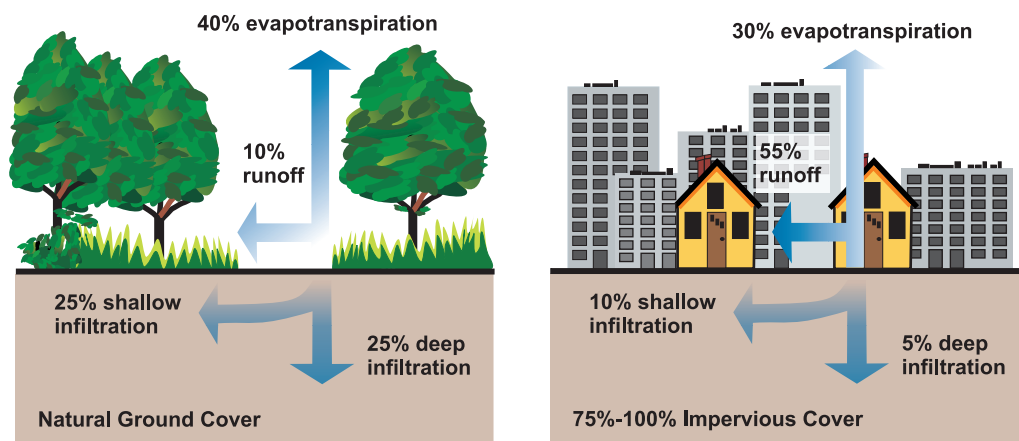
The loss of infiltration from urbanization may also cause profound groundwater changes. Although urbanization leads to great increases in flooding during and immediately after wet weather, in many instances it results in lower stream flows during dry weather. Many native fish and other aquatic life cannot survive when these conditions prevail.

Increased Pollutant Loads

Urbanization increases the variety and amount of pollutants carried into streams, rivers, and lakes. The pollutants include:

- Sediment
- Oil, grease, and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria, and nutrients from pet waste and failing septic systems
- Road salts
- Heavy metals from roof shingles, motor vehicles, and other sources
- Thermal pollution from dark impervious surfaces such as streets and rooftops

These pollutants can harm fish and wildlife populations, kill native vegetation, foul drinking water supplies, and make recreational areas unsafe and unpleasant.



Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation.

Managing Urban Runoff

What Homeowners Can Do

To decrease polluted runoff from paved surfaces, households can develop alternatives to areas traditionally covered by impervious surfaces. Porous pavement materials are available for driveways and sidewalks, and native vegetation and mulch can replace high maintenance grass lawns. Homeowners can use fertilizers sparingly and sweep driveways, sidewalks, and roads instead of using a hose. Instead of disposing of yard waste, they can use the materials to start a compost pile. And homeowners can learn to use Integrated Pest Management (IPM) to reduce dependence on harmful pesticides.

In addition, households can prevent polluted runoff by picking up after pets and using, storing, and disposing of chemicals properly. Drivers should check their cars for leaks and recycle their motor oil and antifreeze when these fluids are changed. Drivers can also avoid impacts from car wash runoff (e.g., detergents, grime, etc.) by using car wash facilities that do not generate runoff. Households served by septic systems should have them professionally inspected

and pumped every 3 to 5 years. They should also practice water conservation measures to extend the life of their septic systems.

Controlling Impacts from New Development

Developers and city planners should attempt to control the volume of runoff from new development by using low impact development, structural controls, and pollution prevention strategies. Low impact development includes measures that conserve natural areas (particularly sensitive hydrologic areas like riparian buffers and infiltrable soils); reduce development impacts; and reduce site runoff rates by maximizing surface roughness, infiltration opportunities, and flow paths.

Controlling Impacts from Existing Development

Controlling runoff from existing urban areas is often more costly than controlling runoff from new developments. Economic efficiencies are often realized through approaches that target “hot spots” of runoff pollution or have multiple benefits, such as high-efficiency street sweeping (which addresses aesthetics, road safety,

and water quality). Urban planners and others responsible for managing urban and suburban areas can first identify and implement pollution prevention strategies and examine source control opportunities. They should seek out priority pollutant reduction opportunities, then protect natural areas that help control runoff, and finally begin ecological restoration and retrofit activities to clean up degraded water bodies. Local governments are encouraged to take lead roles in public education efforts through public signage, storm drain marking, pollution prevention outreach campaigns, and partnerships with citizen groups and businesses. Citizens can help prioritize the clean-up strategies, volunteer to become involved in restoration efforts, and mark storm drains with approved “don’t dump” messages.



Related Publications

Turn Your Home into a Stormwater Pollution Solution!

www.epa.gov/nps

This web site links to an EPA homeowner's guide to healthy habits for clean water that provides tips for better vehicle and garage care, lawn and garden techniques, home improvement, pet care, and more.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas

www.epa.gov/owow/nps/urbanmm

This technical guidance and reference document is useful to local, state, and tribal managers in implementing management programs for polluted runoff. Contains information on the best available, economically achievable means of reducing pollution of surface waters and groundwater from urban areas.

Onsite Wastewater Treatment System Resources

www.epa.gov/owm/onsite

This web site contains the latest brochures and other resources from EPA for managing onsite wastewater treatment systems (OWTS) such as conventional septic systems and alternative decentralized systems. These resources provide basic information to help individual homeowners, as well as detailed, up-to-date technical guidance of interest to local and state health departments.

Low Impact Development Center

www.lowimpactdevelopment.org

This center provides information on protecting the environment and water resources through integrated site design techniques that are intended to replicate preexisting hydrologic site conditions.

Stormwater Manager's Resource Center (SMRC)

www.stormwatercenter.net

Created and maintained by the Center for Watershed Protection, this resource center is designed specifically for stormwater practitioners, local government officials, and others that need technical assistance on stormwater management issues.

Strategies: Community Responses to Runoff Pollution

www.nrdc.org/water/pollution/storm/stoinx.asp

The Natural Resources Defense Council developed this interactive web document to explore some of the most effective strategies that communities are using around the nation to control urban runoff pollution. The document is also available in print form and as an interactive CD-ROM.

For More Information

U.S. Environmental Protection Agency
Nonpoint Source Control Branch (4503T)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
www.epa.gov/nps

Response to Response to Comments: Prepared by John Milliken

Inadequate Analysis and Flawed Findings in FEIR Section I: Hydrology and Water Quality

The less than significant finding (LTS) in the FEIR concerning water quality and potential harm to the habitat of the endangered species in the adjacent Napa River is completely without merit. The EIR insufficiently identifies and fails to provide a level of analysis of the significant impacts of polluted runoff, increased storm water volumes, and diminished re-charging of the underlying aquifer (affecting summer stream flows) that will be caused by the project. Not only are the significance of these impacts ignored, corresponding mitigations to lessen their effects are not proposed either.

The credibility of the entire EIR process is in question if you agree with the presumption that an 87 unit development, located in a flood plain, with acres and acres of impervious surfaces (roads, driveways, parking lots, walkways, roofs, patios, utility pads, etc.), will not have any significant impact on water quality, groundwater recharging, or the amount of runoff generated by the project. The likelihood of significant impacts to water quality and harm to protected species is even more pronounced if the cumulative effects over many years are considered. Not identifying cumulative impacts to hydrology and water quality is another serious failure in this FEIR.

Instead of identifying significant impacts and proposing mitigations, the FEIR spontaneously claims that, *"it was abundantly clear that potential impacts to aquatic resources that could potentially result from water quality or runoff flow caused by the project would be insignificant and, therefore, not a significant impact to aquatic resources on, adjacent to, or downstream of the project, including to fish, fish habitat, or fish movement."* This claim was made in spite of a 6 page report to the contrary prepared by a fisheries biologist expert, Jeff Hagar, who was commenting on the inadequacies of the DEIR. Instead of heeding Mr. Hagar's meticulously researched and documented analysis, the FEIR took a pass on his findings and deflected them all away by claiming that the project will have to apply for an EPA NPDES (National Pollutant Discharge Elimination System) permit and this will mitigate everything. Interestingly, Table III-1, Required Discretionary and Ministerial Permits and Approvals, from the DEIR does not even list a NPDES permit.

A General NPED Construction Permit's scope applies only to storm water runoff during a project's construction phase and is an important protection for water quality. However, there are no impacts identified in the FEIR concerning Hydrology and Water Quality post construction singularly or cumulatively. And if there are no impacts identified, there are certainly no mitigations offered either. As it turns out, this is a common theme of both the DEIR and FEIR. The analysis of the DEIR was pre-occupied with the environmental impacts of the construction phase of the project and tended to ignore/neglect the post construction and cumulative impacts of the project, another example of improper CEQA mandated analysis.

So what types of mitigations could have been proposed by a proper analysis? Quite a few, if you had just perused the EPA's brochure on the impacts of Urban Development Guidelines. Somehow this readily available information was ignored or not even considered in both the DEIR and FEIR. Which leads one to ponder the competence of the firm that was hired to prepare both of these reports.

Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the

ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters.

Urbanization increases the variety and amount of pollutants carried into our nation's waters. In urban and suburban areas, much of the land surface is covered by buildings, pavement and compacted landscapes. These surfaces do not allow rain and snow melt to soak into the ground which greatly increases the volume and velocity of stormwater runoff. In addition to these habitat-destroying impacts, pollutants from urban runoff include:

- Sediment
- Oil, grease and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria and nutrients from pet waste and failing septic systems
- Road salts
- Heavy metals from roof shingles, motor vehicles and other sources
- Thermal pollution from impervious surfaces such as streets and rooftops

These pollutants can harm fish and wildlife populations, kill native vegetation, foul drinking water, and make recreational areas unsafe and unpleasant

Controlling Impacts from New Development

Developers and city planners should attempt to control the volume of runoff from new development by using low impact development, structural controls, and pollution prevention strategies. Low impact development includes measures that conserve natural areas (particularly sensitive hydrologic areas like riparian buffers and infiltrable soils); reduce development impacts; and reduce site runoff rates by maximizing surface roughness, infiltration opportunities, and flow paths.

As stated in the DEIR, permit approval is not a substitute for thorough and complete environmental review. From the DEIR:

E. DISCRETIONARY ACTIONS

It is anticipated that this EIR will provide environmental review for all discretionary approvals and actions necessary for the proposed project. A number of permits and approvals would be required before the development of the project could proceed. As Lead Agency for the proposed project, the City of St. Helena would be responsible for the majority of approvals required for development. A list of required permits and approvals that may be required by the City and other agencies includes, without limitation, those provided in Table III-1.

The FEIR does NOT provide environmental review for the discretionary approval and actions necessary for a NPEDS permit.

Given that the project site is located on the floodway of a river that has been designated as impaired for endangered fish species, a thorough EIR analysis, that strictly follows CEQA guidelines, is even more of an imperative. It would surely be a mistake to rely on solely NPEDS permitting standards in such an environmentally sensitive area. The project site is so close to the impaired river that options for improving water quality are extremely limited. Quite simply, polluted high sediment runoff from the acres and acres of impervious surfaces will enter the gravity operated storm water basin and then exit directly into the impaired river. Although it is predicted that storm water handling facilities will have the capacity to handle storm water flows from the project, there is no denying that the level of water pollutants and quantity of runoff into the river from the project will be far greater than pre-project levels. The DEIR refers to studies of sediment TMDL being developed with the goal of reducing sediment discharges into sensitive fish spawning areas. However, these studies are ongoing and TMDLs have not yet been established. Until they are, the FEIR should not assume that the issuing of a NPEDS permit will reduce project water quality to less than significant. This is best summed up by the fisheries biologist, Jeff Hagar:

The City needs to analyze the contribution of this project to cumulative effects of ongoing development and past habitat degradation. The effects of this project on habitat conditions in the Napa River occur within the context of efforts by multiple entities to reverse these trends and adverse effects on protected steelhead should be mitigated to less than significant levels.

This comment brings up another shortcoming of the FEIR, there are no comments in regard to the DEIR from other government and private stakeholders working to restore endangered fish habitat just south of the project. Should not there have been comments solicited from California Coastal Conservancy, U.S. Army Corps of Engineers, Napa County Resource Conservation District, California Fish and Game, California Water Quality Control Board, and a group of 23 private property owners with property that borders the Rutherford Reach, the 4.5 mile stretch of the Napa River between St. Helena and Oakville? Were these entities ever contacted and asked to comment on the DEIR and allowed to express concerns about the projects impacts on their environmental restoration efforts just to the south?

As the lead agency responsible for producing an EIR that will adequately inform government decision makers as well as the public, the City of St. Helena should instruct the EIR consulting firm to re-evaluate the preparation of the Hunter Development EIR and recirculate a document that meets the standards established by CEQA. The deficiencies of the FEIR concerning Hydrology and Water Quality documented above are just one of the many areas of this FEIR that provide inadequate and incomplete analysis of the project's impacts on environmental quality.

From: [Cindy Tzaopoulos](#)
To: [Noah Housh](#)
Subject: FW: Hunter EIR comments
Date: Thursday, April 12, 2018 4:37:06 PM

Thank you,

Cindy Tzaopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

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From: ann@nieman.org [mailto:ann@nieman.org]
Sent: Thursday, April 12, 2018 4:36 PM
To: Cindy Tzaopoulos <ctzaopoulos@cityofsthelena.org>; Cindy Tzaopoulos <ctzaopoulos@cityofsthelena.org>
Cc: ann@nieman.org
Subject: Hunter EIR comments

Hi Cindy – please add these questions to the EIR

Hope all is well. Weird weather, right? From 80 degrees to rain storms and 45 degrees. What season is this?

Cheers,
Ann

Question #1

How will this project affect the St Helena city groundwater wells at the Stonebridge locations?

The project plan states it will provide all the landscaping water for 87 houses' lawns, flowers, bushes, gardens, carwashes, and other watering uses. The number could be 20-40 units higher if the project includes regulated affordable housing. Since the well is located next to the Napa River upstream from the City of St Helena wells that supply our community with water, what mapping will be conducted to determine if the aquifers are connected? If they are connected, then drawing large amounts of water from the same groundwater source needs to be assessed so it does not deplete the City wells supply. Who will conduct the mapping? How many groundwater data points will be included in any mapping exercise? Will it be a sufficient number to adequately determine that the Hunter well is on an aquifer that is separated from the city aquifer? This question must be answered accurately, because the city relies on the groundwater

from these 2 wells as a critical source of water in times of drought when Bell Canyon is depleted. (Example – the drought resulting in exposure of large portions of the bottom of the Bell Canyon reservoir.

Question #2:

The project area is in a low lying wet area on the historic floodplain for this part of the Napa River. It has flooded numerous times over the last 20-30 years. Even in non-flood years, large portions have remained wet during the summers, to the point that vine growth and production was hampered due to the wet soils. Presently, this area is covered with standing water during and after rains with water depths often 10-12 inches deep. The project will add millions of gallons (25 acre feet) of landscaping water annually to an area that has never been irrigated.

Will the addition of paved surfaces, construction pads, streets and structures cause compaction of the soils/subsoils in the area? Will this cause subsidence or instability of structures in and around the project area over time? Will subsidence cause new unknown flooding issues?

Question #3:

There is an existing subsoil study on the project area that shows what is considered to be the profile of a historic pond, which is typical in areas proximal to meandering rivers. Since the area is a known liquefaction zone in an earthquake prone location, and soils of this type can be unstable, how will this affect the safety of the homes and the structural integrity of the levee in an earthquake or major flood?

From: Tim Nieman
To: [Cindy Tzafopoulos](#); [Noah Housh](#); [Mark Prestwich](#)
Subject: Scoping comments on Hunter EIR
Date: Thursday, April 12, 2018 1:37:08 PM

I'd like to submit the following comments for the Scoping of the Hunter EIR

Groundwater usage on the site

The estimates of historical groundwater usage on the site need to be redone. The previous EIR made some highly questionable assumptions about historical groundwater usage, leading to an estimate of pre-flood-project groundwater demand on the site of 22 AF. There are two errors in the consultant's methodology rendering this estimate much too high.

1. The consultant assumed that all of the vineyards on the site were historically irrigated. There is little need to irrigate this wet vineyard and there is no evidence that there has ever been an irrigation system on the site, so the assumption that the well was used to irrigate the entire site is unfounded. There are no remnants of piping or any other irrigation components currently. And, vintners adjacent to the site who have lived here for decades do not recall there ever being such a system. The property is adjacent to the river and is one of the wettest vineyard locations in the valley. There is little need to irrigate there. Adjacent vineyards which are up-dip and drier are all dry farmed. If the assumption is to be made that irrigation once existed for the entire vineyard, it is incumbent upon the consultants to prove that such a system existed.
2. The consultant assumed vineyard irrigation rates from the Oakville area, a much drier area farther from the Napa River. Even if this area was ever irrigated, Oakville irrigation rates are too high. Again, this is a wet vineyard which would need water only rarely in the driest of years, if at all.

Therefore, historical groundwater pumping on the site was likely localized, sporadic and minimal. The actual usage would be a small fraction of the 22 AF. What are the new estimates of historical production? What data are used to justify those estimates?

Impacts on the Napa River, including fish

The existing groundwater well on the site is only hundreds of feet from the Napa River. If the aquifer being accessed is at all connected to the river, then the well is drawing down from the Napa River, impacting river flows and fish habitat. What is the connection to the Napa River? How much is the impact on river flow from pumping on the site at different rates? A groundwater hydrology study should be undertaken to determine the connection to the river.

Impacts on City Groundwater Supply Wells

The existing groundwater well on the site is up-dip of City water supply wells and the proposed levels of use could impact City wells. Is it the same aquifer? How would pumping on the site affect groundwater levels in the City wells, at different rates? A groundwater hydrology study should be undertaken to determine if there is a connection to the City's groundwater supply wells and the potential for drawdown of those wells.

From: Vickie Bradshaw
To: [Cindy Tzafopoulos](#)
Cc: [Noah Housh](#); [Mark Prestwich](#)
Subject: Hunter EIR Scoping Comments
Date: Thursday, April 12, 2018 9:20:20 AM

Cindy-

Below are my comments regarding the scope of the Hunter EIR.

1. The EIR for the Hunter Project cannot be done until it is conclusively determined whether or not the Hunter Project qualifies for the 40% affordable housing benefits, including priority in water and sewer connections, use of prior year surplus units from the Growth Management System (GMS), etc. The reason for this is that the environmental impact is completely different if the benefits are applied to the project than if they are not applied. An example is that if the project qualifies under the inclusive housing and affordable housing ordinances, then the entire project can be completed in 2 years, according to the developer. If the project does not qualify, then the Hunter Project could take up to 10 years to complete, assuming very few, if any other houses are built in St. Helena during that timeframe because the project would be limited to the annual 9 units allowed under the GMS. It isn't hard to see that the environmental impacts are quite different under these two scenarios.

Before the EIR begins, it has to be determined if the Project qualifies for such benefits or not. This decision cannot run on parallel tracks with the EIR and then come together at the end, as Noah Housh suggested at the neighborhood scoping meeting last month. For the EIR to be accurate, the EIR consultants must know what scenario applies before the EIR begins. And, in cases like this, it does matter to CEQA if the housing is market rate or affordable because the priority benefits derived from hitting a 40% affordable housing rate under City ordinances changes that environmental analysis. In this case, it is not the affordability of the housing that affects the CEQA analysis, but the priority benefits given by the City and/or the state that changes the impact on the environment from building this project.

The prior Hunter Project EIR inappropriately assumed (without confirming) that the Hunter Project would qualify for the priority benefits stemming from the project complying with the inclusive housing and affordable housing ordinances at the 40% rate. That assumption cannot be part of the current EIR process because it likely will make the EIR inaccurate.

If the developer does not want to show to the satisfaction of the City Council that their current proposal completely meets all of the City's inclusive and affordable housing requirements to qualify for the 40% priority benefits, then the EIR should be done without giving any credit for any of those benefits before the EIR is started. At the very least this would change the environmental analysis from a two-year project to a potential ten-year project with ongoing environmental impacts.

If the EIR assumes the project will qualify for the 40% rate and if it is later determined that the current project cannot meet the inclusive housing and affordable housing ordinance requirements without resubmitting a tentative map, then the City would be in the position of looking at yet another Hunter EIR exercise. It would make more sense to make that determination now.

2. The Hunter Project EIR has to take into consideration the cumulative impacts of the 17-acre

Hunter Project, along with the 24-acres of Key Opportunity Sites (sites 1, 2, and 6 on page 134 of the Housing Element Needs Assessment), which begins about 3 blocks from the Hunter Project and extends south across Pope Street. These cumulative sites will significantly impact surrounding streets and the Pope Street bridge. Such cumulative effects will undoubtedly impact the environment and have to be taken into consideration in the Hunter Project EIR.

3. The Hunter Project EIR needs to consider the environmental impacts resulting from a potential levee failure. CA Government Code §65302(g)(2)(A)(vii-viii) requires that St. Helena include a levee failure map in its General Plan Update to show areas that would be inundated in the event of a levee failure. It will be important to have such an inundation map to show the environmental difference between the situations where the land behind the levee is undeveloped, as it is now, and the situation where the land behind the levee is covered over with asphalt and houses, which is a situation where there would be significantly less permeable land for flood waters to be absorbed. The environmental differences between these two situations would likely be significant.

Of additional environmental interest is that fact that the area closest to the Napa River where the levee is located is considered a high liquefaction susceptibility area (Figure 4.K-2 in the General Plan Update) and liquefaction is a well-known and significant cause of levee failure.

4. The EIR for the Hunter Project has to assume the project can be built out to the maximum density allowed resulting from any density bonuses provided under city ordinances and state law, even assuming the current project does not now show such a density bonus in the “deemed complete” tentative map. The current owner and/or developer could decide after an EIR is approved to sell the property and the new owners could apply for the density bonuses prior to seeking building permits. At that point it would be too late for the EIR to take into consideration the increased housing units, population, cars and other environmental impacts because the EIR would already have been completed and approved.

Thank you for your consideration, Vickie Bradshaw

Victoria Bradshaw
California Strategies, LLC
One Embarcadero, Suite 1060
San Francisco, CA 94111
(415) 705-5276

980 9th Street, Suite 2000
Sacramento, CA 95814
(916) 266-4575

From: [Noah Housh](#)
To: ["Chuck Vondra"](#)
Cc: mprestwich@cityofsthelena.com
Subject: RE: Hunter NOP Electronic Notification
Date: Wednesday, March 07, 2018 10:07:00 AM
Attachments: [image001.png](#)

Hi Chuck,

Thank you for taking the time to provide your input on the EIR and project.

City staff and project consultants will ensure that the review process fully vets the proposed project and meets all requirements of the law.

Further, I will be sure to keep you informed of all steps in the review process.

Thanks again,



NOAH HOUSH
PLANNING & COMMUNITY IMPROVEMENT DIRECTOR
City of St. Helena | Planning & Community Improvement Department
1480 Main Street | St. Helena, CA 94574
Direct: (707) 968-2659 | NHoush@cityofsthelena.org | <http://cityofsthelena.org/planning>

From: Chuck Vondra [mailto:chuck@com-strat.com]
Sent: Tuesday, March 06, 2018 5:35 PM
To: Noah Housh
Cc: mprestwich@cityofsthelena.com; CityCouncil
Subject: RE: Hunter NOP Electronic Notification

Hello Noah,

Thanks for hosting the meeting last week. As I mentioned at the meeting, kicking off the EIR seems very premature and a waste of time and money.

1. The applicant is still formulating and the City still reviewing the affordable housing component. How can we comment on something that is incomplete, and has not been reviewed by the city?
2. As was brought up by Planning Commissioner Grace Kistner, our municipal code requires that in order to qualify for density bonuses (without which this project will never get built) the project needs 20% AFU for sale. This will almost certainly require a revised subdivision map, and likely a brand new subdivision application. It seemed to me that the developer has not thought this project out very well as is making it up as he goes along. With this understanding

an EIR at this juncture makes no sense.

3. This project is extremely unpopular by a majority of residents and a hasty ill-planned EIR process will most certainly be vigorously challenged. Why not pause and let the developer get his plans together first, it is not fair to ask the community to weigh on a moving target.

Sincerely,

Chuck Vondra – Principal, Sr. Consultant

Bus: 707-963-5418 E-Mail Chuck@Com-Strat.com Cell: 707-815-6355

1176 Starr Avenue, St. Helena, CA 94574

www.Com-Strat.com



Your independent expert for technology consulting and project management.

The information contained in this email is proprietary and confidential, and may be used only by its intended recipient. If you receive this email in error, you should contact the sender and then delete permanently by pressing <shift><delete>. Thank you for your consideration.

From: Noah Housh [<mailto:NHoush@cityofsthelena.org>]

Sent: Tuesday, March 6, 2018 5:18 PM

To: Noah Housh <NHoush@cityofsthelena.org>

Subject: Hunter NOP Electronic Notification

Information Only; Please Do Not Reply All

Greetings,

At the recently held neighborhood meeting for the Hunter Residential Subdivision, you provided your email contact information indicating you would like to be notified of future project activities.

Attached please find the formal Notice of Preparation initiating the Environmental Impact Review (EIR) process for this project.

As was identified at the neighborhood meeting, a scoping meeting for the EIR is scheduled for Monday, March 12, 2018, from 6:00 – 7:30 pm at the St Helena Fire Department (1480 Main Street). This meeting will provide an opportunity for individuals to speak directly to the California Environmental Quality Act (CEQA) consultants regarding the scope of the EIR analysis.

Alternatively, if you are unable to attend this meeting, please feel free to provide your written comments to me (electronically or hard copy) any time before April 9, 2018, to ensure they are considered in the EIR analysis. My contact information is provided in the notice, and in the signature below

After the initial analysis is completed, a draft EIR will be published for a 45-day public review and

comment period, during which the public will have an additional opportunity to comment on the environmental analysis and resulting document. This is tentatively scheduled to occur in late spring or early summer, 2018.

These comments will then be used to finalize the document making modifications or expanding the analysis, as appropriate. Further, a response to each comment will be provided in the Final draft EIR for the project, which will then be taken before the Planning Commission for review and action at a public hearing tentatively proposed to be held in late summer or early fall of 2018.

Please forward this message to anyone you feel may be interested in the Hunter Residential Subdivision EIR process. Thank you for your attention to this matter.



NOAH HOUSH

PLANNING & COMMUNITY IMPROVEMENT DIRECTOR

City of St. Helena | Planning & Community Improvement Department

1480 Main Street | St. Helena, CA 94574

Direct: (707) 968-2659 | NHoush@cityofstheleena.org | <http://cityofstheleena.org/planning>

From: [Cindy Tzafopoulos](#)
To: [Noah Housh](#)
Subject: FW:
Date: Thursday, April 12, 2018 4:20:13 PM
Attachments: [541c_93_GP_Policies_9.4.4_ & 9.4.5.png](#)
[image001.png](#)
[image002.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Thank you,

Cindy Tzafopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzafopoulos@cityofsthelena.org
www.cityofsthelena.org

From: Wendell Laidley [mailto:wlaidley3@gmail.com]
Sent: Thursday, April 12, 2018 4:17 PM
To: Cindy Tzafopoulos <ctzafopoulos@cityofsthelena.org>
Subject:

Cindy,

The first photos are showing up now. Can you tell me if you receive this with the first 7 photos in it?

Just hit reply if you would. Thanks.

Wendell

Dear Cindy,

Please consider these comments regarding the scope of the Hunter EIR.

An earlier EIR dismissed flood risk for the Hunter Property behind the levee as "less than significant" as shown below ...

LETTER C4

Ron Amoroso

June 18, 2012

- C4-1 This is an introductory comment. See Response to Comment C4-2 addressing the specific comments detailed in Mr. Amoroso's letter.
- C4-2 While liability issues are not a subject that CEQA addresses, the Draft EIR does go into considerable detail regarding the potential for the levee to be overtopped or fail (see Draft EIR Impact HYD-4 starting on page 242).

With the acceptance of the Flood Protection Project and the revision of the Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map, FEMA has indicated that the project site has an acceptable level of protection from the 100-year flood event. This 100-year level of protection is the standard of significance that is specified by the CEQA Guidelines to determine if a potential flooding impact is significant or less than significant. In this case, the potential flooding impact, under CEQA, is less than significant.

That citation reports the "potential flooding impact, **under CEQA**, is less than significant."

With due respect to all, I consider the flood risk behind the levee and its potential consequences to be substantial, and ask that the flood risk be thoroughly studied so St. Helena residents and taxpayers do not become liable for damages occurred on that property when the levee alignment violated St. Helena's own 1993 General Plan, which contained this provision ...

Goals, Policies and Standards

Guiding Policies

- 9.4.1 New development should provide adequate drainage improvements to handle generated storm runoff from the site to the nearest major watershed. The watersheds include York Creek, Sulphur Creek and the Napa River.
- 9.4.2 If a City storm drain is available, the developer should participate in the funding to the extent it benefits the development.
- 9.4.3 Extension of existing downstream drains which have adequate capacity should be completed at the developer's expense with future reimbursement for oversizing costs at the time of connection by others.
- 9.4.4 Grading and earth filling within the designated 100-year floodway should not be permitted except for public streets or bridges.
- 9.4.5 Encroachments into the 100-year floodway should not result in any increase in flood levels during the occurrence of the base flood discharge.

... that "grading and earth filling within the designated 100-year floodway should not be permitted."

Unfortunately the Vineyard Valley development was developed directly atop the floodway to the Napa River, as shown on these photographs ...



and from the east side of the River ...



These photos show that the floodwater trapped behind the Vineyard Valley cinder block wall did not overtop the riverbank, but instead drained naturally from the watershed northwest of Vineyard Valley, toward the historic floodway now blocked by Vineyard Valley.

Disruption of that historic natural floodway caused both floods in 1986 and 1995 that caused over \$100 Million as documented by City Manager Johansson in his Project Summary report to Assemblywoman Noreen Evans and Senator Pat Wiggins ...

Project Summary Sheet

Project Name: City of St. Helena Flood Protection and Flood Corridor Restoration Project

Tracking No: 200784107

Location: City of St. Helena County; Napa, CA

County: Napa

Project Sponsor: City of St. Helena

Point of Contact: Bert Johansson, (707) 967-2792

Co-applicant(s): None

Assembly District: #7 Noreen Evans **Senate District:** #2 Pat Wiggins

Project Summary: The City of St. Helena Flood Protection and Flood Corridor Restoration Project will protect 468 existing mobile homes, single-family dwellings, and low-income multifamily units from flood damage caused by the Napa River overflow through the incorporated City of St. Helena in Napa County. This multi-objective project will provide flood damage reduction through restoration and re-establishment of the natural floodplain along the project creek frontage; construction of set back levees and overflow basins for transitory storage; and the re-creation and restoration of a natural floodway corridor. It will create more than 8 acres of high-value riparian forest and shoreline restoration for terrestrial and fish habitat on the Napa River, which is listed by the EPA as an impaired waterway and by National Marine Fisheries Service as an important steelhead and salmon recovery tributary of the San Francisco Bay Estuary. In addition, the project will allow residents to view and access this reach of the Napa River.

which currently cannot be accessed.

The project addresses Flood Protection Corridor Program Goals by:

- Floodplain Terrace at more than 8 acres, the new terrace will stretch alongside the Napa River. This terrace will provide a wider area for passage of floodwaters and also provide riparian habitat for rare and common species.
- Shoreline Restoration Approximately 600 feet of existing bank protection riprap and wire gabion at the Vineyard Valley Mobile Home Park (VVMHP) will be removed and the shoreline restored, improving habitat for steelhead, California freshwater shrimp, and critical habitat for the California red-legged frog, as well as for common species.
- Levee A new setback levee will be constructed.
- Removal of Mobile Homes Approximately 17 mobile homes have been removed to make room for a wider floodway corridor.

Project Summary

City of St. Helena Flood Protection and Flood Corridor Restoration Project

Page 2

- Floodwall/Bank Stabilization A new setback floodwall will be constructed to surround the remaining homes within the Vineyard Valley Mobile Home Park. Up to 300 feet of bioengineered and/or structural bank stabilization would be placed near the confluence of the Napa River and Sulphur Creek to protect a portion of the VVMHP floodwall.
- Stormwater Management for Water Quality. A detention basin and pumping facility will be placed inboard of the new levee and northwest of the existing VVMHP floodwall. The two existing storm drains will be diverted into this basin and the two existing storm drain outfalls into the Napa River will be abandoned. A drainage swale will run along the outboard edge of the new levee to filter area stormwater before entering the Napa River. Water quality will be improved as unfiltered storm water passes through the detention basin and the vegetated swale in the terrace.
- Vegetation Management At the southeastern end of the project area, riparian vegetation will be managed in an area referred to as "Element C" to protect critical environmental habitat and improve flood storage capacity upstream of the Pope Street Bridge.
- Public Trail An interpretive pedestrian path will be included in the design of Terrace B to provide public access where no public access currently exists.
- Utility Relocations/Modifications Water, sanitary sewer, gas, electrical, telephone, and cable TV utilities will be disconnected and removed in the areas of home removal for a wider flood corridor in this currently constrained and incised reach of the Napa River.

Flood Benefits: The floods of 1986 and 1995 caused complete flooding at Vineyard Valley Mobile Home Park (VVMHP); Hunts Grove Apartments; and the City's wastewater treatment plant. Estimated damages were more than \$50 million in each event. The Project will increase critical transitory storage through the dedication of parcel 31 (14) acres to permanent flood corridor, the purchase and relocation of the mobile homes along the bank of Napa River and the resulting excavation and restoration of the floodplain terrace and the construction of set back levees. This transitory storage increase allows 100-year water surface elevations to be significantly reduced by 1.5 feet from current conditions without inducing either upstream or downstream flooding.

Engineers know as basic safety practice not to obstruct floodplains, as confirmed below in St. Helena's 1993 General Plan ...

Goals, Policies and Standards

Guiding Policies

- 9.4.1 New development should provide adequate drainage improvements to handle generated storm runoff from the site to the nearest major watershed. The watersheds include York Creek, Sulphur Creek and the Napa River.
- 9.4.2 If a City storm drain is available, the developer should participate in the funding to the extent it benefits the development.
- 9.4.3 Extension of existing downstream drains which have adequate capacity should be completed at the developer's expense with future reimbursement for oversizing costs at the time of connection by others.
- 9.4.4 Grading and earth filling within the designated 100-year floodway should not be permitted except for public streets or bridges.
- 9.4.5 Encroachments into the 100-year floodway should not result in any increase in flood levels during the occurrence of the base flood discharge.

Unfortunately that basic practice was ignored in the levee alignment, which bisects the very floodplain that caused the 1986 and 1995 floods that caused over \$100 Million as reported above by former City Manager Bert Johansson.

After the 1986 flood, in his letter of August 14, 1986, to developer McDonnell, then City Engineer Jack Meade warned Mr. McDonnell against reconstructing Vineyard Valley on its floodway blocking site ...

August 14, 1986

Vineyard Valley Mobile Homes
270 Pope Street
St. Helena, California 94574

Attention: Mr. R. H. McDonnell

RE: Flood Wall

Dear Mr. McDonnell

This letter is in regards to your building permit application for a Flood Wall filed by your contractor Mr. Jinks.

It is my understanding from your design engineer, Mr. Giorgi, the purpose of this wall is to replace a fence which was washed out and damaged in the February 1986 flood. It is also my understanding the proposed Flood Wall is on the same location and extent as the washed out fence.

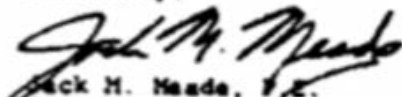
The City cannot guarantee or assure you that the Flood Wall will achieve its intended purpose. The review of the plans and the issuance of a building permit does not provide you with any type of warranty either directly or implied that the construction of the wall will accomplish its design purpose. Only your design engineer can provide you any type of assurances that the Flood Wall will function as intended.

You are hereby put on notice that the construction of the Flood Wall may have possible adverse effects on other property owners either upstream or downstream. The construction of the Flood Wall may create off-site flood hazards to other properties. Prior to construction, your design engineer should thoroughly study and evaluate the possible effects this Flood Wall will have on other properties.

Vineyard Valley Mobile Homes
August 14, 1986
Page 2

By acceptance of the building permit for the Flood Wall, you shall assume full responsibility for any liability occurring from the construction of the Flood Wall and hold the City of St. Helena harmless for any liability and provide full indemnification to the City of St. Helena.

Sincerely,


Jack M. Maade, P.E.
City Engineer

JRM/kaw

cc: Acting City Administrator
City Attorney
Building Inspector
Philips and Giorgi

... and in his response to that letter, Professional Engineer Gerald R. Giorgi expressly alerted the landowner that he should "count on being sued" should another flood occur and neighbors be damaged, for "whatever reason" ...

Gentlemen:

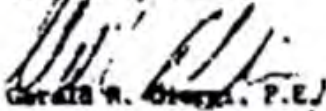
We have just received a copy of Mr. Meade's letter to you dated August 14th, 1986 regarding the proposed flood wall.

As you know and as it is understood by Mr. Meade, the new wall merely replaces the substandard barrier that failed in the 1986 flood. Mr. Meade states that "construction of the flood wall may create off-site flood hazards to other properties." We fail to understand how replacing a timber wall that was intended to act as a barrier with a masonry wall presents any new off-site flood hazards that did not already exist. The alternative of letting the river flow through your project would be amusing if not so serious. We are more concerned with the stockpiling of fill M/V of your project in what appears to be within the flood plain boundaries.

As discussed, if your project should flood again it will occur at the levee adjacent to the river. We understand that raising this levee could indeed adversely impact off-site properties and it would merely move the weak link to the Sulphur Creek boundary.

We understand your urgency in proceeding with construction as the risk of losing millions of dollars in homes and potential loss of life is real. However, should another flood occur and neighbors are damaged, for whatever reason, you can count on being sued. Again we recommend you consult with an expert in hydrology to confirm what we all believe to be true. It would be a very cheap form of insurance. Please call if you require assistance in this matter.

Very Truly Yours,


Gerald R. Giorgi, P.E.

GRG/jg

cc: Charles F. Phillips
Jack W. Meade, P.E.

1541 THIRD ST. NAPA, CALIFORNIA 94559 (707) 252-6588

It is unfortunate the General Plan guidelines the professional engineers recommendations were ignored, but when Measure A was passed in 1998, residents of Vineyard Valley, fearing the future flood warned by engineer Giorgi, fought assertively to have their flood protection upgraded to avoid the next damaging flood. Vineyard Valley residents were comforted by the inclusion of this Measure A set-aside to fund flood protection for St. Helena ...

In December 2008, residents sought to preserve the floodplain by suggesting this upgrade to

the extant cinder block wall erected after Vineyard Valley's flood in 1986 to flood standard, along Vineyard Valley's north property line ...

Unfortunately the residents were ignored and the levee alignment now cordons off a major component of the natural floodplain, with obvious flood risk increases by obstructing the floodplain.

The residents proposed the remaining floodplain be preserved as a public riverbank park, but advocates of the ill-designed levee across the floodplain won the argument and Vineyard Valley flood protection was approved across the very floodplain that had flooded Vineyard Valley so badly in 1986 and 1995.

When Vineyard Valley residents asked why the levee had to obstruct the floodplain instead of upgrading the cinder block wall along their north property line, and they were told upgraded floodwall around Vineyard Valley and Hunter's Grove "would not work."



As an engineer myself, I can only conclude the levee alignment was built across the floodplain to protect developer Hunter's property at public expense, and the sacrifice of a large portion of the historic floodplain.

UC Davis Engineering Professor Nicholas Pinter wrote after completing a site inspection that he found our levee a "field of dreams levee" as he wrote in [this report](#). City management may want to inquire of Professor Pinter as to his opinion of the wisdom of permitting housing development behind the levee. I personally trust Professor Pinter significantly than I trust the engineers who dangerously aligned our levee right through the middle of our floodplain.

Thank you for your consideration.

Wendell Laidley

st. Helena

From: David Wilkinson
To: [Cindy Tzafopoulos](#)
Cc: [Noah Housh](#); [Mark Prestwich](#)
Subject: Hunter Project-ERI Scoping Input
Date: Thursday, April 12, 2018 4:11:07 PM

To the City Clerk, St. Helena, et al,

This note is a submission in response to the request for input on the Hunter Property Development EIR scoping exercise.

As you may be aware my home is located somewhat at ground zero of this proposed development and the results of the EIR impacts me very directly and those of my immediate neighbors and the greater St. Helena community dramatically. The EIR, which seems to be evolving with considerable thought, does seem to be predicated on some larger issues that are being relegated to past decisions that do not appear to be as well thought out and that is concerning to me, substantially.

I am relatively new to the community and while attempting to discover what has been a very long process in developing this property there are more questions raised than answered. I would consider myself pro-development but with the caveat that any development is very well thought out, vetted intensely, and evolved with the best practices for the whole community/City in its considerations and approvals. I am pro-development, and not a developer. But I know instinctively when something is not of the potential standard that the community needs and deserves. The very few illustrations of this development that I have seen are of the poorest creative quality that I could imagine and certainly do not seem to fit any, even minimal, urban plan for our City although I have made some efforts to discover what that may actually entail. As I stated in one of the public meetings I am somewhat baffled by the rush to move a poorly defined project forward without much more discovery.

These comments are somewhat outside the bounds of the Scoping Request but the Discovery process is directly related to that Request. I have heard of my neighbors concerns, and they are ground zero concerns, and whole community concerns of mine as well in relation to traffic, water, resources, noise, costs, liability, and impact on every aspect of the future of this City that I am quickly coming to value and appreciate deeply.

Somewhat disconcerting is the revelation that a previous EIR contained information which is to be transported into the new EIR without review. I am particularly concerned with the whole process of developing the levee and its viability particularly relative to the news of so many levees and similar structures in Houston, New Orleans and elsewhere failing when they were supposed to be certified '100 year flood' capable. If this levee fails who is responsible for the destruction that will devastate so many in this community? Who pays for those types of catastrophes? I would ask that this issue not be swept under the proverbial rug and be added,

in-depth, to the scope of the EIR work.

My thanks for your work and the commitment from every one of our councilors, City Staff and Executive and Counsel, the Mayor and all of those tasked with this EIR work and they all contribute to our future which is bright indeed.

David G. Wilkinson
704 Hunt Avenue
St. Helena, CA.
94574

1.415.608.5790
david@twgexperiential.com



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Ron Naines

Email: rnaines@hotmail.com

Address: 10 Laguna Seca Ct

Organization: Vineyard Valley

☒ I would like to receive future environmental notices via email.

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department

1480 Main Street

St. Helena, CA 94574

Email: NHoush@cityofstheleena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

This Hunter Subdivision SHOULD NOT BE BUILT!! Below are reasons why:

① Disrupting the newly completed flood control project. Landscaping, water drainage run off, sewer expansion (affecting directly where I live) and grading, elevations DIRECTLY affecting the current flood control project. (one does not have to be a rocket scientist to see that!)

② The massive traffic that Hunter Subdivision will create. Have any of you "planners" notice the (Oller)

jammed roads from Pope st. bridge to Main and points beyond? There is no bypass at Saint Helena (like Yountville), so what's next. MORE SIGNALS?? And what about parking?

③ Resources - water and sewer facilities are tight now. So what "source" does the Hunter Subdivision draw from... well H₂O & water recycle via 2-3 engineered filters? Pope - looks like a connection to our main sewer down Pases Grande... NOT ACCEPTABLE?

④ Does the city "planners" and Hunter Subdivision have "plans" for a second high school and grade schools? Never heard a peep... So degrade our local education by packing the classrooms to a unbearable population. Just how far can this go? Economic and social problems will just accelerate. City services and police and fire capabilities will be strained to the breaking point... I've been here 27 years now - what changes!?

⑤ Soil liquefaction, catch basins, flood wall and levee failure all loom as potential problems without a study - a COMPLETE study - by FEMA and EPA. So where is it??

⑥ In my 73 years I have seen the changes development brings and not always positive: look at Sausalito, Honolulu, San Blas, Santa Cruz and so forth. BEFORE building a Hunter Subdivision plan the water/sewer/roads/schools/city services BEFORE building (don't forget EPA & FEMA studies).

⑦ Conclusion: since we cannot vote on this upcoming measure I suppose we have to live with YOUR decision. MY decision? If flooded or other catastrophe I will SUE the hell out of you as a final project in life!



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Carla C. Holm

Email: hdmhouse@yahoo.com

Address: 8 San Juan Court, St. Helena, CA 94574

Organization: Vineyard Valley mobile Home Park
+ Vineyard Valley Home Owner's Association

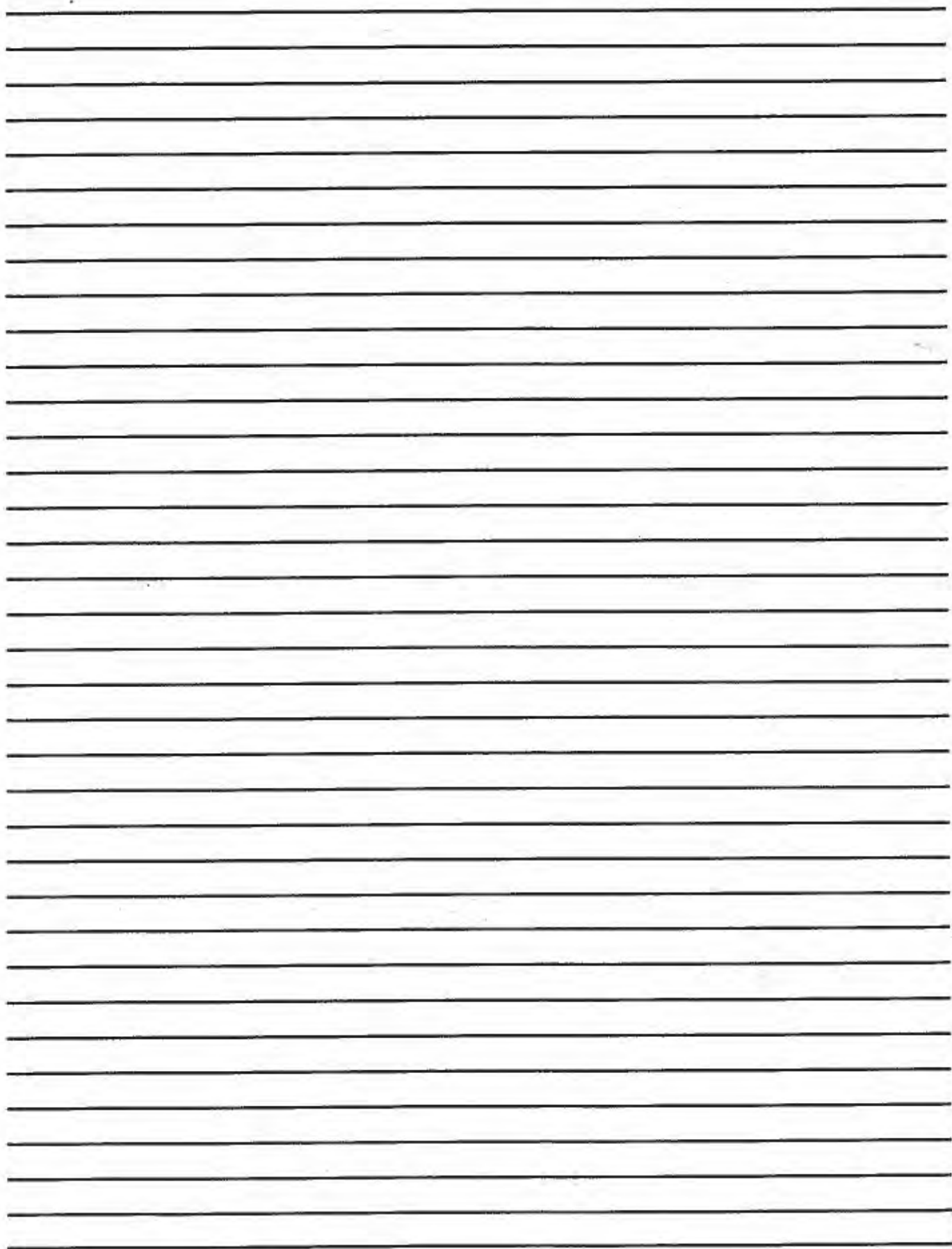
☒ I would like to receive future environmental notices via email.

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department
1480 Main Street
St. Helena, CA 94574
Email: NHoush@cityofstheleena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

1. Concerned about water run-off into the river after heavy rains and water from the Dam into the river. Also more run-off into the park.
2. "Big" impact of sewer lines connecting to our sewer lines, causing bigger problems. Our lines are about 40 yrs. old.
3. The flood project has held for Vineyard Valley, but with 85 new homes this could fail badly. The flood walls and run-off basin may not hold and spill into our Park.
4. The need for land fill up to road level could eventually erode and could flow towards V.V. over the years.





HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Rosalie and Paul Blumberg

Email: rosapaul@att.net

Address: 2 San Ardo Court

Organization: California Teacher's retirement association

☒ I would like to receive future environmental notices via email.

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department

1480 Main Street

St. Helena, CA 94574

Email: NHoush@cityofstheleena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

My husband and I have been residents of St. Helena for eighteen years and have enjoyed the safety and security of living in the Winery Valley Senior Park. Our manufactured home faces the Napa River. Since the flood plan included the building of a wall, we were imposed upon by the transportation of dirt back and forth close to the front of our house. The large and intrusive machines and equipment were a necessary part of the construction. If the flood wall is undermined, our house could be threatened.

Another important concern is the increased water

usage by the Hunter subdivision. Since we already are rationed in the dry season, to use on outside bushes and trees, I can imagine how much greater the problem will become).

That but not least, the sewer project down Paseo Grande (our main road entering and leaving) could seriously impact our accessibility ^{in case} of emergency situations such as last summer's fire threat.

Please consider these important impacts on the lives of so many including those of us elderly people.



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Barbara & Thomas Ringenberg

Email: barbara..st.helena@gmail.com

Address: 9 Los Robles Ct, St. Helena, CA 94574

Organization: _____

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Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department

1480 Main Street

St. Helena, CA 94574

Email: NHoush@cityofstheleena.org

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1. What seems most obvious, overall Environmental Impact, including but not limited to: Sewer/sanitary overflow potential; long-range (surface area) potential flooding increase to Vineyard Valley; ACOE project & preserve and new development to itself.

(1-B) In consideration of these threats, developer should be required to provide a minimum of \$250,000 flood insurance for EIR homeowners within Vineyard Valley MHP, as well as sewage liability rider, with agreed upon maximum policy. Flood insurance liability coverage would also be in the event of flooding from ANY source: i.e. Storm water drainage, other run-off/broken lines, etc. Current flood plain plan does NOT support further growth. Should be FEMA certified BEFORE any consideration.

2. Environmental Impact to traffic, roads, utility maintenance.
Access/Egress/overall traffic flow.
 3. Access in Emergency/Evacuation. Pratt St. Bridge access has not been re-checked; already less evacuation routes. More housing of this magnitude (any multi-unit development) should NOT be CONSIDERED until current evac access is updated and improved substantially - especially for any growth consideration. Some cost deferred to Developer.
 4. Does any development contribute financially to a long-term contract to support expanded emergency/fire/police services?
 5. Impact/Enviro Study regarding water flow direction, to current homes/flood plain.
 6. Traffic Safety Study.
 7. Road and periphery (sidewalks, lights, etc.) cost of maintenance - short & long-term.
 8. Additional Bridge development: w/a study on engineering, property & safety costs included.
9. Cost of Flooding to City & Individuals (Report: Developer carries Flood liability insurance for existing neighborhoods).
Long-Term!
10. All these health and safety concerns are significant. All these are before even addressing the obvious concern regarding the value of the aesthetics we enjoy as a community and the daily use of this community (as a whole) of the beautiful trail and natural preserve being considered. The only real long-term Benefactors of such a proposal is the financial gain of the developer(s). At what cost to those of us who live here; those who will have to pay in natural beauty and spiritual connection now - and financially in the future. Traffic will be intolerable; the sense of this small hamlet's pride in our love of the natural blessings here diminished more. The potential for possible disasters increased.
- So the question becomes "who are you serving if you give consideration to approving a development the community at large vehemently opposes."



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Diane Barr & Kenneth A. Young

Email: barr.young@comcast.net

Address: 12 DEL RIO COURT

Organization: Vineyard Valley resident

☒ I would like to receive future environmental notices via email.

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department
1480 Main Street
St. Helena, CA 94574
Email: NHoush@cityofstheleena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

My major concern is the impact on the Flood Project. The Levee in particular as well as the drainage pumps and drainage ponds that get pumped back into the river. Plus the density of the homes will provide a strain on water and sewage resources. The impact on the peacefulness and security of Vineyard Valley will be most unpleasant. Please relocate the Hunter Project to another part of St. Helena.

I am also concerned about the Peace and Quiet of

Vineyard Valley, Along with increased traffic
and The impact on our privacy.

Thank you,

Diane & Sam

Kenneth & Young



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Suzanne James

Email: sdayjames@earthlink.net

Address: 32 Redondo Ct - Vineyard Valley

Organization: _____

☒ I would like to receive future environmental notices via email.

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department

1480 Main Street

St. Helena, CA 94574

Email: NHoush@cityofstheleena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

I have grave concerns related to the proposed plan for the Hunter project adjacent to Vineyard Valley.

- 1) My major concern has to do with density: 85 units at 2-3 persons/unit = 170-255 people added to our small community of @ 5000. Each will likely have a car - are 170-255 parking spaces provided. This will lead to a lot more congestion on roads that are already congested! Please consider 1 unit so as to have 1 density.
- 2) Issues with water and sewer now going thru our community here in VV which already overflows during storms
- 3) Access is cluding for emergency vehicles.

- 4) If flooded again cities and taxpayers are on the hook.
- 5) potential levee failure
- 6) Undermining of the very expensive flood wall
- 7) City maintenance of the catch basins, Napa River flowing thru this area, and levee.
- 8) River and levee walks remain open to public
- 9) Tree and landscape between the properties as vistas will be impacted.
- 10) Elevation of these houses will be well above ground level - the impact to the existing flood plain needs to be studied.
- 11) Would like to see additional land devoted to affordable housing, which Arcata is our community's greatest need, not more McMansions.
- 12) My hope is that the EIR will take these issues seriously and examine carefully, for practicality and impact. I believe that this project needs to be compressed to perhaps $\frac{1}{2}$ the proposed units and even then. I quit my teeth as this will affect our VV community the most.

Thank you for your kind consideration of my deeply held concerns.

—Lynne James



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Herman G. Dingess

Email: CHIPD352@comcast.net

Address: 17 Del Rio Ct.

Organization: _____

☒ I would like to receive future environmental notices via email.

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department
1480 Main Street
St. Helena, CA 94574
Email: NHoush@cityofsthelelena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

- ① Does ANYBODY LOOK Beyond St. Helena to understand the
TRAFFIC which is going to INCREASE w/ Development of New
RESORTS in CALISTOGA.
- ② Septic system to be connected w/ Vineyard Valley? We already
have SEWAGE Pumped on OCCASION - Really Not more?
- ③ RETRO Fitting homes in St. Helena to ACCOMODATE non potable
well water - ONLY IF DEVELOPER PAYS totally for this bright
IDEA. Absolutely NO COST to St. Helena City or Residents
- ④ IF the property is to be used, PLEASE make a PARKING Lot
FOR over Flow of Hunters Cove Residents, Lets be PRACTICAL
INSTEAD of GREEDY.
- ⑤ AS I Don't BELIEVE ANYONE Really CARES but VINEYARD

Valley is AN OVER 55 community so PEACE AND QUIET
IS ONE OF THE BASICS FOR THIS KIND OF COMMUNITY.
TO KNOW THE IMPACT ON THOSE WITH FIXED INCOMES
DOES NOT STEER MUCH WITH THOSE LOOKING TO MAKE A
SCORE, IT DOES CREATE UNREST TO SENIORS. PLEASE
BE ADVISED ON THIS SUBJECT

APR 10 2018

1480 Main St.
St Helena, CA 94574

Water/Flooding

- 1) In case of flooding will the city be responsible for damaged homes since there is higher risk of flooding in this area - (more likely with climate change)

2) Noise

During construction how will the project be monitored for noise levels to not go above an acceptable level? Will an acceptable level be determined before project begins? Who will monitor this and how often? What hours will no construction be allowed? Weekends?

Fire

- 3) With increase of new homeowners, will the volunteer Fire Dept be able to continue or will we have to discontinue it and have fully paid fire dept? If so, what will increase of cost ^{be} to each resident in town?

Housing

- 4) Will the Hunter project increase ~~for~~ need for worker housing: more teachers, firefighters, City staff etc.

Air Quality

5.) Traffic/CARS

What higher levels of greenhouse gas emissions are expected ~~by~~ for St. Helena as a result of this project being built? How many new trees will be planted to accommodate for this increase?

Will new trees be larger more mature trees? (Young seedlings take years to mature)

Will native trees be planted such as Blue Oak etc ~~to better~~ since they are drought tolerant? Also require little maintenance.

6.) Safe + accessible Bicycle + Walking Paths

How many new walking/running/bicycling paths will be added so new homeowners can walk, ~~and~~ bicycle or run downtown? Large trees with canopies providing shade need to line path. With hotter summer days, shade should be a must.

Combined with expected increases of tourist visiting winery event centers year around, are there enough roads in St. Helena to handle daily residential drivers as well as tourists, buses + taxis? Will we need more

7) Stop lights + intersections?

If so, will developer pay for necessary infrastructure improvements/additions - ?

8) Viewsheds

What viewsheds are being destroyed by Hunter project? Should new houses be limited to 1 story? Should homes be planned to NOT block views from other residents as much as possible?

9) Parks Open Space

How much open space will east side of town be losing with Hunter Project? Are there areas near Hunter project that will be designated for new parks or Open Space?

10) River Protection

How will riparian area near Napa River be protected from pesticide^{or toxic} runoff? (from lawns, gardens, garages etc)

11) Water Conservation

What measures will city take to implement a water conservation plan that is on-going year-round for residents + wineries? What proof or evidence does city have to show our town is capable of supplying residents + businesses enough WATER for reasonable quality of life on a daily basis for next 10-30 years? Do we have enough WATER for Hunter Project? (Shirley MC)

12) Parking

Will there be adequate parking for all homeowners & those living in apartments or affordable housing?

What steps will be taken to make sure there isn't massive overflow of parking into other neighborhoods?

Will parking rules, laws, be monitored on an on-going basis?

13) Staff AT City Hall

Will increase of town's population require more staff at City Hall in regards to maintaining, monitoring parking, safety, air-quality etc? If so, what cost will be passed on to residents?

Hunter EIR

4/9/17

Once this project is built what will happen to the trail? I currently use that trail to walk my dog with my kids almost every day, and I don't want to see it go. I live down the street from the trail and there isn't anything else like it within walking distance from my house.

Sam Hilger

HUNTER ENVIRONMENTAL REPORT QUESTION

THIS PROJECT IS HUGE. HOW MANY NEW PEOPLE WILL BE ADDED IN SAINT HEENA?

WILL THERE BE MORE POLICE AND FIRE?

I HEARD WE COULD LOSE THE VOLUNTEER FIRE DEPARTMENT GUYS BECAUSE THE CITY WOULD BE TOO BIG. IS THAT TRUE? HOW WILL TAXPAYERS GET FIRE SERVICE? WHO WILL COVER THE COST OF PAID FIREMEN?

DO THE AFFORDABLE SUBSIDIZED APARTMENTS ^{AND HOUSES} PAY PROPERTY TAXES? WILL MY TAXES GO UP?

WHAT ABOUT POLICE? DO TAXPAYERS HAVE TO PAY FOR MORE POLICE? DO WE NEED MORE POLICE WITH ALL THESE NEW PEOPLE?

WHY ARE WE LETTING SOMEBODY PLOW DOWN THE VINYARDS? WE ARE SUPPOSED TO BE ALL ABOUT AGRICULTURE. HOW MUCH VINYARD WILL BE PLOWED OVER? WE USED TO CARE ABOUT FARMING. WHEN THE VINYARDS ARE GONE, WE'RE JUST ANOTHER CITY LIKE NAPA AND SANTA ROSA. HOW CAN THAT BE REPLACED? WHAT'S THE PLAN FOR THAT?

TOM CASTELLI 

Noah Housh

From: Mariam Hansen <wartuhi@comcast.net>
Sent: Saturday, March 31, 2018 10:23 AM
To: Noah Housh
Subject: Comments on the Hunter Project EIR:

Comments on the Hunter Project EIR:

A crucial component of the EIR must be the effect of adding 87 new hookups to the St. Helena water system. This must not be considered for this project alone. Approved projects and new proposals would add an estimated 650 new residents to town—all east of Main Street. Add these:

Castellucci project Pope Street: 51 homes
Castellucci 14 acre vineyard on Pope: winery, house, and apartments on the west side of College Avenue.
684 McCorkle Townhomes (Brenkle Court) 8 units approved and started
632 McCorkle Apartments 8 units approved and started
Turley Flats Apartment on Pope at Main- 8 units approved and started
Montessori Middle School 25 students
Komes Custom Crush Facility 890 Dowdell Lane, La Fata Street 120,000 gallons
Redmond Winery Conversion (Dowdell Lane) 24,000 gallons/year winery uses + commercial kitchen
Farmstead Resort 1000 Mills Lane 65 hotel units
Source: <http://cityofstheleena.org/planning/project/pl18-008-567-pope-st-castellucci-winery-design-review-use-permit>

It would be irresponsible to strain the St. Helena water supply further. California is getting drier. Consider these quotes from the newspaper:

The Mercury News 2-21-18:

"Amid one of California's driest winters in modern history, state water regulators on Tuesday met in Sacramento to consider making permanent the water-wasting rules that were in effect during the last drought — rules that would carry fines of up to \$500 per violation."

Quotes from the St. Helena Star of 2-15-2018:

The council also approved contracts to install equipment measuring how much water the city diverts from Bell Creek, and to conduct studies that will lay the groundwork for a permanent bypass plan within the next 12 to 18 months. The interim plan approved Tuesday requires the city to bypass more water from the reservoir to the creek between Nov. 15 and April 15. The city's permit already prohibits the city from storing water that enters the reservoir between April 16 and Nov. 14.The new flows would only affect

the city's water supply during drought years.... Galbraith cautioned that the reservoir is "not in happy condition" amidst an unusually dry rainy season. It was at only 58.9 percent of full capacity as of Monday..... The city's 600 acre-foot Napa water contract "basically replaced the water that we used to take from Bell Canyon until we came into compliance with our state permits," Galbraith said.... "That's a heck of a hit we've already taken to Bell Canyon, and I just don't see that the city can risk any further material hit to Bell Canyon without significant interruption of economic life here in St. Helena," he said.

Quotes from the St. Helena Star of 3-29-18

"In late February, with the reservoir hovering below 60 percent, city officials warned of water restrictions that could include a drought surcharge for ratepayers. Permits prohibit the city from capturing any rain that falls between April 15 and Nov. 15 in Bell Canyon reservoir. "the 2017-2018 rainfall year is still only about two-thirds of normal." "If the reservoir does run low, the city could theoretically ramp up production from its other two water sources: the Stonebridge wells near the Pope Street bridge and water pumped in from Napa. However, while St. Helena has the option of buying an additional 200 acre-feet a year from Napa on top of the usual 600 acre-feet, it's questionable whether the pipes and pumps that connect the two water systems could actually deliver that much water, Mayor Alan Galbraith said."

Parking: At noon on a weekday it is almost impossible to find a parking space, even in the large Safeway and Sunshine parking lots. This is true at other times as well. If we add 650 new residents to the east side of St. Helena residents will not be able find parking to do their grocery shopping.

Garbage: Where will all the garbage do when Clover Flat landfill is full? Fire debris has already taken 3 years off the useful life of the landfill.

Thank you for the invitation to respond to this matter.

Mariam Hansen

5 San Lucas Court

St. Helena

Noah Housh

From: Cindy Tzaopoulos
Sent: Tuesday, April 10, 2018 3:13 PM
To: Noah Housh
Cc: Xinia Gamero
Subject: FW: Hunter Project

FYI

Thank you,

Cindy Tzaopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzaopoulos@cityofstheleena.org
www.cityofstheleena.org

From: sandra barros [<mailto:sbarroswinegeek@hotmail.com>]
Sent: Tuesday, April 10, 2018 2:59 PM
To: Cindy Tzaopoulos <ctzaopoulos@cityofstheleena.org>
Subject: Hunter Project

Hello City Clerk's Office.

I have lived in St. Helena for over 14 years, and have concerns over the Hunter Project that I would like to voice and have addressed.

The first concern is with all the projected houses to be built. Where are the plans for the streets, and housing? If there are to be "low cost" housing to be included, my understanding is there is nothing to stop me, or anyone else from buying one, and either using it for a weekend home, or renting it out at market value, which is ridiculously high here.

I live off of Voorhees Circle where there are some state regulated housing units on part of that circle. I have no problem with those units and their regulations, since they are mandated by the state, and encourage ownership to people who would not be able to buy anything in St. Helena any other way. But since the "low cost" housing that is being proposed, has no protection, how are those units going to serve the people who would like to live and work in St. Helena that can't afford a \$600,000 condo or a 1.5 million dollar 2 bedroom house?

Another concern is since the housing is supposed to go behind the levy, and if it fails, the city of St. Helena is responsible for damages, law suits, etc. If we are so hurting for money, why would we put ourselves in the middle of that storm? Levys do fail, and we have no guarantee that they won't.

I work at a place that was built 3 years ago, and we have had 3 leaks in the sewer pipes, closing the bathrooms, and flooding the parking lot. I know that it's not a levy, but it is an example of new construction that is faulty.

I also have concerns with all the new streets and sidewalks, and flooding. Drainage on a flood plain is always problematic, and with not much dirt to soak up the water, I see that as a potential problem in a heavy rainy season.

Also, the citizens of St. Helena use that beautiful walk past the library down to the river, which is one of the few open areas that we can walk with or without our dogs, legally. That walk would be sorely missed by a huge part of the population.

And then there is the additional traffic. All the people living there, if they work in St. Helena, are retired, or use it as a second home, want to shop in Napa where many people shop now, and will drive within town. They will all filter out from the same roads onto Hwy. 29. The signal will be backed up with traffic during the peak times, making turning onto Hwy. 29 even more difficult than it is now.

Thank you addressing these concerns of mine.

Sandra Barros

Noah Housh

From: Henry Gundling <henry.gundling@gmail.com>
Sent: Monday, April 02, 2018 9:44 AM
To: Alan Galbraith; Peter White; Paul Dohring; Mary Koberstein; Geoff Ellsworth
Cc: Mark Prestwich; Noah Housh; Grace Kistner
Subject: Hunter Project

April 2, 2018

Dear Council Members,

It was approximately ten years ago that the Hunter Project first came to my attention through a newspaper article in the "Star". That same week my wife and I received an alarming notice from the City of Saint Helena announcing Phase II water restrictions due to drought, even though the real drought was still some years in the future.

Hunter is back again, and is just as unwanted a proposal today as it was then, because of our water constraints, and because of a host of other, widely discussed concerns.

The developer has done his darndest to slap copious low-income housing lipstick on this high-end pig, but the reality is that it promises major impacts for Saint Helena residents in exchange for minor affordable housing benefits, particularly when one considers the additional personnel that will be needed to support the projected increase in overall population caused by the huge project.

Some years ago, in the interest of protecting our disappearing agricultural communities, the Association of Bay Area Governments (ABAG) wisely reduced the burden of new housing for rural Bay Area communities. As a consequence, and thanks to new low-income housing projects like McCorkle and Turley, Saint Helena's Regional Housing Need Allocation (RHNA) is largely satisfied for some years to come.

Nevertheless, there remains an acute shortage of affordable, workforce housing. To the extent new housing is built, it should focus laser-like on workforce and low-income housing, NOT large developments offering expensive homes unaffordable to our workforce, and creating the need for even more workforce. We need more Turley's and McCorkle's, as close as possible to downtown services, transportation and schools, and maybe even on the west side of the tracks to foster integration.

Saint Helena is at the same crossroads reached by Vail and Aspen fifteen years ago. Because of wise planning, policies, and forward thinking, Aspen reportedly continues to be a real town, with real people, and with service clubs, churches and bars filled with locals. Vail chose a different path. Its workers suffer long, grinding commutes to run the town's businesses and provide its services, and the bars are largely filled with out of state visitors.

We don't need Hunter. We urgently need creative strategies to be Aspen, not Vail.

Thank you for your commitment and sacrifice for our fair city.

Henry Gundling

Noah Housh

From: Carroll Cotten <carrollcotten@comcast.net>
Sent: Saturday, April 07, 2018 9:51 AM
To: Noah Housh
Cc: vineyardvalleymhp@gmail.com
Subject: Hunter Subdivision Project

Thank you for providing opportunities for public response to the proposed Hunter project.

Regarding EIR concerns, this proposed project raises many red flags. The following are the primary ones that concern us:

1. The potential negative impact on the efficiency and safety provisions of the existing flood control construction,

which now provides excellent, proven flood protection. Are you consulting with FEMA and the Army Corps of

Engineers regarding this issue?

2. Inevitable increased auto traffic on nearby Adams, Starr, Pope and Main Streets, which are already experiencing

excesses at various times. Can the Pope Street Bridge handle the additional traffic?

3. If the project lacks adequate parking (a minimum of two spaces per household), this will create a huge on-street

parking excess like Starr has now.

4. Is there sufficient water available to support the Hunter project, knowing we have rationed water for SH residents

in the past and can anticipate doing so in the future?

Regarding the larger issue of new construction for the improvement of St. Helena, we understand the primary community benefit the Hunter project would bring is more affordable work force housing, apparently limited to the 25 units now designated low income. City revenues will not be significantly increased by Hunter project property taxes. Whereas, the Adams Street property slated for some future development has great potential for significantly increased

city revenue. So, it is imperative to know how the Hunter project will impact the Adams Street planning and development.

Carroll and Ellen Cotten

1 Del Rio Court

Saint Helena CA 94574

Noah Housh

From: Kathleen Forni <kforni.syar@gmail.com>
Sent: Monday, April 09, 2018 2:30 PM
To: Noah Housh; Chuck Vondra
Subject: EIR and NOP for Hunter Project

Mr. Housh,

I have lived in St Helena for 38 years and my husband was born here. We are so disappointed in the drive for growth that our Planning Committee exhibits. We just came off 5 years of drought with only 1 year of decent rain and you are looking at allowing 85+ new housing units in the Hunter Project. Where are you going to get the water?

We were subject to water rationing for several years and allowed our lawns to die in order to be good citizens. So far this year, I believe Napa Valley Basin has under 20" of rainfall. I believe it is irresponsible of the Committee to approve any development of this size based on the water issue alone.

Then we have the traffic on Starr and Pope Street. Already the cars speed down Starr and at least one boy was hit by a car when he was leaving Harvest Lane on his bicycle. When 85 new homeowners are added to the equation, you should expect to have a greater problem.

Unless there is a new source of water and new streets leading out of St. Helena to Highway 29 and Silverado Trail, we believe this project should be denied.

Sincerely,

Mike and Kathleen Forni
610 Harvest Lane
St. Helena, CA

April 9, 2018

Noah Housh

Planning and Community Improvement Director City of St. Helena

1480 Main St., St. Helena, CA. 94574

Dear Mr. Housh,

I have a few concerns that I want to be sure are addressed in the EIR for the development of the Hunter subdivision located just north of Vineyard Valley Mobile Home Park where I live.

1. Is that property higher than Vineyard Valley and will construction of homes involve raising them 18 inches from ground level?
2. Will drains be positioned in a manner to direct run off from storms and sprinklers away from Vineyard Valley?
3. Can sewer lines be directed toward and connected to those on Adams instead of flowing through the main street of Paseo Grande in Vineyard Valley?
4. Was the retention basin located in the flood control project basin designed to accommodate the proposed construction of 87 homes? This needs to be verified in the EIR of the flood project.
5. Was the construction of 87 homes considered when the EIR for the flood project was written? This factor also needs to be found in the EIR for the flood control project.

I know that one of the basic principles when building the flood project was that it would not cause flooding upstream or downstream of Vineyard Valley. It must be a basic principle designed and engineered into the Hunter subdivision that the building of those homes will not cause flooding anywhere including Vineyard Valley, Hunts Grove and all the surrounding residential areas. I would like to see a FEMA consultant look at their plans and determine if the building of these 87 homes will affect the flood plain designation as it now stands.

Finally, I think it is much too early to even start an EIR. The Hunter company has not submitted final plans but only loosely defined plot maps. They should be required to have more completed plans before an EIR is begun.

Thank you for your consideration and for passing this on to the appropriate firm who will be writing the EIR.

Priscilla J. Dell

25 San Juan Court

St. Helena, CA. 94574

Noah Housh

From: kamccreedy@gmail.com
Sent: Thursday, April 12, 2018 8:27 PM
To: Noah Housh
Cc: Shelly DiFede
Subject: Hunter subdivision project

Dear Mr. Noah House and all it may concern,

I am a current resident of the Vineyard Valley residential community directly adjacent to the proposed Hunter Subdivision.

Please see the "below list of concerns" that I along with my husband and many neighbors have regarding this proposal.

I would appreciate an in-depth re-evaluation of our concerns in all of these areas.

In addition to the aforementioned items...please address concerns about wildlife areas within the city limits. I have witnessed a bobcat along the river, blue herons, egrets, lots of hawks (even a pair of mating hawks in the oak trees along the back wall of Vineyard Valley).

I am seeing less and less coyotes, squirrels, birds, ducks and skunks.

It is rare to see any deer at all within the city limits and even within Napa County.

The wildlife used to be a very special part of our small town, making hiking and biking, walking a very special experience.

Please take this into consideration with any planning for any reason our very fragile wildlife corridor.

I would also propose any development for low income to be just that....low income.....not a high end Subdivision with a few low income units built to get special zoning consideration.

Thank you for your consideration of these comments.

Sincerely,
Kathleen and John McCreedy,
11 Los Robles Court
Saint Helena, CA 94574
(Saint Helena resident for 17 years).
Kamccreedy@gmail.com
707.280.1278

*****With the Hunter Subdivision Development just north of Vineyard Valley we are being positioned to accept a very large new neighbor. As the scoping for the environmental impact (EIR) is now in process, these next 25 days provides you a unique opportunity to *have your voice heard*.

Public Comment is being requested right now. You can speak up on concerns that you have and help shape this project or perhaps send it back to the drawing board. We have assembled here a few concerns that we and others have, related to this 85+ units of housing being proposed. Please take a moment and express your

- concerns and bring them to the office or deliver them directly to the city via email or regular mail. Here's your chance to influence beautiful St Helena and its future direction on the Hunter Subdivision Development! Please respond. (See attached response document)

Thank you

Comments and concerns expressed in initial meetings

- Sewer expansion/ sanitary overflow during the rain....as this new project will connect to our main sewer right down Paseo Grande (this concern confirmed with city engineering)
- Storm water drainage run off
- Emergency road access and river walk trail impact
- Tree and landscape between the properties as vistas will be diminished
- City services capacities in police and fire support
- True FEMA certified current Integration/impact with the flood plain plan in place
- Elevation of these houses will be well above ground level, the impact to the existing flood plain needs to be studied.
- Grading elevations and water flow direction could influence more run-off in our direction
- Traffic (Star Avenue and Pope Street)
- Traffic safety with increases surface street traffic
- Bridge development besides Pope Street

Other concerns expressed at the first 2 meetings

- If flooded again the cities and taxpayers on the hook
- Soil liquefaction
- Levee failure
- Undermining of the flood wall
- City Maintenance of the catch basins and levee
- Parking
- Vistas

Noah Housh

From: Cindy Tzafopoulos
Sent: Friday, April 13, 2018 5:44 AM
To: Noah Housh
Subject: Fwd: EIR Issues. Please put into the report

Sent from my iPhone

Begin forwarded message:

From: AnnMarie Whaylen <amwhaylen@yahoo.com>
Date: April 12, 2018 at 10:30:50 PM PDT
To: "cityclerk@cityofsthelena.org" <cityclerk@cityofsthelena.org>
Subject: EIR Issues. Please put into the report

Thank you for including my comments. It's late in the day, but I think it's still ok since the deadline is today from what I heard. I hope I am not too late. This seems like a terrible thing to do to Saint Helena.

I jog on the walkway that runs between the vineyards down to the Napa River. It's beautiful and I don't have to worry about cars, bikes, skateboards or running too close to pedestrians on the narrow sidewalks in town. There are tons of birds and wildlife all over the place. I see hawks, owls, doves, woodpeckers, starling swarms, in this area. What birds migrate through this big open area? Do they use this for migration, food, breeding, nesting? Where will they be pushed to, because this is an area right near a water source. This kind of remote quiet place seems like a perfect place for a bird habitat. There are plenty of food options like insects, rodents, fish, frogs and other tasty treats for these gorgeous birds. Will someone study this to make sure they are not chased away and how will they be affected. And what about the other animals that come to that area to eat and drink? Someone said they saw 2 river otters near the Pope Street bridge. What will happen when this is just a big subdivision?

I work in the wine industry like many of us in Napa Valley and Saint Helena. This will destroy agricultural land where vineyards are growing grapes for wine that is so important to our economy and is a big part of Saint Helenas history. The NY Times published a new study that shows the US is losing two acres of farmland every minute which is the fastest decline in US history. They state the loss has been where some of the country's best fruit farms are being replaced by houses. Isn't there a protection for farmland in St Helena? Most people I talk to support farming here.

Thank you.
Annmarie Whaylen

Noah Housh

From: Cindy Tzaopoulos
Sent: Thursday, April 12, 2018 6:53 PM
To: Noah Housh
Subject: Fwd:

Sent from my iPhone

Begin forwarded message:

From: Christine Hernandez <chernandezsmith@yahoo.com>
Date: April 12, 2018 at 6:28:44 PM PDT
To: "cityclerk@cityofsthelena.org" <cityclerk@cityofsthelena.org>

Sorry for the late entry but I hope you can still get this in.

These are questions about the project that we don't like at all.

1. My aunt lives in Vineyard Valley and loves being near the wide open space where the flooding used to occur. She sits and enjoys the breezes that from that area that cools down the mobile home park and brings her fresh air. She thinks she was told that the new houses will be many feet above the tops of the mobile homes, which would block all of the breeze and all of the view. She is also worried that it will be noisy and ruin the quiet peaceful environment that is there now. What will happen to the fresh air, cooling breeze, noise, and her love of the stars in the night when this project is built? If this project is built what will the final height of the houses be compared to the mobile homes in the park? How will they affect air flow, privacy, noise, and night lighting? How will that change those things? Is it fair to build houses so close and so high that it changes everything?
2. When the flood project was built, she dropped her expensive flood insurance because the City said the levee protected her. Bottom line then, if the levee breaks, will the flooding at her mobile home be different, like worse or better, than it is now with nothing built there?
3. If this housing causes more flooding than the amount of flooding without it there, who will pay for the damages to her property? Who will determine what caused the flooding, especially since she was told she did not have to worry about flooding anymore by the city?

Thank you,
Carlos Hernandez

From: Sandra Lowry
To: Cindy Tzafopoulos
Cc: Noah Housh; Mark Prestwich
Subject: HUNTER EIR
Date: Thursday, April 12, 2018 4:48:17 PM

Gentlemen,

I am writing on behalf of my husband, Cecil Lowry, and myself. Our address is 1175 Starr Avenue and we moved here in July, 1997. We are opposed to yet another development near our home on Starr Avenue.

The EIR should look carefully at traffic and parking. More developments mean more cars and trucks coming and going and where will they park? Already our neighborhood is impacted by overflow trucks and automobiles from the Hunts Grove residents parking up and down Starr and Meadowcreek Circle. We are additionally impacted by speeding vehicles up and down Starr at all times of the day and night, making crossing the street to visit a neighbor a hazard. The crosswalk at Starr and Meadowcreek Circle is basically ignored. Most importantly, all the traffic comes to a dead stop on Pope Street because of the Pope Street bridge. I believe the last EIR decided traffic was an unmitigable issue.

The EIR must look at the Hunter Project in terms of water consumption. Previous EIR study suggested a water neutrality by installing low flush toilets. Is this a joke? More people means more water use in common sense terms.

The proposed development will have many of the homes built behind the levee, in an area at serious risk of liquification, not to mention flooding, a disaster waiting to happen.

Thank you for listening. Sandra Lowry

Noah Housh

From: Cindy Tzaopoulos
Sent: Thursday, April 12, 2018 4:37 PM
To: Noah Housh
Subject: FW: Hunter EIR comments

Thank you,

Cindy Tzaopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzaopoulos@cityofsthelena.org
www.cityofsthelena.org

From: ann@nieman.org [<mailto:ann@nieman.org>]
Sent: Thursday, April 12, 2018 4:36 PM
To: Cindy Tzaopoulos <ctzaopoulos@cityofsthelena.org>; Cindy Tzaopoulos <ctzaopoulos@cityofsthelena.org>
Cc: ann@nieman.org
Subject: Hunter EIR comments

Hi Cindy – please add these questions to the EIR

Hope all is well. Weird weather, right? From 80 degrees to rain storms and 45 degrees. What season is this? ☺

Cheers,
Ann

Question #1

How will this project affect the St Helena city groundwater wells at the Stonebridge locations? The project plan states it will provide all the landscaping water for 87 houses' lawns, flowers, bushes, gardens, carwashes, and other watering uses. The number could be 20-40 units higher if the project includes regulated affordable housing. Since the well is located next to the Napa River upstream from the City of St Helena wells that supply our community with water, what mapping will be conducted to determine if the aquifers are connected? If they are connected, then drawing large amounts of water from the same groundwater source needs to be assessed so it does not deplete the City wells supply. Who will conduct the mapping? How many groundwater data points will be included in any mapping exercise? Will it be a sufficient number to adequately determine that the Hunter well is on an aquifer that is separated from the city aquifer? This question must be answered accurately, because the city relies on the groundwater from these 2 wells as a critical source of water in times of drought when Bell Canyon is depleted. (Example – the drought resulting in exposure of large portions of the bottom of the Bell Canyon reservoir.

Question #2:

The project area is in a low lying wet area on the historic floodplain for this part of the Napa River. It has flooded numerous times over the last 20-30 years. Even in non-flood years, large portions have remained wet during the summers, to the point that vine growth and production was hampered due to the wet soils. Presently, this area is covered with standing water during and after rains with water depths often 10-12 inches deep. The project will add millions of gallons (25 acre feet) of landscaping water annually to an area that has never been irrigated. Will the addition of paved surfaces, construction pads, streets and structures cause compaction of the soils/subsoils in the area? Will this cause subsidence or instability of structures in and around the project area over time? Will subsidence cause new unknown flooding issues?

Question #3:

There is an existing subsoil study on the project area that shows what is considered to be the profile of a historic pond, which is typical in areas proximal to meandering rivers. Since the area is a known liquefaction zone in an earthquake prone location, and soils of this type can be unstable, how will this affect the safety of the homes and the structural integrity of the levee in an earthquake or major flood?

Noah Housh

From: Patty Simons <patricia.simons.ps@gmail.com>
Sent: Thursday, April 12, 2018 4:35 PM
To: Noah Housh; Cindy Tzafopoulos
Subject: Hunter Project

Dear Mr. Housh,

My husband and I were at the first meeting at the fire house where the Hunter project manager presented the project and I was also at the second meeting in early April at the fire house. Many residents of St. Helena spoke about their Hunter project concerns regarding traffic, parking, water, open space, police and fire services, etc.

I wanted to add my two cents telling you that my husband and I have the same concerns as the people who spoke. I didn't want to waste everyone's time repeating what you already heard so I am sending a note. Unfortunately, we have been gone for the past month (due to a family emergency) so I hope you get this before the next meeting.

Kind regards,
Patty and Don Simons
831 Signorelli Circle
pattysimons@comcast.net
desimons05@comcast.net
707-967-0382 home

Noah Housh

From: Cindy Tzafoopoulos
Sent: Thursday, April 12, 2018 3:46 PM
To: Noah Housh
Subject: FW: Hunter Project

Thank you,

Cindy Tzafoopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzafoopoulos@cityofsthelena.org
www.cityofsthelena.org

-----Original Message-----

From: Tishna Pastrama [<mailto:pastrama@sbcglobal.net>]
Sent: Thursday, April 12, 2018 3:30 PM
To: Cindy Tzafoopoulos <ctzafoopoulos@cityofsthelena.org>
Subject: Hunter Project

The walkway to the river connects us with nature. There is no place like it in St. Helena. If this is next to a busy street or housing, how can you mitigate that loss?

Sent from my iPhone

Noah Housh

From: Cindy Tzafoopoulos
Sent: Thursday, April 12, 2018 3:44 PM
To: Noah Housh
Subject: FW: Comments and Issues for the Hunter Environmental Impact Report

Thank you,

Cindy Tzafoopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzafoopoulos@cityofsthelena.org
www.cityofsthelena.org

From: contact@shregp.org [<mailto:contact@shregp.org>]
Sent: Thursday, April 12, 2018 2:18 PM
To: Cindy Tzafoopoulos <ctzafoopoulos@cityofsthelena.org>
Cc: Mark Prestwich <MPrestwich@cityofsthelena.org>
Subject: Comments and Issues for the Hunter Environmental Impact Report

City of St Helena - the St Helena Residents for an Equitable General Plan respectfully submit these comments gathered from our group about the scope of the Hunter Subdivision EIR.

Parks: We have too few parks for all of the people that live here already. We are way below what the parks national number should be per capita. What will the parks ratio be when this project is built to the maximum number, including the density bonus? Since there is no information on the number of bedrooms or bathrooms, how will the number of new residents be determined so we will know how many people will be added to the parks we already have?

Impact on Adjacent Vineyards: What impact could occur in the soils and crops in the adjacent vineyards if homeowners use pesticides, such as RoundUp, or fertilizers on their lawns?

Impact on River: What will the impact on the Napa River be when hundreds of people move in next to it? Runoff from lawns, noise, runoff from oil from the streets, human activity affecting river wildlife, etc.

River Trail: If this trail and open area surrounded by vineyards and open space is paved or is next to a roadway, what will be available to the public to replace this natural trail paid for by the public?

Recreational Space: There are high numbers of multi-family and high occupancy housing in the vicinity such as Hunts Grove, Woodbridge, Edwards St, Church St, Monte Vista, Brown St, McCorkle, Vineyard Valley, Stonebridge, Peppertree, Mariposa, etc. There is extremely limited open space for recreation of any kind in this area. With the exception of Meilly Park, there is no public space other than the nature trail from the terminus of Adams to the Napa River. How will this loss of critical public space (the river trail)

accessible to all of these high density developments impact their ability to access public recreational space? How will that be mitigated? What will replace it? How will lower income and multi-family residents be able to access public open space and nature?

Safety: How will the safety of pedestrians be impacted when the extension of Adams is connected to Starr, particularly at the Hunt/Starr intersection?

Thank you,

SHREGP

Noah Housh

From: Krystine Smith <krysmith@mail.com>
Sent: Thursday, April 12, 2018 3:21 PM
To: Cindy Tzaopoulos; Noah Housh
Subject: Hunter Subdivision EIR

I am submitting the questions below for the Hunter EIR

1. The taxpayers paid for a recreational trail to be included as part of the flood project. St Helenans use that recreational trail from the end of Adams to the Napa River all of the time. If this area for walking, jogging, dogs and enjoying peace and quiet includes an Adams St extension or housing, and is no longer a peaceful environment for the public to enjoy, how will that be mitigated? What will replace it?
2. How will the lights from this project affect the night sky for everyone in the area, including the nearby hillsides?

best,
Krys Smith

Noah Housh

From: Cindy Tzaopoulos
Sent: Thursday, April 12, 2018 1:55 PM
To: Noah Housh
Subject: FW: Hunter EIR comments

Thank you,

Cindy Tzaopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzaopoulos@cityofsthelelena.org
www.cityofsthelelena.org

From: Jonathan Newsome [<mailto:jjjnewsome@gmail.com>]
Sent: Thursday, April 12, 2018 1:49 PM
To: Cindy Tzaopoulos <ctzaopoulos@cityofsthelelena.org>
Subject: Hunter EIR comments

City Clerk - please distribute as needed.

Here are a few comments about the Hunter EIR. The first two I sent back in December, plus I added a couple more.

1. In the Transportation section, all of the scenarios should start with Existing conditions, which means no access to the trail on Pratt. There are no plans/funds to fix that bridge at this time that I know of, so we must assume that that defines Existing. The Pope Street bridge is under additional stress from no Pratt access and the Hunter EIR should address how a new development will further stress that situation.
2. Understanding of extreme weather events has increased in the last six years since the old EIR was started. It is clear that FEMA maps that do not include climate change are inadequate. The new EIR should incorporate consideration of the all too common extreme weather events which will increase flood risk. How will climate change be incorporated and how does it change flood maps and flood risk?
3. We walk down the trail that leads to the Napa River almost every day at different times. We see birds, rabbits, hear bullfrogs and crickets, etc. This area is teeming with wildlife and probably serves as a watering hole and food source to countless wildlife species. How will the paving of this area, nighttime lighting, and addition of hundreds of cars and humans impact the wildlife that lives in the area or migrates through? Which species will be impacted and how? What research will be conducted to determine this?
4. What is the air quality for the surrounding neighborhoods during the project construction? Some of us have respiratory issues, and we want to know how long and how seriously our air quality environment will be impacted. Please be specific on the types and quantities of impact.
5. How much traffic on Starr, Hunt, Pope, and Adams will be added? How many cars will the project add specifically, and how will this be counted since there is no information on housing types?

Thanks,
J. Newsome

Noah Housh

From: Tim Nieman <tim@nieman.org>
Sent: Thursday, April 12, 2018 1:37 PM
To: Cindy Tzafopoulos; Noah Housh; Mark Prestwich
Subject: Scoping comments on Hunter EIR

I'd like to submit the following comments for the Scoping of the Hunter EIR

Groundwater usage on the site

The estimates of historical groundwater usage on the site need to be redone. The previous EIR made some highly questionable assumptions about historical groundwater usage, leading to an estimate of pre-flood-project groundwater demand on the site of 22 AF. There are two errors in the consultant's methodology rendering this estimate much too high.

1. The consultant assumed that all of the vineyards on the site were historically irrigated. There is little need to irrigate this wet vineyard and there is no evidence that there has ever been an irrigation system on the site, so the assumption that the well was used to irrigate the entire site is unfounded. There are no remnants of piping or any other irrigation components currently. And, vintners adjacent to the site who have lived here for decades do not recall there ever being such a system. The property is adjacent to the river and is one of the wettest vineyard locations in the valley. There is little need to irrigate there. Adjacent vineyards which are up dip and drier are all dry farmed. If the assumption is to be made that irrigation once existed for the entire vineyard, it is incumbent upon the consultants to prove that such a system existed.
2. The consultant assumed vineyard irrigation rates from the Oakville area, a much drier area farther from the Napa River. Even if this area was ever irrigated, Oakville irrigation rates are too high. Again, this is a wet vineyard which would need water only rarely in the driest of years, if at all.

Therefore, historical groundwater pumping on the site was likely localized, sporadic and minimal. The actual usage would be a small fraction of the 22 AF. What are the new estimates of historical production? What data are used to justify those estimates?

Impacts on the Napa River, including fish

The existing groundwater well on the site is only hundreds of feet from the Napa River. If the aquifer being accessed is at all connected to the river, then the well is drawing down from the Napa River, impacting river flows and fish habitat. What is the connection to the Napa River? How much is the impact on river flow from pumping on the site at different rates? A groundwater hydrology study should be undertaken to determine the connection to the river.

Impacts on City Groundwater Supply Wells

The existing groundwater well on the site is up dip of City water supply wells and the proposed levels of use could impact City wells. Is it the same aquifer? How would pumping on the site affect groundwater levels in the City wells, at different rates? A groundwater hydrology study should be undertaken to determine if there is a connection to the City's groundwater supply wells and the potential for drawdown of those wells.

Noah Housh

From: Mark Prestwich
Sent: Thursday, April 12, 2018 2:49 PM
To: Noah Housh
Subject: FW: Comments and Issues for the Hunter Environmental Impact Report

FYI

From: contact@shregp.org <contact@shregp.org>
Sent: Thursday, April 12, 2018 2:18 PM
To: Cindy Tzaopoulos <ctzaopoulos@cityofsthelena.org>
Cc: Mark Prestwich <MPrestwich@cityofsthelena.org>
Subject: Comments and Issues for the Hunter Environmental Impact Report

City of St Helena - the St Helena Residents for an Equitable General Plan respectfully submit these comments gathered from our group about the scope of the Hunter Subdivision EIR.

Parks: We have too few parks for all of the people that live here already. We are way below what the parks national number should be per capita. What will the parks ratio be when this project is built to the maximum number, including the density bonus? Since there is no information on the number of bedrooms or bathrooms, how will the number of new residents be determined so we will know how many people will be added to the parks we already have?

Impact on Adjacent Vineyards: What impact could occur in the soils and crops in the adjacent vineyards if homeowners use pesticides, such as RoundUp, or fertilizers on their lawns?

Impact on River: What will the impact on the Napa River be when hundreds of people move in next to it? Runoff from lawns, noise, runoff from oil from the streets, human activity affecting river wildlife, etc.

River Trail: If this trail and open area surrounded by vineyards and open space is paved or is next to a roadway, what will be available to the public to replace this natural trail paid for by the public?

Recreational Space: There are high numbers of multi-family and high occupancy housing in the vicinity such as Hunts Grove, Woodbridge, Edwards St, Church St, Monte Vista, Brown St, McCorkle, Vineyard Valley, Stonebridge, Peppertree, Mariposa, etc. There is extremely limited open space for recreation of any kind in this area. With the exception of Meilly Park, there is no public space other than the nature trail from the terminus of Adams to the Napa River. How will this loss of critical public space (the river trail) accessible to all of these high density developments impact their ability to access public recreational space? How will that be mitigated? What will replace it? How will lower income and multi-family residents be able to access public open space and nature?

Safety: How will the safety of pedestrians be impacted when the extension of Adams is connected to Starr, particularly at the Hunt/Starr intersection?

Thank you,

SHREGP

Noah Housh

From: David Wilkinson <david@twgexperiential.com>
Sent: Thursday, April 12, 2018 4:11 PM
To: Cindy Tzaopoulos
Cc: Noah Housh; Mark Prestwich
Subject: Hunter Project-ERI Scoping Input

To the City Clerk, St. Helena, et al,

This note is a submission in response to the request for input on the Hunter Property Development EIR scoping exercise.

As you may be aware my home is located somewhat at ground zero of this proposed development and the results of the EIR impacts me very directly and those of my immediate neighbors and the greater St. Helena community dramatically. The EIR, which seems to be evolving with considerable thought, does seem to be predicated on some larger issues that are being relegated to past decisions that do not appear to be as well thought out and that is concerning to me, substantially.

I am relatively new to the community and while attempting to discover what has been a very long process in developing this property there are more questions raised than answered. I would consider myself pro-development but with the caveat that any development is very well thought out, vetted intensely, and evolved with the best practices for the whole community/City in its considerations and approvals. I am pro-development, and not a developer. But I know instinctively when something is not of the potential standard that the community needs and deserves. The very few illustrations of this development that I have seen are of the poorest creative quality that I could imagine and certainly do not seem to fit any, even minimal, urban plan for our City although I have made some efforts to discover what that may actually entail. As I stated in one of the public meetings I am somewhat baffled by the rush to move a poorly defined project forward without much more discovery.

These comments are somewhat outside the bounds of the Scoping Request but the Discovery process is directly related to that Request. I have heard of my neighbors concerns, and they are ground zero concerns, and whole community concerns of mine as well in relation to traffic, water, resources, noise, costs, liability, and impact on every aspect of the future of this City that I am quickly coming to value and appreciate deeply.

Somewhat disconcerting is the revelation that a previous EIR contained information which is to be transported into the new EIR without review. I am particularly concerned with the whole process of developing the levee and its viability particularly relative to the news of so many levees and similar structures in Houston, New Orleans and elsewhere failing when they were supposed to be certified '100 year flood' capable. If this levee fails who is responsible for the destruction that will devastate so many in this community? Who pays for those types of catastrophes? I would ask that this issue not be swept under the proverbial rug and be added, in-depth, to the scope of the EIR work.

My thanks for your work and the commitment from every one of our councilors, City Staff and Executive and Counsel, the Mayor and all of those tasked with this EIR work and they all contribute to our future which is bright indeed.

David G. Wilkinson
704 Hunt Avenue
St. Helena, CA.
94574

1.415.608.5790
david@twgexperiential.com

Noah Housh

From: Cindy Tzafoopoulos
Sent: Thursday, April 12, 2018 4:20 PM
To: Noah Housh
Subject: FW:

Thank you,

Cindy Tzafoopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzafoopoulos@cityofsthelena.org
www.cityofsthelena.org

From: Wendell Laidley [mailto:wlaidley3@gmail.com]
Sent: Thursday, April 12, 2018 4:17 PM
To: Cindy Tzafoopoulos <ctzafoopoulos@cityofsthelena.org>
Subject:

Cindy,

The first photos are showing up now. Can you tell me if you receive this with the first 7 photos in it?

Just hit reply if you would. Thanks.

Wendell

Dear Cindy,

Please consider these comments regarding the scope of the Hunter EIR.

An earlier EIR dismissed flood risk for the Hunter Property behind the levee as "less than significant" as shown below ...

LETTER C4

Ron Amoroso

June 18, 2012

C4-1 This is an introductory comment. See Response to Comment C4-2 addressing the specific comments detailed in Mr. Amoroso's letter.

C4-2 While liability issues are not a subject that CEQA addresses, the Draft EIR does go into considerable detail regarding the potential for the levee to be overtopped or fail (see Draft EIR Impact HYD-4 starting on page 242).

With the acceptance of the Flood Protection Project and the revision of the Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map, FEMA has indicated that the project site has an acceptable level of protection from the 100-year flood event. This 100-year level of protection is the standard of significance that is specified by the CEQA Guidelines to determine if a potential flooding impact is significant or less than significant. In this case, the potential flooding impact, under CEQA, is less than significant.

That citation reports the "potential flooding impact, *under CEQA*, is less than significant."

With due respect to all, I consider the flood risk behind the levee and its potential consequences to be substantial, and ask that the flood risk be thoroughly studied so St. Helena residents and taxpayers do not become liable for damages occurred on that property when the levee alignment violated St. Helena's own 1993 General Plan, which contained this provision ...

Goals, Policies and Standards

Guiding Policies

- 9.4.1 New development should provide adequate drainage improvements to handle generated storm runoff from the site to the nearest major watershed. The watersheds include York Creek, Sulphur Creek and the Napa River.
- 9.4.2 If a City storm drain is available, the developer should participate in the funding to the extent it benefits the development.
- 9.4.3 Extension of existing downstream drains which have adequate capacity should be completed at the developer's expense with future reimbursement for oversizing costs at the time of connection by others.
- 9.4.4 Grading and earth filling within the designated 100-year floodway should not be permitted except for public streets or bridges.
- 9.4.5 Encroachments into the 100-year floodway should not result in any increase in flood levels during the occurrence of the base flood discharge.

... that "grading and earth filling within the designated 100-year floodway should not be permitted."

Unfortunately the Vineyard Valley development was developed directly atop the floodway to the Napa River, as shown on these photographs ...



and from the east side of the River ...



These photos show that the floodwater trapped behind the Vineyard Valley cinder block wall did not overtop the riverbank, but instead drained naturally from the watershed northwest of Vineyard Valley, toward the historic floodway now blocked by Vineyard Valley.

Disruption of that historic natural floodway caused both floods in 1986 and 1995 that caused over \$100 Million as documented by City Manager Johansson in his Project Summary report to Assemblywoman Noreen Evans and Senator Pat Wiggins ...

Project Summary Sheet

Project Name: City of St. Helena Flood Protection and Flood Corridor Restoration Project

Tracking No: 200784107

Location: City of St. Helena County: Napa, CA

County: Napa

Project Sponsor: City of St. Helena

Point of Contact: Bert Johansson, (707) 967-2792

Co-applicant(s): None

Assembly District: #7 Noreen Evans **Senate District:** #2 Pat Wiggins

Project Summary: The City of St. Helena Flood Protection and Flood Corridor Restoration Project will protect 488 existing mobile homes, single-family dwellings, and low-income multifamily units from flood damage caused by the Napa River overflow through the incorporated City of St. Helena in Napa County. This multi-objective project will provide flood damage reduction through restoration and re-establishment of the natural floodplain along the project creek frontage; construction of set back levees and overflow basins for transitory storage; and the re-creation and restoration of a natural floodway corridor. It will create more than 8 acres of high-value riparian forest and shoreline restoration for terrestrial and fish habitat on the Napa River, which is listed by the EPA as an impaired waterway and by National Marine Fisheries Service as an important steelhead and salmon recovery tributary of the San Francisco Bay Estuary. In addition, the project will allow residents to view and access this reach of the Napa River, which currently cannot be accessed.

The project addresses Flood Protection Corridor Program Goals by:

- **Floodplain Terrace** at more than 8 acres, the new terrace will stretch alongside the Napa River. This terrace will provide a wider area for passage of floodwaters and also provide riparian habitat for rare and common species.
- **Shoreline Restoration** Approximately 600 feet of existing bank protection riprap and wire gabion at the Vineyard Valley Mobile Home Park (VVMHP) will be removed and the shoreline restored, improving habitat for steelhead, California freshwater shrimp, and critical habitat for the California red-legged frog, as well as for common species.
- **Levee** A new setback levee will be constructed.
- **Removal of Mobile Homes** Approximately 17 mobile homes have been removed to make room for a wider floodway corridor.

Project Summary

City of St. Helena Flood Protection and Flood Corridor Restoration Project

Page 2

- **Floodwall/Bank Stabilization** A new setback floodwall will be constructed to surround the remaining homes within the Vineyard Valley Mobile Home Park. Up to 300 feet of bioengineered and/or structural bank stabilization would be placed near the confluence of the Napa River and Sulphur Creek to protect a portion of the VVMHP floodwall.
- **Stormwater Management for Water Quality.** A detention basin and pumping facility will be placed inboard of the new levee and northwest of the existing VVMHP floodwall. The two existing storm drains will be diverted into this basin and the two existing storm drain outfalls into the Napa River will be abandoned. A drainage swale will run along the outboard edge of the new levee to filter area stormwater before entering the Napa River. Water quality will be improved as unfiltered storm water passes through the detention basin and the vegetated swale in the terrace.
- **Vegetation Management** At the southeastern end of the project area, riparian

Engineers know as basic safety practice not to obstruct floodplains, as confirmed below in St. Helena's 1993 General Plan ...

Goals, Policies and Standards

Guiding Policies

- 9.4.1 New development should provide adequate drainage improvements to handle generated storm runoff from the site to the nearest major watershed. The watersheds include York Creek, Sulphur Creek and the Napa River.
- 9.4.2 If a City storm drain is available, the developer should participate in the funding to the extent it benefits the development.
- 9.4.3 Extension of existing downstream drains which have adequate capacity should be completed at the developer's expense with future reimbursement for oversizing costs at the time of connection by others.
- 9.4.4 Grading and earth filling within the designated 100-year floodway should not be permitted except for public streets or bridges.
- 9.4.5 Encroachments into the 100-year floodway should not result in any increase in flood levels during the occurrence of the base flood discharge.

Unfortunately that basic practice was ignored in the levee alignment, which bisects the very floodplain that caused the 1986 and 1995 floods that caused over \$100 Million as reported above by former City Manager Bert Johansson.

After the 1986 flood, in his letter of August 14, 1986, to developer McDonnell, then City Engineer Jack Meade warned Mr. McDonnell against reconstructing Vineyard Valley on its floodway blocking site ...

August 14, 1986

Vineyard Valley Mobile Homes
270 Pope Street
St. Helena, California 94374

Attention Mr. R. H. McDonnell

RE: Flood Wall

Dear Mr. McDonnell

This letter is in regards to your building permit application for a Flood Wall filed by your contractor Mr. Jinks.

It is my understanding from your design engineer, Mr. Giorgi, the purpose of this wall is to replace a fence which was washed out and damaged in the February 1986 flood. It is also my understanding the proposed Flood Wall is on the same location and extent as the washed out fence.

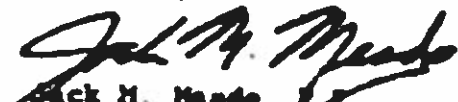
The City cannot guarantee or assure you that the Flood Wall will achieve its intended purpose. The review of the plans and the issuance of a building permit does not provide you with any type of warranty either directly or implied that the construction of the wall will accomplish its design purpose. Only your design engineer can provide you any type of assurances that the Flood Wall will function as intended.

You are hereby put on notice that the construction of the Flood Wall may have possible adverse effects on other property owners either upstream or downstream. The construction of the Flood Wall may create off-site flood hazards to other properties. Prior to construction, your design engineer should thoroughly study and evaluate the possible effects this Flood Wall will have on other properties.

Vineyard Valley Mobile Homes
August 14, 1986
Page 2

By acceptance of the building permit for the Flood Wall, you shall assume full responsibility for any liability occurring from the construction of the Flood Wall and hold the City of St. Helena harmless for any liability and provide full indemnification to the City of St. Helena.

Sincerely,


Jack H. Maade, P.E.
City Engineer

JHM/kaw

cc: Acting City Administrator
City Attorney
Building Inspector
Philips and Giorgi

... and in his response to that letter, Professional Engineer Gerald R. Giorgi expressly alerted the landowner that he should "count on being sued" should another flood occur and neighbors be damaged, for "whatever reason" ...

Gentlemen:

We have just received a copy of Mr. Meade's letter to you dated August 14th, 1996 regarding the proposed flood wall.

As you know and as it is understood by Mr. Meade, the new wall merely replaces the substandard barrier that failed in the 1986 flood. Mr. Meade states that "construction of the flood wall may create off-site flood hazards to other properties." We fail to understand how replacing a timber wall that was intended to act as a barrier with a masonry wall presents any new off-site flood hazards that did not already exist. The alternative of letting the river flow through your project would be causing if not as serious. We are more concerned with the stacking of fill M/W of your project in what appears to be within the flood plain boundaries.

As discussed, if your project should flood again it will occur at the levee adjacent to the river. We understand that raising this levee could indeed adversely impact off-site properties and it would merely move the weak link to the Sulphur Creek boundary.

We understand your urgency in proceeding with construction as the risk of losing millions of dollars in homes and potential loss of life is real. However, should another flood occur and neighbors are damaged, for whatever reason, you can count on being sued. Again we recommend you consult with an expert in hydrology to confirm what we all believe to be true. It would be a very cheap form of insurance. Please call if you require assistance in this matter.

Very Truly Yours,



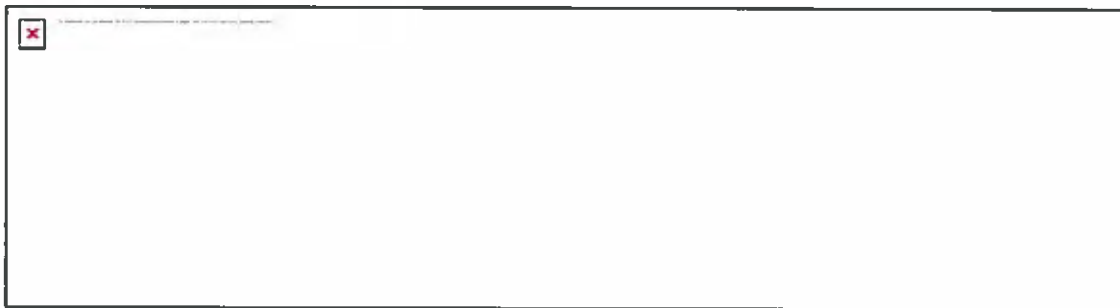
Gerald R. Giorgi, P.E.

GRG/jc

cc: Charles F. Phillips
Jack N. Meade, P.E.

1541 THIRD ST. NAPA CALIFORNIA 94559 (707) 252-6588

It is unfortunate the General Plan guidelines the professional engineers recommendations were ignored, but when Measure A was passed in 1998, residents of Vineyard Valley, fearing the future flood warned by engineer Giorgi, fought assertively to have their flood protection upgraded to avoid the next damaging flood. Vineyard Valley residents were comforted by the inclusion of this Measure A set-aside to fund flood protection for St. Helena ...



In December 2008, residents sought to preserve the floodplain by suggesting this upgrade to the extant cinder block wall erected after Vineyard Valley's flood in 1986 to flood standard, along Vineyard Valley's north property line ...

Unfortunately the residents were ignored and the levee alignment now cordons off a major component of the natural floodplain, with obvious flood risk increases by obstructing the floodplain.

The residents proposed the remaining floodplain be preserved as a public riverbank park, but advocates of the ill-designed levee across the floodplain won the argument and Vineyard Valley flood protection was approved across the very floodplain that had flooded Vineyard Valley so badly in 1986 and 1995.

When Vineyard Valley residents asked why the levee had to obstruct the floodplain instead of upgrading the cinder block wall along their north property line, and they were told upgraded floodwall around Vineyard Valley and Hunter's Grove "would not work."



As an engineer myself, I can only conclude the levee alignment was built across the floodplain to protect developer Hunter's property at public expense, and the sacrifice of a large portion of the historic floodplain.

UC Davis Engineering Professor Nicholas Pinter wrote after completing a site inspection that he found our levee a "field of dreams levee" as he wrote in [this report](#). City management may want to inquire of Professor Pinter as to his opinion of the wisdom of permitting housing development behind the levee. I personally trust Professor Pinter significantly than I trust the engineers who dangerously aligned our levee right through the middle of our floodplain.

Thank you for your consideration.

Wendell Laidley
st. Helena

Noah Housh

From: Cindy Tzafoopoulos
Sent: Thursday, April 12, 2018 11:10 AM
To: Noah Housh
Subject: FW: Hunter EIR Comment

FYI

Thank you,

Cindy Tzafoopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzafoopoulos@cityofsthelelena.org
www.cityofsthelelena.org

From: Angela Zivkovic [<mailto:angziv@gmail.com>]
Sent: Thursday, April 12, 2018 9:28 AM
To: Cindy Tzafoopoulos <ctzafoopoulos@cityofsthelelena.org>
Subject: Hunter EIR Comment

Dear City Council,

I am writing regarding the EIR for the Hunter Project. As a resident of Saint Helena for over 10 years, and as a mother of two young children, and as someone who intends to live here permanently I have concerns regarding the Hunter Project.

First and foremost, I and my family, and many other families from all over town, use the open space and walking path that would become housing under the proposed plan. As this is the only open public space that is not privately owned in town, this is the only opportunity for the residents of this town to recreate and stay healthy and enjoy the beauty of where we live. We walk our dog on the path almost every day and we see dozens of families, of all different socioeconomic backgrounds, using the open space to enjoy some fresh air. This is a fundamental human right to have access to open space that is afforded nowadays even to farmed poultry!

Second, much of the space that would be designated for housing is either on or much too close to the wildlife and habitat preservation areas near the levy and the river. It is our duty to preserve the natural heritage of this beautiful space that we have inherited from our predecessors, whatever little of it there is left. We have to ask ourselves what is more important to us: to allow a man who took a gamble on whether this land would ever be allowed to be built on to go ahead and build, or to put our own values and needs as a community above the personal profits of one individual. Again, as someone who actively uses this open space on a nearly daily basis, I can attest to the fact that the habitat and wildlife preservation efforts in this area are working. I keep my dog out of the space and we respect and observe the animals and plants that live there. There are ducks, geese, many

small birds, rabbits, frogs, and an entire ecosystem that lives and breathes there that we need to protect for future generations to enjoy.

There are a host of other reasons including traffic, water, safety, air quality, noise, loss of property values, and even crowding in schools, that are all also huge concerns for me and my family with this project.

My questions are the following:

1) Why do we actually need to develop this land? Ever. Where does it say that this city must grow in size? As a biologist I understand very well that everything has its limits. The only things in nature that continue to grow and expand without limits are things like cancerous tumors. This city is limited on the east and west sides by natural geological formations: the hills on the west and the river and hills on the east. There is an ideal size for the city of Saint Helena that will maximize all of the values that we all appreciate and that are the reasons why we live here. And we should actively work to maintain and protect that size without allowing expansion and growth when it does not make sense, as in this case, where growth and expansion would result in the loss of irreplaceable open space that is absolutely crucial to the welfare of the citizens of this town.

2) Who stands to benefit the most from this housing development? The developer and a hundred people who will be able to buy homes to live here? And what about the rest of the 5,000+ citizens of the town? We, and the wildlife in the protected habitats living in the area, would be the losers in this. And honestly, I see no upside whatsoever.

I am firmly committed to opposing this development in every way I can in order to preserve and protect the little bit of open space left in this town. On behalf of my myself and my children, I urge you to take these important concerns into consideration.

Sincerely,
Angela Zivkovic, PhD
Resident, St. Helena
(530) 574-9043
angziv@gmail.com

Noah Housh

From: Cindy Tzaopoulos
Sent: Thursday, April 12, 2018 11:11 AM
To: Noah Housh
Subject: FW: Hunter EIR Scoping Comments

FYI

Thank you,

Cindy Tzaopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzaopoulos@cityofsthelena.org
www.cityofsthelena.org

From: John Kelly [<mailto:johnpatrickkelly@yahoo.com>]
Sent: Thursday, April 12, 2018 10:13 AM
To: Cindy Tzaopoulos <ctzaopoulos@cityofsthelena.org>
Subject: Hunter EIR Scoping Comments

Hello,

In regards to the Hunter EIR scoping, I request that the EIR examine the risk of flooding in the nearby neighborhoods. The levee was built with the understanding that if it were topped or breached, the very land that Hunter wants to build on would act as a drainage buffer to reduce the likelihood of flooding at Hunt's Grove, Starr Ave, Vineyard Valley, etc. In other words, building on the Hunter property would create flood risk for nearby neighborhoods. This will immediately increase insurance costs for those neighborhoods (which would likely result in lawsuits against the city, possibly class action) and, eventually, crippling judgments against the city if/when the levee is topped or breached.

Thanks,
John P Kelly
1178 Starr Ave
St Helena

Noah Housh

From: John Milliken <jmzin@comcast.net>
Sent: Thursday, April 12, 2018 11:14 AM
To: Cindy Tzaopoulos
Cc: Noah Housh; Mark Prestwich
Subject: Hunter EIR Scoping Comments
Attachments: C001 SENT Hunter Comment Ltr.pdf; NPS_Urban-facts_final.pdf; Response to Response.docx

Hunter EIR Scoping Comments 4/12/18

Please find listed below areas that should be included in the scope of the new EIR. In addition, I have attached comments from a CEQA Attorney and my own comments prepared in response to the original DEIR. Also attached is an informational report prepared by the EPA that reviews how to protect water quality from Urban Runoff. These attachments detail many of the shortcomings of the original DEIR and I would like them included for consideration for the scoping of the new EIR.

Design, Implementation and Administration of the Affordable Units

It will be very difficult to conduct a thorough EIR that subscribes to CEQA standards until the design, implementation, and administration of the affordable housing components are fully understood. How and who is going to build them? Will they have to be built before the market rate houses? How large will they be and how many occupants will they have. How many bedrooms, bathrooms, and parking spaces will there be? Are they going to be rentals or owner occupied? Will the multi-family units need zoning variances or conditional permits? Will the 10 lots with Granny units be deed restricted or under the control of the owner? What mechanisms are in place to ensure that the 10 granny units are indeed made available as affordable and when will they be built. If the project qualifies for a density bonus by right, should the EIR anticipate this and factor in the potential impact of additional units? All of this should be explained and understood BEFORE the EIR is started so that there are no surprises that could derail this second attempt at completing an EIR for this project. It is one thing to draw boxes on a sub-division map and designate them as affordable for development concessions. It is quite another to adequately explain how this will all work within the parameters of existing regulations and requirements. And, without this information, preparing an informed EIR will be incredibly difficult.

Design and Implementation of a controlled intersection at the Pope Street Bridge and Silverado Trail

Well after the completion of the last DEIR, the applicant claimed they had new information and that they would submit a design and pay for this intersection (along with approval from the County) to mitigate traffic impacts. Will information on how this will be accomplished (or is even practical) be provided BEFORE the start of the new EIR?

Plans for mitigating loss of State Designated Prime Agricultural Land

Well after the completion of the last DEIR, the applicant claimed that they had new information for a plan for offsetting the loss of Prime Agricultural Land. Will this information be provided BEFORE the start of the new EIR?

Impacts of Traffic Through Neighborhoods

Beyond traffic count studies, will the new EIR take into account traffic that will utilize the Adams and Starr extensions to circumvent traffic delays on the Silverado Trail and Highway 29. The advent of apps like Waze and Google Maps will re-direct increasing amounts of traffic through neighborhoods. Residents of Hunts Grove will now have to cross a busy intersection upon exiting their development. This is a particular concern for the safety of children and pedestrians who now do not face crossing a street in order to walk to/from school or shopping.

Loss of open space and safe access to the Napa River Walk for pedestrians and dog walkers

Once Starr is extended to meet Adams, residents and visitors who currently use the undeveloped city owned lot to access the River walk will be faced with sharing their walk with traffic and parked cars to reach the walk. This will be a significant danger to children and dog walkers.

John Milliken

jmzin@comcast.net

707-963-8134 (Office) 707-486-4266 (Mobile\Text)

1256 Hudson Ave.

St. Helena, CA 94574

Noah Housh

From: Cindy Tzafopoulos
Sent: Thursday, April 12, 2018 1:55 PM
To: Noah Housh
Subject: FW: Hunter EIR comments

Thank you,

Cindy Tzafopoulos
City Clerk
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Direct 707-968-2742 | Fax 707-963-7748
ctzafopoulos@cityofsthelena.org
www.cityofsthelena.org

From: Jonathan Newsome [<mailto:jjnewsome@gmail.com>]
Sent: Thursday, April 12, 2018 1:49 PM
To: Cindy Tzafopoulos <ctzafopoulos@cityofsthelena.org>
Subject: Hunter EIR comments

City Clerk - please distribute as needed.

Here are a few comments about the Hunter EIR. The first two I sent back in December, plus I added a couple more.

1. In the Transportation section, all of the scenarios should start with Existing conditions, which means no access to the trail on Pratt. There are no plans/funds to fix that bridge at this time that I know of, so we must assume that that defines Existing. The Pope Street bridge is under additional stress from no Pratt access and the Hunter EIR should address how a new development will further stress that situation.
2. Understanding of extreme weather events has increased in the last six years since the old EIR was started. It is clear that FEMA maps that do not include climate change are inadequate. The new EIR should incorporate consideration of the all too common extreme weather events which will increase flood risk. How will climate change be incorporated and how does it change flood maps and flood risk?
3. We walk down the trail that leads to the Napa River almost every day at different times. We see birds, rabbits, hear bullfrogs and crickets, etc. This area is teeming with wildlife and probably serves as a watering hole and food source to countless wildlife species. How will the paving of this area, nighttime lighting, and addition of hundreds of cars and humans impact the wildlife that lives in the area or migrates through? Which species will be impacted and how? What research will be conducted to determine this?
4. What is the air quality for the surrounding neighborhoods during the project construction? Some of us have respiratory issues, and we want to know how long and how seriously our air quality environment will be impacted. Please be specific on the types and quantities of impact.
5. How much traffic on Starr, Hunt, Pope, and Adams will be added? How many cars will the project add specifically, and how will this be counted since there is no information on housing types?

Thanks,
J. Newsome

Noah Housh

From: Vickie Bradshaw <vbradshaw@calstrat.com>
Sent: Thursday, April 12, 2018 9:20 AM
To: Cindy Tzaopoulos
Cc: Noah Housh; Mark Prestwich
Subject: Hunter EIR Scoping Comments

Cindy-

Below are my comments regarding the scope of the Hunter EIR.

1. The EIR for the Hunter Project cannot be done until it is conclusively determined whether or not the Hunter Project qualifies for the 40% affordable housing benefits, including priority in water and sewer connections, use of prior year surplus units from the Growth Management System (GMS), etc. The reason for this is that the environmental impact is completely different if the benefits are applied to the project than if they are not applied. An example is that if the project qualifies under the inclusive housing and affordable housing ordinances, then the entire project can be completed in 2 years, according to the developer. If the project does not qualify, then the Hunter Project could take up to 10 years to complete, assuming very few, if any other houses are built in St. Helena during that timeframe because the project would be limited to the annual 9 units allowed under the GMS. It isn't hard to see that the environmental impacts are quite different under these two scenarios.

Before the EIR begins, it has to be determined if the Project qualifies for such benefits or not. This decision cannot run on parallel tracks with the EIR and then come together at the end, as Noah Housh suggested at the neighborhood scoping meeting last month. For the EIR to be accurate, the EIR consultants must know what scenario applies before the EIR begins. And, in cases like this, it does matter to CEQA if the housing is market rate or affordable because the priority benefits derived from hitting a 40% affordable housing rate under City ordinances changes that environmental analysis. In this case, it is not the affordability of the housing that affects the CEQA analysis, but the priority benefits given by the City and/or the state that changes the impact on the environment from building this project.

The prior Hunter Project EIR inappropriately assumed (without confirming) that the Hunter Project would qualify for the priority benefits stemming from the project complying with the inclusive housing and affordable housing ordinances at the 40% rate. That assumption cannot be part of the current EIR process because it likely will make the EIR inaccurate.

If the developer does not want to show to the satisfaction of the City Council that their current proposal completely meets all of the City's inclusive and affordable housing requirements to qualify for the 40% priority benefits, then the EIR should be done without giving any credit for any of those benefits before the EIR is started. At the very least this would change the environmental analysis from a two-year project to a potential ten-year project with ongoing environmental impacts.

If the EIR assumes the project will qualify for the 40% rate and if it is later determined that the current project cannot meet the inclusive housing and affordable housing ordinance requirements without resubmitting a tentative map, then the City would be in the position of looking at yet another Hunter EIR exercise. It would make more sense to make that determination now.

2. The Hunter Project EIR has to take into consideration the cumulative impacts of the 17-acre Hunter Project, along with the 24-acres of Key Opportunity Sites (sites 1, 2, and 6 on page 134 of the Housing Element Needs Assessment), which begins about 3 blocks from the Hunter Project and extends south across Pope Street. These cumulative sites will significantly impact surrounding streets and the Pope Street bridge. Such cumulative effects will undoubtedly impact the environment and have to be taken into consideration in the Hunter Project EIR.

3. The Hunter Project EIR needs to consider the environmental impacts resulting from a potential levee failure. CA Government Code §65302(g)(2)(A)(vii-viii) requires that St. Helena include a levee failure map in its General Plan Update to show areas that would be inundated in the event of a levee failure. It will be important to have such an inundation map to show the environmental difference between the situations where the land behind the levee is undeveloped, as it is now, and the situation where the land behind the levee is covered over with asphalt and houses, which is a situation where there would be significantly less permeable land for flood waters to be absorbed. The environmental differences between these two situations would likely be significant.

Of additional environmental interest is that fact that the area closest to the Napa River where the levee is located is considered a high liquefaction susceptibility area (Figure 4.K-2 in the General Plan Update) and liquefaction is a well-known and significant cause of levee failure.

4. The EIR for the Hunter Project has to assume the project can be built out to the maximum density allowed resulting from any density bonuses provided under city ordinances and state law, even assuming the current project does not now show such a density bonus in the “deemed complete” tentative map. The current owner and/or developer could decide after an EIR is approved to sell the property and the new owners could apply for the density bonuses prior to seeking building permits. At that point it would be too late for the EIR to take into consideration the increased housing units, population, cars and other environmental impacts because the EIR would already have been completed and approved.

Thank you for your consideration, Vickie Bradshaw

Victoria Bradshaw
California Strategies, LLC
One Embarcadero, Suite 1060
San Francisco, CA 94111
(415) 705-5276

980 9th Street, Suite 2000
Sacramento, CA 95814
(916) 266-4575

April 5, 2018

Hunter E.I.R.

City of St Helena, City Hall
Received

m/copy

APR 06 2018

January 30, 2018

To the City of St. Helena- RE: the new Hunter EIR:

1480 Main St.
St Helena, CA 94574

In 1997, I was selected by Friends of the Napa River to sit on the Committee appointed by St. Helena's City Council to decide the best way to spend our portion of Measure A funds which were to be used to minimize the risk of flooding on Napa River and Sulphur Creek inside City Limits, with the requirement that any alterations would be carried out within a "Living River" context, assuring that any changes would enhance the river's environmental health while benefiting us.

While most municipalities along the river (especially the City of Napa) made an honest effort to abide by the "Living River" requirement, the St. Helena Committee that took on this task was corrupt through and through, and no one other than I gave even a pretense of paying attention to "Living River" principles. It was an appalling experience for me. The fix was in from the beginning, and among the proposals that were floated was a cynical rerouting of Napa River above Pope Street bridge that would leave the riparian woodland intact for the moment, but was deliberately designed to erode and destroy both banks and all the riparian trees and habitat over a period of a few years. I made enough of a stink about that cynical plan that it was eventually dropped from consideration, but sadly nothing better was put forward.

In an attempt to get the Committee to understand what the implications of their proposals would be for people living downstream and the survival of Pope Street Bridge, I personally funded through Friends of the Napa River a brief study by the highly regarded hydrology experts Philip Williams and Associates, which we gave to the St. Helena Measure A Committee so they could begin to understand the downstream impacts above Pope Street Bridge and to the bridge itself if they did one or another of their plans. Williams' mapping of flow patterns revealed great downstream risks involving the plan they settled on: the building of a long, riverside levee that cut off a huge, undeveloped, low-lying area that accommodated flood water every time there was a major rain event and took pressure off the area just above the bridge. As I recall, I spent \$20,000 on the Phil Williams study that gave the Committee basic prognostications that would help them understand the implications of what they were proposing; but to my knowledge, that study was completely ignored by every member of the Committee and the highly paid consultants as well. That's when I washed my hands of the crooked Committee and its phony "Living River" process and quit in disgust.

If anyone had genuinely cared, I was prepared to further fund Philip Williams to assure a legitimate "Living River" solution was developed, as required by Measure A, which, as you may recall, passed with more than the necessary two thirds majority of the county's vote! This "super majority" made the "Living River" provision a mandatory aspect of whatever alterations were carried out using Measure A funds, as opposed to a simple majority vote that could be given little more than lip service.

St. Helena's actual alteration: the huge, lengthy levee which destroyed many acres of our priceless existing floodplain, was in complete violation of both common sense and the "Living River" mandate. It was done for no reason but to destroy an existing, critically important and legally protected floodplain in order to turn all that low land into a huge housing development in the most unsuitable possible location. Now, during flood events, the changed river flow below the levee is destroying the once-stable bank just above Pope Street Bridge. A beautiful, historic mansion- I think it is 2240 Pope Street- is already being put at serious risk of toppling into Napa River as the high bank there is rapidly collapsing. This massive erosion, which will soon destroy the great old estate that existed safely there for more than a century, is a direct result of the changed flow dynamics caused by the levee's elimination of the flood plain that existed just above it. I believe the City is directly liable for the upcoming destruction of that property!

The destructive, illegal levee, along with Hunter's proposed development that is bound to flood, has got to go **NOW!** This is all the product of a corrupt enterprise between a past Council, City staff and Hunter.

Peter Mennen PO Box 421 St. Helena CA 94574 707-963-1170

CCs- Chuck Vondra, John Milliken, and the affected property owners Pope Street



City of St. Helena

*"We will conduct city affairs on behalf of our citizens
using an open and creative process."*

1480 Main Street
St. Helena, CA 94574
Phone: (707) 967-2792
Fax: (707) 963-7748

www.cityofstheleena.org

February 25, 2016

Mr. Peter Mennen
P.O. Box 421
Saint Helena, CA 94574

Dear Peter,

I wanted to let you know that I received the materials you delivered to City Hall on January 28, 2016 related to the Flood Control Project.

I know this was and continues to be a controversial project for the citizens of St. Helena. My goal in hiring a forensic accountant is to review the revenues and expenditures related to all the projects in an effort to ensure all the funds are accounted for and were properly spent in accordance with contractual obligations. Although the scope of the review does not include engineering, environmental or other aspects of the projects, I will add your documents to the file and make them assessable to the forensic accountant.

Sincerely,

Jennifer Phillips
City Manager

Wed, Feb 10, 1904 3:37 AM

From: Big Ricki <bigricki@earthlink.net>
Date: Wednesday, February 10, 1904 3:37 AM
Subject: Flood control Technical Report

Peter Mennen
PO Box 421
St. Helena CA
94574
March 15, 2002

Mike Praul, City Engineer
City of St. Helena
1480 main Street
St. Helena CA 94574

Dear Mr. Praul:

I was one of those selected to participate in the proposed design of a flood control project to be carried out using "Measure A" money that would reduce the impact of flooding on the community of St. Helena. As a bit of history, Measure A was passed by the voters of Napa County as a method of achieving flood control in ways that would be considerate of the biological integrity of the Napa River, as opposed to a flood control design proposed by the Army Corps of Engineers, which was rejected by the citizens of Napa County because it was destructive to river values.

A county wide community group which named itself "Friends of the Napa River" pulled together and began an extraordinary effort to rethink the way in which flood control could be designed so that the Napa River would benefit from sophisticated flood control methods that would help the river regain some of its former behavior in the days before we hedged it in and destroyed its ability to spread out into a flood plain during heavy rain events. This would be done in ways sensitive to the ecological values of napa River. This Measure A funding came to pass by a two thirds vote of the county because of the incredible work Friends of the Napa River did to educate county citizens of the way in which flood control could be handled in ways that would improve the beauty and functionality of napa river, which as you know has been declarted an impaired waterway by Congress, due to the many damaging alterations we have wreaked upon the river in the past hundred years.

I was selected to as a participant in the St. Helena process to represent the vision of Friends of Napa River, to assure the local plan would incorporate the standards for flood control that were integral to any project that would be put forward. After all, a river-friendly design was the whole impetus for Friends of the Napa River to do the extraordinary work that made measure A come to pass.

Regrettably, I found myself marginalized as the planning process went on, and I can recall at least one specific incident where i was told the concept of retaining a tree-lined riparian corridor along the river bank would be an impossible, and then later I learned this devastating concept was built into the design with the justification that, since i had not objected to it, Friends of the River must think it was okay. Toward the end, i was not even notified of upcoming meetings of the St. Helena flood design group, much less invited to participate in the role of a "Friends of the Napa River" advisor. I only learned after the fact that a meeting had taken place, when someone questioned me about why I was no longer attending.

Finally, after the committee agreed upon a proposed design without even an opportunity for "Friends of the Napa River" to have me participating in the proposal that went forward to the city, you were kind enough to give me a copy of the plan. I sent that copy to "Friends of the Napa River," who made the attached comments and sent thaem back to you on February 22, 2002. I am writing this letter just so that I can have some input into the process now, having been excluded in a manner I believe is illegal, and thus depriving "Friends of the Napa River" to have any legitimate input, or even an opportunity to review, the proposal before it was submitted to the St. Helena City Council. Since I

as selected as an official member of the committee, specifically to represent the interests of the "living river" concept that drove the passage of measure A in the first place, this whole process strikes me as bogus.

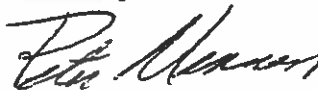
And not surprisingly, the fundamental design vision of all the possible proposals for flood reduction in St. Helena is antithetical to any kind of living river vision. In each of the possible projects, the riparian corridor along the river is utterly sacrificed, destroying any number of critical aspects of the living river vision. There are many mature and even landmark-sized, "heritage" trees within St. Helena city limits along the Napa River which, I am only now told, will be deliberately left in a narrow, eroding ridge between the current rivercourse and a new floodplain beyond the existing riparian corridor. I am informed that it is understood and expected that the entire riparian stand along both banks of the Napa River within St. Helena city limits will be destroyed over a short period of time as the river cuts into the banks and causes all those trees to come crashing down, leaving nothing of their shade protection for the river all along the banks of the river. In their place will be a great, vacant swath of little or no biological value, at a terrible price to the river. This is a mockery of the real measure A, which was to enhance the river's values as a part of flood control, not destroy them.

Also, a multitude of other benefits, beyond the loss of all their beauty to all of us citizens, will be lost. Many of those trees are mature oaks, whose wildlife value cannot be overestimated. They are the lynchpin of biological integrity along the river, and most of them already have been lost to human development. To deliberately destroy these last precious corridors of mature oaks and complex vegetation is intolerable and unacceptable. It is in direct defiance of the driving concept of Measure A. It makes our plan a farce. Just for your improved understanding of the value of oaks, I am including a copy of an excellent book on the complexity and value of oak trees entitled "The Life of an Oak." It was produced by the California Oak Foundation, with major funding from, among others, the Mennen Environmental Foundation. Perhaps you and others will gain some perspective on what you are attempting to throw away.

Measure A was not passed so that a few interest groups in Napa County could benefit at the expense of tremendous tax costs to the rest of us and the sacrifice of the Napa River. It was not put forward so that local politicians could make a lot of hay on its back by corraling a clot of special interest votes and make self-serving claims on campaign literature when they ran for larger office. Measure A had far loftier goals of spending our tax money to benefit both people and the Napa River, and that is the Initiative we as a county passed. St. Helena's Measure A oversight committee has unconscionably distorted the very heart of the "living river" intent of the measure whose county tax money they (we?) were expected to spend in an appropriate way.

The Mennen Environmental Foundation has purchased acreage on Sulphur Creek to restore in a manner that will benefit flood control and biological values. Our expert evaluators have proposed solutions that are diametrically opposed to the proposal being forwarded to the City of St. Helena by the oversight committee. I absolutely wash my hands of the disgraceful and shameful set of proposals that "my" committee has certified for your consideration and acceptance. I am appalled. I am certain Friends of the Napa River would not touch these proposals with a ten foot pole. They are a joke- a slap in the face to everyone who put his/her heart and soul into bringing Measure A to fruition.

Sincerely,



Peter Mennen

CCs: Friends of the Napa River
St. Helena City Council

STAFF REPORT

APPROVED FOR
CITY COUNCIL AGENDA
DATE: 3/7/02
CITY MGR: tl



DATE: March 12, 2002

TO: City Council

FROM: Myke Praul, City Engineer *MP*

RE: Clarification of Council Direction on Comprehensive Flood Study Environmental Impact Report

Cc: City Manager

*The envelope says
the city mailed this
on 3-8-02
Never received this
material until after 3-12-02!
J.M.
I could not comment by 3-12-02*

BACKGROUND:

The environmental consultant for the Comprehensive Flood Study, CDM, has initiated the public input process to facilitate preparation of the draft environment impact report. At the Council meeting initiating this process, the Council directed staff to analyze three plans; the no action plan, the Minimum Plan and the Enhanced Minimum Plan. In response to a question by a member of the public, the Council also directed staff to analyze a plan that combined the extension of Adams Street with the Minimum Plan. Staff now presents the results of that analysis and requests clarification of the Council's prior direction.

DISCUSSION/ANALYSIS:

As the Council recalls, the Enhanced Minimum Plan (EMP) was a compromise alternative between the Maximum Plan (MaP) and the Minimum Plan (MiP). The MaP reduced the 100-year water surface elevation (WSE) 3.1 feet at the Hunt's Grove Apartments but required the relocation of 60 homes within the Vineyard Valley Mobile Home Park (Park). It included a fill area to the north of the Park on which the relocated homes would be placed. The MiP reduced the WSE 1.6 feet at the same location with the elimination of 17 spaces and loss of approximately 7 to 8 existing homes. The existing floodwall would have to be raised approximately 3.5 feet or a new levee constructed to the north of the wall at the same elevation. The EMP was developed as a compromise to the two distinctly different plans. It would reduce the WSE 2.4 feet and includes the relocation of 29 homes to the vineyard area north of the Park which would be flood proofed by the roadway embankment of an extension of Adams Street. The Council asked what is the feasibility of combining the Adams Street extension with the MiP.

MBK has computed the hydraulic benefits of a plan that would include the Adams Street extension but with the river terracing of the same area as the MiP, or the loss of 17 spaces within the Park. The resulting reduction of the 100-year WSE is about the same as the MiP, which is one foot less than the EMP. The elevation of the roadway embankment would need to be the same height as the levee north of the floodwall or about 3.5 feet above the elevation of the existing wall, a foot higher than the EMP.

Staff and the consultants believe that the environmental impacts of this revised alternative would be somewhere between the EMP and the MiP. While it would require a larger footprint than the

MiP, the structural elements would be very similar with impacts to the Park residents also being very similar as the MiP.

IMPACT:

Further analysis of this hybrid alternative will take additional time and funding. At the last Council meeting, representatives from the VVMHP Homeowners Association presented a petition in support of the EMP, which was signed by approximately 90% of the residents of the Park. The revised alternative would still eliminate some homes in the Park where the EMP would not.

FISCAL IMPACT:

Staff will return to Council at the meeting of March 26, 2002 to discuss the current financial status of the study and bring recommendations to extend the consultant agreements with the funding requests necessary to complete the study. Confirming the above direction will reduce the amount of analysis required for the EIR.

ALTERNATIVES:

1. Confirm prior direction to staff and the consultants to analyze the No Action, Minimum and Enhanced Minimum Plans through the EIR process.
2. Direct staff and the consultants to include a fourth alternative for further environmental analysis that combines the Minimum Plan with the Adams street extension.

RECOMMENDED COUNCIL ACTION:

Staff recommends that the Council confirm the prior direction to staff and consultants to analyze the No Action, Minimum and Enhanced Minimum Plan through the environmental review process.

ATTACHMENTS/EXHIBITS

None.



I did not receive this until after 3-12-02 - F.M. I could not comment by 3-12-02!

Mayor : Ken Slavens
Vice-Mayor: Frank Toller
City Council: Joe Potter
Bill Savidge
Sampson Bowers

**AGENDA
REGULAR MEETING
ST. HELENA CITY COUNCIL
CARNEGIE BUILDING COUNCIL CHAMBERS
1360 OAK AVENUE, ST. HELENA
MARCH 12, 2002
6:45 P.M. CLOSED SESSION
7:00 P.M. REGULAR SESSION**

Prior to the meeting the public may review available information at City Hall or at the George and Elsie Wood Public Library.

A person who is dissatisfied with a decision of the City Council may have the right to a review of the decision by a Court. The City of St. Helena has adopted California Code of Civil Procedures Section 1094.6, which generally limits to ninety (90) days the time within which a decision of the City Council may be judicially challenged. If a person challenges a decision in Court, he or she may be limited to raising only those issues that were raised at the Public Hearing described in this notice, or in written correspondence delivered to the City Council at, or prior to, the Public Hearing.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact City Hall, (707) 967-2792. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting (28 CFR 35.102-35.104 ADA Title II). However, City staff will attempt to assist at any time with accessibility. The City Clerk has equipment to assist those with a hearing impairment.

The City Council will convene in Open Session at the stated time, but will then adjourn to any Closed Sessions(s) listed on the agenda. The Council will reconvene in Public Session at 7:00 p.m. at that time, if appropriate, any actions taken during the preceding Closed Session will be announced. If necessary, the Council may reconvene in Closed Session to continue discussion of listed items following the completion of other business.

**I. 6:45 P.M. CLOSED SESSION
7:00 P.M. OPEN SESSION**

**Conference with City Negotiator – City Manager
Negotiations with Unrepresented Employees (Department Heads)
and St. Helena Employees Association (SHEA)
Brown Act: 54957.6**

PLEDGE OF ALLEGIANCE

1. ROLL CALL

2. APPROVAL OF MINUTES – January 29, 2002 and February 26, 2002

3. REPORTS BY STAFF AND CITY COUNCIL: Reports by staff and/or Councilmembers on items of general interest or action taken during Closed Session. Brief questions for clarification may be posed and answered, and Councilmembers may request that items be placed on a future agenda. Except under certain circumstances, the Brown Act prohibits any other discussion or action by the City Council.

4. PUBLIC FORUM: An opportunity for the public to directly address the Council on items of interest to the public not on the agenda. Any person addressing the Council is subject to the requirement of providing his or her name and address, and limiting comments to five minutes. Because of restrictions imposed by the Brown Act, the Council may not engage in substantive discussion, nor take action on matters not described on the agenda.

5. PRESENTATIONS AND PUBLIC RECOGNITIONS

- Presentation by Jill Pahl, Upper Valley Agency Waste Management, Re: Solid Waste Rate Adjustments

II. CONSENT ITEMS: Members of the Council or the public may ask that any items be considered individually for purposes of considering alternative action, for extended discussion, or for public comment. Unless that is done, one motion may be used to adopt all recommended actions.

6. Planning Commission Actions of March 5, 2002 Recommended Action: Approve
7. Accounts Payable and Payroll Recommended Action: Approve
8. Resolution Approving Hanging of a Banner Across Main Street Promoting the Calistoga Education Foundation Spring Benefit Auction Recommended Action: Adopt
9. Park and Recreation Minutes of February 25, 2002 Recommended Action: Note & File
10. Report from City Manager Re: City's Emergency Managers Attending Integrated Emergency Management Course (IEMC) Recommended Action: Note and File
11. Resolution Establishing a Voluntary Contribution Check-off Program by Supporting "Action for Better Cities" (ABC) Recommended Action: Adopt

12. Resolution Accepting Offsite Improvements by Robert & Katherine States Burke Trust at 2995 Spring Street and Authorization to File Notice of Completion
Recommended Action: Adopt

13. Resolution Authorizing a Professional Services Agreement with Oswald Engineer Associates for Design, Environmental Review and Permitting of the Recycled Water Project
Recommended Action: Adopt

14. Resolution Approving a Budget Appropriation for the Purchase of a Street Sweeper
Recommended Action: Adopt

III. PUBLIC HEARINGS (Since Public Hearings do not begin before 8:00 p.m., Scheduled Matters listed below may be considered before that time.)

15. City Council Appeal of Planning Commission Approval of Request of the Wine Service Co-op for a Tentative Parcel Map to Divide an Existing 7.8 Acre Parcel Located at 1150 Dowdell Lane, on the East and West Side of Fountain Avenue between Dowdell Lane and Mills Lane, into Two Parcels of 5.9 Acres and 1.9 Acres with an Offer of Dedication for Land for the Future Extension of Fountain Street and Realignment of Mills Lane (APN 009-660-003) (Exempt from CEQA) (Planning Director)

16. Request of Julian Inman, Representing Jack and Diana Varozza, to Rezone Property from A-20: Twenty Acre Agriculture to A-20: HP: Twenty Acre Agriculture with a Historic Preservation Overlay. The Application also Includes a Request for a Use Permit and Design Review to Refurbish a Historic Winery Building and to Operate a 20,000 Gallon Small Winery at 514 Pratt Avenue (Planning Director)

17. City Council Preliminary Review of Proposed General Plan Amendment Pursuant to Chapter 26 of the St. Helena Municipal Code as Initiated by Kevin Twohey to Process an Application to Change the Land Use Designation for the Property Located at 738 Main Street from Office to Service Commercial to Allow the Operation of Whiting Nursery on the Project Site (Planning Director)

IV. SCHEDULED MATTERS (Since Public Hearings do not begin before 8:00 p.m., Scheduled Matters listed below may be considered before that time.)

18. Request for Direction Re: Environmental Review of Comprehensive Flood Study (Public Works Director)
19. City Council Discussion of Modifications to Bed and Breakfasts Ordinance (Planning Director)
20. City Council Discussion of Moratorium on Small Winery Applications (Planning Director)

21. Request for Reconsideration of Council Action of February 26, 2002 Regarding Request of Peter Story for a Use Permit and Design Review at 100 Pratt Avenue (Councilmember Bowers)

V. ADJOURNMENT

The next Regular City Council meeting is scheduled for March 26, 2002 at 7:00 p.m. in the Carnegie Building. This agenda was posted at City Hall, 1480 Main Street, St. Helena, California, at 3:00 p.m., Friday, March 8, 2002.


Delia Guijosa, City Clerk

Hi Peter,

We went on site
+ had these concerns!

Chris

967-8158

Friends of the Napa River

68 Coombs St. Bldg B • Napa, CA 94559
Phone (707) 254-8520 • Fax (707) 254-8547
napariv@aol.com • www.napanet.net/fonr

February 22, 2002

Myke Praul, City Engineer
City of St. Helena
1480 Main Street
St. Helena, CA 94574

Re: Napa River Near St. Helena Technical Report for Hydraulic Analysis Results
Prepared by: MBK as of November 27, 2001

Dear Mr. Praul:

Friends of the Napa River would like to comment on the Technical Report by MBK in response to Scoping for an EIR pursuant to CEQA requirements. We appreciate the opportunity to provide early information through the public process to a Measure A project that must comply with the *'Living River Guidelines'* approved by the voters of Napa County.

The Technical Report lists three different plans to the St. Helena Flood Control project:

- A. The "Non-Structural Plan" (NSP)
- B. The "Minimum Plan" (MP)
- C. The "Enhanced Minimum Plan" (EMP)
- D. The "Maximum Plan" (MxP)

Friends of the Napa River have serious concerns and many questions with the plans B, C and D. We find the "Non-Structural Plan" the least intrusive and most in line with the *'Living River Guide Lines.'*

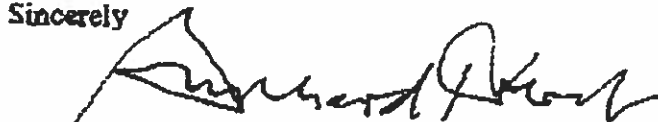
To better understand the implications of the other plans, we would like the following questions answered and documents provided for public review:

1. The massive excavations of plans MP and MxP will create islands in the Napa River riparian corridor. Questions:
 - a. Is this compliant with the *'Living River Guidelines'*?
 - b. How many native Valley Oak trees will be lost?
 - c. How much riparian vegetation will be removed from the banks and the bed of the Napa River? What is the re-vegetation plan? What is the maintenance cost?
 - d. How much erosion will occur in tons/year?
 - e. What will this do to anadromous spawning gravel down stream?
 - f. How will this change the bank and channel of the Napa River?

FONR Comments to St. Helena Flood Control Project, page 2 of 2

- g. What are the upstream and downstream erosion effects?
 - h. How will the loss of riparian vegetation and riparian function effect temperature in the Napa River?
 - i. How high will the temperatures get in the Napa River during the hot summer months due to loss of riparian vegetation?
 - j. When is it expected that the riparian cover is recovered / rebuild?
2. The initial excavations in plans MP and MxP seem to be enormous. Questions:
- a. What is the number of cubic yards (or tons) of excavation material?
 - b. What is the destination of the spoil/other material resulting from excavation?
 - c. Will the City of St. Helena be creating new housing locations with the excavated material and can Measure A money be used for this?
 - d. Would such new housing locations be growth inducing?
3. There will be cut down areas in the riparian zone (called flood terraces). Questions:
- a. How much aggradation will occur in the new excavated area?
 - b. How many tons per year of sediment excavation/maintenance will need to be done?
 - c. Where will the maintenance spoils/sediment be disposed?
 - d. How will new riparian vegetation be protected in this area?
 - e. What are the maintenance costs associated with this?
4. Could you provide the public with a map that shows the existing flood plain and the existing floodway?
5. What will the increased stream velocity be in the Pope Street Area?
6. In MP and MxP, steep bank formation will be creating a step-function. Questions:
- a. What is the associated erosion factor to this change in banks of the Napa River?
 - b. What are the costs of maintenance of these banks and where will the money come from when Measure A money sunsets?
 - c. Is this compliant with Measure A 'Living River Guidelines'?
7. What is the upstream flooding impact of the proposed Adams street extension and causeway?
8. Please detail the effects any of the plans would have on Sulphur Creek.

Sincerely



Bernhard Krevet
President, Friends of the Napa River

Fri, Jan 8, 1904 9:10 AM

From: Big Ricki <bigricki@earthlink.net>
Date: Friday, January 8, 1904 9:09 AM
Subject: Flood control Technical Report

Peter Mennen
PO Box 421
St. Helena CA
94574
March 15, 2002

Mike Praul, City Engineer
City of St. Helena
1480 main Street
St. Helena CA 94574

Dear Mr. Praul:

I was one of those selected to participate in the proposed design of a flood control project to be carried out using "Measure A" money that would reduce the impact of flooding on the community of St. Helena. As a bit of history, Measure A was passed by the voters of Napa County as a method of achieving flood control in ways that would be considerate of the biological integrity of the Napa River, as opposed to a flood control design proposed by the Army Corps of Engineers, which was rejected by the citizens of Napa County because it was destructive to river values.

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Regrettably, I found myself marginalized as the planning process went on, and I can recall at least one specific incident where I was told the concept of retaining a tree-lined riparian corridor along the river bank would be an impossible, and then later I learned this devastating concept was built into the design with the justification that, since I had not objected to it, Friends of the River must think it was okay. Toward the end, i was not even notified of upcoming meetings of the St. Helena flood design group, much less invited to participate in the role of a "Friends of the Napa River" advisor. I only learned after the fact that a recent meeting had taken place, when someone questioned me about why I was no longer attending.

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Sincerely,

Peter Mennen

CCs: Friends of the Napa River
St. Helena City Council

Note dated March 25, 2002. There is an inaccurate statement in the above letter, which I did not catch because I did not proofread the letter before running it over to the City shortly before City hall closed for the night on 3/15/02. In the above letter, I should have said I was told during a meeting of the oversight committee that it would not be appropriate to plant shrubbery in the riparian

Friends of the Napa River

The Landmarks Building
1026 First Street • Napa, CA 94559
Phone (707) 255-8646 • Fax (707) 255-2164

10/5/97

St. Helena Planning Commission
St. Helena, CA 94574

RE: Napa River Bridge Alternatives

Dear Commissioners:

Friends of the Napa River, as you know, is concerned that community action today safeguard the long-term health of the Napa River. Specifically, we are concerned that the placement of the new Pope Street bridge to cross the Napa River will have significant impacts on river stability and of great concern to St. Helena's dense build-out along the river, have an impact on flooding. We acknowledge the need for a new bridge and perhaps the impacts will only be positive, but it is better to ask the questions now rather than later.

The Alternative A is of particular concern as the abutment for the West side of the bridge is in the floodway of the Napa River, possibly backing the water up in an area where there are many variables to consider, not the least of which is residential. The abutment on the West side sits on Stonebridge Park, a park that carries flood waters at times. Placing a cement dam there would force water elsewhere. The bridge would have to be longer with a causeway to allow the passage for that water in an area that seems ill suited for it.

Alternative A has other problems associated with the troubled area it would be placed into: that is the confluence of Sulphur Creek and the Napa River, and upstream from the historic Pope Street Bridge that is a constriction in the river. It is not yet known what the cumulative effect of the increased flow and velocity of the stormwater runoff from the new developments along Sulphur Creek is going to be during heavy rains.

We have briefly consulted an hydraulic engineer who has done a complete computer analysis of the Napa River at that very point and would be able to plug in the variables to make sure Alternative A would not have the problems it does appear to have and to compare them with the other alternatives. He suggested that bridges have backflow problems that have to be considered carefully. We have learned in our education about river systems that you can not tell how things are until the numbers are run. On page 19 of your report you suggest the hydraulic scour evaluation would be conducted during the final design phase of the project. Suppose at that time the numbers don't come out well for Alternative A? Why not do the modeling now so the citizens can see what the options are and rest assured there will be no additional flooding or scouring problems with any of the alternatives? This would allow them to support a more informed decision.

We are enclosing the name and address of the engineer who has the computer model of this stretch of the river.

Respectfully submitted,

Friends of the Napa River

Address of Philip Williams & Associates
c/o Vince Neary, Pier 35-The Embarcadero
San Francisco, CA 94133

*Vince Neary -
Please call me
Home = 255-8762
office*

Environmental Impact Report (EIR) Process Overview

1. Notice of Preparation (NOP) released for 30-days
2. Scoping Meeting Occurs within 30-day NOP Comment Period
3. EIR Draft is written
4. Notice of Completion (NOC) and Notice of Availability (NOA) issued to begin 45-day draft EIR public review period.
5. Comments are compiled and organized for response.
6. Response to Comments drafted and any needed revisions to EIR are made.
7. Public Hearing (could be specific to EIR or include EIR and Project Action)
 7. a. EIR Certification, Project Decision, CEQA findings, Statement of Overriding Consideration Considerations
8. Notice of Determination

Mandatory Elements of CEQA Review

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

I DO NOT THINK IT HAS BEEN FAIR TO THE DEVELOPER
TO TAKE SO MUCH TIME TO DECIDE TO ALLOW THIS PROJECT
TO PROCEED. YOU CAN GO FARTHER. IT MAKES THE
COSTS TO THE DEVELOPER UNFAIRLY TOO HIGH.
I URGE A SPEEDY OK,
SUPPORT THIS WORTHY PROJECT.



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JOAN SANDBERG WESTGATE
1520 PINE ST. H.



HUNTER SUBDIVISION PROJECT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive a Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Jan Flynn

Email: bluebird4879@gmail.com

Address: 30 Redondo Ct., St. Helena

Organization: _____

☒ I would like to receive future environmental notices via email. bluebird4879@gmail.com

Please provide us with your written comments on the NOP by **April 9, 2018**. Comments on the NOP may be sent to:

Noah Housh, Planning and Community Improvement Director
City of St. Helena, Planning & Community Improvement Department
1480 Main Street
St. Helena, CA 94574
Email: NHoush@cityofsthelelena.org

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

Major concerns for EIR consideration:

- Noise

* - loss of vital recreation resource ("river walk")

- Water — flood water & runoff

- sewers

- impact on schools & public services

* - traffic — esp. impact on Pope St. Bridge