FINAL
ENVIRONMENTAL IMPACT REPORT

RIVERFRONT MIXED-USE PROJECT

STATE CLEARINGHOUSE #2013062004

PREPARED FOR
CITY OF PETALUMA

PREPARED BY
STRELOW CONSULTING
in association with
METROPOLITAN PLANNING GROUP

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1.0 INTRODUCTION

IN THIS SECTION:

1.1 PURPOSE of EIR

This Environmental Impact Report (EIR) has been prepared for the Community Development Department of the City of Petaluma (City). The City is the lead agency for the project. This document, which includes responses to comments on the Draft Environmental Impact Report (DEIR), together with the DEIR dated December 2013, constitutes the Final EIR (FEIR) for the project. For ease of reference, this document is referred to as the FEIR.

The EIR addresses the potential environmental effects of a proposed mixed-use development on an existing 35.7-acre site (39.5 including the Riverfront Park). Approximately 19 acres will be developed with residential, commercial and office uses, with approximately 13 acres for right-of-way dedication and 3.7 acres for parks and civic spaces. The project would allow for future development of a mix of land uses, including 273 residential units (134 single-family, 39 townhome and 100 apartment units), 90,000 square feet of commercial space, a 120-room hotel, approximately 4.0 acres of onsite parks, a system of multi-use trails, and a community boathouse adjacent to the Petaluma River. The project also includes an emergency access route (approximately 0.3 acres) and the development of a 3.5-acre riverfront park. The City is processing a rezone based on the 2003 SmartCode and Tentative Subdivision Map to create 144 lots and four parcels. The project will be developed in phases and each phase will require individual phase-specific Site Plan and Architectural Review (SPAR) approval in the future. A full description of the project is presented in the PROJECT DESCRIPTION (3.0) section of the DEIR.

This EIR has been prepared in accordance with the current California Environmental Quality Act (CEQA) and the State CEQA Guidelines, which are found in Title 14 of the California Code of Regulations, commencing with section 15000. As stated in the CEQA Guidelines section 15002, the basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.

- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Pursuant to State CEQA Guidelines section 15121, an EIR is an informational document which will inform public agency decision-makers and the public of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency. While the information in the EIR does not control the ultimate decision on the project, the agency must consider the information in the EIR and respond to each significant effect identified in the EIR by making findings at the time of project approval as further explained below in section 1.2.

As indicated above, the focus of the environmental review process is upon significant environmental effects. As defined in the CEQA Guidelines section 15382, a "significant effect on the environment" is:

> ...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether a physical change is significant.

CEQA Guidelines section 15064(e) further indicates that economic and social changes resulting from a project shall not be treated as significant effects on the environment, although they may be used to determine that a physical change shall be regarded as a significant effect on the environment. Where a physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project.

1.2 EIR PROCESS

An Initial Study and Mitigated Negative Declaration (IS-MND) were prepared in June 2013 and circulated for a 30-day public review period from June 6 through July 5, 2013. The review period was extended to July 25, 2013 upon consideration of a public request for extension. Upon the close of the public review period, the City reviewed comments received on the IS-MND and determined that an EIR should be prepared to address potentially significant

impacts. A revised Initial Study was prepared that identifies the topics to be further reviewed in an EIR. The revised Initial study is included in Appendix A of this EIR, and issues addressed in this EIR are summarized in the following section (1.3).

A Notice of Preparation (NOP) for this EIR was circulated on September 17, 2013, which is included in Appendix B. The NOP was circulated to: the State Clearinghouse; local, regional and federal agencies; and interested organizations and individuals. In response to the NOP, letters of comment were received from the California Department of Fish and Wildlife (CDFW), the California Department of Transportation (Caltrans), and the California State Lands Commission, which are also included in Appendix B. No other responses to the NOP were received.

A scoping meeting was conducted on October 29, 2013. The meeting was attended by two members of the public and a representative for the Applicant. City staff reviewed project history and timeline, and environmental conditions. No environmental issues or comments on the project were raised by the attendees.

The Draft EIR was published and circulated for review and comment by the public and other interested parties, agencies and organizations for a 45-day review period from December 19, 2013 through February 6, 2014. Five letters of comment were received as discussed in subsection 1.3 below, as well as oral comments at two public hearings.

The Final EIR will include written responses to any significant environmental issues raised in comments received during the public review period in accordance with the State CEQA Guidelines, section 15088. The Final EIR will then be presented to the Planning Commission to consider before making a recommendation on the project to the City Council. Prior to taking action on the project, the City Council must certify that it has reviewed and considered the information in the EIR, that the EIR has been completed in conformity with the requirements of CEQA, and that the document reflects the City's independent judgment pursuant to the State CEQA Guidelines, Section 15090.

Pursuant to sections 21002, 21002.1 and 21081 of CEQA and sections 15091 and 15093 of the state CEQA Guidelines, no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant effects unless one or more findings are made:

1. Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects on the environment.
2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been or can and should be, adopted by such other agency.

3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

Additionally, when a lead agency approves a project which will result in the occurrence of significant effects that cannot be avoided or substantially lessened, the agency shall state reasons to support the action in a "statement of overriding considerations" that is supported by substantial evidence in the record (State CEQA Guidelines section 15093).

1.3 COMMENTS RECEIVED ON THE DRAFT EIR

Agencies, organizations and individuals that submitted written comments on the Draft EIR are outlined below.

1. California State Clearinghouse
2. California State Lands Commission
3. State of California Natural Resources Agency, Department of Fish and Wildlife
4. Adams Broadwell Joseph & Cardozo
5. Rachel Starr (received after the close of the public review period)

In addition to the written comments received on the Draft EIR, oral comments were received at a Planning Commission meeting held on January 14, 2014 and at a City Council meeting held on February 3, 2014.

1.4 REPORT ORGANIZATION

This document (Responses to Comments), together with the Draft EIR, dated December 2013, constitutes the Final EIR for the project. This document contains responses to comments received on the Draft EIR, and revisions to the Draft EIR. This document is organized with the following sections.

- INTRODUCTION
- SUMMARY OF ENVIRONMENTAL IMPACTS: This section provides an updated summary of all impacts, level of significance, and mitigation measures identified for the project, as well as a summary of alternatives. An overview of the project is provided, project alternatives and issues of concern are summarized.

- CHANGES TO DRAFT EIR: This section outlines revisions to the Draft EIR text as a result of review of comments and responses as may be needed.

- PUBLIC COMMENTS AND RESPONSES: Each comment letter is presented, and responses to comments immediately follow each comment letter. A summary of oral comments received at two public hearings and responses to these comments are provided at the end of the section.

A Mitigation Monitoring and Reporting Program (MMRP) is included in Appendix A. The MMRP has been prepared pursuant to requirements in the California Environmental Quality Act (CEQA – Public Resources Code Section 21081.6) and the CEQA Guidelines (Cal. Code Regs., Title 14, Chapter 3, Section 15097).

2.0 SUMMARY OF IMPACTS

IN THIS SECTION:

This Environmental Impact Report (EIR) has been prepared for the Community Development Department of the city of Petaluma (City). The City is the lead agency for the project. This document, which includes responses to comments on the Draft Environmental Impact Report (DEIR), together with the DEIR dated December 2013, constitutes the Final EIR (FEIR) for the project. For ease of reference, this document is referred to as the Final EIR.

This summary provides a brief description of the proposed project, known areas of concern, project alternatives, and all potentially significant impacts identified during the course of this environmental analysis. This summary is intended as an overview and should be used in conjunction with a thorough reading of the Draft EIR and this Final EIR document. The text of these reports, including figures, tables and appendices, serves as the basis for this summary.

Changes to Draft EIR text and mitigation measures are shown below in underlined type for new text and ~~strikeout~~ type for deleted text.

2.1 PROJECT SUMMARY

The proposed project consists of a mixed-use development on an existing 35.7-acre project site. Approximately 19 acres will be developed with a mix of residential, commercial and office uses, with approximately 13 acres for right-of-way dedication and approximately 3.7 acres for civic spaces. The project would allow for future development of 273 residential units, 60,000 square feet of office space and 30,000 square feet of commercial space, a 120-room hotel, and a parcel dedicated to the City for the future development of a community boathouse adjacent to the Petaluma River. The project also includes an offsite emergency access route and an offsite 3.5-acre riverfront park. The City is processing a rezone based on the 2003 SmartCode and Tentative Subdivision Map to create 144 lots and four parcels ~~and a Master Site Plan and Architectural Review for the entire project site~~. One parcel is for the community boathouse that will be designed and constructed at a later date. The project will be developed in phases and each phase will require individual phase-specific Site Plan and Architectural Review (SPAR) approval in the future. The above activities are collectively referred to as the "project". A full description of the project is presented in the PROJECT DESCRIPTION (CHAPTER 3.0) section of the DEIR document.

2.2 AREAS OF CONCERN

The City of Petaluma, as the Lead Agency, has identified areas of concern based on preparation of the Initial Study and Notice of Preparation (NOP), which are included in Appendices A and B of the DEIR. In response to the NOP, letters of comment were received from the California Department of Fish and Wildlife (CDFW), the California Department of Transportation (Caltrans), and the California State Lands Commission. The letters are included in Appendix B, and comments generally identified agency responsibilities and regulatory authority, as well as comments regarding impacts to biological resources, clarification on cumulative traffic scenarios, impacts to highway on-ramps and public trust lands under the jurisdiction of the State Lands Commission. Other comments raised during the public review for the Initial Study/Mitigated Negative Declaration, prior to preparation of this EIR, included concerns regarding: fill of wetlands, post-construction stormwater management, safety issues associated with the rail crossing, hazardous materials in soil and groundwater, geologic hazards, floodway impacts, and the potential for greenhouse gas emissions to exceed established thresholds.

2.3 SUMMARY OF ALTERNATIVES

CEQA Guidelines require that an EIR describe and evaluate alternatives to the project that could eliminate significant adverse project impacts or reduce them to a less-than-significant level. The following alternatives are evaluated in the CEQA CONSIDERATIONS (Chapter 5.0) section of the DEIR:

- Alternative 1 – No Project Alternative
- Alternative 2 – Modified Subdivision Layout
- Alternative 3 – Reduced Project Size

Table 5-1 in the "Project Alternatives" section of Chapter 5.0 presents a comparison of project impacts between the proposed project and the alternatives. Alternative 1 – No Project Alternative, would eliminate the identified significant impacts, but would not attain any of the project objectives. Nearly half the identified significant impacts would result during construction and can be mitigated under any alternative, as well as the proposed project. Of the alternatives analyzed, Alternative 3 – "Reduced Project Size", is considered the environmentally superior alternative of the alternatives reviewed. Alternative 3 would substantially reduce the significant impact to jurisdictional wetlands and would result in some reduction in the severity of other significant impacts such as air quality, geology and soils, and noise. It would meet most project objectives, except it would only partially meet objectives related to employment and promoting a pedestrian-oriented development as the active park would not be able to be developed under either Alternatives 2 or 3.

2.4 SUMMARY OF IMPACTS & MITIGATION

All impacts identified in the DEIR are summarized in this section. These summary groups impacts together, beginning with significant unavoidable impacts, followed by significant impacts that can be mitigated, and lastly impacts not found to be significant. Changes to Draft EIR text that are identified below are shown in underlined type for new text and ~~strikeout~~ type for deleted text and as further described in Chapter 3.0 of this document.

SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts were identified as a result of the impact analyses.

SIGNIFICANT IMPACTS

The following impacts were found to be potentially significant, but could be reduced to a less-than-significant level with implementation of identified mitigation measures.

Air Quality and Greenhouse Gas Emissions

Impact 4.1-1 – *Criteria Pollutant Emissions*: The project would result in emissions during construction and from vehicles once development is complete, which would not be considered significant except for generation of fugitive dust during construction. This is considered a *potentially significant* impact.

Mitigation Measures. Implementation of Mitigation Measures AIR-1 and AIR-2 below will mitigate construction-related PM_{10} and $PM_{2.5}$ emissions to a less-than-significant level.

AIR-1: Require implementation of the following measures during construction:

a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or to maintain a minimum soil moisture of 12%.
b) All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
c) The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
d) All trucks and equipment, including their tires, shall be washed off prior to

leaving the site.

e) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
f) All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.
g) All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
h) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.
i) All paving shall be completed as soon as possible after pipeline replacement work is finished.
j) Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
k) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 minutes (California airborne toxics control measure Title 13, section 2485 of California Code of Regulations (CCR) establishes a maximum idling time of 5 minutes). Clear signage shall be provided for construction workers at all access points.
l) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
m) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
n) Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
o) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
p) <u>All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.</u>

AIR-2: Include the following measures as part of the construction specifications (General Plan Policy 4-P-16):

a) Maintain construction equipment engines in good condition and in proper tune per manufacturer's specification for the duration of construction;
b) Use alternative fuel construction equipment if available (i.e., compressed natural gas, liquid petroleum gas);
c) Require that all construction equipment, diesel trucks, and generators be

equipped with Best Available Control Technology for emission reductions of NOx and PM through the use of add-on control devices such as diesel oxidation catalysts or particulate filters; and

d) Require all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

Impact 4.1-2b – *Expose Sensitive Receptors to Pollutants During Construction*: Sensitive onsite receptors could be exposed to substantial temporary concentrations of pollutant concentrations during construction due to diesel equipment exhaust.

Mitigation Measures. Implementation of Mitigation Measures AIR-3 will reduce the impact to a less-than-significant level.

AIR-3: Require that construction activities implement the following measures at the project sites to reduce construction equipment exhaust when building construction activities occur within 200 feet of any residential use ~~residences~~. The contractor shall develop and the City shall approve a plan demonstrating that the off-road equipment (more than 50 horsepower and on site for more than 2 consecutive workdays) to be used in project construction (i.e., owned, leased, and subcontractor vehicles) would achieve an additional 60 percent reduction in exhaust particulate matter emissions, compared to similar equipment based on CARB statewide average emissions. Based on the CalEEMod modeling, a feasible method to achieve this objective would be the following:

a) All diesel-powered construction equipment more than 50 horsepower used on-site during all construction phases for more than two days consecutively shall meet or exceed U.S. EPA Tier 2 standards for particulate matter emissions or substituted with alternatively fueled equipment (e.g., LPG fuel).

b) Prohibit use of diesel-powered generators for more than two days when line power is available.

c) All non-mobile construction equipment shall be alternatively fueled or meet U.S. EPA Tier 2 standards for particulate matter emissions

Impact 4.1-3 – *Objectionable Odors*: Future construction and development of the site, resulting from the proposed project, will not result in the generation of objectionable odors in substantial concentrations. However, occupancy of the project site has the potential to expose new residents to objectionable odors.

Mitigation Measures. Implementation of Mitigation Measure AIR-4 below will reduce exposure of future residents to objectionable odors emitting from the PIP Station to a less-than-significant level.

AIR-4: Provide reimbursement to the City for the design and construction of the Primary Influent Pump Station mechanical odor control unit. The odor control unit shall meet current design criteria and be equivalent to the units installed at recent pump station upgrades within the City.

Biological Resources

Impact 4.2-1 - *Wetlands*: The proposed project would result in fill of 0.24 acres of onsite wetlands, most of which are jurisdictional wetlands. Although the fill will not result in significant impacts to special status species or habitat value, due to the fact wetlands are considered sensitive habitats, this is a potentially significant impact.

Mitigation Measures. Implementation of Mitigation Measures BIO-1 and BIO-2 below will reduce the project impacts to wetlands to a less-than-significant level.

BIO-1: To mitigate for the impacts to 0.24 acres of seasonal wetland habitat, the developer shall consult with agencies to identify feasibility of creating onsite mitigation areas through remediation within the Riverfront park area. If onsite mitigation is determined to be infeasible then, credits shall be purchased from an approved mitigation bank at a ratio of one acre for every one acre impacted, or as otherwise directed by the regulatory agencies. Due to general low-quality of the existing wetland habitat (e.g. presence of non-native species, disturbed soils) within the project site, a mitigation ratio of one acre mitigated for each acre impacted is recommended by the biologist. Prior to issuance of grading permit, proof of purchase of mitigation bank credit or verification of onsite wetland remediation to offset losses shall be submitted to the City and U.S. Army Corps of Engineers.

According to information provided by the project biologist, the Burdell wetland mitigation bank, located just south of Petaluma, has mitigation bank credits available.

BIO-2: Develop final Riverfront Park design that avoids and protects wetlands. The design shall also investigate the feasibility of creating wetland habitat as part of the proposed Riverfront Park, which could serve to offset losses in lieu of purchasing credits (See BIO-1). Implement standard best management practices (BMP) to protect wetland areas during and after construction of the Riverfront Park to include, but not be limited to installation of protective staking and silt fencing to prevent inadvertent intrusion by equipment during construction.

Impact 4.2-2 – *Special Status Species*: Site preparation could result in direct impacts to nesting bird species, if they are present, including potential special status bird species.

Mitigation Measures. Implementation of Mitigation Measure BIO-3 below will reduce the potential impacts to nesting birds, including special status species to a less-than-significant level.

BIO-3: Conduct vegetation removal within areas to be developed between September 1 and January 30, outside of the general breeding bird season. If this is completed, no further mitigation is required. Otherwise, if vegetation removal or modification occurs between February 1 and June 15, require pre-construction nesting surveys within 14 days prior to such activities to determine the presence and location of nesting bird species. If vegetation removal or modification occurs between June 16 and August 31, pre-construction surveys shall be performed within 30 days prior to such activities. If active nests are present, establish temporary protective breeding season buffers to avoid direct or indirect mortality of these birds, nests or young. The appropriate buffer distance is dependent on the species, surrounding vegetation and topography and shall be determined by a qualified biologist as appropriate to prevent nest abandonment and direct mortality during construction.

Cultural Resources

Impact 4.3-1 - *Discovery of Archaeological Resource*: The project has the potential to disrupt previously undiscovered archeological resource.

Mitigation Measures. Implementation of Mitigation Measure CUL-1 below will reduce the project impact to unknown archeological resources that may be discovered during construction to a less-than-significant level.

CUL-1: If during the course of ground disturbing activities, including, but not limited to excavation, grading and construction, a potentially significant prehistoric or historic resource is encountered, all work within a 100 foot radius of the find shall be suspended for a time deemed sufficient for a qualified and city-approved cultural resource specialist to adequately evaluate and determine significance of the discovered resource and provide treatment recommendations. Should a significant archeological resource be identified a qualified archaeologist shall prepare a resource mitigation plan and monitoring program to be carried out during all construction activities.

Impact 4.3-2 – *Disturb Human Remains*: The project could disturb undiscovered human remains, including those interred outside of formal cemeteries.

Mitigation Measures. Implementation of Mitigation Measure CUL-2 will reduce any potential impacts to buried human remains to a less-than-significant level.

CUL-2: In the event that human remains are discovered, all work shall be suspended and the Sonoma County Coroner shall be contacted in accordance with provisions of the

California Public Resources Code section 5097.98-99 and the Native American Heritage Commission shall be notified in accordance with the provisions of Public Resources Code 5097, so that the "Most Likely Descendant" can be designated.

Geology and Soils

Impact 4.4-1 – *Exposure to Seismic Hazards*: Future project structures, residents and occupants at the site would be subject to strong seismic shaking and liquefaction hazards.

Mitigation Measures. Compliance with the California Building Code regulations and implementation of Mitigation Measure GEO-1 below will reduce the impact of exposure to seismic and geologic hazards to a less-than-significant level.

GEO-1: Require implementation of all recommendations as set forth in the geotechnical investigations and updates prepared for the subject property by Miller Pacific Engineering Group (dated March 2006, July 2009, August 2011, January 2013, December 2013), including but not limited to recommendations for site and soil preparation, foundation designs, drainage and installation of utilities. Buildings shall require the following: a) structural foundation systems, such as mat slabs or rigid interconnected grade beams, able to resist the anticipated strong ground shaking and potential for differential movement caused by liquefaction and/or consolidation of the bay mud, b) soil improvement, c) deep foundation systems, or d) other engineering techniques as recommended in additional geotechnical investigations of liquefaction hazards. All structures shall meet the California Building Code regulations and design requirements for seismic safety.

Impact 4.4-2 – *Soil Settlement*: Future structures at the project site would be subject to soil settlement with potential damage to structures and utilities.

Mitigation Measures. Implementation of recommendations in project geotechnical reports as set forth in the Mitigation Measure GEO-1 above and Mitigation Measures GEO-2 and GEO-3 below will reduce the impact of exposure to geotechnical hazards to a less-than-significant level. Additionally, geotechnical investigations will be required for each development phase in accordance with requirements of the California Building Code and City policies and requirements

GEO-2: Implement the recommendations of the project geotechnical investigations and updates prepared for the subject property by Miller Pacific Engineering Group (dated March 2006, July 2009, August 2011, January 2013, December 2013), except as modified based on site-specific refinements. Settlement mitigation measures shall include use of structural foundation systems (such as mat slabs or rigid interconnected grade beams) for residential structures, which can withstand the potential total and differential settlements in accordance with recommendations of the geotechnical investigations

and deep foundations (driven piles or drilled piers) for heavier structures planned in the northern portion of the site. Ground improvement, such as with the use of Rammed Aggregate Piers (RAP), may also be appropriate at certain locations within the site.

GEO-3: Prior to the issuance of grading permits and in accordance with City of Petaluma Improvement Plan standard submittal requirements and procedures, the developer shall submit construction plans along with Design Level Geotechnical Analysis that specifically addresses the thicker fills up to ten feet in the area near the Future Caulfield Lane Bridge in the southern portion of the site. The Improvement Plans and design level Geotechnical Analysis ~~Geotechnical Report(s) prepared by Miller Pacific Engineering~~ shall be subject to third party peer review in order to verify that recommended measures to address differential settlement of bay mud associated with thicker fills up to ten feet near the Future Caulfield Lane Bridge are adequate to accommodate potential settlement. In the event that peer review concludes that the recommended design measures will not sufficiently minimize the effects of differential settlement, the developer shall be required to implement one of the following standard construction techniques: 1) the use of lightweight fill material in place of heavier, existing soils on areas that require thicker fill, or 2) pre-load areas that require thicker fill and allow settlement to occur prior to construction. The ~~applicant~~ developer shall be responsible for the cost of the peer review and the City's Public Works Department shall coordinate the scope of service and approve findings of the peer review prior to the issuance of grading permits.

Impact 4.4-3 – *Expansive Soils*: Future structures at the project site would be subject to expansive soils with potential damage to structures and utilities.

Mitigation Measures. Compliance with the California Building Code regulations and implementation of the Mitigation Measure GEO-1 in the preceding impact discussion will reduce the impact of potential structural damage due to expansive soils to a less-than-significant level.

Impact 4.4-4 – *Erosion*: Grading at the project site could result in inadvertent erosion or soil transport into the Petaluma River.

Mitigation Measures. Implementation of Mitigation Measures HYDRO-2, HYDRO-3 and HYRDRO-4 in the HYDROLOGY & WATER QUALITY (Chapter 4.6) section of this EIR will reduce the impact of potential erosion to a less-than-significant level.

Hazards and Hazardous Materials

Impact 4.5-2 – *Exposure to Soil-Water Contamination*: The potential reuse of onsite stockpiled soils or discovery of unknown hazardous materials during construction could pose a hazard to workers during construction.

Mitigation Measures. Implementation of Mitigation Measures HAZMAT-1 and HAZMAT-2 below, in accordance with recommendations of environmental site assessments, will ensure no exposure to hazardous materials will occur during construction, and mitigate potential impacts to a less-than-significant level.

HAZMAT-1: Require that the quality of the stockpiled soils be reaffirmed / tested prior to use for onsite fill, which shall be done following the Clean Imported Fill Material Information Advisory prepared by the DTSC (DTSC 2001) in accordance with the recommendation set forth in the 2013 Iris Environmental Phase I Environmental Site Assessment.

HAZMAT-2: Prepare and implement a Risk Management Plan (RMP) that provides the procedures to properly manage site groundwater that may be encountered during construction activities. The plan shall address procedures for discovery of any unknown features or environmental conditions that may be encountered during activities that will disturb site soils.

The RMP shall include, but not be limited to the following components as set forth in the 2013 Phase I Environmental Site Assessment report:

a) Soil management: Provide guidelines for identification and analysis of unknown environmental conditions and define responsibilities for management of discovery of unknown features or site conditions.
b) Groundwater management: Prohibit use of groundwater encountered during construction activities for dust control and allow discharge of groundwater to surface waters only pursuant to a permit issued from applicable regulatory agencies. All permit conditions must be satisfied prior to discharge.
c) Preparation and implementation of a site-specific Environmental Health and Safety Plan by the general contractor to ensure that appropriate worker health and safety measures are in place during redevelopment activities. Elements of the plan must include all practices and procedures necessary to comply with all new and existing Federal, California, and local statutes, ordinances, or regulations regarding health and safety. Specific components of the EHASP must include the following: identification of site hazards; assignment of specific health and safety responsibilities for site work; establishment of appropriate general work practices; establishment of control zones and decontamination procedures; job hazard analysis / hazard mitigation

procedures; air monitoring; required personal protective and related safety equipment; and contingency and emergency information.

Hydrology and Water Quality

Impact 4.6-1 – *Stormwater Drainage*: Buildout of the project site would result in a significant increase in stormwater runoff that would ultimately discharge into the Petaluma River, and which would result in potentially significant impacts if storm drains are not properly sized.

Mitigation Measures. Implementation of Mitigation Measure HYDRO-1 below will insure adequate storm drainage system design and reduce potential stormwater drainage impacts to a less-than-significant level. Payment of the City's Storm Drainage Impact Fee also will be required.

HYDRO-1: Prepare final drainage plan as part of the Subdivision Improvement Plans that provide calculations and documentation that the site storm drain system and discharge culverts have adequate capacity to serve the project and watershed area at full buildout. The storm drain system design shall be reviewed and approved by the Sonoma County Water Agency.

Impact 4.6-2 – *Water Quality & Stormwater Discharge*: Grading activities and future runoff from the developed project site could result in non-point and point source pollution into the Petaluma River, if not properly controlled. This is a potentially significant impact since the river is listed as impaired for nutrients, pathogens and sediment.

Mitigation Measures. Implementation of Mitigation Measures HYDRO-2 through HYDRO-5 below, in accordance with City regulations, will reduce potential water quality impacts to a less-than-significant level. Grading and construction of site improvements, as well as development of each development phase, would require approval of a grading permit with an erosion control plan. All earthwork, grading, trenching, backfilling, and compaction operations shall be conducted in accordance with the City of Petaluma's Subdivision Ordinance (#1046, Title 20, Chapter 20.04 of the Petaluma Municipal Code). An erosion and sediment control plan will be required for the subdivision grading plans. The proposed subdivision grading and subsequent development phases that are over one acre in size will be required to prepare a SWPPP in accordance with City and State regulations, and all future development will be subject to City grading and erosion control regulations.

HYDRO-2: In accordance with National Pollution Discharge Elimination System (NPDES) regulations, the developer shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for grading and construction of subdivision improvements. The SWPPP shall also include provisions for the offsite Riverfront Park. All subsequent development phases over one acre in size shall prepare and implement a SWPPP. The

SWPPP shall address erosion and sedimentation controls during all phases of construction, storage and use of fuels, and use and clean-up of fuels and hazardous materials. The SWPPP shall prohibit fueling, cleaning, or maintenance of equipment except in designated areas located as far from the river as possible. As a precaution, require contractor to maintain adequate materials onsite for containment and clean-up of any spills. The developer shall provide approval documentation from the RWQCB to the City verifying compliance with NPDES requirements. Acceptable proof of compliance is the Notice of Intent with a WDID number or other equivalent documentation.

HYDRO-3: The applicant shall prepare and implement an erosion control plan for the subdivision grading and each subsequent development phase site plan. The plan shall be reviewed and approved by the City of Petaluma prior to issuance of a grading permit for the proposed development. The erosion control plan shall include phasing of grading, limiting areas of disturbance, designation of restricted-entry zones, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection and provision for revegetation or mulching. The plan shall also prescribe treatment measures to trap sediment, such as inlet protection, straw bale barriers, straw mulching, straw wattles, silt fencing, check dams, terracing, and siltation or sediment ponds. Catchment and settlement ponds will be constructed to contain silt being deposited at temporary outlets. Temporary outlets will be rocked with silt control. Fiber rolls, silt fences and fiber mats will be installed on all slopes.

HYDRO-4: The applicant shall prepare and implement an erosion control plan for construction of the ~~offsite~~ trail and improvements for the offsite Riverfront Park, including, but not limited to: installing hay bales or appropriate temporary silt fencing adjacent to the perimeter of the work area to prevent inadvertent transport of sediments into the Petaluma River; limiting ground disturbance and vegetation removal during construction; conducting work prior to the rainy season; protecting disturbed areas during the rainy season; and immediately revegetating disturbed areas.

HYDRO-5: Subsequent development phases over one acre in size shall submit plans and detailed calculations to show that requirements for post-construction runoff treatment have been met in accordance with the City's stormwater management regulations.

Noise

Impact 4.7-1 – *Elevated Noise Exposure*: The project could expose people to noise levels that exceed the Petaluma General Plan 2025 Land Use-Noise Compatibility Standards and City regulations.

Mitigation Measures. Implementation of mitigation measure NOISE-1 below will reduce the project impact related to exposure to noise levels to a less-than-significant level.

NOISE-1: Pursuant to General Plan Policy 10-P-3C and the CPSP EIR Mitigation Measure 10-1, ~~and the State Building Code~~, a detailed acoustical report shall be prepared by a qualified acoustical specialist as part of design phase to determine the noise control treatments for the residential buildings, offices and the hotel to meet local and state standards. Noise attenuation measures shall include as appropriate thicker walls, stucco siding, sound insulating windows and/or doors, ~~treatments,~~ building and bedroom orientation, ~~and/or small or no windows facing noise emitters~~, and other measures pursuant to the detailed acoustical report. To achieve the noise reduction requirements, some form of forced air mechanical ventilation, satisfactory to the local building official, would be required in all residential units and the hotel. Special sound rated building elements such as windows and doors may also be necessary to reduce the intrusiveness of the train noise given that typical noise levels could reach 95 dBA Lmax outside the nearest townhomes if Quiet Zone status is not approved.

Impact 4.7-5 – *Temporary Increase in Noise*: Noise levels generated during construction activities would result in a temporary increase in ambient noise levels for an approximately six-year period during buildout of future development phases.

Mitigation Measures. Implementation of the following Mitigation Measure NOISE-2 will reduce the project impact related to temporary construction noise levels to a less-than-significant level.

NOISE-2: In accordance with Mitigation Measure 10-2 of the Central Petaluma Specific Plan, require implementation of the following measures during all phases of project construction:

a) *Construction Scheduling.* Limit noise-generating constructions activities to daytime, weekday hours (7 AM to 6 PM) and 9 AM to 5 PM on weekends and holidays. When construction is occurring within 100 feet of existing residences then construction shall be initiated no earlier than 8 AM during weekdays, 9 AM on Saturday and shall be prohibited on Sundays and Holidays.
b) *Equipment.* Properly muffle and maintain all construction equipment powered by internal combustion engines.
c) *Idling Prohibitions.* Prohibit unnecessary idling of internal combustion engines.
d) *Equipment Locations and Shielding.* Locate all stationary noise-generally equipment, such as air compressors as far as practical from existing nearby noise sensitive receptors.
e) *Quiet Equipment Selection.* Select quiet construction equipment, particularly air compressors, whenever possible.
f) *Noise Disturbance Coordinator.* Designate a project construction supervisor as "Noise Disturbance Coordinator" who would be responsible for responding to any local

complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and submit to the City of Petaluma Building and Police Departments.

g) *Notification.* Notify nearby residents (within 300 feet) in writing of the construction schedule.

Transportation and Traffic

Impact 4.8-4 – *Rail Crossing*: The project will result in an increase in daily and peak hour trips, but would not substantially increase hazards due to conflicts between motorists, pedestrians, bicyclists and rail operations. However, if supplemental safety measures to be implemented as part of the SMART rail service are not in place before project completion, potential hazards could result.

Mitigation Measures. Implementation of Mitigation Measure TRAF-1 below will reduce potential safety hazards due to rail crossing to a less-than-significant level.

TRAF-1: If SMART rail service (and the supplemental safety measures that may be needed for it) is delayed to such an extent that the Riverfront project is built first, require installation of the supplemental safety measures at the existing Caulfield Lane at-grade crossing to include an additional exit gate on the southwest side of the crossing to preclude vehicles from navigating around the entry gates to proceed eastbound on Caulfield. The exit gate and related items shall be installed by SMART's contractor and funded by the City. The applicant shall contribute funds equal to half the cost of construction.

Cumulative Impacts

Cumulative Impact – *Traffic*: The project will contribute to significant cumulative near-term impacts.

Mitigation Measures. Implementation of Mitigation Measures CUM-1 and CUM-2 below, as well as payment of City traffic impact fees, below will mitigate the project's contribution to cumulative traffic impacts.

CUM-1. Require payment of the project's 21% pro-rata share of the cost of signalization at Hopper Street/Caulfield Lane in the future when an extension of Caulfield Lane over the Petaluma River is completed.

CUM-2. The Applicant shall lengthen the westbound left turn pocket at Lakeville Street/Caulfield Lane to approximately 250 feet, and install a raised median on the

westbound approach to physically prohibit illegal left turn movements into and out of adjacent properties, as recommended in the project traffic report, in order to improve capacity and safety at the intersection.

LESS-THAN-SIGNIFICANT IMPACTS

The following impacts were found to be less-than-significant. Mitigation measures are not required.

Draft EIR

AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Impact 4.1-2a – *Expose Sensitive Receptors to Pollutants*: Portions of the proposed project would be subject to motor vehicle emissions from Highway 101, but sensitive receptors would not be exposed to substantial concentrations of pollutants.

Impact 4.1-4 – *Greenhouse Gas Emissions*: Future construction and development of the site, resulting from the proposed project, will result in greenhouse gas emissions that are below regional thresholds.

HAZARDS AND HAZARDOUS MATERIALS

Impact 4.5-1 – *Creation of Hazards*: The proposed project does not include industrial or other uses expected to use hazardous materials or generate hazardous waste, other than standard cleaning and household products.

HYDROLOGY & WATER QUALITY

Impact 4.6-3 – *Flood Hazards*: Future structures at the project site would not be subject to hazards associated with flooding of the Petaluma River or sea level rise, although portions of the planned offsite riverfront park may be inundated in the future due to sea level rise. This is considered a less-than-significant impact as no habitable structures will be affected.

NOISE

Impact 4.7-2 – *Exposure to Groundborne Vibration Due to Rail Operations*: Vibration levels generated by passing trains on the tracks adjacent to the project site may be perceptible, but would be below FTA guidelines and would not be excessive or cause cosmetic or structural damage to buildings.

Impact 4.7-3 – *Exposure to Groundborne Vibration During Construction*: Vibration levels generated during construction activities may be perceptible onsite and at neighboring land uses, but would not be excessive or cause cosmetic or structural damage to buildings.

Impact 4.7-4 – *Permanent Increase in Noise*: The traffic noise level on project area roadways will increase as a result of project traffic. The projected increase is 1 dBA CNEL, which is less than the threshold level of 4 dBA CNEL.

TRAFFIC

Impact 4.8-1 – *Circulation System Impacts*: The project will result in an increase in daily and peak hour trips, but would not cause existing or planned intersections to operate at an unacceptable Level of Service (LOS) and would not adversely affect non-auto modes of transportation.

Impact 4.8-2 – *US Highway 101 Impacts*: The project will result in an increase in daily and peak hour trips, but would not cause a substantial decrease in the volume-to-capacity ratio on Highway 101.

Impact 4.8-3 – *Circulation*: The project will not result in creation of hazards due to design of the circulation system or incompatible uses.

Impact 4.8-5 – *Emergency Access*: The proposed secondary emergency access will be adequate, and the project will not result in provision of inadequate emergency access.

Initial Study

The Initial Study (see Appendix A) includes analyses that found the following impacts to be less-than-significant, and thus, are not further analyzed in the EIR.

AESTHETICS

- Scenic Views
- Degradation of Visual Character of Surrounding Area
- New Source of Substantial Light and Glare

AIR QUALITY

- Cumulative Emissions

POPULATION & HOUSING

- Population Growth

PUBLIC SERVICES

- Fire Protection
- Police Protection
- Schools

RECREATION

- Increase Use of Parks

UTILITIES & SERVICE SYSTEMS

- Wastewater Treatment
- Water Supply
- Solid Waste

NO IMPACTS

The State CEQA Guidelines section 15128 require that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Through the Initial Study, NOP scoping process, and EIR, the City of Petaluma determined that the proposed project would have no impact on the environmental issues outlined below, and thus, are not further analyzed in the EIR. See the Initial Study in Appendix A for further discussion.

Initial Study

- **AESTHETICS** –Scenic Resources
- **AGRICULTURAL & FOREST RESOURCES**
- **AIR QUALITY** – Conflict with Air Quality Management Plan
- **BIOLOGICAL RESOURCES** – Riparian or Sensitive Habitat (other than wetlands); Conflict with adopted HCP or Natural Community Conservation Plans
- **CULTURAL RESOURCES** – Historic Resources; Paleontological Resources
- **GEOLOGY AND SOILS** – Fault Rupture; Landslides; Soil Capability for Septic Systems
- **GREENHOUSE GAS EMISSIONS** – Conflict or Obstruct Implementation of Adopted Plans to Reduce GHG Emissions
- **HAZARDS AND HAZARDOUS MATERIALS** -- Emit Hazardous Emissions within ¼ mile of a School; On a List of Hazardous Materials Sites; Located within an Airport Land Use Plan; Private Airstrip Hazards; Exposure to Wildland Fire Hazards
- **HYDROLOGY & WATER QUALITY** – Deplete Groundwater or Interfere with Groundwater Recharge; Alter Course of Stream or River; Exposure to Flooding Due to Levee or Dam Failure, Tsunami or Seiche
- **LAND USE & PLANNING** – Physically Divide an Established Community; Conflict with Adopted Policies, Habitat Conservation Plan or Natural Community Conservation Plan
- **MINERAL RESOURCES**
- **NOISE** – Exposure to airport noise
- **POPULATION & HOUSING** – Displace Housing or People
- **PUBLIC SERVICES** – Parks
- **TRANSPORTATION/ TRAFFIC** – Conflict with Congestion Management Plans; Air Traffic

3.0 CHANGES TO DRAFT EIR

IN THIS SECTION:

Changes to Draft EIR text that are identified below are shown in underlined type for new text and ~~strikeout~~ type for deleted text.

3.1 CHANGES TO "PROJECT DESCRIPTION" SECTION

Page 3-6 Revise and expand the first paragraph under the "Site Plan and Architectural Review" subsection as follows:

The project will require future individual ~~proposes a Master~~ Site Plan and Architectural Review (SPAR) ~~for the entire project site and site-specific SPAR~~ for each phase of development. The ~~Master SPAR~~ Tentative Tract Map (TTM) includes design, improvements, lot layout regulations and guidelines intended to apply to all future development on the project site. ~~This process ensures integrity and overall consistency among all the future phases of development.~~ As part of the TTM packet, the Applicant has provided a conceptual site plan design that depicts what is possible through the ~~Master~~ SPAR process by showing potential building envelope limits, right of way widths, ~~and some architectural renderings for illustrative purposes~~ in order to ~~conceptually~~ illustrate the allowed warrants established by the SmartCode provision. ~~architectural styles and desired level of detail.~~ The Applicant ~~intends to propose at the future.~~ will provide detailed site plans, architectural material boards, elevations and renderings at the time of SPAR ~~process~~ for each phase. ~~The conceptual site plan is shown on Figure 1-4, and the conceptual renderings are included on Figure 1-5.~~

Page 3-9 Revise the last sentence of the first paragraph under the "Proposed Land Uses" subsection as follows:

~~As indicated above,~~ A site plan showing a conceptual layout of structures is presented on Figure 1-4.

Page 3-9 Add the following clarification after the second sentence of the second paragraph:

Extension of Caulfield Lane over the Petaluma River via a new bridge is identified as a future improvement in the City of Petaluma's General Plan, but is not part of the proposed Riverfront project.

Page 3-16 Revise the text following City of Petaluma as follows:

City of Petaluma: Upon recommendation by the Petaluma Planning Commission, the City Council will certify the FEIR, take action on the zoning map amendment, and Tentative Subdivision Map ~~and Master Site Plan and Architectural Review (MSPAR)~~. Site Plan and Architectural Review (SPAR) for the individual phases would occur at a later time with review and approval by the Planning Commission. Specific building locations, parking layouts, landscape design and architecture would be reviewed and approved during the SPAR process.

3.2 CHANGES TO "AIR QUALITY & GHG EMISSIONS" SECTION

Page 4.1-9 Revise Table 4.1-1 as shown on the next page) to account for the addition of 13.2 acres of land use type "Other Asphalt Surfaces" and 1.27 acres of land use type "City Park" that were inadvertently left out of the project CalEEMod model runs and additional emissions from water truck usage during grading.

Page 4.1-11 Add the following measure to the end of Mitigation Measure AIR-1 on this page and in the SUMMARY OF IMPACTS (2.0) section:

p) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.

Page 4.1-15 Revise the first sentence of Mitigation Measure AIR-3 on this page and in the SUMMARY OF IMPACTS (2.0) section as follows:

Require that construction activities implement the following measures at the project sites to reduce construction equipment exhaust when building construction activities occur within 200 feet of any residential use ~~residences~~.

TABLE 4.1-1: Project Air Emissions (Without Mitigation)

Pollutant	Daily Total Project Emissions (lbs per day)	BAAQMD Threshold [1]
CONSTRUCTION EMISSIONS (Average Daily Emission)		
ROG	~~13.4~~ 13.9	54
NO_x	~~34.8~~ 40.4	54
PM_{10}	~~1.8~~ 2.1	82
PM_{25}	~~1.7~~ 2.0	54
OPERATIONS EMISSIONS		
ROG	35.9	54
NO_x	23.9	54
PM_{10}	0.5	82
PM_{25}	0.5	54

[1] Per BAAQMD's CEQA Guidelines: May 2011

SOURCE: Illingworth & Rodkin, Table 1 Appendix C memo dated March 21, 2014.

3.3 CHANGES TO "GEOLOGY & SOILS" SECTION

Page 4.4-12 Add the following before the "Mitigation Measures" subsection.

A peer review of the Preliminary Geotechnical Analysis and associated geotechnical reviews was conducted for the City of Petaluma by RGH Consultants as part of the preparation of this Final EIR. The purpose of the peer review was to provide an independent assessment of the Preliminary Geotechnical Report and subsequent geotechnical reviews that were prepared for the Riverfront Project. RGH's scope of work included reviewing published geologic maps, geotechnical documents prepared by Miller Pacific Engineering Group, and related portions of the DEIR in order to assess the efficacy of the geotechnical report's methodology and feasibility of the recommended measures. Their review found that the Preliminary Geotechnical Report and reviews used appropriate methodology, reached reasonable conclusions about geotechnical constraints, and set forth feasible design measures that would reasonably be expected to avoid or substantially reduce potential impacts associated with identified geotechnical concerns. Specifically the peer review letter states that "the level of work completed to date is appropriate for the DEIR stage of the project. The documents have identified hazards, recommended additional work where necessary, and provided concept measures to mitigate the hazards." Therefore, a peer review has been

conducted and affirms that the Preliminary Geotechnical Report is adequate, appropriately identifies potential impacts and sets forth feasible design recommendations that would reduce potential impacts associated with the geotechnical concerns onsite to less than significant levels. The results of this peer review are included in Appendix B of this document.

Page 4.4-12 Revise Mitigation Measure GEO-3 on this page and in the SUMMARY OF IMPACTS (2.0) section as follows:

GEO-3: Prior to the issuance of grading permits and in accordance with City of Petaluma Improvement Plan standard submittal requirements and procedures, the developer shall submit construction plans along with Design Level Geotechnical Analysis that specifically addresses the thicker fills up to ten feet in the area near the Future Caulfield Lane Bridge in the southern portion of the site. The Improvement Plans and design level Geotechnical Analysis ~~Geotechnical Report(s) prepared by Miller Pacific Engineering~~ shall be subject to third party peer review in order to verify that recommended measures to address differential settlement of bay mud associated with thicker fills up to ten feet near the Future Caulfield Lane Bridge are adequate to accommodate potential settlement. In the event that peer review concludes that the recommended design measures will not sufficiently minimize the effects of differential settlement, the developer shall be required to implement one of the following standard construction techniques: 1) the use of lightweight fill material in place of heavier, existing soils on areas that require thicker fill, or 2) pre-load areas that require thicker fill and allow settlement to occur prior to construction. The ~~applicant~~ developer shall be responsible for the cost of the peer review and the City's Public Works Department shall coordinate the scope of service and approve findings of the peer review prior to the issuance of grading permits.

3.4 CHANGES TO "HAZARDS & HAZARDOUS MATERIALS" SECTION

Page 4.5-4 Add the following before the last sentence of the second full paragraph:

The RWQCB revised the ESLs on December 23, 2013 subsequent to the preparation and release of the Riverfront DEIR.

Page 4.5-12 Add the following after the third paragraph regarding petroleum hydrocarbons.

Subsequent to the release of the DEIR, the RWQCB revised the ESLs on December 23, 2013. Only one ESL screening level for TPH changed as a result of the December 2013 revisions. The ceiling value for TPH as motor oil (TPH-mo) dropped to 100 milligrams per kilogram (mg/kg) from 500 mg/kg. Ceiling values are not based on human health effects, but are driven by nuisance concerns such as odor. Other TPH ESL values for residential land use, including those for protection of human health, were not revised in the December 2013 ESL revisions, and remain the same as those that were in effect when the DEIR was issued. As shown in the table below, the maximum TPH-d and TPH-mo concentrations for the project are well below both the human health based ESLs for residential land use and for construction workers. Only two soil samples have TPH-mo concentrations that exceed the nuisance-based residential ESL ceiling value.

Evaluating the TPH data and drawing conclusions from the entire data set leads to a conclusion that TPH is not present at the project site at concentrations of concern. Thirty-nine soil samples, including five trench samples, one grab surface sample, and thirty-three samples from borings were analyzed for TPH as diesel range hydrocarbons (TPH-d) and TPH as motor oil range hydrocarbons (TPH-mo) in the Phase II investigation (Kleinfelder, January 2001). TPH-d was not detected in nine of the thirty-nine samples analyzed. Concentrations of TPH-d in the remaining thirty samples ranged from 1.0 mg/kg to 88 mg/kg, with an average concentration of 10.5 mg/kg. TPH-mo was not detected in twelve of the thirty-nine samples analyzed. Concentrations of TPH-mo in the remaining twenty-seven samples ranged from 6.3 mg/kg to 220 mg/kg, with an average concentration of 32.8 mg/kg.

TPH concentrations at the project site are well below the ESL values that are protective of human health for both residents and construction workers. These TPH-mo concentrations do not pose a health risk to either future residents or to construction workers and these conclusions are fully supported by existing data.

Page 4.5-13 Change Table 4.5-1 to Table 4.5-1A and revise ESL for TPHmo (motor oil) in shallow soils and move total petroleum hydrocarbons (TPH) in deep soils from Table 4.5-1 to a new Table 4.5-1B as shown below to show the following updates to ESL that were revised after the release of the Draft EIR.

TABLE 4.5-1A
Maximum Chemical Concentrations Detected in Onsite Soil Samples

Chemical	Maximum Concentration Detected (mg/kg)[1]	Environmental Screening Level (ESL) for Residential Land Use (mg/kg)[2]
Shallow Soils (<3 m bgs)		
Inorganics		
Arsenic	**9**	0.39
Cadmium	0.84	12
Chromium	57	750
Copper	44	230
Lead	75	80
Mercury	1	6.7
Nickel	87	150
Zinc	110	600
Total Petroleum Hydrocarbons (TPH)		
TPHd (diesel)	88	100
TPHmo (motor oil)	220	100[2] ~~500~~
Volatile Organic Compounds (VOCs)		
Carbon disulfide	0.0089	820[2]
Deep Soils >3 m bgs)		
Inorganics		
Arsenic	ND	0.39
Cadmium	ND	78
Chromium	47	2500
Copper	ND	2500
Lead	22	80
Mercury	ND	6.7
Nickel	56	1500
Zinc	100	2500
Total Petroleum Hydrocarbons (TPH) – SEE TABLE 4.5-1B		
~~TPHd (diesel)~~	~~16~~	~~240~~
~~TPHmo (motor oil)~~	~~32~~	~~5000~~

[1] Soil and water samples from "Phase II Soil and Groundwater Investigation, Pomeroy Site, Petaluma, California" (Kleinfelder, 2001).

[2] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, RWQCB San Francisco region, December ~~May~~ 2013: Table K-1: Direct Exposure Soil Screening Levels, Residential Exposure Scenario. In the absence of ESLs for Carbon disulfide, the U.S. EPA's Regional Screening Level (RSL) for residential soil is used for screening purposes.

[3] ND = Not Detected.

SOURCE: Iris Environmental, October 2013 with updated ESLs

TABLE 4.5-1B
Maximum Chemical Concentrations Detected in Onsite Soil Samples For Total Petroleum Hydrocarbons in Deep Soils

Chemical	Maximum Detected Concentration (mg/kg)[1]	ESL for Residential Land Use (mg/kg) Ceiling Value[2]	ESL for Residential Land Use (mg/kg) Human Health[3]	ESL for Construction Workers (mg/kg)[4]
Deep Soils >3 m bgs) Total Petroleum Hydrocarbons (TPH)				
TPH-d (diesel)	~~16~~ 88	100	240	900
TPH-mo (motor oil)	~~32~~ 220	100	~~5,000~~ 10,000	28,000

[1] Source: Phase II Soil and Groundwater Investigation, Pomeroy Site, Petaluma, California (Kleinfelder 2001).
[2] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (RWQCB San Francisco region, ~~May 2013~~ December 2013); Table A-1: Shallow Soil Screening Levels (<3m bgs), Residential Land Use, (groundwater is not a current or potential source of drinking water).
[3] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (RWQCB, December 2013); Table K-1: Direct Exposure Soil Screening Levels, Residential Exposure Scenario.
[4] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (RWQCB, December 2013); Table K-3: Direct Exposure Soil Screening Levels, Construction/Trench Worker Exposure Scenario.

SOURCE: Iris Environmental, March 2014

Page 4.5-17 Revise and expand the last paragraph on this page and beginning of text on the following page as follows:

The project site has been used for crushing and storage of roadbed materials, and several stockpiles are currently located on the site, consisting of soil and concrete. The 2013 Phase I investigation found that some of the stockpiled materials had been remediated prior to storage at the project site and others were tested prior to storage at the project site. The Iris Environmental Phase I Environmental Site Assessment (October 2013) (DEIR Appendix C-5, page 29) identifies the sources of imported soils. Of the nine off-site local soil borrow areas, six were included in a redevelopment project in a six-block area in downtown Petaluma (Sources 1-6 in Table 4 in the DEIR Appendix C-5). Soils in two of these areas had no contamination, and thus, no investigation or cleanup was necessary (Sources 1 and 2 in Table 4). The RWQCB Geotracker database indicates that the RWQCB oversaw the investigation and cleanup of the remaining four borrow areas within this six-block area (Sources 3 through 6 in Table 4). Contaminated soils at these properties were removed and

disposed of at licensed landfills during redevelopment activities. Three of these cases are listed as closed on the Geotracker database (Sources 3, 5 and 6 in Table 4). After closure was granted by the RWQCB, excess clean soils that were subsequently excavated during construction of new buildings on these properties were moved to the project site (Iris Environmental 2013).

Source 4, Theater Square, included a limited volume of soil with slight hydrocarbon impacts; soil removal was completed under RWQCB oversight. The 6,100 cubic yards of removed soil were tested, and the results showed the soil was safe for residential use. Theater Square soils have been removed from the Project site.

Regarding Source 7 in Table 4 in Appendix C-5, soils with no visible contamination generated during redevelopment of the Redwood Business Center in Petaluma were moved to the project site. Source 8 refers to soils originating from various projects performed for the City of Petaluma within the city limits that were moved to the project site. Surplus soils from these small projects were sampled and analyzed before they were moved to the project site. Source 9 consisted of uncontaminated concrete and roadbed material from a project in San Rafael, California that were moved to the project site.

As of October 2013, approximately 70 percent of the stockpiled soil had been removed from the project site, and the remaining soil is expected to be removed by the spring of 2014 (Iris Environmental, October 2013, page 5 in Appendix C-5 of the DEIR). As of June 2, 2014, most of the remaining stockpiled soils had been removed. The limited remaining stockpiled soils are concentrated along the western property line shared with the old Pomeroy facility. The project Applicant plans to removed stockpiled soils from the site prior to development, and the current operator has indicated that stockpiled materials are currently being removed from the site. However, should any soil stockpiles remain...and disposal of hazardous materials.

3.5 CHANGES TO "HYDROLOGY & WATER QUALITY" SECTION

Page 4.6-6 Add the following expanded discussion at the end of the first paragraph of the "Sea Level Rise" subsection.

Sea level rise is attributed to two primary contributors; 1) water generated by the melting glaciers and ice sheets on landmasses and 2) thermal expansion

due to warming of the ocean.[1] Sea level rise will result in direct and indirect impacts including: increase risk of flooding, storm surges and inundations, erosion, shoreline retreat and loss of wetlands.[2]

Page 4.6-7 Add the following before the first full paragraph:

The effects of sea level rise on coastal areas, the San Francisco Bay and tidal rivers have been the subject of several studies over the past few years. In 2009, the San Francisco Bay Conservation and Development Commission (BCDC) developed an assessment of the Bay's vulnerability to climate change and sea level rise and adaptation and considered two sea level rise scenarios: a 16-inch rise by the year 2050 and a 55-inch (approximately 4.58 feet) rise by 2100.

Page 4.6-7 Add the following expanded discussion of sea level rise after the first full paragraph and before the "Water Quality" subsection.

The "State of California Sea-Level Rise Guidance Document" (March 2013) provides guidance for incorporating sea-level rise projections into planning and projects in California in response to Governor Schwarzenegger's Executive Order S-13-08, issued on November 14, 2008 that directed state agencies to plan for sea level rise and coastal impacts. According to this document, sea level rise is projected (using the year 2000 as a baseline) as: 0.13-0.98 feet between 2000 and 2030; 0.39-2.0 feet between 2000-2050; and 1.38-5.48 feet between 2000 and 2010.

While the magnitude of sea level rise ranges widely, the Bay Conservation and Development Commission have developed Sea Level Rise Index Maps, which show areas vulnerable up to 16 inches of sea level rise by mid century (2050) and those areas susceptible to up 55 inches of sea level rise at the end of the century (2100). BCDC generally suggests that the anticipated sea level rise projections largely correspond with today's 100-year flood zone. Meaning that under reasonably foreseeable expectation of sea level rise, the 100-year flood zone would be subject to flooding not just during a 100-year flood event, but also during high tide. As described in the DEIR the project site is elevated outside of the current 100-year floodplain and sufficiently elevated to protect against the reasonably foreseeable effects of sea level rise.

[1] San Francisco Bay Conservation and Development Commission (BCDC). October 6, 2011. "LIving With a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and it's Shoreline." Online at: http://www.bcdc.ca.gov/BPA/LivingWithRisingBay.pdf.

[2] Committee on Sea Level Rise for the Coasts of California, Oregon and Washington; Past, Present and Future, Washington D.C: The National Academies Press. June 2012.

Page 4.6-14 Revise Mitigation Measure HYDRO-4 on this page and in the SUMMARY OF IMPACTS (2.0) section as follows:

HYDRO-4: The applicant shall prepare and implement an erosion control plan for construction of the ~~offsite~~ trail and improvements for the offsite Riverfront Park, including, but not limited to: installing hay bales or appropriate temporary silt fencing adjacent to the perimeter of the work area to prevent inadvertent transport of sediments into the Petaluma River; limiting ground disturbance and vegetation removal during construction; conducting work prior to the rainy season; protecting disturbed areas during the rainy season; and immediately revegetating disturbed areas.

Page 4.6-15 Revise and expand the fourth paragraph as follows:

The offsite portion of the project planned for the Riverfront Park is adjacent to the Petaluma River and is owned by the State of California (under the jurisdiction of the State Lands Commission). The project proposes a passive "Riverfront Park" in this area on approximately 3.5 acres. Portions of the proposed riverfront trail may be inundated during high tide under future year sea level rise greater than three feet. Portions of Parcel C (open space along the property's eastern boundary) also may be inundated as a result of sea level rise. These areas are not proposed for development and provide a naturalized buffer to accommodate potential sea level rise without affecting residential buildings. Thus, the project design provides adaptive capacity if sea level rise should exceed 6 feet in the next century. However, given the intended use of the Riverfront Park and open space use of Parcel C, the adverse effects associated with sea level rise in the future would be less than significant.

It is important to note that sea level rise is not uniform and is largely dependent on factors such as atmospheric and oceanic circulation, tectonics, and gravitational/ deformational effects generated by land mass changes. Sea level rise will most directly affect areas that are on the coast. However, as a tidally influenced river, the Petaluma River will also be affected. An extreme high tide event coupled with a storm event would result in the most elevated river levels.

In an effort to provide additional information on the project site's susceptibility to Sea Level Rise, Figure 4.6-1 has been prepared by the Project Engineer showing the localized inundation potential assuming up to 6 feet (72 inches) of sea level rise. Based on the projected rates of sea level rise provided by BCDC, 55 inches (4.58 feet) of sea level rise would not occur until the year 2100. Figure 4.6-1, which is included at the end of this section, also considers FEMA's flood hazard maps. FEMA's Flood Rate Insurance Map (FIRM), which

provides the current 100-year floodplain elevations, is based on the 1988 NAVD[3]. The base flood elevation set forth on the FIRM is 9.0 feet NAVD (1988). However, the finished site elevations are based on NGVD 1929, which are 2.7 feet lower than NAVD 1988. Accordingly, in order to relate the 1929 datum to the 1988 datum, a 2.7-foot vertical datum shift must be applied. For example, as reported in the DEIR, the lowest site elevation is approximately 12.4 feet, which would translate to 15.1 feet NAVD 1988. The vertical datum shift does not change the depth of the flooding hazards nor does it change the area of 100 year flood zone.

Using the 1988 Datum, the finished site elevations will range from a low of 15.1 feet in the northeast portion of the site to a high of 25.7 feet at the southern portion of the site where the future Caulfield Lane Bridge would connect on the Riverfront site. Based on the elevation difference between the lowest finished site grade (15.1 feet) and the base flood elevation (9 feet), up to 6.1 feet of sea level rise could be accommodated without flooding occurring onsite.

As shown on Figure 4.6-1 at the end of this section, the project site remains sufficiently elevated to avoid substantial inundation from 6 feet of sea level rise.

The 2013 "State of California Sea-Level Rise Guidance Document" emphasizes that adaptive capacity must be built into the initial project. The proposed project reserves the frontage along the Petaluma River for a Riverfront Park, which provides for a naturalized buffer zone that would accommodate sea level rise without exposing residential buildings or other structures to inundation risk. The use of a Riverfront Park provides an adequate buffer along the frontage to the Petaluma River to provide for adaptive management strategies should such measure be necessary in the future. Thus, the Riverfront Park is consistent with the recommendations set forth in the State of California's Sea level Rise Guidance Document (2013) that stress the importance of adaptive capacity.

[3] Regulatory floodplains are defined by the elevation of the base flood in relation to the elevation of the ground. NGVD 29 stands for National Geodetic Vertical Datum of 1929. It is a system that was used by surveyors and engineers for most of the 20th century, but has been replaced by the more-accurate North American Vertical Datum of 1988 (NAVD 88).

3.6 CHANGES TO "NOISE" SECTION

Page 4.7-5 Delete the first full paragraph regarding State standards for new dwellings other than detached single-family dwellings as the referenced section was deleted from the California Building Code effective December 31, 2013.

Page 4.7-8 Revise the second sentence of the first full paragraph as follows:

The existing sound level ranges from a high of 64 dBA CNEL down to 57 dBA CNEL near the highway from north to south along the site's highway frontage at a distance of approximately 250 feet <u>from the highway centerline</u>.

Page 4.7-8 Revise the first sentence of the "Area Roadway Noise" subsection as follows to clarify the unit of measurement:

As described in the Petaluma 2025 General Plan EIR, future noise levels are expected to increase by 1 to 2 dBA <u>CNEL</u> over the next 10-15 years.

Page 4.7-9 Revise the first sentence of the page as follows to clarify the unit of measurement:

The worst-hour noise level ~~typically equals the for these types of collector roadways, and thus,~~ the <u>CNEL</u> ~~Ldn~~ for these types of roadways, and thus, the <u>CNEL</u> ~~Ldn~~ under the first scenario would be 64 dBA and the <u>CNEL</u> ~~Ldn~~ under the second scenario would be 61 dBA.

Page 4.7-11 Revise the first full paragraph as follows:

As described above, the project site currently experiences ambient noise levels of 57 to <u>66</u> ~~64~~ dBA CNEL, primarily due to Highway 101 traffic. With future growth and widening of the highway, the site would be exposed to future traffic noise levels of about 65-68 dBA CNEL in the northeastern portion of the site and 58-61 dBA CNEL in the southern portion of the site. Single-family homes within 50 feet of the center of the Caulfield Road could be exposed to noise levels of 61-64 dBA <u>CNEL</u> ~~Ldn~~ due to project and potential future traffic on this roadway.

Page 4.7-12 Delete reference to California Building Code and footnote in the second full paragraph as this section of the code was deleted effective December 31, 2013.

Page 4.7-15 Revise Mitigation Measure NOISE-1 on this page and in the SUMMARY OF IMPACTS (2.0) section as follows:

NOISE-1: Pursuant to General Plan Policy 10-P-3C and the CPSP EIR Mitigation Measure 10-1, ~~and the State Building Code~~, a detailed acoustical report shall be prepared by a qualified acoustical specialist as part of design phase to determine the noise control treatments for the residential buildings, offices and the hotel to meet local and state standards. Noise attenuation measures shall include as appropriate thicker walls, stucco siding, sound insulating windows and/or doors ~~treatments~~, building and bedroom orientation, ~~and/or small or no windows facing noise emitters~~, and other measures pursuant to the detailed acoustical report. To achieve the noise reduction requirements, some form of forced air mechanical ventilation, satisfactory to the local building official, would be required in all residential units and the hotel. Special sound rated building elements such as windows and doors may also be necessary to reduce the intrusiveness of the train noise given that typical noise levels could reach 95 dBA Lmax outside the nearest townhomes if Quiet Zone status is not approved.

Page 4.7-16 Revise last line of the footnote to indicate the measurement is inches per second.

Page 4.7-17 Revise the last paragraph as follows:

When construction occurs more than 25 ~~50~~ feet from sensitive receptors, the impact associated with groundborne vibration generated by the equipment would be below 0.3 in/sec PPV, ~~85 VdB~~ and thus would be less than significant. Future buildings on the Riverfront site could be as close as 25 feet to construction activities. Vibration levels could occasionally be intrusive but would be below the cosmetic damage level. Sensitive receptors (residences and the hotel) located within 25 feet of onsite construction may periodically experience perceptible intermittent vibration levels during construction activities. ~~that approach the FTA's vibration impact threshold of 85 VdB for human annoyance.~~ This would be limited to times when heavy equipment is being utilized, which would generally be during the initial site preparation and grading stages. Given the short term and intermittent nature of vibrational noise, noise impacts from vibration would be ~~are expected to be~~ less than significant. In addition, Measure Noise-2 will further limit exposure to construction related vibration.

Page 4.7-20 Revise Mitigation Measure NOISE-2 regarding construction scheduling on this page and in the SUMMARY OF IMPACTS (2.0) section as follows:

a. *Construction Scheduling*. Limit noise-generating construction activities to daytime weekday hours 7 AM to 6 PM and 9 AM to 5 PM on weekends and holidays. When construction is occurring within 100 feet of existing

residences then construction shall be initiated no earlier than 8 AM during weekdays, 9 AM on Saturday, and shall be prohibited on Sundays and Holidays.

3.7 CHANGES TO "CEQA CONSIDERATIONS" SECTION

Page 5-1 In the "Growth Inducement" (5.2) subsection, revise the second and third sentence of the last paragraph as follows:

The proposed project will lead to the development of 273 residential units (134 single-family homes, 39 townhomes and 100 apartments), which would result in an estimated population increase of approximately 721 ~~710~~ residents based on an average household size of 2.64 residents per dwelling unit identified in the 2010 U.S. Census and in the current California Department of Finance population estimates 2.64[4]. Thus, the project would increase population, but the estimated growth is within the growth projections anticipated by the *City's General Plan 2025*.

Page 5-2 Revise the second sentence of the first paragraph as follows:

As of January 1, 2013, the City had a population of 58,804 residents according to information provided by the California Department of Finance.[5]

Page 5-7 In the "Cumulative Impacts" (5.3) subsection regarding cumulative traffic impacts, revise the third sentence of the first paragraph as follows:

The *General Plan 2025* EIR included a cumulative analysis of the Lakeville corridor. The study area intersections addressed in the Riverfront project traffic study at buildout of the City's General Plan are included in the City's General Plan EIR traffic analyses for a buildout year of 2025. The General Plan EIR found that buildout accommodated under the General Plan and associated new roadways, including extension of Caulfield Lane over the Petaluma River to Petaluma Boulevard, would result in unacceptable intersection operations of LOS E ~~F~~ at the Lakeville Street/Caulfield Lane and Lakeville Street/D Street intersections with buildout under the General Plan..

[4] California Department of Finance. May 2014. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark." Online at: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php

[5] Based on California Department of Finance "City/County Population and Housing Estimates, 1/1/2014."

Page 5-7 In the "Cumulative Impacts" (5.3) subsection regarding cumulative traffic impacts, revise the second paragraph as follows:

The Riverfront project traffic analysis reviewed the General Plan traffic model and adjusted the buildout projections to reflect the proposed project uses as the General Plan buildout land use projections ~~included~~ in the General Plan EIR traffic analysis included a more intense level of development on the proposed project site than is currently proposed. As a result, there was a reduction of daily and peak hour project trips of 334 fewer AM peak hour trips and 152 fewer PM peak hour trips. The project would contribute to significant cumulative traffic impacts that would cause a deterioration of level of service to E-F at the Lakeville Street/Caulfield Lane ~~Petaluma Boulevard/East D Street~~ intersection and LOS F at the Lakeville Street/East D Street intersection during the evening peak period at General Plan buildout. The project traffic study also indicated that buildout of the General Plan is not expected to occur by the year 2025 due to economic conditions. Rather, future cumulative impacts were projected to occur in year 2035 at the earliest.

Page 5-8 In the "Cumulative Impacts" (5.3) subsection regarding cumulative traffic impacts, revise the first full paragraph as follows:

As indicated above, the project is consistent with the General Plan buildout analyzed in the General Plan EIR, which fully assesses cumulative traffic impacts on City streets and intersections, and under provisions of CEQA section 21083.3, no further analysis of cumulative traffic due to General Plan buildout is required. While, the ~~proposed~~ project traffic report updates the cumulative traffic analysis and two intersections would operate at LOS F instead of E as identified in the General Plan EIR (Lakeville Street intersections with Caulfield Lane and D Street), the overall conclusion of a significant unavoidable impact at these and other identified intersections identified in the General Plan EIR remains unchanged. ~~does not increase the severity of any of the impacts from the levels identified and analyzed in the General Plan, and~~ The project traffic report found that the proposed project results in a reduction of trips from those accounted for in the General Plan EIR. The General Plan does identify extension of Caulfield Lane through the project site as a future extension over the Petaluma River that would help to alleviate congestion of the City's street network, and the proposed project will construction of the portion of this road through the project site. Furthermore, the proposed project will contribute traffic impact fees that will help to improve multimodal circulation in central Petaluma, which in combination with implementation of the Mitigation Measures CUM-1 and CUM-2, will mitigate the project's contribution to cumulative traffic impacts, including a pro-rata share to future improvement of the Hopper/Caulfield intersection.

3.8 CHANGES TO "REFERENCES" SECTION

Page 6-2 Correct the Iris Environmental reference to read October 23, 2013 not 2012.

Page 6-2 Add the following reference document:

California Department of Finance. May 2014. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark." Online at: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php

City of Petaluma. October 2010. "City of Petaluma Floodplain Management Plan".

Fehr and Peers. August 2012. "City of Petaluma Traffic Mitigation Fee Program Update".

RMC. August 24, 2012. Technical Memorandum: "Upper Petaluma River Watershed Flood Control Project Scoping Study" prepared by Christy Kennedy, Phoebe Grow, Tim Harrison (RMC Water and Environment).

San Francisco Bay Conservation and Development Commission (BCDC). October 6, 2011. "Living With a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and it's Shoreline." Online at: http://www.bcdc.ca.gov/BPA/LivingWithRisingBay.pdf.

State of California Ocean Protection Council. March 2013 Update. "State of California Sea-Level Rise Guidance Document." Developed by the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT), with science support provided by the Ocean Protection Council's Science Advisory Team and the California Ocean Science Trust.

U.S. Department of Transportation, Federal Highway Administration and State of California Department of Transportation.

a) October 2007. "Marin-Sonoma Narrows (MSN) HOV Widening Project Draft Environmental Impact Report/Draft Environmental Impact Statement." [State Clearinghouse No. 2011112043]. Online at: http://www.dot.ca.gov/dist4/msn/msn_deir_s/msn_deir.htm.

b) July 2009. "Marin-Sonoma Narrows (MSN) HOV Widening Project Final Environmental Impact Report/Draft Environmental Impact Statement." Online at: http://www.dot.ca.gov/dist4/msn/msn_feir_s/msn_feir.htm

3.9 CHANGES TO "FIGURES" SECTION

Add new Figure 4.6-1: Sea Level Rise as shown on the next page.

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4.0 COMMENTS & RESPONSES

IN THIS SECTION:

4.1 INTRODUCTION

This chapter provides responses to individual comments that were submitted by agencies, organizations and individuals as summarized below in subsection 4.2. Each letter of comment is included in subsection 4.3; a response to each comment is provided immediately following each letter. Appropriate changes that have been made to the Draft EIR text based on these comments and responses are provided in the CHANGES TO DRAFT EIR (Chapter 3.0) section of this document.

The State CEQA Guidelines section 15088(a) requires a lead agency to evaluate comments on environmental issues and provide written responses. Section 15204(a) provides guidance on the focus of review of EIRs as follows:

> (a) In reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.

In reviewing comments and providing responses on the following pages, this section of the State CEQA Guidelines was considered. The focus will be on providing responses to significant environmental issues.

4.2 LIST OF COMMENTS RECEIVED

Agencies, organizations and individuals that submitted written comments on the Draft EIR are outlined below.

AGENCIES

1. California State Clearinghouse
2. California State Lands Commission
3. State of California Natural Resources Agency, Department of Fish and Wildlife

PRIVATE ENTITIES & INDIVIDUALS

4. Adams Broadwell Joseph & Cardozo
5. Rachel Starr (received after the close of the public review period)

COMMENTS RECEIVED AT PUBLIC HEARINGSS

In addition to the written comments received on the Draft EIR, oral comments were received at a Planning Commission meeting held on January 14, 2014 and at a City Council meeting held on February 6, 2014. Responses to these comments (labeled as PH: Public Hearing) are provided at the end of subsection 4.3 and referenced accordingly in response to comments.

4.3 COMMENT LETTERS & RESPONSES

Agencies, organizations and individuals that submitted written comments on the Draft EIR are outlined above in section 4.2. Each letter of comment is included in this subsection. As indicated above, the State CEQA Guidelines section 15088(a) requires a lead agency to evaluate comments on environmental issues and provide a written response. A response to each comment is provided immediately following each letter. As indicated in subsection 4.1 above, the emphasis of the responses will be on significant environmental issues raised by the commentors. (CEQA Guidelines, § 15204, subd. (a).) Appropriate changes that have been made to the Draft EIR (DEIR) text based on these comments and responses are provided in the CHANGES TO DRAFT EIR (Chapter 3.0) section of this document.

The responses have been prepared in consultation with the following technical consultants:

- AIR QUALITY & GREENHOUSE GAS EMISSIONS: Illingworth & Rodkin
- BIOLOGICAL RESOURCES: WRA Environmental Consultants
- GEOTECHNICAL: Miller Pacific Engineering Group and RGH Consultants
- HAZARDS & HAZARDOUS MATERIALS: Iris Environmental
- NOISE: Illingworth & Rodkin
- TRAFFIC: Whitlock & Weinberger Transportation

In the course of preparing the written responses, information was generated and is disclosed through this document. The City carefully reviewed the information developed through the responses-to-comments process and determined that it does not constitute "significant new information" for the purposes of CEQA Guidelines section 15088.5 and no recirculation of a revised DEIR is required. Consistent with the CEQA Guidelines, the added information clarifies the information and analyses in the DEIR.

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

February 7, 2014

Olivia Ervin
City of Petaluma
11 English Street
Petaluma, CA 94952

Subject: Riverfront Mixed Use Project
SCH#: 2013062004

Dear Olivia Ervin:

1-1 The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on February 6, 2014, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

LETTER 1

Document Details Report
State Clearinghouse Data Base

SCH# 2013062004
Project Title Riverfront Mixed Use Project
Lead Agency Petaluma, City of

Type EIR Draft EIR

Description The proposed project consists of a mixed-use development on an existing 35.7 acre project site. Approximately 19 acres will be developed with a mix of residential, commercial and office uses, with approximately 13 acres for right-of-way dedication and approximately 3.7 acres for civic spaces. The project would allow for future development of 273 residential units, 60,000 sf of office space and 30,000 sf of commercial space, a 120-room hotel, and a parcel dedicated to the City for the future development of a community boathouse adjacent to the Petaluma River. The project also includes an emergency access route and a 3.5-acre riverfront park.

Lead Agency Contact

Name Olivia Ervin
Agency City of Petaluma
Phone 707 778 4556 **Fax**
email
Address 11 English Street
City Petaluma **State** CA **Zip** 94952

Project Location

County Sonoma
City Petaluma
Region
Lat / Long 38° 13' 52.33" N / 122° 37' 10.56" W
Cross Streets Hopper Street / Caulfield Lane
Parcel No. 136-010-027
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 101
Airports
Railways NWPR
Waterways Petaluma River
Schools Miwok Valley ES
Land Use Site is currently undeveloped. LUD: Mixed Use
Z: T-5, T-6 and Civic Space

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Flood Plain/Flooding; Geologic/Seismic; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Boating and Waterways; Department of Conservation; Department of Fish and Wildlife, Region 3; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Air Resources Board; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; State Lands Commission

Date Received 12/23/2013 **Start of Review** 12/24/2013 **End of Review** 02/06/2014

LETTER 1 – CALIFORNIA GOVERNOR'S OFFICE OF PLANNING & RESEARCH, STATE CLEARINGHOUSE

1-1 Compliance with State Clearinghouse Review. The letter acknowledges that the City of Petaluma complied with the State Clearinghouse review requirements for review of draft environmental documents. No response is necessary.

STATE OF CALIFORNIA — EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* (916) 574-1810
California Relay Service TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: **(916) 574-1890**
Contact Fax: **(916) 574-1885**

February 6, 2014

File Ref: SCH # 2013062004

Ms. Olivia Ervin
Environmental Planner
City of Petaluma
11 English Street
Petaluma, CA 94952

Subject: Draft Environmental Impact Report (DEIR) for the Riverfront Mixed-Use Project, City of Petaluma, Sonoma County

Dear Ms. Ervin:

2-1 The California State Lands Commission (CSLC) staff has reviewed the subject DEIR for the Riverfront Mixed Use Project (Project), prepared by the City of Petaluma (City). The City is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) because the City will need to approve a Tentative Subdivision Map to create 144 lots and 4 parcels for the development of a mixed-use neighborhood. The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Additionally, because the Project will need written permission from the CSLC to relocate a Public Access Easement Parcel, the CSLC may act as a responsible agency.

CSLC staff previously provided comments (enclosed) on the following documents related to the Project:

- On July 2, 2013, CSLC staff submitted comments on the City's Initial Study/Proposed Negative Declaration, and
- On October 8, 2013, CSLC staff submitted comments on the City's Notice of Preparation of an EIR for the Project, after the City decided, based on public comments, not to pursue the Mitigated Negative Declaration.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively

granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The Petaluma River and the upland parcel are subject to a Title Settlement Agreement between the State, represented by the CSLC, and Petaluma Riverfront, LLC under Acquisition and Disposition (AD) 465. Under this Agreement, Petaluma Riverfront, LLC quitclaimed to the State all of its right, title and interest to the bed of the Petaluma River located between the left bank ordinary high water mark and the centerline of the Petaluma River. In exchange, the State quitclaimed to Petaluma Riverfront, LLC all of its right, title, and interest to the subject upland parcel, except for certain public easement rights which Petaluma Riverfront, LLC granted to the State: the Public Trust Easement Parcel, the Public Use and Construction Easement Parcel, and the Public Access Easement Parcel, which are described below.

- The Public Trust Easement shall be used for purposes of public recreation and open space. Basin Street Properties may not conduct activities or construction within the area of the public trust.
- The Public Use and Construction Easement shall be used for the following purposes:
    1. To allow the general public pedestrian and bicycle access within and through the Public Use and Construction Easement, including walking, viewing, sitting, fishing, picnicking, and other related purposes.
    2. To allow the construction and maintenance of any improvements by the State or its nominee or lessee which support public use of the Public Use and Construction Easement, including the construction of walking trails and pathways, picnic benches, landscaping, placement of trash receptacles and informational signs, and other improvements to enable the public to achieve full use and enjoyment of the land within the Public use and Construction Easement.

- The Public Access Easement Parcel shall be used for the following purposes:
    1. To allow government and general public vehicular, pedestrian, and bicycle access within and through the Public Access Easement Parcel to reach the Public Use and Construction Easement parcel and Public Trust Easement Parcel.
    2. To allow the construction and maintenance of any improvements by the State or its nominee or lessee which support the use of the Public Access Easement Parcel for the enumerated purposes. The Public Access Easement Parcel may be relocated with the written approval of the State.

2-2 In its October 8, 2013 comment letter, CSLC staff notified the City that the riverfront park and boathouse are not inconsistent with the Construction Easement Parcel and Public Trust Easement Parcel. However, it appeared that the Project proponent desired to relocate the Public Access Easement Parcel; therefore, CSLC staff requested that the Project proponent schedule a meeting with CSLC staff to discuss the relocation. In addition, CSLC staff requested to be actively involved in the process to ascertain whether the Project remains consistent with conditions stated in the easements. To date, CSLC staff has not been contacted about the Project or the proposed relocation of the Public Access Easement Parcel. Please contact Ms. Mary Jo Columbus of the CSLC Land Management Division (see contact information below) at your earliest convenience to discuss this matter.

Project Description

2-3 The proposed Project consists of a mixed-use neighborhood with commercial, residential and open space land uses served by a network of predominately public streets on 35.7 acres. Proposed commercial uses include up to 60,000 square feet of office space, a 120-room hotel, and 30,000 square feet of retail space. The residential development proposal includes 134 single family homes and 3 townhomes. A 2.27-acre park will be included. Land will be reserved for a proposed boathouse along the Petaluma River, but specific plans are not part of this DEIR. Approximately 10 feet of new fill will be placed along the southern edge of the parcel for a future offsite extension of Caufield Lane and a bridge over the Petaluma River; however, construction of the bridge itself is not part of the Project in the DEIR.

CSLC Staff Comments

1. We understand that the bridge is not part of the proposed Project; however, the future bridge, as depicted in the DEIR, is located within CSLC jurisdiction and will require authorization and a lease for the use of sovereign land for the portion of the Project encroaching on State owned land. Should you have any questions concerning the leasing jurisdiction of the CSLC, please contact the Land Management Division at the contact information indicated below.

2-4 2. The remainder of CSLC staff's comments remain the same as noted on our previous letters dated July 2, 2013 and October 8, 2013.

2-5 As a trustee and potentially responsible agency, the CSLC will need to rely on the Final Environmental Impact Report (Final EIR) for the issuance of any approval related to the above comments; therefore, we request that you consider our comments prior to certifying the Final EIR and approving the Project.

Thank you for the opportunity to review and make comments on the above-mentioned document. Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program (MMRP), and Notice of Determination (NOD), when they become available, and refer questions concerning environmental review to Mara Noelle, Senior Environmental Scientist, at (916) 574-2388 or via e-mail at mara.noelle@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Mary Jo Columbus, Public Land Management Specialist at (916) 574-0204, or via email at maryjo.columbus@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

Enclosures (2)

cc: Office of Planning and Research
Mary Jo Columbus, LMD, CSLC
Mara Noelle, DEPM, CSLC
Jessica Rader, Legal, CSLC

STATE OF CALIFORNIA — EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Our 75th Year

1938 - 2013

JENNIFER LUCCHESI, *Executive Officer*
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October 8, 2013

File Ref: SCH #2013062004

Mr. Geoff Bradley
City of Petaluma
11 English Street
Petaluma, CA 94952

Subject: Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) for the Riverfront Mixed Use Project, City of Petaluma, Sonoma County

Dear Mr. Bradley:

The California State Lands Commission (CSLC) staff previously reviewed and provided comments on the Initial Study/Mitigated Negative Declaration (IS/MND) for the Riverfront Mixed Use Project (Project), which was prepared by the City of Petaluma (City)(please see attached letter dated July 2, 2013). It is our understanding, that based on comments received on the IS/MND, the City has chosen to prepare a DEIR. Staff has reviewed the NOP for this document.

The City is the lead agency under the California Environmental Quality Act (CEQA) because the City would need to approve a Tentative Subdivision Map to create 144 lots and four parcels that would allow the development of a mixed-use neighborhood. The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Additionally, because the Project would need written permission from the CSLC to relocate a Public Access Easement Parcel, the CSLC may act as a responsible agency.

2-6 **CSLC Jurisdiction and Public Trust Lands**

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The Petaluma River and the upland parcel are subject to a Title Settlement Agreement between the State and Petaluma Riverfront, LLC under Acquisition and Disposition (AD) 465. Under this Agreement, Petaluma Riverfront, LLC quitclaimed to the State all of its right, title and interest to the bed of the Petaluma River located between the left bank ordinary high water mark and the centerline of the Petaluma River. In exchange, the State quitclaimed to Petaluma Riverfront, LLC all of its right, title, and interest to the subject upland parcel, except for certain public easement rights which Petaluma Riverfront, LLC granted to the State: the Public Trust Easement Parcel, the Public Use and Construction Easement Parcel, and the Public Access Easement Parcel.

The Grant of Easement to the State of California states the following:

- The Public Trust Easement shall be used for purposes of public recreation and open space. Basin Street Properties may not conduct activities or construction within the area of the public trust.
- The Public Use and Construction Easement shall be used for the following purposes:
    1. To allow the general public pedestrian and bicycle access within and through the Public Use and Construction Easement, including walking, viewing, sitting, fishing, picnicking, and other related purposes.
    2. To allow the construction and maintenance of any improvements by the State or its nominee or lessee which support public use of the Public Use and Construction Easement, including the construction of walking trails and pathways, picnic benches, landscaping, placement of trash receptacles and informational signs, and other improvements to enable the public to achieve full use and enjoyment of the land within the Public use and Construction Easement.
- The Public Access Easement Parcel shall be used for the following purposes:
    1. To allow government and general public vehicular, pedestrian, and bicycle access within and through the Public Access Easement Parcel to reach the Public Use and Construction Easement parcel and Public Trust Easement Parcel.

2. To allow the construction and maintenance of any improvements by the State or its nominee or lessee which support the use of the Public Access Easement Parcel for the enumerated purposes. The Public Access Easement Parcel may be relocated with the written approval of the State.

Project Description

The proposed Project consists of a mixed-use neighborhood of commercial, residential and open space land uses served by a network of predominately public streets on 35.7 acres (39.4 acres including the riverfront park). Commercial uses would include up to 60,000 square feet of office space, a maximum 120-room hotel, a mixed-use core comprised of up to 30,000 square feet of commercial space with residential above. Residential development would include up to 273 units comprised of 134 small-lot single family homes, 100 apartments, 35 townhomes, and four live-work units. Active and passive park space would total 7.65 acres including an offsite 3.65-acre riverfront park. Land would also be set aside for future construction of a boathouse near the Petaluma River to provide small craft access to the river. Development of an off-site trail to the east of the Project site is also under consideration.

CSLC Staff Comments

2-7 1. Consistency with Easement Parcels

The "riverfront park" portion of the Project consists of 3.6 acres of walking trails, outlooks, and landscaping improvements. This riverfront park portion and the community boathouse facility would be located on portions within the Public Use and Construction Easement Parcel and the Public Trust Easement Parcel. Based on the information submitted, CSLC staff has determined that the riverfront park and boathouse are not inconsistent with the Construction Easement Parcel and Public Trust Easement Parcel. However, per preliminary review, it appears that the Project proponent desires to relocate the Public Access Easement Parcel; therefore, CSLC staff requests that the Project proponent schedule a meeting with CSLC staff to discuss the relocation. In addition, CSLC Land Management Division staff requests to be actively involved in the process to ascertain whether the Project remains consistent with conditions stated in the easements. Please contact Reid Boggiano (contact information provided below) for further information about conditions and relocation of the Public Access Easement Parcel.

2-8 As stated on page 5 of the IS, the boathouse and launch facility element is not part of the proposed Project; however, the City has included it in the analysis to help facilitate future development. Please note that construction of the boathouse and launch facility, as well as any other future projects extending below the ordinary high water mark, will require a lease from the CSLC.

2-9 2. Environmental Review

CSLC staff has no further comments on the NOP; however, we look forward to reviewing the DEIR when it becomes available.

LETTER 2

As a trustee agency and potentially responsible agency, the CSLC will need to rely on the Final EIR for the issuance of any approval as specified above and, therefore, we request that you consider our comments prior to adoption of the EIR.

Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program (MMRP), Notice of Determination (NOD), CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning environmental review to Cynthia Herzog, Senior Environmental Scientist, at (916) 574-1310 or via e-mail at Cynthia.Herzog@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Senior Staff Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Reid Boggiano, Public Land Management Specialist, at (916) 574-0450, or via email at Reid.Boggiano@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

Attachment

cc: Office of Planning and Research
Reid Boggiano, LMD, CSLC
Cynthia Herzog, DEPM, CSLC
Jessica Rader, Legal, CSLC
Pam Griggs, Legal, CSLC

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

Our 75th Year
1938 - 2013

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July 2, 2013

File Ref: SCH #2013062004

Mr. Geoff Bradley
City of Petaluma
11 English Street
Petaluma, CA 94952

Subject: Initial Study/Mitigated Negative Declaration (IS/MND) for the Riverfront Mixed Use Project, City of Petaluma, Sonoma County

Dear Mr. Bradley:

The California State Lands Commission (CSLC) staff has reviewed the subject IS/MND for the Riverfront Mixed Use Project (Project), which is being prepared by the City of Petaluma (City). Because the City would need to approve a Tentative Subdivision Map to create 144 lots and four parcels that would allow the development of a mixed-use neighborhood, the City is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Additionally, because the Project would need written permission from the CSLC to relocate a Public Access Easement Parcel, the CSLC may act as a responsible agency.

CSLC Jurisdiction and Public Trust Lands

2-10 The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not

limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The Petaluma River and the upland parcel are subject to a Title Settlement Agreement between the State and Petaluma Riverfront, LLC under AD 465. Under this Agreement, Petaluma Riverfront, LLC quitclaimed to the State all of its right, title and interest to the bed of the Petaluma River located between the left bank ordinary high water mark and the centerline of the Petaluma River. In exchange, the State quitclaimed to Petaluma Riverfront, LLC all of its right, title, and interest to the subject upland parcel, except for certain public easement rights which Petaluma Riverfront, LLC granted to the State: the Public Trust Easement Parcel, the Public Use and Construction Easement Parcel, and the Public Access Easement Parcel.

The Grant of Easement to the State of California states that the Public Trust Easement shall be used for purposes of public recreation and open space. Basin Street Properties may not conduct activities or construction within the area of the public trust.

The Grant of Easement to the State of California states that Public Use and Construction Easement shall be used for the following purposes:

1. To allow the general public pedestrian and bicycle access within and through the Public Use and Construction Easement, including walking, viewing, sitting, fishing, picnicking, and other related purposes.
2. To allow the construction and maintenance of any improvements by the State or its nominee or lessee which support public use of the Public Use and Construction Easement, including the construction of walking trails and pathways, picnic benches, landscaping, placement of trash receptacles and informational signs, and other improvements to enable the public to achieve full use and enjoyment of the land within the Public use and Construction Easement.

The Grant of Easement to the State of California states that the Public Access Easement Parcel shall be used for the following purposes:

1. To allow government and general public vehicular, pedestrian, and bicycle access within and through the Public Access Easement Parcel to reach the Public Use and Construction Easement parcel and Public Trust Easement Parcel.
2. To allow the construction and maintenance of any improvements by the State or its nominee or lessee which support the use of the Public Access Easement Parcel for the enumerated purposes. The Public Access Easement Parcel may be relocated with the written approval of the State.

The "riverfront park" portion of the Project consists of 3.6 acres of walking trails, outlooks, and landscaping improvements. This riverfront park poration and the community boathouse facility would be located on portions within the Public Use and Construction Easement Parcel and the Public Trust Easement Parcel. Based on the information submitted, CSLC staff has determined that the riverfront park and boathouse are not inconsistent with the Construction Easement Parcel and Public Trust Easement Parcel. However, per preliminary review, it appears that the Project proponent desires to relocate the Public Access Easement Parcel; therefore, CSLC staff requests that the Project proponent schedule a meeting with CSLC staff to discuss the relocation. In addition, CSLC Land Management Division staff requests to be actively involved in the process to ascertain whether the Project remains consistent with conditions stated in the easements. Please contact Reid Boggiano (contact information provided below) for further information about conditions and relocation of the Public Access Easement Parcel.

As stated on page 5 of the IS, the boathouse and launch facility element is not part of the proposed Project; however, the City has included it in the analysis to help facilitate future development. Please note that construction of the boathouse and launch facility, as well as any other future projects extending below the ordinary high water mark, will require a lease from the CSLC.

Project Description

The proposed Project consists of a mixed-use neighborhood of commercial, residential and open space land uses served by a network of predominately public streets on 35.7 acres (39.4 acres including the riverfront park). Commercial uses would include up to 60,000 square feet of office space, a maximum 120-room hotel, a mixed-use core comprised of up to 30,000 square feet of commercial space with residential above. Residential development would include up to 273 units comprised of 134 small-lot single family homes, 100 apartments, 35 townhomes and four live-work units. Active and passive park space would total 7.65 acres including an offsite 3.65 acre riverfront park. Land would also be set aside for future construction of a boathouse near the Petaluma River to provide small craft access to the river. Development of an off-site trail to the east of the Project site is also under consideration.

Environmental Review

The CSLC staff requests that the City consider the following comments on the Project's IS/MND.

General Comment

2-11 1. The IS (pages 5 and 6) discusses the lack of conceptual or engineered design plans for the boathouse or planned launch facility at this time, and states that "further environmental review would be required once the facility is proposed for construction and the location, design, and construction methods are know[n]".

Therefore, CSLC staff will need to review that future document in regards to CSLC leasing jurisdiction.

At that time, CSLC staff requests that a thorough and complete Project Description be included in the document in order to facilitate meaningful environmental review of potential impacts, mitigation measures, and alternatives. The Project Description should be as precise as possible in describing the details of all allowable activities (e.g., types of equipment or methods that may be used, maximum area of impact or volume of sediment removed or disturbed, seasonal work windows, locations for material disposal, etc.), as well as the details of the timing and length of activities. Thorough descriptions will facilitate CSLC staff determinations of the extent and locations of its leasing jurisdiction, make for a more robust analysis of the work that may be performed, and minimize the potential for subsequent environmental analysis to be required.

Climate Change.

2-12 2. Sea Level Rise: The U.S. Geological Survey 2013 report "Final Report for Sea-level Rise Response Modeling for San Francisco Bay Estuary Tidal Marshes," has raised concerns over the effects of sea level rise on the Petaluma River. Therefore, the IS/MND should consider the effects of sea level rise on all resource categories potentially affected by the proposed Project. At its meeting on December 17, 2009, the CSLC approved the recommendations made in a previously requested staff report, "A Report on Sea Level Rise Preparedness" (Report), which assessed the degree to which the CSLC's grantees and lessees have considered the eventual effects of sea level rise on facilities located within the CSLC's jurisdiction. (The Report can be found on the CSLC's website, www.slc.ca.gov.) One of the Report's recommendations directs CSLC staff to consider the effects of sea level rise on hydrology, soils, geology, transportation, recreation, and other resource categories in all environmental determinations associated with CSLC leases

Please note that, when considering lease applications, CSLC staff is directed to (1) request information from applicants concerning the potential effects of sea level rise on their proposed projects, (2) if applicable, require applicants to indicate how they plan to address sea level rise and what adaptation strategies are planned during the projected life of their projects, and (3) where appropriate, recommend project modifications that would eliminate or reduce potentially adverse impacts from sea level rise, including adverse impacts on public access.

Thank you for the opportunity to comment on the IS/MND for the Project. As a trustee agency and potentially responsible agency, the CSLC will need to rely on the Final MND for the issuance of any approval as specified above and, therefore, we request that you consider our comments prior to adoption of the MND.

Please send copies of future Project-related documents, including electronic copies of the Final MND, Mitigation Monitoring and Reporting Program (MMRP), and Notice of

Determination (NOD) when they become available, and refer questions concerning environmental review to Cynthia Herzog, Staff Environmental Scientist, at (916) 574-1310 or via e-mail at Cynthia.Herzog@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Senior Staff Counsel Pam Griggs at (916) 574-1854 or via email at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Reid Boggiano, Public Land Management Specialist, at (916) 574-0450, or via email at Reid.Boggiano@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
Reid Boggiano, LMD, CSLC
Cynthia Herzog, DEPM, CSLC
Jessica Rader, Legal, CSLC

LETTER 2 – CALIFORNIA STATE LANDS COMMISSION (CSLC)

2-1 Agency Background. The comment provides background on the California State Lands Commission (CSLC) jurisdiction as a trustee agency, as well as attaches previously CSLC comments on the project. The comment also summarizes the public trust, use and access easements on the project property. The comment is noted, but no response is necessary as the comment does not address analyses in the Draft EIR.

2-2 Public Easements and Commission Contact. The comment states that previous Commission letters to the City indicated that the Riverfront Park and boathouse are not inconsistent with the Construction Easement Parcel and Public Trust Easement Parcel, although it appeared that the project proponent desired to relocate the Public Access Easement Parcel. The comment recommends that the project proponent contact Commission staff to ascertain whether the project remains consistent with conditions in the easements. Reid Boggiano, Public Land Management Specialist, of the CSLC staff has had several communications with the applicant including discussions in early December 2013. The CSLC staff indicated that locked gates were undesirable and that signage be provided stating that access to the Riverfront park is open to the public.

2-3 Project Description. The comment summarizes the project uses[1] and states that approximately 10 feet of new fill will be placed along the southern edge of the parcel for a future offsite extension of Caulfield Land a bridge over the Petaluma River, but the construction of the bridge is not part of the project evaluated in the DEIR. The comment indicates that a bridge location as depicted in the DEIR is located within CSLC jurisdiction and will require authorization and lease for the use of sovereign land for the portion encroaching on state-owned land. The comment is noted. As indicated in the comment, the bridge construction is not part of the proposed Riverfront Mixed-Use Project, but is identified as future improvement in the City of Petaluma's General Plan as noted on page 4.8-23 of the DEIR. Comment is noted that at the time a bridge is proposed, the CSLC will be contacted regarding its authorization of a lease. The "Project Description" section of the DEIR has been revised to clarify that the proposed project does not include construction of a bridge over the Petaluma River. See CHANGES TO DRAFT EIR (3.0) section.

2-4 CSLC Comments on NOP and Initial Study. The comment indicates that comments in previous CSLC letters remain the same. The comment is noted, and responses to previous comments are provided below.

[1] For clarification, it is noted that the project proposes 273 dwelling units, not 137 as mentioned in the comment, although this clarification is not relevant to the CSLC comments or jurisdiction.

2-5 CSLC as Trustee Agency. The comment indicates that as a trustee and potentially responsible agency, the CSLC will need to rely on the Final EIR for the issuance of any approval related to improvements addressed above. The agency is identified as a trustee and responsible agency on page 3.16 of the DEIR.

2-6 Agency Background and Project Description. The comment was provided in response to the Notice of Preparation (NOP) for the EIR and provides background on the CSLC's jurisdiction similar to Comment 2-1 and is so noted. The comment also summarizes the proposed project and indicates that an off-site trail to the east of the project site is under consideration. As stated on page 3-10 of the DEIR, development of a multi-use trail to the east of the project site was formerly considered, but is not part of the proposed Riverfront mixed-use project. Future construction by the City or another entity may be considered at a future time, but at this time there are no plans for construction of this trail. As indicted in the DEIR, due to the uncertainty as to when the facilities would be constructed, by what entity and the nature of improvements, this component was eliminated from further review in the DEIR.

2-7 Consistency with Easement Parcels. The comment summarizes public easement provisions and requests that the CSLC staff be contacted. See Response to Comment 2-2.

2-8 Boathouse and Launch. The comment notes that future construction of a boathouse and launch facility are not part of the proposed project, but included in the Initial Study analysis. The cited Initial Study was subsequently revised as part of the EIR Notice of Preparation (NOP), which is included in Appendix A of the DEIR. As indicated on page 3-10 of the DEIR, potential future development of a boathouse and boat launch facility is not included as part of the proposed Riverfront project or evaluated in the DEIR. The comment also notes that construction of the boathouse, launch facility and any other future projects extending below the ordinary high water mark will require a lease from the CSLC, which is so noted.

2-9 Review of Draft EIR. The comment indicates that the CSLC has no further comments on the NOP and looks forward to reviewing the Draft EIR. Comment is noted.

2-10 Agency Background and Project Description. The comment was provided in response to an Initial Study prepared in June 2013 at which time a Mitigated Negative Declaration was proposed. The comment provides background on the CSLC's jurisdiction as in Comment 2-1 and 2-6; no response is necessary. The comment also summarizes the project description proposed at the time the former Initial Study was written. As noted in Response to Comments 2-6 and 2-8, development of an offsite trail to the east of the project site and a boat launch were formerly considered, but are not part of the proposed project.

2-11 Future Review of Boathouse and Launch Facility by CSLC. The comment indicates that CSLC will need to review future environmental review documents prepared for the boathouse and launch facility when those facilities are proposed and designed with regards to CSLC leasing jurisdiction, and the project description should be thorough and complete. The comment is so noted. The comment provides examples of the detailed information that will be needed for the future review. Such details will be provided at the time a facility is planned and designed; none of the information is available at the present.

2-12 Sea Level Rise. The CSLC comment indicates that the "Final Report for Sea-Level Rise Response Modeling for San Francisco Bay Estuary Tidal Marshes" (U.S. Geological Survey, 2013) raised concerns over the effects of sea level rise on the Petaluma River, and that the Initial Study/Mitigated Negative Declaration should consider the effects of sea level rise on all resources potentially affected by the proposed project. The comment also indicates that a CSLC staff report assessed the degree to which the CSLC's grantees and lessees have considered the eventual effects of sea level rise on facilities located within the CSLC jurisdiction with a recommendation that directs CSLC staff to consider the effects of sea level rise in all environmental determinations associated with CSLC leases. CSLC also noted information that will be required regarding sea level rise when considering lease applications.

The DEIR discusses sea level rise on pages 4.6-6 to 4.6-7. The referenced USGS report is also discussed on page 4.7-7. The DEIR's flood hazard discussion has been expanded with further consideration of inundation risks including the future effects due to sea level rise. Impact 4.6-3 of the DEIR states that the potential affects due to sea level rise would be considered a less than significant impact. This conclusion is based upon the existing 100-year floodplain, the site's finished elevations, and projections of future sea level rise. See the CHANGES TO DRAFT EIR (3.0) (pages 3-8 to 3-11 and page 3-17 of this document) for the expanded discussion of DEIR section 3.5.

The DEIR's HYDROLOGY & WATER QUALITY (3.5) section provides an evaluation of impacts due to future sea level rise is relative to the 100-year flood surface elevation. The discussion has been expanded to include projected sea level rise of three feet by the year 2050 (relative to 2000 levels) and up to six feet by the year 2100. See the CHANGES TO DRAFT EIR (3.0) section of this document (pages 3-8 to 3-11 of this document). The "State of California Sea-Level Rise Guidance Document" (March 2013) provides guidance for incorporating sea-level rise projections into planning and projects in California in response to Governor Schwarzenegger's Executive Order S-13-08, issued on November 14, 2008 that directed state agencies to plan for sea level rise and coastal impacts. According to this document, sea level rise is projected (using the year 2000 as a baseline) as: 0.13-0.98 feet between 2000 and 2030; 0.39-2.0 feet between

2000-2050; and 1.38-5.48 feet between 2000 and 2100. Thus, the DEIR's analysis assumes a conservative worse-case scenario regarding sea level rise.

Although the project site is located adjacent to the Petaluma River, the finished grade is such that all structures and buildings would be well outside of the 100-year floodplain plus consideration of sea level rise. The project includes setback along the sites frontage to the River and the low lying area to the east that could become inundated under future sea level rise scenarios. There is sufficient room to incorporate adaptive management strategies should such a need arise in the future. Therefore, as described in the DEIR and this document, the project's impacts associated with increased risk of flooding due to sea level rise would be less than significant. It is noted, that future construction of a boathouse and small boat launch facility would require review of sea level in accordance with CSLC requirements related to potential leases. See the expanded discussion of sea level rise in the CHANGES TO DRAFT EIR (3.0) section of this document (pages 3-8 to 3-11 of this document). See also Response to Comment PH-4.1.

State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
7329 Silverado Trail
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EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

LETTER 3

January 31, 2014

Ms. Olivia Ervin
City of Petaluma
11 English Street
Petaluma, CA 94952

Dear Ms. Ervin:

Subject: Riverfront Mixed-Use Project, Draft Environmental Impact Report, SCH #2013062004, City of Petaluma, Sonoma County

3-1 The California Department of Fish and Wildlife (Department) has reviewed the Draft Environmental Impact Report (EIR) for the Riverfront Mixed-Use Project (Project). The draft EIR was received in our office on December 27, 2013.

The Project consists of development of a mixed-use neighborhood of commercial, residential and open space land uses served by a network of predominately public streets on 35.7 acres (39.4 acres including the riverfront park). Commercial uses would include up to 60,000 square feet of office space, a maximum 120-room hotel, a mixed-use core comprised of up to 30,000 square feet of commercial space with residential above. Residential development would include up to 273 units comprised of 134 small-lot single family homes, 100 apartments, 35 townhomes and 4 live-work units. Active and passive park space would total 7.65 acres including an off-site 3.65-acre riverfront park. Land would also be set aside for future construction of a boathouse near the Petaluma River to provide small craft access to the river. The draft EIR indicates that the boathouse is not part of the current Project but that environmental review is being done now in order to facilitate future development.

The Department is identified as a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) §15386. As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of those species pursuant to California Fish and Game Code §1802. In this capacity, the Department administers the California Endangered Species Act (CESA), the Native Plant Protection Act, the Lake and Streambed Alteration program and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Pursuant to our jurisdiction, the Department has the following concerns, comments, and recommendations regarding the proposed Project.

3-2 *Salt Marsh Harvest Mouse*

The draft EIR indicates that Coastal brackish marsh habitat is located along the fringe of the river adjacent to the Project site. Department staff have documented salt marsh harvest mouse (SMHM) in the Petaluma River watershed using a variety of marsh vegetation species, including, for example, pickleweed, bull rush, salt grass, reeds, saltmarsh mulefat and birds-beak. The Department believes that SMHM may occur in the marshland adjacent to the Project site. SMHM is identified in Fish and Game Code Section 4700 as a fully protected species which may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research. The draft EIR should include SMHM avoidance measures to be implemented wherever Project activities will directly impact salt marsh vegetation or occur adjacent to salt marsh vegetation. These measures could include barrier fencing, hand removal of salt marsh vegetation and avoidance buffers.

3-3 *Boathouse*

The draft EIR indicates that the boathouse will not be developed as part of the Riverfront Mixed-Use Project, but environmental review of the facility is being included in the draft EIR in order to facilitate future development. The draft EIR does not include specific design elements of the boathouse. If the development of a boathouse could include instream elements such as construction of a boat ramp and installation of a dock with pilings, the draft EIR should include an analysis of instream fish and wildlife resources that could be impacted by boathouse construction including sensitive species, such as: federally threatened green sturgeon, federally threatened steelhead trout and state threatened longfin smelt. Instream activities associated with the construction of river front amenities, such as the use of an impact hammer to drive piles, are likely to result in take of longfin smelt and juvenile salmonids if performed during a time of year when these species are present. The draft EIR should therefore propose avoidance and minimization measures for these species that could include seasonal work windows, silt-curtains and cofferdams.

3-4 *California Endangered Species Act*

Please be advised that a CESA Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to CEQA documentation. Therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA Permit.

3-5 *Lake and Streambed Alteration Agreement*

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, the Department may require a Lake and Streambed Alteration Agreement (LSAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of an LSAA is subject to CEQA. The Department, as a Responsible

Agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at http://www.dfg.ca.gov/habcon/1600/; or to request a notification package, contact CDFW's Bay Delta Regional Office at (707) 944-5500.

The Department appreciates the opportunity to comment on the Riverfront Mixed-Use Project. Department staff are available to meet with you to further clarify our comments and provide technical assistance on any changes necessary to protect resources. If you have any questions, please contact Mr. Adam McKannay, Environmental Scientist, at (707) 944-5534; or Ms. Karen Weiss, Senior Environmental Scientist (Supervisory), at (707) 944-5525.

Sincerely,

Scott Wilson

Scott Wilson
Regional Manager
Bay Delta Region

cc: State Clearinghouse

LETTER 3 – State of California – The Natural Resources Agency Department of Fish and Wildlife (CDFW)

3-1 Overview of Project Description and Department Role as Trustee Agency. The comment provides a summary of the project description, noting that future construction of a boathouse near Petaluma River is not part of the proposed project. The comment also summarizes the Department's role as a trustee agency. Comment is noted, but no response is necessary.

3-2 Salt Marsh Harvest Mouse. The comment states that the DEIR indicates that coastal brackish marsh habitat is located along the fringe of the Petaluma River adjacent to the project site, and that Department staff have documented salt march harvest mouse (SMHM) in the Petaluma River watershed. Department staff believes that SMHM, which is a "fully protected species" in the California Fish and Game Code, may occur in the marshland adjacent to the project site. The comment indicates that the DEIR should include SMHM avoidance measures wherever project activities would impact salt marsh vegetation.

The project biological resource assessment did not identify potential habitat for the SMHM as indicated on page B-3 of the report (see Appendix C-2 of the DEIR). Based on the biologists numerous site visits and experience with SMHM habitat, the onsite wetlands do not support SMHM due to: the lack of pickleweed and other plant species known to support SMHM in these wetlands; their isolated and small size within a weed dominated vegetation community; and likely competition and predation that SMHM would encounter with other small mammals associated with these upland habitats. The only wetland features that support the vegetation communities that the SMHM may potentially utilize, as described by the CDFW, are within the small (0.01 acre) coastal brackish marsh located at the eastern edge of the planned Riverfront Park (see Figure 4.2-1 on page 7-10 of the DEIR), south of all proposed development, directly bordering the Petaluma River. This area is will not be impacted by the project and will remain intact as part of the proposed Riverfront Park.

Pickleweed and bull rush are present in the Highway 101 right-of-way (ROW) to the east of the project site, and Caltrans considered this area "occupied SMHM habitat" in their EIR for the Marin-Sonoma Narrows Highway Widening Project[2]. However, this area was never surveyed for SMHM and based on California Natural Diversity Data Base (CNDDB) occurrences, all documented occurrences of SMHM are farther

[2] U.S. Department of Transportation, Federal Highway Administration and State of California Department of Transportation. Marin-Sonoma Narrows (MSN) HOV Widening Project [State Clearinghouse No. 2011112043]: Draft Environmental Impact Report/Draft Environmental Impact Statement (October 2007); Online at: http://www.dot.ca.gov/dist4/msn/msn_deir_s/msn_deir.htm and Final EIR/EIS (July 2009); Online at: http://www.dot.ca.gov/dist4/msn/msn_feir_s/msn_feir.htm

downstream of the ROW and the subject property. In addition, there are several barriers to dispersal between documented occupied habitat farther east of the Highway 101 bridge and the subject property such as the Sheraton Hotel and Marina and the adjacent drainage to the west of the marina. The project's proposed Parcel C borders the Riverfront property's eastern boundary and is not planned for development, except for an onsite path. Based on the above discussion, the project will not have a significant impact on SMHM.

Although there will be no significant impact requiring mitigation, construction BMPs as suggested by the CDFW such as wildlife exclusion fencing and construction personnel training about sensitive wildlife, will be implemented voluntarily by the applicant.

3-3 Boathouse and Boat Launch. The comment indicates that if future development of a boathouse includes instream elements such as construction of a dock, the DEIR should include an analysis of instream fish and wildlife resources that could be impacted by boathouse (and dock/boat launch) construction, such as the federally threatened green sturgeon, federally threatened steelhead trout and state threatened longfin smelt.

The project includes dedication of a parcel to the City of Petaluma for future construction of a boathouse for small-craft access to the Petaluma River. Construction of a boathouse is not part of the proposed Riverfront project as discussed on page 3-8 of the Draft EIR, and as indicated on page 3-10 of the DEIR, it is not known when a boat launch facility might be constructed or by what entity. Absent a specific proposal (e.g., floating dock vs. dock set on pilings), it is not known what the instream impacts could be. However, the City's General Plan 2025 EIR addressed potential instream impacts of future development. The EIR identified potentially significant impacts to steelhead, Sacramento Splittail, and other special status fish species (such as green sturgeon longfin smelt) if construction activities associated with proposed developments were to occur within instream (Impact 3.8-1). The EIR determined that compliance with state law through required permits and agreements and with specified General Plan policies would reduce potential impacts to a less-than-significant level. Related General Plan Policy 4-P-1(F) requires development projects along the river to work with agencies such as CDFW as part of a comprehensive river protection strategy. Among the state law requirements is a Stream Alteration Agreement (SAA), which is issued by CDFW pursuant to California Fish and Game Code sections 1600-1616. A SAA is required from CDFW prior to any construction activities that may result in any disturbance to a stream . The SAA considers proposed modifications to a stream including any impacts to vegetation or special status species, and establishes provisions through the issuance of a permit to protect plants, fish, wildlife and their habitat.

When a specific project for a boathouse facility is proposed, it is required to comply with the above described procedures. More specifically, any future proposal would require application for and approval of Site Plan and Architectural Review (SPAR) in accordance with the Implementing Zoning Ordinance. This is a discretionary permit which requires CEQA review. The application for any proposed boat launch facility would include but not be limited to describing the nature, use, extent, maintenance, size, and construction details and timing. An environmental analysis of potential biological impacts cannot be accurately provided without such details of proposed siting and design. Further, as noted in the GP EIR, as part of the development review process, the application is required to provide a site-specific biological resources assessment. Any approval of the Riverfront project would not authorize a boathouse project. The City would have full discretion to consider any future SPAR application, full discretion under CEQA, and full discretion to impose mitigation measures if appropriate. Any future boathouse facility proposing instream features would be required to obtain a SAA from CDFW, as anticipated in the GP EIR. Any future instream use, such as a boathouse launch facility, is required to comply with the GP EIR anticipated processes. No further analysis or mitigation is warranted as part of the Riverfront project.

As noted in the comment, Tentative Map Parcel D is proposed for dedication for a potential future boathouse facility. Potential impacts associated with the creation of Parcel D on which a future boathouse could be sited are addressed in the project biological assessment and DEIR with regards to onland impacts, and none were identified. The DEIR also addresses impacts related to creation of Parcel D and potential development of a boathouse with regards to geotechnical impacts on pages 4.4-7 to 4.4-8 and flood hazards on pages 4.6-15 to 4.6-16. These impacts are related to Parcel D and not dependent on the specific design of a future boathouse facility and thus could be analyzed in the DEIR. No further analysis of a potential boathouse facility is required at this time.

3-4 California Endangered Species Act. The comment advises that a permit must be obtained if the project has the potential to result in take of species listed under the California Endangered Species Act (CESA), and issuance of a CESA permit is subject to CEQA documentation. If a project will impact a CESA-listed species, early consultation with the CDFW is encouraged. The DEIR discusses CESA on page 4.2-3 of the DEIR, and indicates that CESA provides protection to certain species due to their "ecological, historic, educational, recreational, aesthetic, economic, and scientific value to the people of the State." Consistent with the comment, the DEIR notes that a CESA permit must be obtained from the State in the event that a project has the potential to result in the "take" of a threatened or endangered plant or animal species either during construction or during the life of the project. A Biological Resources Assessment (Appendix C-2 of the DEIR) was conducted for the project site including

an evaluation to determine the potential for such species to occur onsite and in the project vicinity. This evaluation was the basis for the DEIR analysis and is Appendix B to the Biological Resources Assessment that is included in Appendix C-2 of the DEIR.

Biological impacts related to plant and animal species are discussed in Section 4.2 of the DEIR (see pages 4.2-9 to 4.2-12). The project site is comprised of 39.5 acres including the proposed offsite Riverfront Park, the majority of which consists of non-sensitive habitat (approximately 11.5 acres consisting of gravel roads, concrete slabs and stockpiled soils, and 27 acres consisting of non-native ruderal habitat. Although currently undeveloped, the project site has undergone substantial disturbance due to past uses onsite and adjacent activity such as the Highway 101 road widening project. As stated on page 4.2-8 of the DEIR, habitat onsite was determined to be unsuitable to special status species due to the lack of onsite native vegetation communities, lack of appropriate substrates or landforms, and elevation.

Although no plant or wildlife species listed under CESA were identified within the project boundaries, two special status bird species were observed onsite (White-Tailed Kite and song sparrow) and four other special status bird species have a moderate potential for occurrence onsite (Loggerhead shrike, Northern Harrier, Allen's Hummingbird, and SF yellow throat). As a CDFW fully protected species, any impacts to White-Tailed Kites must be avoided, but this species has no legal status under CESA. Nonetheless, some of these species are covered under the Migratory Bird Treaty Act and have been addressed accordingly in the DEIR. Given the presence of special status species onsite, the DEIR evaluation under Impact 4.2-2 (see DEIR pages 4.2-11 to 4.2-12) identifies a potentially significant impact to nesting bird species, including potential special status bird species, that would be covered under the MBTA. Potential impacts to biological resources include disturbance to nesting species due to the removal of vegetation, or nest abandonment due to noise, increased nighttime lighting, or other human disturbances during construction. These potential impacts would be mitigated to less than significant with Mitigation Measure BIO-3 (page 4.2-12 of the DEIR), which outlines procedures to prevent nest abandonment and direct mortality during construction activities.

As described in the DEIR, the project site has been substantially altered from a natural condition and does not contain any suitable habitat that would support a protected plant or animal species, other than potential impacts to nesting birds. Adherence to measure Mitigation Measure BIO-3 provides for protection to species of special concern and birds covered under the MBTA. With mitigation, potential impacts to these species will be reduced to less-than-significant levels. None of the special status bird species either observed onsite or identified as having a potential for occurrence would require a CESA Permit, as none are listed as Threatened or Endangered.

In the absence of any anticipated impacts to plant and animal species protected under CESA, there is no indication that a CESA permit will be required for the Riverfront project.

3-5 Lake and Streambed Alteration Agreement. The comment indicates that a Lake and Streambed Alteration Agreement may be required for any activity that will divert or obstruct the nature flow or change the bed, channel or bank of a river or stream. The comment is noted. The DEIR also notes that such an agreement may be required for the Riverfront Park development proposed as part of the project. The DEIR fully identifies any potential impacts to the Petaluma River from the project, along with related mitigations to protect water quality and biological resource values.

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February 6, 2014

VIA E-MAIL AND OVERNIGHT MAIL

City of Petaluma
Community Development Department
Attention: Olivia Ervin
11 English Street
Petaluma, CA 94952
oervin@ci.petaluma.ca.us

Re: Comments on the Draft Environmental Impact Report for the Riverfront Mixed-Use Project (SCH #2013062004)

Dear Ms. Ervin:

4-1 We are writing on behalf of the Petaluma Residents for Responsible Development to submit comments on the Draft Environmental Impact Report ("DEIR") prepared by the City of Petaluma ("City") for the Riverfront Mixed Use Project ("Project") proposed by Basin Street Properties, LLC ("Applicant"). The Project requires a Tentative Subdivision Map for the development of a new mixed-use community on 39.4 acres of riverfront land. The Project includes 273 residential units (single-family homes, apartments, townhomes and live-work units), a 120-room hotel, 60,000 square feet of office space, 30,000 square feet of retail space, and 4 acres of parks. The Project will also include an emergency access route along Old Lakeville Street, a 3.65-acre riverfront park on state-owned property, and the dedication of land for a 10,000 square foot community boat house and boat launch.

The City prepared the Project DEIR after receiving comments from Petaluma Residents for Responsible Development and others. The City's DEIR, however, does not adequately address the impacts raised in our prior comments, and does not commit to further mitigation measures to reduce those impacts to less than significant levels. The City appears to have no interest in addressing the largest

environmental challenges associated with the Project. The DEIR ignores these "stubborn problems" and continues to sweep them "under the rug," which the law prohibits.[1] As explained more fully below, the DEIR prepared for the Project is significantly flawed and does not comply with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 *et seq*. Moreover, the City may not approve a Tentative Subdivision Map until an adequate DEIR is prepared and circulated for public review and comment.

We have reviewed the DEIR and its technical appendices with assistance from a technical consultant, Matt Hagemann, whose comments and qualifications are attached as Attachment A. The City must respond to Mr. Hagemann's comments separately and individually.

I. INTRODUCTION

4-2

A. Interest of Commenters

Petaluma Residents for Responsible Development ("Petaluma Residents") is an unincorporated association of individuals and labor unions that may be adversely affected by the potential public and worker health and safety hazards and environmental and public service impacts of the Project. The association includes Mitch Clarey, Frank Cuneo, Richard Kenney, Roger Burk, the Sonoma, Mendocino, and Lake Counties Building and Construction Trades Council, its affiliated local unions, and their members and their families who live and/or work in the City of Petaluma and Sonoma County.

Individual members of Petaluma Residents and its affiliated unions live, work, recreate, and raise their families in Sonoma County, including the City of Petaluma. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite. Petaluma Residents has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there.

[1] *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Ass'n.* (1986) 42 Cal.3d 929, 935.

4-3 **B. Summary of Comments**

As explained below, the Project will generate a multitude of impacts in a number of impact areas, including air quality, hazardous materials, greenhouse gas emissions, geologic hazards, flooding, and traffic. The DEIR either mis-characterizes, mis-analyzes, underestimates or fails to identify many of these impacts. Furthermore, many of the mitigation measures described in the DEIR will not in fact mitigate impacts to the extent claimed. The DEIR must be revised to resolve its inadequacies and must be recirculated for public review and comment.

CEQA requires recirculation of a DEIR for public review and comment when significant new information must be added to the DEIR following public review, but before certification.[2] The CEQA Guidelines clarify that new information is significant if "the DEIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the Project or a feasible way to mitigate or avoid such an effect."[3] The purpose of recirculation is to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it.[4] As discussed below, the DEIR does not adequately establish the environmental setting from which to analyze the Project's impacts, the Project will result in significant environmental impacts that are not analyzed in the DEIR, and there are feasible mitigation measures available to reduce significant impacts that have not been required in the DEIR. These changes must be addressed in a revised DEIR that is circulated for public review and comment.

4-4 **II. THE CITY LACKS SUBSTANTIAL EVIDENCE TO SUPPORT ITS CONCLUSIONS IN THE DEIR REGARDING THE PROJECT'S SIGNIFICANT IMPACTS; THE DEIR FAILS TO INCORPORATE ALL FEASIBLE MITIGATION MEASURES NECESSARY TO REDUCE SUCH IMPACTS TO A LEVEL OF INSIGNIFICANCE**

CEQA has two basic purposes, neither of which the DEIR satisfies. First, CEQA is designed to inform decision makers and the public about the potentially significant environmental impacts of a Project before harm is done to the

[2] CEQA, Pub. Resources Code § 21092.1.
[3] CEQA "Guidelines," 14 Cal. Code Regs. § 15088.5.
[4] *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (1981) 122 CalApp3d 813, 822.

environment.[5] The DEIR is the "heart" of this requirement.[6] The DEIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[7]

To fulfill this function, the discussion of impacts in a DEIR must be detailed, complete, and "reflect a good faith effort at full disclosure."[8] An adequate DEIR must contain facts and analysis, not just an agency's conclusions.[9] CEQA requires a DEIR to disclose all potential direct and indirect, potentially significant environmental impacts of a project.[10]

Second, if a DEIR identifies potentially significant impacts, it must then propose and evaluate mitigation measures to minimize these impacts.[11] CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.[12] Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the DEIR to meet this obligation.

Under CEQA, an EIR must not only discuss measures to avoid or minimize adverse impacts, but must ensure that mitigation conditions are fully enforceable through permit conditions, agreements or other legally binding instruments.[13] A CEQA lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility.[14] This approach helps "insure the integrity of the process of decision by

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[5] CEQA Guidelines § 15002(a)(1); *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal.App.4th 1344, 1354 ("*Berkeley Jets*"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[6] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.
[7] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[8] CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.
[9] See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568.
[10] Pub. Resources Code § 21100(b)(1); CEQA Guidelines § 15126.2(a).
[11] Pub. Resources Code §§ 21002.1(a), 21100(b)(3); CEQA Guidelines § 15002(a)(2) and (3); *Berkeley Jets,* 91 Cal.App.4th at 1354; *Laurel Heights Improvement Ass'n v. Regents of the University of Cal.* (1998) 47 Cal.3d 376, 400.
[12] Pub. Resources Code §§ 21002-21002.1.
[13] CEQA Guidelines § 15126.4(a)(2).
[14] *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28.

precluding stubborn problems or serious criticism from being swept under the rug."[15]

In this case, the DEIR fails to satisfy the basic purposes of CEQA. The DEIR's conclusions regarding air quality, greenhouse gas emissions, hazardous materials, geologic hazards, flooding, and traffic are not supported by substantial evidence. In preparing the DEIR, the City: (1) failed to provide sufficient information to inform the public and decision-makers about potential environmental impacts; (2) failed to accurately identify and adequately analyze all potentially significant environmental impacts; and (3) failed to incorporate adequate measures to mitigate environmental impacts to a less than significant level. The City must correct these shortcomings and recirculate a revised DEIR for public review and comment.

A. The DEIR Fails to Adequately Disclose, Analyze and Mitigate Significant Air Quality Impacts

1. The air pollution model was manipulated to avoid mitigation

4-5

Due to the uneven level of fill and the soil types on the 39-acre Project site, the entire site will be "mass graded" during construction. Heavy duty diesel construction equipment including scrapers, dozers, excavators, and graders will move thousands of cubic yards of soil, spreading and leveling it across the site from north to south.[16] Heavy duty diesel equipment such as pavers and rollers will be used to pave 13 acres of new roadways.[17] Diesel loaders, backhoes, tractors, fork-lifts, and a crane will be used to lay building foundations, erect buildings, and deliver and move construction materials around the site.[18]

Heavy duty diesel construction equipment produces significant amounts of air pollution, including the two ingredients of smog: ozone precursors (such as "NOx") and particulate matter ("PM"). The Bay Area has unhealthy levels of these "criteria pollutants," and is considered to be in non-attainment status under both the federal and state Clean Air Acts.[19] The Bay Area Air Quality Management

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[15] *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Ass'n.* (1986) 42 Cal.3d 929, 935.
[16] DEIR Appendix C-1, Air Quality and Greenhouse Gas Emissions Analysis, Attachment 1, p. 11 of 44 (listing construction equipment).
[17] *Ibid.*; DEIR p. 3-6.
[18] *Ibid.*
[19] DEIR Appendix C-1, p. 8.

District ("BAAQMD") therefore requires a "significant impact" finding under CEQA for all construction projects that contribute substantial amounts of these pollutants to the air.

To determine if a significant impact finding is warranted, BAAQMD's CEQA Guidelines ask the lead agency to calculate the "average daily emissions" during construction, using the "CalEEMod" computer model. The lead agency enters data into the model, such as the lot size and the types of buildings to be constructed. The model then creates default assumptions about the project's air emissions, based on a database of similar construction projects, to determine if project emissions will exceed BAAQMD's thresholds of significance. Projects like this one, on a large site that will require a lot of heavy duty diesel equipment for mass grading, paving, and construction of numerous buildings, invariably exceed the threshold of significance, particularly for NOx.

The DEIR for this Project, however, concludes that the thresholds will not be exceeded, and that a finding of significance is not required for criteria air pollutant emissions during construction.[20] This is because the average daily emissions of NOx, for example, will allegedly be one third below the threshold of significance.[21] For several reasons this conclusion is not supported by substantial evidence. The DEIR manipulated the CalEEMod model in dozens of improper ways in order to achieve this result. Fortunately, the model requires disclosure whenever a modification is made to its default settings, and the model output attached to the DEIR reveals flaws that are not disclosed in the DEIR itself.[22]

4-6 The first modification made to the CalEEMod default settings was to assume that mitigation would already be built into the Project, specifically, that construction equipment would be equipped with newer, cleaner engines, when in fact no such mitigation is actually required. The DEIR changed the CalEEMod default settings for all 13 types of diesel construction equipment that will be used on the Project site.[23] Instead of calculating the unmitigated exhaust emissions from equipment that is typically found on a project site, the DEIR assumed that every

[20] DEIR p. 4.1-8.
[21] DEIR, Appendix C-1, p. 8, Table 2 (emissions of ROG, NOx, and PM all approximately one third below BAAQMD thresholds).
[22] DEIR, Appendix C-1, Attachment 1 (*hereinafter* "Project CalEEMod output").
[23] Project CalEEMod output, pp. 2-3 and 11 of 44 (listing 32 pieces of construction equipment and showing that all 32 pieces and all 13 types of equipment were changed from the default settings to "mitigated" and to "Tier 2" engines, and listing "construction off-road equipment mitigation – Tier 2 and BMPs" among the "non-default data" used).

diesel engine would automatically be mitigated and would have a "Tier 2" engine.
4-7 The DEIR, however, only requires the use of Tier 2 engines under a "worst-case" scenario: if the single family residences are constructed and occupied first, then the remainder of construction must use Tier 2 engines.[24] This mitigation measure is only triggered by an unlikely set of circumstances. Nothing in the DEIR requires the use of Tier 2 engines as a matter of course, and therefore the DEIR's modifications to the CalEEmod default settings were inappropriate. As noted in the CalEEMod User's Guide, "substantial evidence" must be available to support any reduction in engine emissions below the default level, and that evidence is lacking here.[25]

4-8 The second modification the DEIR made to the CalEEMod default settings was to reduce the Project acreage to only 25 acres.[26] Although it is acceptable to change the model's default settings in a way that more accurately reflects Project construction, such changes must be "supported with substantial evidence required by CEQA."[27] Project construction will disturb 39 acres and will include the construction of 7.4 acres of parks (only 6.2 acres were assumed in the DEIR's CalEEMod model) and 13 acres of roads (the DEIR's CalEEMod model did not include this at all).[28] The DEIR improperly manipulated the CalEEMod model by failing to account for emissions associated with constructing the entire Project.

4-9 The third modification that the DEIR made to the CalEEMod default settings was to extend the construction period "out 5 years," which is far beyond the model's assumption for a project of similar size.[29] The CalEEMod model is not based on the total time it may take for a project to be fully constructed, including "down time" when no construction occurs. Instead, the model calculates the actual "workdays" during six phases of construction: demolition, site preparation, grading, building construction, architectural coating (i.e. painting), and paving.[30] The DEIR did not assume a demolition phase because there are no buildings to demolish, and it

[24] DEIR pp. 4.1-14 to 4.1-16, Mitigation Measure AIR-3.
[25] CalEEMod User's Guide, p. 39, available at: http://www.caleemod.com/, under link to "User's Guide."
[26] *Ibid.*, Appendix C-1, pp. 5-6, and Project CalEEMod output, pp. 1 and 4 of 4 (listing the land uses input in the model, and showing changes made from default settings).
[27] CalEEMod User's Guide, p. 9.
[28] *Compare* DEIR p. 3-6 to Project CalEEMod output, pp. 1 and 10 of 44 ("0" acres of paving).
[29] Project CalEEMod output, p. 2 of 44.
[30] CalEEMod User's Guide, pp. 24-25.

adhered closely to the default assumptions for site preparation and paving.[31] However, it deviated *dramatically* from the default assumptions for grading, building construction, and architectural coatings. The DEIR estimated that the grading and building construction phases would take twice as long as assumed in by CalEEMod, and that architectural coatings (painting) would take ten times as long.[32] In total, the DEIR added 775 work days to the presumed construction timeline for these three phases, which is 135% more than the number of days presumed by the CalEEMod model based on a survey of similar projects.

As a result of adding so many more work days, the "average daily emissions" from project construction went dramatically down. A project that is constructed over 575 work days, as predicted by the CalEEMod model, has a much higher daily emissions rate than a project constructed over 1352 work days, as predicted by the DEIR. The City does not have substantial evidence to support such an extreme deviation from the CalEEMod model. The DEIR even states that the Applicant's Project plans "do not specify a phasing order or timeframe" for Project construction.[33] Despite the fact that the Project will be completed "in response to market conditions,"[34] and thus there may be periods of non-construction, there is no evidence to support the conclusion that the number of active construction days on the Project site could reasonably occupy every single working day over a five-year period, as assumed in the DEIR.

4-10 The DEIR includes a separate "partial" emissions analysis for the Project components other than the single-family homes.[35] Instead of doubling the estimated time for building construction, as was done in the full Project emissions analysis, the partial emissions analysis adopts the CalEEMod default time period for this phase.[36] It is inconsistent and arbitrary to use the default number of construction working days when analyzing part of the Project, but not when analyzing the entire Project. There is no justification for presuming that the active building construction phase for the entire Project will take 440 working days longer than predicted by the CalEEMod model.

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[31] Project CalEEMod output, p. 2 of 44, *also compare* p. 3 of 44 with p. 10 of 44 (default assumptions were changed from 20 to 21 days for site preparation and from 35 to 36 days for paving).
[32] *Ibid.* (default assumptions were changed from 45 to 90 days for grading, from 440 to 880 days for construction, and from 35 to 325 days for architectural coatings).
[33] DEIR p. 3-5.
[34] *Ibid.*
[35] Project CalEEMod output, "Riverfront – Partial Construction."
[36] *Ibid.*; see also DEIR p.

4-11 It is also absurd to presume that the active period for applying architectural coatings (i.e. paint) will take almost 300 working days longer than the CalEEMod default assumption. Based on the square footage of the buildings to be constructed, CalEEMod assumed it would take 35 working days to paint those buildings. The DEIR, however, assumed that it would take 325 working days. This can only be characterized as an absurd amount of time.

The partial emissions analysis for the Project similarly increased the length of the architectural coatings phase by 10 times the number of days predicted by CalEEMod. In support of this change, the DEIR simply explained that the timeline was extended "to represent activity for interior work that includes painting."[37] This statement does not make sense, because the CalEEMod already assumes that the architectural coatings phase includes interior work such as painting. As described in the CalEEMod User's Guide, the architectural coatings phase "involves the application of coatings to both the interior and exterior of buildings or structures and includes parking lot striping as well as painting of the walls of parking structures."[38] The City lacks substantial evidence for its presumption that the active architectural coatings phase for the Project will take 290 working days longer than predicted by the CalEEMod model.

4-12 The fourth flaw in the DEIR's construction-related air quality analysis is that it did not incorporate the emissions associated with water trucks, which will be required on site throughout construction to reduce fugitive dust.[39] The DEIR also
4-13 did not incorporate emissions associated with the off-haul of tens of thousands of cubic yards of fill.[40] These omissions undercut the total amount of exhaust emissions analyzed in the DEIR, resulting in an underestimation of Project impacts.

4-14 In sum, there are not sufficient reasons for the City to avoid a finding that construction-related air quality impacts from criteria pollutants will be significant. Had the DEIR not gone to such great lengths to alter the CalEEMod default assumptions, it would not have reached the conclusion that daily construction emissions would be one third below the threshold of significance. What is more, because the DEIR concludes that the Project will not exceed the criteria pollutant thresholds, it does not require stringent controls for dust during and after mass

[37] DEIR, Appendix C-1, p. 15.
[38] CalEEMod User's Guide, p. 25.
[39] Project CalEEMod output, p. 11 of 44.
[40] *Ibid.*; DEIR p. 4.4-13.

grading of the Project site, which the BAAQMD would otherwise require.[41] Thus, the Applicant gets a double windfall—avoiding full mitigating for both equipment exhaust and dust generation. The result is a cost savings for the Applicant but an undue threat to the health and air quality of the City's residents and workers.

2. BAAQMD mitigation measures are missing

4-15 As discussed above, the BAAQMD requires 13 "additional construction mitigation measures" for projects with significant emissions of criteria air pollutants during construction.[42] Three of these 13 measures have not been fully incorporated into the DEIR:

- "All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe."

Instead of incorporating this measure, the DEIR states that all exposed surfaces "shall be watered two times per day or to a [sic] maintain a minimum soil moisture of 12%."[43] Watering two times per day comes from the BAAQMD's "basic" construction mitigation measures. If the Applicant has the option of watering two times per day (less stringent) or maintaining a verified 12% soil moisture (more stringent) it will inevitably choose the less stringent option. This makes the City's incorporation of a 12% soil moisture requirement essentially useless. Moreover, the DEIR's mitigation measure does not require verification of the soil moisture content by lab samples or moisture probes, as set forth in the BAAQMD measure, thus making the measure impossible to verify and enforce.

It is important that stringent dust control mitigation be put in place for this Project, including the maintenance of adequate soil moisture to prevent unwanted dust from blowing toward neighboring communities, roads, and highways. The entire Project site will be mass graded, and the Project will likely be built in stages, which presents a risk of excess particulate matter being blown into the air from the Project site. The City must adopt and provide for strict enforcement of the 12% moisture content requirement.

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[41] BAAQMD's 2011 CEQA Guidelines, p. 8-4, Table 8-2 ("Additional Construction Mitigation Measures for Projects with Construction Emissions Above the Threshold").
[42] *Ibid.*
[43] DEIR p. 4.1-11, Mitigation Measure AIR-1.

- "Wind breaks (e.g. trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50% air porosity."

This measure is not included in the DEIR. For reasons similar to those described above, this measure is key to preventing undue fugitive dust from escaping the Project site. The City must apply and actively enforce this measure.

- "The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e. owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available."

This measure is not included in the DEIR. Instead, a measure from the City's General Plan is used, which was adopted before the BAAQMD's CEQA Guidelines. The City's measure simply requires that off-road equipment meet the most recent ARB fleet average, and be equipped with "Best Available Control Technology."[44] This measure neither requires an approved plan for reducing emissions, or provides a particular benchmark for emissions reductions. An approved plan for emissions reductions is crucial, not least because the DEIR improperly *assumes* significant reductions when modeling the Project's air emissions.[45]

The DEIR even fails to incorporate all eight of the BAAQMD's "basic" construction mitigation measures, which apply to all projects and which the DEIR acknowledges are required to reduce potentially significant impacts from fugitive dust to a less-than-significant level.[46] The DEIR only incorporates seven of these eight measures, and omits the following measure:

[44] DEIR p. 4.1-12, Mitigation Measure AIR-2.
[45] *See* DEIR Appendix C-1, pp. 2-3 of 44 (assuming Tier 2 cleaner engines for all equipment); "Riverfront – Partial Construction" p. 2 (assuming Tier 2 for most equipment and the most stringent "Tier 4" for some equipment).
[46] DEIR p. 4.1-8l; BAAQMD's 2011 CEQA Guidelines, p. 8-3, Table 8-1.

- "All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used."

Instead, the DEIR provides an apparently non-applicable requirement that all "paving shall be completed as soon as possible after pipeline replacement work is finished."[47] This is unacceptable. Incorporation and enforcement of the BAAQMD's basic measure is imperative to ensure that wind-borne dust is not a chronic problem as the Project is built out. It is reasonable and feasible to require the Applicant to pave all roads and sidewalks immediately after grading, and to lay building pads promptly, or at least establish a vegetative cover or soil-binding mulch while Project phases are constructed. This measure was inappropriately omitted from the DEIR.

B. The DEIR Fails to Adequately Disclose, Analyze and Mitigate Significant Impacts Regarding Greenhouse Gas Emissions

4-16 The DEIR improperly concludes that the Project will not contribute significant amounts of greenhouse gas pollution ("GHG") to the atmosphere, and the DEIR proposes absolutely no mitigation requiring sustainability features that would reduce the Project's contributions to GHG pollution. Under the BAAQMD's CEQA Guidelines, GHG emissions that exceed 1,100 million tons per year ("MTY") are considered cumulatively significant. If a project exceeds that threshold it is required to incorporate mitigation measures, unless it can show that the project is extremely efficient and will produce no more than 4.6 MTY per capita, including residents and employees of a project.

The DEIR concludes that the Project's operational emissions will be 4,696 MTY, well above the 1,100 MTY threshold of significance, but that per capita emissions will be 4.13 MTY, just below the efficiency threshold of 4.6 MTY, and therefore the Project does not require any mitigation.[48] For several reasons this conclusion is not supported by substantial evidence.

1. GHG emissions are under-calculated

4-17 Similar to the DEIR's manipulation of the CalEEMod default settings for construction emissions, the DEIR also improperly changed the CalEEMod default settings for operational GHG emissions. First, the DEIR assumed that the Project

[47] DEIR p. 4.1-11, Mitigation Measure AIR-1.
[48] DEIR p. 4.1-18f.

would not be occupied until 2020, which is two years after even the lengthy construction period presumed in DEIR. The DEIR predicts that the Project may be built in phases, ending in 2018, and that the single family homes and the hotel will likely be constructed and occupied first.[49] It is unreasonable to change the default CalEEMod settings to reflect that the Project will not be operational until 2020. As the DEIR admits, the sole purpose of using 2020 as the Project occupation date is so that the Project's GHG emissions could be evaluated against "AB32 GHG emission targets" for the electric utility that will serve the Project, PG&E.[50] The DEIR attempts to manipulate the date of Project occupancy so that its emission will look more favorable and it can avoid GHG mitigation. Substantial evidence does not support this conclusion.

4-18 Another related change is that the DEIR reduces the estimated emissions associated with the Project's electricity consumption. The DEIR reduced PG&E's "CO2 intensity factor" from 641.3 pounds per megawatt of electricity to just 288.8 pounds, a 55% reduction from the CalEEMod default assumption. The DEIR states that the 641.3 pounds used in the CalEEMod model only reflects PG&E's "2008 base emission rate," and that "PG&E's 2020 emission rate, as reported by PG&E using the California Public Utilities Commission's CPUC GHG Calculator," is 288.8 pounds. While it is true that the 641.3 intensity factor is based on PG&E's 2008 reporting year, this is the most accurate, verified, and up-to-date number that has been reported to the BAAQMD by PG&E, and it is the number that is used and recommended in the most recent 2013 CalEEMod program.[51] As described in the CalEEMod User's Guide, this intensity factor is "based on Table G6 of the California Air Resources Board (ARB) Local Government Operation Protocol version 1.1 or the latest public utilities inventory reports," and "is consistent with recommendations in the California Air Pollution Control Officer Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures document."[52]

There is no substantial evidence to support using a 55% reduction in electricity-related GHG emissions. The DEIR states that PG&E "reported" a 2020 emissions rate, but provides no supporting data to support this assertion.[53] The DEIR also mischaracterizes PG&E's CO2 intensity factor as "steadily decreasing,"

[49] DEIR pp. 3-5 and 4.1-14; Project CalEEMod output, p. 2 of 44 (construction period extended out 5 years until 2018).
[50] DEIR, Appendix C-1, p. 6-7.
[51] CalEEMod User's Guide, Appendix D, Default Data Tables, Table 1.2, *available at*: http://www.caleemod.com/
[52] *Ibid.*, Appendix A, Calculation Details, p. 2.
[53] DEIR, Appendix C-1, p. 7

and suggests that the intensity factor is only affected by PG&E's increasing renewable energy portfolio.[54] This is not at all accurate. PG&E's CO2 intensity factor rises and falls from year to year, based primarily on customer demand and the availability of clean hydro-power.[55] For example, 2011 was an extremely wet year, and PG&E reports that it was able to achieve its lowest CO2 intensity factor yet, at 393 pounds.[56] During the dry years of 2007 and 2008, however, PG&E's CO2 intensity factor rose to over 600 pounds.[57]

The DEIR's significant reduction from the default assumption for PG&E is unsupportable. The GHG Calculator is a model that can be manipulated in any number of ways by the user, to estimate potential future GHG emissions associated with statewide electricity production. The calculator does not provide hard answers, but instead allows users to "run their own scenarios" by varying the parameters associated with statewide future energy efficiency achievements and costs, electricity load, regulatory compliance, the effectiveness of the state's new cap and trade policy, and numerous other parameters.[58] In reality, PG&E's intensity factor rises and falls each year, and even PG&E acknowledges that its data should not be relied upon until "a thorough, third-party verification" is conducted.[59] California is currently facing a severe drought, and hydropower resources have become less reliable. PG&E's current CO2 intensity factor is likely close to or above the 641 pounds used in the CalEEMod model. There is *no* substantial evidence for deviating from this default intensity factor. The DEIR relies purely on speculation in an attempt to avoid mitigating its significant GHG emissions.

CEQA requires that when analyzing Project impacts, the lead agency "should normally limit its examination to changes in the existing physical conditions in the affected area *as they exist at the time the notice of preparation is published*."[60] This language has been interpreted to mean that the lead agency does not have "carte

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[54] *Ibid.* p. 6.
[55] PG&E article dated February 20, 2013, *available at:* http://www.pgecurrents.com/2013/02/20/pge%E2%80%99s-clean-energy-reduces-greenhouse-gas-emissions/
[56] *Ibid.*
[57] *Ibid.*
[58] CPUC's GHG Calculator Revised Report (2010), pp. 18-21: http://ethree.com/documents/GHG%20update/CPUC_GHG_Revised_Report_v3b_update_Oct2010.pdf
[59] *See* footnote 55, *supra.*
[60] CEQA Guidelines § 15126.2 (emphasis added); *see also id.* § 15125(a).

blanche to select the conditions on some future, post-approval date."[61] The estimated Project GHG emissions should be much higher than 4,696 MTY.

2. Energy efficiency is over-calculated

4-19 The "per capita" energy efficiency of the Project depends heavily on how many people will live and work there. The fewer people who occupy the Project, the less efficient the Project will be. The original Initial Study prepared by the City for the Project relied on generic assumptions about the number of residents and employees on the Project site, using U.S. Census data to estimate the number of residents, and basic square footage assumptions to estimate the number of employees. Presumably in response to Petaluma Residents' comments on the Initial Study, the DEIR now incorporates the estimated number of employees from the Project's Fiscal and Economic Impact Analysis (FEIA).[62] Thus, instead of using generic calculations and estimating 420 employees, as was done in the Initial Study, the DEIR estimates only 348 employees, based on the Project's FEIA.

The DEIR refuses, however, to make a similar adjustment to the estimated number of Project residents, in order to align this estimate with the Project's FEIA. The generic estimate of residents based on U.S. Census data is 718, while the FEIA relied on a specific estimate from the Applicant, based on experience with similar projects in the City, of only 565 residents.[63] It is entirely arbitrary for the DEIR to incorporate the more accurate number of employees from the FEIA, but not the more accurate number of residents. Throughout the DEIR it is evident that the City chose to alter default assumptions about Project impacts, but *only* when the result would be to avoid a finding of significance and its associated mitigation requirements. Here, the DEIR refuses to alter its default assumptions for the same reason: to avoid a proper finding of significance that would require mitigation. The City should not be so eager to assist the Applicant in avoiding sustainability measures that would benefit the health and well being of all City residents. The failure to make a finding of significance for GHG impacts is not supported by substantial evidence.

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[61] *Sunnyvale W. Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351, 1379.
[62] DEIR, Appendix C-1, p. 7; Petaluma Resident's July 25, 2013 comments submitted on the Initial Study/Mitigated Negative Declaration for the Project, attached hereto as Attachment E.
[63] *Ibid.*

C. The DEIR Fails to Adequately Disclose, Analyze and Mitigate Significant Impacts Regarding Hazardous Materials

4-20 The DEIR's description of potentially hazardous materials on the Project site misleads the reader by depicting the site as essentially free from potentially significant contamination. The DEIR even characterizes the proposed mitigation measures as conservative and not entirely necessary. In reality, the site contains three sources of potentially significant contamination, the DEIR's investigation and disclosure of these environmental conditions is inadequate, and the proposed mitigation is not sufficient to protect worker health and the health of those who will live on or use the Project site.

The Project site has a storied history of industrial use and hazardous materials storage and disposal. First, the Pomeroy Corporation (formerly Ben C. Gerwick Company) owned the site for 50 years. Between 1973 and 1980 Pomeroy built a railroad spur that terminated on the Project site, to serve its concrete fabrication yard.[64] Pomeroy used this area around the railroad spur to store hazardous materials. Records from a site visit in 1999 include photographs of old fuel tanks, dozens of large metal drums, and chemical containers with petroleum and unidentified chemicals, some of which were tipped over, partially full, and strewn around an "open field" on the Project site.[65] These photographs look like those from a typical "superfund" site.

4-21 Second, the northern part of the Project site was used by the City in the 1960's and 1970's as settling ponds for its wastewater treatment plant. In the 1990's Pomeroy laid sheets of plastic over a portion of the former settling pond area and covered it with petroleum-contaminated soil from a leaking underground storage tank.[66] The soil and the plastic sheeting are still on the Project site.[67]

4-22 Third, after the Project site was purchased by the Applicant in 2005, soil from at least nine other projects was transported there.[68] Aerial photographs of the Project site between 2005 and 2012 show an ever-increasing portion of the Project site being covered with soil.[69] The DEIR does not disclose how much of the

[64] DEIR pp. 4.5-5; DEIR, Appendix C-5, pp. 346-347 of 639.
[65] DEIR p. 4.5-7, Appendix C-5, pp. 545-546 of 639 (copies of the photographs are attached hereto as "Attachment B").
[66] DEIR p. 4.5-7; Appendix C-5; p. 541.
[67] DEIR Appendix C-5; p. 443 (top layer of soil found in Trench 1 was "imported on visqueen" plastic).
[68] DEIR, Appendix C-5, Table 4, p. 29 of 639.
[69] *Ibid.*, pp. 361-365 of 639.

transported soil was contaminated, but it appears that the soil came from multiple contaminated sites nearby.[70]

The only specific information about the transported soils concerns another project constructed by the Applicant, the "Theater Square" project, and it is not reassuring. A letter about the Theater Square site describes how unexpected contamination was discovered when soils were disturbed by workers.[71] 6,100 cubic yards of soil from the site were hauled to a "storage area at a property on Hopper Street in Petaluma," the Project site. 1,000 cubic yards of this soil "had a petroleum hydrocarbon odor" and was classified as hazardous waste.[72] The letter states that the contaminated soils were supposed to be "be disposed shortly," but nothing in the DEIR indicates whether the soils were ever removed from the Project site.

4-23 These three potential sources of contamination on the Project site require further investigation and more stringent mitigation, to protect worker and public health. This is particularly important because the Applicant, Basin Street Properties, has a history of encountering unexpected contamination during construction on at least one of its nearby project sites, the Theater Square site.[73]

4-24 Regarding the first source of potential contamination, which is Pomeroy's former hazardous materials storage site and the area where chemical containers were found strewn about in an adjacent open field, the DEIR relies on 14-year-old data from soil samples, including boring K-2 and trench T-3. These samples, however, were not adequately tested in order to dispel the potential for contaminants that exceed human health thresholds. The shallowest soil sample tested from boring K-2 was four feet beneath the surface, and contained a lead concentration of 75 mg/kg, which is just below the residential "ESL," or Environmental Screening Level, of 80 mg/kg. This concentration dissipated rapidly to 15 mg/kg at six feet below the surface. It is reasonable to assume that lead concentrations in soils closer than four feet from the surface will be higher than 75 mg/kg and may exceed the residential ESL for lead. Soil sampled from the top five

[70] *Compare ibid.*, Appendix C-4, Table 4 (listing project sites from which soil was brought to the Project site) *to* Appendix C-5 p. 10 (listing four contaminated properties that were subject to investigation and cleanup).
[71] DEIR, Appendix C-5, p. 375 of 639 (letter from Phillip Fitzwater to John Jang and Chuck Headlee dated September 8, 2005).
[72] *Ibid.*
[73] *Ibid.*

feet in Trench 3 was not tested for lead, despite its proximity to boring site K-2, and despite the fact that the soil showed "signs of garbage" during sampling.[74]

It is critical that this site be further investigated under the regulatory oversight of an agency that regulates soil hazards and cleanups, such as the San Francisco Bay Regional Water Quality Control Board or Department of Toxic Substances Control. The area with the highest concentration of lead on the Project site is proposed by the Applicant for the construction of an active park and ball field.[75] Particularly because the public will be more actively exposed to soils in this park area, the City must ensure that potential health threats from lead and other contaminants are fully investigated and mitigated.

4-25 Regarding the second source of potential contamination, Pomeroy's fuel-contaminated soil spread on the former treatment pond area, the DEIR acknowledges that the 2001 soils report showed the highest concentrations of petroleum hydrocarbons in this area.[76] The DEIR concludes, however, that these levels of petroleum hydrocarbons "were below residential ESLs."[77] This is incorrect. The residential ESL for petroleum hydrocarbons in shallow soils where groundwater is not a potential source of drinking water is 100 mg/kg.[78] The 2001 soils tests showed petroleum hydrocarbon concentrations of 120 mg/kg in Trench 1 and 220 mg/kg in Trench 2, both in the former treatment pond area where Pomeroy is known to have disposed of petroleum-contaminated soils.[79] The DEIR improperly substitutes the petroleum hydrocarbon ESL for "industrial" land use into its table of residential ESLs, but this is in error. The applicable ESL is 100 mg/kg.[80]

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[74] DEIR, Appendix C-5, pp. 445 of 639.
[75] *Compare* DEIR Figure 1-3 (showing area of proposed Active Park) *with* 4.5-1 (showing boring K-2 and Trench T-3); *see also* map of photographs and photograph "1" from 2001 Phase I Environmental Site Assessment, attached hereto as Attachments B and C (showing photograph of discarded barrels in the approximate location of the proposed park).
[76] DEIR p. 4.5-12.
[77] *Ibid.*
[78] San Francisco Bay Regional Water Quality Control Board's ESL Summary Tables, Summary Table B, "Shallow Soils (<3 m bgs): Groundwater is not a Current or Potential Source of Drinking Water," *available at*: http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Dec_2013_Summary.pdf
[79] DEIR, Appendix C-5, p. 371 of 639, Table D-2; *see also* p. 443 (top layer of soil in Trench 1 was "imported on visqueen" plastic); p. 541 (Pomeroy places its petroleum-contaminated soil "on plastic sheeting").
[80] Hagemann Comments, Attachment A.

Because the soil tested from both of the trenches that were excavated in the former treatment pond area exceeded the residential ESL, there is a clear risk that this entire portion of the Project site exceeds the contamination threshold for public health. The laboratory notes for these soil samples indicate that oil and diesel range compounds were "significant."[81] The DEIR's conclusion that petroleum hydrocarbons on the Project site are not likely to cause a potentially significant impact is not supported by substantial evidence and must be revised.

4-26 Regarding the third potential source of contamination, the potentially contaminated soils brought and spread on the Project site from other projects, the DEIR's proposed mitigation for this impact is entirely inadequate. The DEIR requires that "stockpiled soils be reaffirmed / tested prior to use for onsite fill, which shall be done following the Clean Imported Fill Material Information Advisory prepared by DTSC (DTSC 2011) in accordance with the recommendation set forth in the 2013 Iris Environmental Phase I Environmental Site Assessment."[82] This mitigation provides no agency oversight whatsoever, no timeframe for soil testing, no health thresholds against which samples must be compared, and no delineation of the extent and location of stockpiled soils. The DTSC Advisory *recommends*, but does not require, consultation and oversight by DTSC for testing stockpiled soils. Mitigation Measure HAZMAT-1 should be revised to require soils testing prior to the issuance of grading permits for the Project, to require that such testing be conducted under the oversight of a regulatory agency such as DTSC or the Regional Water Quality Control Board, that *all* soils stockpiled or spread on the Project site from other project sites must be subject to this mitigation, and that soil tests must be compared against the applicable residential ESLs.[83]

4-27 With respect to the second mitigation measure requiring a soil and groundwater management plan "in the event that potentially affected soil or groundwater is encountered during construction," this measure will not protect worker health because it has already been demonstrated that the site contains potentially affected soil and groundwater. A voluntary cleanup agreement with the Regional Water Quality Control Board or DTSC should be required *before* construction begins.[84]

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[81] DEIR, Appendix C-5, p. 447 of 639, references in table to fn. (b) and (g).
[82] DEIR p. 4.5-18, Mitigation Measure HAZMAT-1.
[83] Hagemann Comments, Attachment A.
[84] Hagemann Comments, Attachment A.

4-28 Finally, the testing of groundwater beneath the Project site revealed high levels of toxic metals and petroleum hydrocarbons.[85] The two recent "Phase I Environmental Site Assessments" or "ESAs" prepared for the Project take different approaches in analyzing these results. The 2012 Phase I ESA compared the groundwater contaminants with the applicable residential ESLs for groundwater that will not be used as a drinking water source.[86] It found that concentrations of metals were thousands of times higher than the applicable ESLs, and concentrations of petroleum hydrocarbons were over ten times higher.[87] As explained by the Regional Water Quality Control Board ("RWQCB"), which sets the ESLs, the groundwater ESLs are put in place for the protection of aquatic resources in situations where there may be discharges of groundwater to surface water.[88]

The 2013 Phase I ESA revokes these findings and takes a new approach. It compares the groundwater contaminant levels with "gross contamination" ESLs, which are intended to apply to groundwater that "does not meet drinking water quality requirements under natural conditions and/or [is] situated in strata that lack adequate aquifer characteristics and is not likely to otherwise directly contaminate a source of drinking water."[89] The reason for the change, as explained by the DEIR, is that "[a]quatic habitat goals were excluded from consideration since there are and will be no groundwater discharges to surface water other than under permit."[90]

The DEIR misses the mark. The Project may very well involve discharges of groundwater to the Petaluma River that exceed the applicable ESL's for the protection of aquatic resources. The purpose of CEQA is not to *assume* that activities which may cause a significant impact on the environment will be "taken care of" by a permit to be issued by a responsible agency in the future. Instead, CEQA acts to *inform* agency decisionmakers, including responsible agencies, about

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[85] 2012 Phase I ESA (Isis Environmental) Table 3, attached hereto as Attachment D.
[86] *Ibid.*
[87] *Ibid.*
[88] San Francisco Bay Regional Water Quality Control Board's ESL Summary Tables, Summary Table B, "Shallow Soils" and "Deep Soils" where groundwater is not a current or potential source of drinking water," *available at*: http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Dec_2013_Summary.pdf ; ESL Tables User's Guide, p. 4-1 (December 2013), *available at*: http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Users_Guide_Dec_2013.pdf
[89] DEIR, Appendix C-5, p. 8, fn. 1; http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Dec_2013_Detail.pdf (Notes for Table F-1b).
[90] DEIR, Appendix C-5, p. 8, fn. 1.

potentially significant impacts before a project is approved. Disclosure of such information, and commitments to binding mitigation, are the hallmarks of the CEQA process. The DEIR attempts to sweep the problem of groundwater contamination under the rug, by switching the applicable ESL's in the groundwater analysis and inserting a footnote, buried in an appendix, to indicate that a permit would likely take care of this potentially significant impact. This is insufficient, particularly because the DEIR does not commit the Applicant to obtaining and complying with Waste Discharge Requirements imposed by the RWQCB.[91]

4-29 The City lacks substantial evidence to support its conclusions that all potentially significant impacts related to hazardous materials exposure will be mitigated to a less than significant level. Numerous flaws in the DEIR's analysis of hazardous materials, as well as substantial unmitigated risks to the environment, demand further investigation, disclosure, and mitigation in a revised and recirculated DEIR.

D. The DEIR Fails to Adequately Disclose, Analyze and Mitigate Significant Impacts Regarding Geotechnical Problems on the Site

4-30 Five successive geotechnical reports have been prepared for the Project, spanning from 2006 to December 2013, and the Applicant still cannot provide the City with a decent explanation for how it will avoid the problem of sinking bay muds on the Project site, liquefaction from an old sandy riverbed meander that traverses the site, and other significant geotechnical challenges.[92] The DEIR's response is simply to repeat the recommended measures in the geotechnical reports, even though it has been shown most of these measures will not work.[93]

The only other solution suggested in the DEIR is a new mitigation measure that requires "third party peer review" of the geotechnical reports in order to verify that the proposed measures will work.[94] This constitutes improper deferral of the requirement to develop feasible and proven mitigation measures, with measurable standards for compliance, *in the DEIR itself*, not after Project approval. An agency

[91] *See* DEIR p. 4.6-13 (Waste Discharge Requirements "may be required" and "could be adopted" for the Project, but may also be waived).
[92] DEIR, Appendix C-4.
[93] DEIR p. 4.4-9, Mitigation Measure GEO-1; *see* Petaluma Residents' comments on the Initial Study/Mitigated Negative Declaration, attached hereto as Attachment E.
[94] DEIR p. 4.4-12, Mitigation Measure GEO-3.

may not put off an analysis of what mitigation measures are required, or call for an unspecified mitigation plan to be devised based on future studies.[95] Moreover, an agency may not rely on mitigation measures of uncertain efficacy or feasibility.[96] The proposed mitigation in the geotechnical studies is acknowledged to be of uncertain efficacy and feasibility, and the City cannot put off a full assessment until a later review by a third party.

E. The DEIR fails to address other significant issues raised in comments on the Initial Study/Mitigated Negative Declaration

4-31 Commenters on the Initial Study/Mitigated Negative Declaration that was previously prepared for the Project raised several additional issues that have not been addressed in the DEIR. Petaluma Residents have attached their previous comment letter as Attachment E, and hereby incorporate those comments. The DEIR specifically avoids a reasoned analysis of the following three issues:

4-32 (1) The site of the City's future boathouse on the Project site is within the FEMA flood hazard zone and is unlikely be able to developed. All structures are prohibited in a FEMA flood hazard zone, as are docks and other improvements that may interfere with the elevation of water during a flood.

4-33 Moreover, the DEIR indicates that the boathouse will require a deep foundation in order to avoid potential damage from soil lurching.[97] However, the geotechnical reports prepared for the Project make very clear that deep foundations are not an option on the river-side portion of the Project site, because the bay mud is too thick there.[98] The City requires dedication of a

4-34 boathouse site as part of the Project, but it appears that more land is needed in order to avoid construction in a flood hazard zone and/or a soil hazard zone. The potential need to move the boathouse away from its currently designated site should have been addressed in the DEIR as a Project alternative, because the current proposed location of the boathouse and associated improvements does not appear to be feasible.

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[95] CEQA Guidelines § 15126.4(a)(1)(B); *City of Long Beach v. Los Angeles School Dist.* (2009) 179 Cal.App.4th 889, 915; *Communities for a Better Env't v. City of Richmond* (2010) 184 Cal.App.4th 70, 95; *San Joaquin Raptor Rescue Ctr. v. County of Merced* (2007) 149 Cal.App.4th 645, 669.
[96] *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28.
[97] DEIR p. 4.4-8.
[98] DEIR, Appendix C-4; *see also ibid.* p. 51 of 52 (distinguishing the boathouse site from other Project structures for purposes of soil engineering conclusions).

4-35 (2) The DEIR makes vague references to "traffic impact fees," but does not require the Applicant to contribute its fair share toward the cost of the Caulfield bridge extension to south Petaluma. Instead, it only requires the Applicant to pay for part of a traffic light on Hopper Street, and only *if* and when the bridge is constructed by the City.[99] Fair share payments for the bridge by developers within the City is required by the City's General Plan to alleviate significant cumulative traffic problems, particularly at the intersection of D Street and Washington Street.[100] If the City continues to refuse to require such fair share payments, the bridges is less likely to be constructed, and the DEIR's contingent traffic-fee mitigation measure becomes useless. Moreover, the traffic analysis for the Project improperly

4-36 dismisses the significant amount of traffic that will likely be generated by the City's new rail station.

III. CONCLUSION

4-37 The Project presents significant environmental issues that must be addressed prior to Project approval. The DEIR fails to include an adequate analysis of and mitigation measures for the Project's potentially significant impacts, and its conclusions lack substantial evidence as required by CEQA. The DEIR must be revised and recirculated.

Sincerely,

Ellen Trescott

Ellen L. Trescott

ELT:ljl

Attachments

* Internet links to all other references are provided herein, and a compact disc with referenced documents will be provided to the City by mail. Paper copies of these documents will be promptly provided to the City upon request.

[99] DEIR pp. 5-9 and 5-10, Mitigation Measure CUM-1.
[100] City's EIR for its General Plan, p. 3.2-22.

4-38

ATTACHMENT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

1640 5th St., Suite 205
Santa Monica, California 90401
Matt Hagemann
Tel: (949) 887-9013
Email: mhagemann@swape.com

February 6, 2014

Ellen Trescott
Adams Broadwell Joseph & Cardozo
520 Capitol Mall, Suite 350
Sacramento, CA 95814

Subject: Comments on the Riverfront Mixed-Use Project, Petaluma, California

Dear Ms. Trescott:

I have reviewed the December 2013 Draft Environmental Impact Report (DEIR) for the Riverfront Mixed-Use Project ("Project") in Petaluma, California. Development planned for the 35.7-acre Project site includes 273 residential units, 90,000 square feet of commercial space, a 120room hotel, and parks and trails.

I reviewed the DEIR for issues associated with hazards and hazardous materials. The DEIR fails to recognize that documented soil contamination at the Project site exceeds regulatory thresholds for the protection of human health in a residential scenario. The DEIR does not document any regulatory involvement that would assure future residents that soil has been cleaned up to protect health under the residential scenario that is planned for the Project. The DEIR also fails to provide data on current conditions of soil contamination.

A May 17, 2012 Phase I Environmental Site Assessment[1](ESA) was prepared to update Phase I and Phase II ESAs prepared in 2001. The Phase I ESA uses an incorrect value for a regulatory screening level that has been established by the San Francisco Regional Water Quality Control Board for the protection of human health. The Regional Water Quality Control Board Environmental Screening Level (ESL) for total petroleum hydrocarbons as motor oil in shallow soil in a residential setting is 100 mg/kg[2], not 370 mg/kg as cited in Table 2 of the 2012 Phase I ESA. The DEIR also incorrectly identifies the residential ESL for petroleum hydrocarbons as motor oil as 500 mg/kg (Table 2).

The failure to identify the correct residential ESL for petroleum hydrocarbons as motor oilled to an incorrect conclusion in the DEIR, which states (p. 4.5-12):

[1]Phase I Environmental Site Assessment, Petaluma Riverfront Property, May 17, 2012
[2]http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Dec_2013_Summary.pdf, Summary Table A

> While TPH-diesel and TPH-motor oil were detected in several soil samples, all detected concentrations were below residential ESLs.

In fact, the following narrative from the DEIR documents soil detections from a 2001 Phase II ESA[3]that exceed the 100 mg/kg ESL for petroleum hydrocarbons as motor oil in a residential scenario:

> The 2001 investigation report indicates that the maximum concentrations of 88 mg/kg for TPH-diesel and 220 mg/kg for TPH-motor oil were detected in the treatment pond area (trench soil sample T-2 Top N 1-4) and that concentrations of petroleum hydrocarbons were lower throughout the remainder of the project site with concentrations of TPH-diesel ranging from below the limit of detection to 38 mg/kg and TPH-motor oil ranging from below the limit of detection to 120 mg/kg.

The DEIR summarizes data for petroleum hydrocarbons as motor oil that show, in at least two instances (220 mg/kg and 120 mg/kg), the residential ESL of 100 mg/kg to be exceeded. The failure of the DEIR to use the correct ESL value for petroleum hydrocarbons as motor oil led to an incorrect conclusion, that all detected concentrations of petroleum hydrocarbons as motor oil were below residential ESLs(p. 4.5-12).

When ESLs are exceeded, further investigation is generally required, according to the Regional Water Quality Control Board guidance:

> With certain limitations, risks to human health and the environment can be considered not to be of regulatory concern at sites where concentrations of chemicals of concern do not exceed the respective ESLs. The presence of chemicals at concentrations above the ESLs does not necessarily indicate that a significant risk exists at the site. It does generally indicate that additional evaluation of potential environmental concerns is warranted.[4]

Consistent with this guidance, because ESLs are exceeded at the Project site, the Project applicant should seek to establish a voluntary cleanup agreement with the San Francisco Bay Regional Water Quality Control Board to review the existing data and to undertake any cleanup of soils that would be necessary to ensure the Project site is safe for future residents. Because soil samples were collected at the Project 14 years ago (data presented in the 2001 Phase II ESAwas collected in 2000) and because conditions at the site have changed, including the placement of new soil plies (DEIR, p. 4.5-15)additional sampling should be conducted under the regulatory direction of the San Francisco Bay Regional Water Quality Control Board.

Historical observations at the proposed location of a new active park on the Project site also warrant further investigation. Photographs from the 2001 Phase I ESA show numerous metal drums and chemical containers scattered throughout the site of the proposed active park. Soil samples taken from this area during the Phase II ESA, at boring site K-2 and trench T-3, were not adequately tested to dispel the potential for contaminants that exceed human health thresholds. The shallowest soil sample that was tested from boring site K-2 was four feet beneath the surface, and contained a lead concentration of 75 mg/kg, just below the residential ESL of 80 mg/kg. It is reasonable to assume that lead

[3] Phase II Soil and Groundwater Investigation, Pomeroy Site, Petaluma, California. January 17,2001
[4] http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Users_Guide_Dec_2013.pdf, p. 1-1

concentrations in soils closer than four feet from the surface maybe higher than 75 mg/kg and would thereby exceed the residential ESL for lead. Soil sampled from the top five feet in Trench 3 was not tested for lead, despite its proximity to site K-2, and despite the fact that the soil showed "signs of garbage" during sampling.

On the basis of these additional investigations, a revised DEIR should be prepared to provide the results of additional sampling and to provide an analysis of health risks that future residents may face from any contaminants that may remain on the Project site. If contaminants are found at the Project site at concentrations that pose health risks, mitigation should be identified in a DEIR to include soil removal and placement of clean fill prior to construction. These measures are commonly required by lead agencies and are appropriate and necessary to protect public health at the Project site.

Sincerely,

Matt Hagemann, P.G., C.Hg.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
CEQA Review
Investigation and Remediation Strategies
Litigation Support and Testifying Expert

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certification:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – present;
- Senior Environmental Analyst, Komex H2O Science, Inc (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Partner, SWAPE:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Technical assistance and litigation support for vapor intrusion concerns.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the dischrge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt currently teaches Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

ATTACHMENT B

Photo 1: Empty and partially full drums, oils and possibly other liquids. Located in open field east of debris area.

Photo 2: Plastic sheet remnants and disturbed soil where diesel-impacted soil was stockpiled from UST remediation project in 1995-96 (originated from adjacent Pomeroy property).

KLEINFELDER	SITE PHOTOGRAPHS G & W MANAGEMENT Pomeroy Site Petaluma, California	PLATE 2
PROJECT NO. 41-4206-01 DATE JUL 1999		

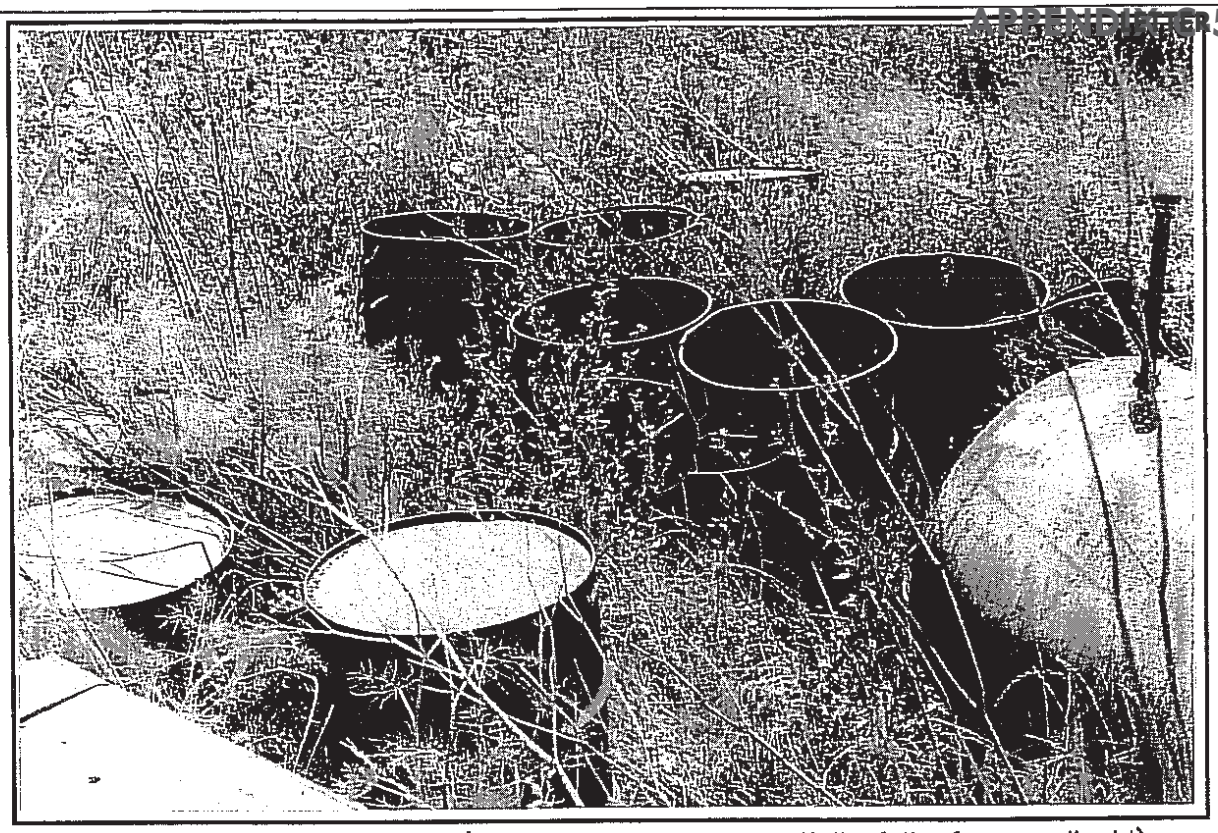


Photo 3: Partial drum quantity (some empty, some partially full of some liquid) near southern portion of debris area.

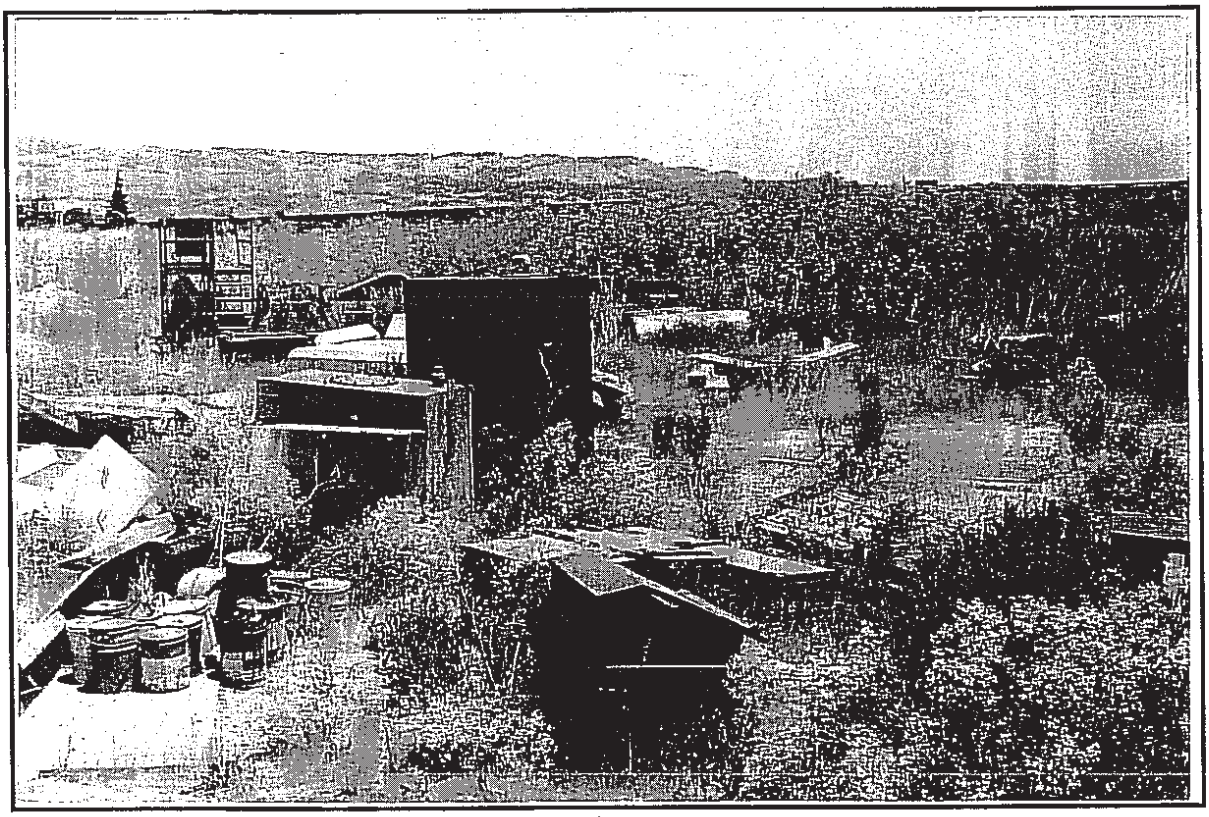


Photo 4: Debris and chemical containers/buckets in debris area. Portable construction fuel tanks are also situated throughout debris area. Several wooden boxes in this area (see dark box in foreground), contain 1–5 gallon buckets of oil and other liquids or paint. Brush line in the distance parallels the drainage channel.

KLEINFELDER	SITE PHOTOGRAPHS G & W MANAGEMENT Pomeroy Site Petaluma, California	PLATE 3
PROJECT NO. 41–4206–01 DATE JUL 1999		

Photo 7: Portion of scattered 5–gal. buckets along fenceline adjacent to building in debris area. Material includes bitumen, form oil, other unidentified and unlabelled containers of petroleum or other liquid products.

Photo 8: Old boiler deposited in debris area appears to contain friable asbestos liner.

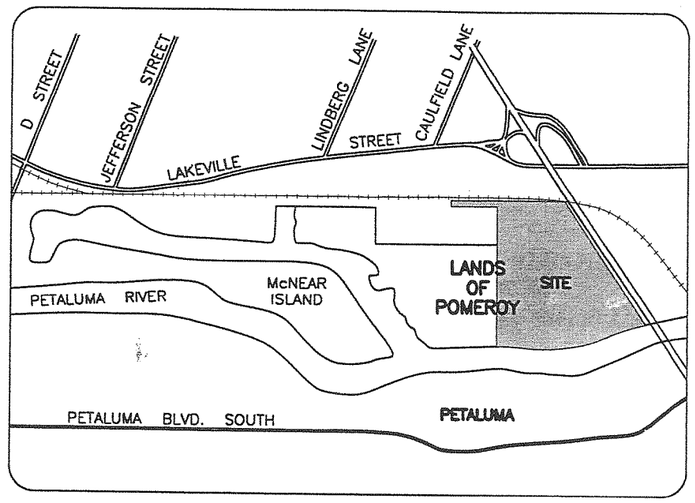
KLEINFELDER

PROJECT NO. 41–4206–01 DATE JUL 1999

SITE PHOTOGRAPHS
G & W MANAGEMENT
Pomeroy Site
Petaluma, California

PLATE 5

ATTACHMENT C

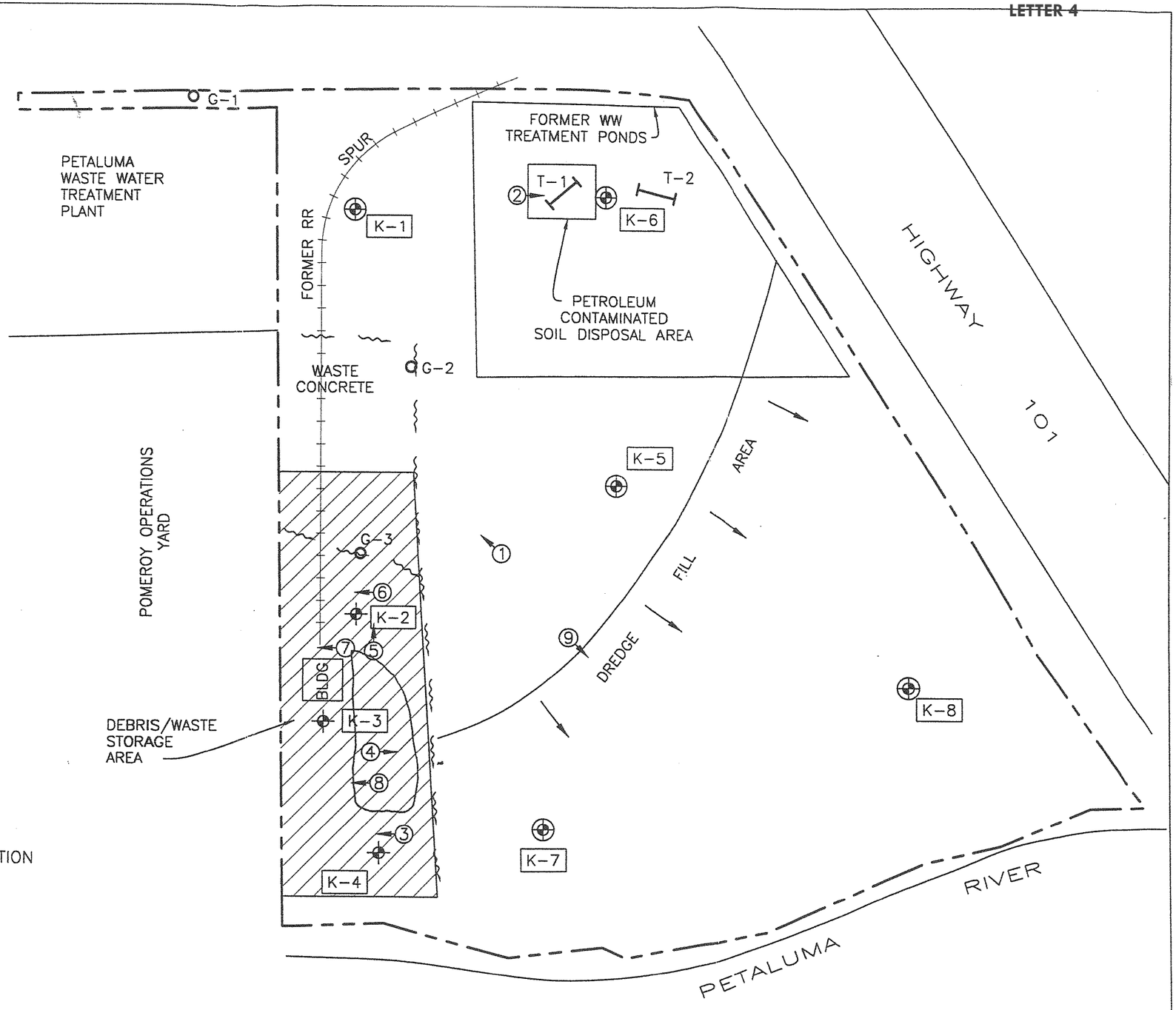


LOCATION MAP
SCALE: 1"=1500'

EXPLANATION

- K-1 — SOIL BORING LOCATION
- K-1 — EXPLORATORY TRENCH
- G-1 — GRAB SURFACE WATER/SEDIMENT SAMPLE LOCATION ALONG SURFACE DRAINAGE
- ① — PHOTOGRAPH LOCATION AND NUMBER
- BORINGS FOR GEOTECHNICAL INVESTIGATION

Reference: Pomeroy Exhibit by Brian Kangas Foulk, dated 11/09/98.



200 100 0 200
scale feet

KLEINFELDER

PROJECT NO. 41-4206-01 DATE JUN 1999

SITE PLAN (PARCEL A)
PROPOSED SAMPLING LOCATIONS
G & W MANAGEMENT
Pomeroy Site
Petaluma, California

PLATE 1

ATTACHMENT D

Table 3
Maximum Chemical Concentrations in Groundwater
Petaluma Riverfront Property
Petaluma, California

Chemical	Maximum concentration detected[1] (ug/L)	Environmental Screening Level (ESL) (ug/L)
Inorganics		
Cadmium	86	0.25
Chromium	8,500	180
Lead	2,800	2.5
Nickel	13,000	8.2
Zinc	13,000	81
Total Petroleum Hydrocarbons (TPH)		
TPHd	1,100	210
TPHmo	2,000	210

Notes:

[1] Source: *Phase II Soil and Groundwater Investigation, Pomeroy Site, Petaluma, California* . (Kleinfelder 2001b)

ug/L = micrograms per liter
ESL = Environmental Screening Level (*Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (RWQCB May 2008); Table F-1b: Groundwater Screening Levels (Groundwater is not Current or Potential Source of Drinking Water)

ATTACHMENT E

ADAMS BROADWELL JOSEPH & CARDOZO

DANIEL L. CARDOZO
THOMAS A. ENSLOW
PAMELA N. EPSTEIN
TANYA A. GULESSERIAN
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
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VIA U.S. MAIL AND E-MAIL

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Re: Comments on Initial Study/Mitigated Negative Declaration for the Riverfront Mixed Use Project (File #11-TSM-0130)

Dear Mr. Bradley and Ms. Hines:

We are writing on behalf of the Petaluma Residents for Responsible Development to submit comments on the Initial Study and Mitigated Negative Declaration ("IS/MND") prepared by the City of Petaluma ("City") for the Riverfront Mixed Use Project ("Project") proposed by Basin Street Properties, LLC ("Applicant"). The Project requires a Tentative Subdivision Map for the development of a new mixed-use community on 39.4 acres of riverfront land. The Project includes 273 residential units (single-family homes, apartments, townhomes and live-work units), a 120-room hotel, 60,000 square feet of office space, 30,000 square feet of retail space, and 4 acres of parks. The Project will also include a temporary emergency access route (until a new river crossing is constructed in the future), a 3.65-acre riverfront park on state-owned property, a trail under Highway 101, and the dedication of land for a 10,000 square foot community boat house and small boat launch dock.

As explained more fully below, the IS/MND prepared for the Project does not comply with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 *et seq*. The City may not approve a Tentative Subdivision Map until these flaws are addressed through the preparation

of an Environmental Impact Report ("EIR") that analyzes all of the Project's potentially significant impacts, and incorporates all feasible mitigation measures to minimize those impacts.

I. STATEMENT OF INTEREST

Petaluma Residents for Responsible Development ("Petaluma Residents") is an unincorporated association of individuals and labor unions that may be adversely affected by the potential public and worker health and safety hazards and environmental and public service impacts of the Project. The association includes Mitch Clarey, Frank Cuneo, Richard Kenney, Roger Burk, the Sonoma, Mendocino, and Lake Counties Building and Construction Trades Council, its affiliated local unions, and their members and their families who live and/or work in the City of Petaluma and Sonoma County.

Individual members of Petaluma Residents and the affiliated unions live, work, recreate and raise their families in Sonoma County, including the City of Petaluma. They would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite. Petaluma Residents has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there.

II. SUMMARY OF COMMENTS

4-39 The IS/MND fails to meet the informational and public participation requirements of CEQA because it does adequately describe the existing environmental setting or the evidence supporting the City's environmental conclusions. Furthermore, the City has failed to provide the public with timely access to supporting Project documents. As a result, Petaluma Residents and the general public have been precluded from meaningfully participating in the public review and comment period for the IS/MND.

Furthermore, substantial evidence exists that the Project may result in significant impacts, even with the mitigation imposed. These impacts include, but are not limited to, hazardous materials impacts, geologic hazards impacts, flooding impacts, impacts from greenhouse gas emissions, traffic impacts, school impacts, and potential land-use impacts. Because there is substantial evidence supporting a fair argument that the Project may have one or more significant effects on the environment, the County cannot approve an IS/MND and must instead prepare an EIR. These issues are discussed more fully below.

4-40 **III. THE CITY HAS FAILED TO PROVIDE TIMELY INFORMATION ABOUT THE PROJECT**

On June 13, 2013, Residents submitted a Public Records Act request to the City ("PRA request"), seeking all public records related to the Project. Counsel for the City informed Residents in a letter dated June 24th that the City was invoking its right to extend the deadline to respond to the PRA request. A week later, the City indicated that documents would be "made available on a rolling basis" beginning July 10th. On July 10th, Residents received 29 pages of invoices from the law firm of Meyers Nave, with almost all content redacted, and an e-mail stating that the Project file was available at the City's office. Petaluma Residents requested a copy of the Project file, and received it on July 24th, just one day before the July 25th comment deadline for the IS/MND. The City has indicated that copies of e-mails responsive to the PRA request will be made available at a later date, but the new City Attorney has recently moved offices, which caused a delay in the City's response.

On June 26th, Residents sent a letter to the City requesting immediate access to all documents referenced in the IS/MND, per the requirements of CEQA.[1] Petaluma Residents specifically requested 15 documents that were referenced in the IS/MND but were not listed as "References." The City posted most of IS/MND references on its website, but only posted one of the 15 documents specifically requested by Petaluma Residents. Also, on July 18th, Petaluma Residents sent a letter to the City Attorney requesting more information and disclosure of documents withheld on the basis of the "deliberative process privilege" and the "common interest doctrine." The City Attorney has not yet responded. Finally, Petaluma Residents e-mailed staff requesting attachments and pages of technical reports that

[1] CEQA, Pub. Resources Code § 21092(b)(1); CEQA "Guidelines," 14 Cal. Code Regs. §§ 15072(g)(4), 15087(c)(5).

were not posted online. Staff was responsive to these requests, but in some cases the requested pages are not yet available.

On June 26th, Residents sent a letter to the City requesting a 30-day extension of the public comment period, until August 5, 2013. The City agreed to extend the public comment deadline by only 20 days, until July 25th. Because Petaluma Residents have not yet had a chance to review the Project file, e-mails, withheld documents, and potentially other public documents related to the Project, its ability to meaningfully review and comment on the Project's environmental impacts and the City's analysis and mitigation of those impacts has been hindered. Petaluma Residents reserves the right to supplement these comments before the Project reaches the Planning Commission and ultimately the City Council for approval.

IV. PREPARATION OF AN EIR IS REQUIRED BECAUSE SUBSTANTIAL EVIDENCE EXISTS THAT THE PROJECT MAY RESULT IN SIGNIFICANT, UNMITIGATED IMPACTS

4-41 CEQA requires that lead agencies analyze any project with potentially significant environmental impacts in an EIR.[2] "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR protects not only the environment, but also informed self-government."[3] The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."[4] CEQA's purpose and goals must be met through the preparation of an EIR, except in certain limited circumstances.[5] CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[6]

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[2] See CEQA § 21000; CEQA Guidelines § 15002.
[3] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (citations omitted).
[4] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.
[5] *See* CEQA § 21100.
[6] CEQA §§21080(d), 21082.2(d); CEQA Guidelines §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus*
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In contrast, a mitigated negative declaration may be prepared instead of an EIR only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review *would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur*, and (2) there is *no substantial evidence* in light of the whole record before the public agency that the project, as revised, *may* have a significant effect on the environment.[7]

Courts have held that "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[8] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration.[9] An agency's decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.[10]

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions

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(1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.

[7] CEQA § 21064.5 (emphasis added).

[8] E.g. *Communities For a Better Env't. v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319-320.

[9] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.

[10] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318; see also *Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988, 1002 ("If there was substantial evidence that the proposed project might have a significant environmental impact, evidence to the contrary is not sufficient to support a decision to dispense with preparation of an EIR and adopt a negative declaration, because it could be 'fairly argued' that the project might have a significant environmental impact").

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might also be reached."[11] Substantial evidence can be provided by technical experts or members of the public.[12]

With respect to this Project, the IS/MND fails to satisfy the basic purposes of CEQA. The IS/MND fails to adequately describe the existing environmental conditions, adequately investigate and analyze the Project's potentially significant impacts, and provide substantial evidence to conclude that impacts will be mitigated to a less-than-significant level. Because the IS/MND lacks basic information regarding the Project's potentially significant impacts, the IS/MND's implicit conclusion that the Project will "clearly" have a less-than-significant impact on the environment is unsupportable.[13] Because the City failed to gather the relevant data to support its finding of no significant impacts, and substantial evidence (summarized below) shows that the Project may result in potentially significant impacts, a fair argument can be made that the Project may cause significant impacts requiring the preparation of an EIR.

A. Hazardous Materials in Soil and Groundwater

1. Substantial evidence exists of undisclosed soil contamination at the Project site

4-42 The IS/MND incorrectly states that only low level concentrations of heavy-end petroleum hydrocarbons (motor oil and diesel) were detected in soil and groundwater on the Project site, attributable to "general historic industrial activity in the area rather than an onsite source."[14] The IS/MND further incorrectly concludes that significant concentrations of hazardous materials "were not identified in environmental site assessments for the project." Despite concluding that there was no evidence of potential soil contamination impacts, the IS/MND nonetheless includes two mitigation measures intended to address potential soil contamination impacts: (1) that the quality of the soil stockpiled on the Project site "be reaffirmed" by following the Department of Toxic Substance Control's ("DTSC")

[11] CEQA Guidelines § 15384(a).
[12] E.g. *Citizens for Responsible and Open Gov't. v. City of Grand Terrac*e (2008) 160 Cal.App.4th 1323, 1340 (substantial evidence regarding noise impacts included public comments at hearings that selected air conditioners are very noisy); *see also Architectural Heritage Assn. v. County of Monterey* (2004) 122 Cal.App.4th 1095, 1117-1118 (substantial evidence regarding impacts to historic resource included fact-based testimony of qualified speakers at the public hearing); *Gabric v. City of Rancho Palos Verdes* (1977) 73 Cal.App.3d 183, 199.
[13] CEQA § 21064.5.
[14] IS/MND at p. 65.
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Clean Imported Fill Material Information Advisory; and (2) that a soil and groundwater management plan be drafted that includes health and safety measures for construction workers "in the event that potentially affected soil or groundwater is encountered during construction."

Substantial evidence exists that the IS/MND's description of the site as essentially free from potentially significant contamination is incorrect. To the contrary, the Environmental Site Assessments ("ESA") prepared for the Project site document multiple sources of significant or potentially significant contamination. Furthermore, the proposed mitigation is not sufficient to protect worker health and the health of those who will live on or use the Project site.

Contrary to the IS/MND's assertion that there have been no historic onsite activities that could have contaminated the property, the Phase I Environmental Site Assessment ("ESA") prepared in 2001 for a different version of the proposed Project is not a lengthy document, but it reveals a significant history of potentially contaminated and hazardous materials being stored and spread on the Project site. Since 1914, the site has routinely been used for the disposal of significant amounts of hydraulic dredge spoils from the Petaluma River. The Pomeroy Corporation constructed a railroad spur that terminated on the western part of the site, which was presumably used to load and unload materials for the adjacent Pomeroy industrial plant. This part of the site was also used by Pomeroy as a storage yard for hazardous materials. A site visit in 1999 described and photographed this area as an open field used by Pomeroy to store old fuel tanks and dozens of 55-gallon drums and 5-gallon buckets that were half-full of petroleum and other unidentified chemicals and liquids, some of which were tipped over. The northern part of the site was used by the City in the 1960's and 1970's for settling ponds for its wastewater treatment plant. In the 1990's, the Pomeroy Corporation used this area to spread petroleum-contaminated soil from underground remediation projects at its plant.

4-43 The 2012 Phase I ESA prepared for the Project discloses that the current stockpiles of soil in the northern part of the Project site came from nine different sources within the formerly industrial area that surrounds the site, including eight construction sites and various City projects. At least half of these sites were contaminated and were subject to regulatory cleanup actions. While some of the soil imported to the site was reportedly clean, and was tested for contamination before being stockpiled, the Phase I ESA indicates that most of these soil tests are

not available. None of the Project site history, with the exception of the disposal of dredged spoils, is revealed in the IS/MND.

4-44 Moreover, the soil and groundwater samples from the Project site that were tested in 2001 reveal much more than "low levels" of motor oil and diesel hydrocarbons. To the contrary, these samples provide substantial evidence that the Project site may be contaminated at levels that may pose significant health and safety risks to workers and residents.

First, the 2012 Phase I ESA incorrectly reports that 16 mg/kg of diesel hydrocarbons and 94 mg/kg of motor oil hydrocarbons were the maximum concentrations detected in the 2001 soil samples. It concludes that these levels are below the applicable Environmental Screening Levels ("ESL's") for petroleum hydrocarbons, and therefore no health risk is present. This is also incorrect. The 2001 investigation included two trenches (Trench 1 and Trench 2) that were dug in the vicinity of the City's former settling ponds and Pomeroy's contaminated soil disposal area. Soil tests from these trenches had maximum concentrations of 88 mg/kg of diesel hydrocarbons and 220 mg/kg of motor oil hydrocarbons, well over double what was reported in the 2012 Phase I ESA.[15]

Both diesel and motor oil hydrocarbons are classified as "middle distillates," and the applicable ESL for these hydrocarbons in soil that is used for residential land uses is 100 mg/kg.[16] Soil tested from both Trench 1 and Trench 2 exceeded this level. As noted in the 2001 Phase II ESA, there is no apparent pattern to the distribution of hydrocarbons throughout the Project site, "except for the higher average levels in the treatment pond area." The laboratory notes for soil samples from the trenches also state that oil and diesel compounds were "significant."[17] Accordingly, a fair argument exists that disturbance of this soil and the placement of residences on this soil may result in health impacts for workers, project residents, and members of the public.

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[15] *Compare* 2012 Phase I ESA (Iris Environmental) p. 7 and Table 2, *with* 2001 Phase I ESA (Kleinfleder) p. 14 and Table 2.

[16] The applicable ESL's are established by the San Francisco Bay Regional Water Quality Control Board. A table of the May 2013 ESL's can be viewed here: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/Lookup_Tables_Summary_May_2013.pdf

[17] *Ibid.*, p. 59 of 151, references in table to fn. (b) and (g).

Second, although nearly half of the collected soil samples were not tested for lead, several of the samples that were tested came close to or exceeded the ESL for lead in residential soils. Table 2 in the 2012 Phase I ESA incorrectly lists the ESL for lead as 200 mg/kg. The applicable ESL for lead in soil used for residential land uses is 80 mg/kg.[18] The maximum lead concentration in the soil samples from the Project site that were tested for lead was 149 mg/kg, almost twice as high as the applicable ESL. This sample was taken from a depth of 10 feet below the surface; samples closer to the surface in this location were not analyzed.[19] Another soil sample, taken hundreds of feet away, contained 75 mg/kg of lead at four feet below the soil surface. This concentration dissipated to 15 mg/kg at six feet below the surface. Accordingly, the available information shows the concentration of lead in the soil increasing as one gets closer to the surface.

While no samples were tested closer than four feet from the service, a fair argument may be based on the limited facts in the record. An agency is not allowed to hide behind its own failure to gather relevant data.[20] An incomplete agency record thus acts to "enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences."[21] Because no samples were tested closer than four feet from the surface, a reasonable inference exists that soils closer to the surface will exceed the 80 mg/kg ESL for lead.[22]

Third, a volatile organic compound ("VOC") called carbon disulfide was detected in the location of the City's former wastewater settling ponds, where Pomeroy disposed contaminated soil.[23] According to the Material Safety Data Sheet for carbon disulfide, it is extremely hazardous in cases of exposure by skin contact, eye contact, ingestion, or inhalation.[24] Carbon disulfide is toxic to the kidneys, nervous system, and liver, and is flammable.[25]

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[18] *See* footnote 15, *supra.*
[19] 2001 Phase I ESA (Kleinfelder) p. 13.
[20] *Sundstrom v. County of Mendocino* (1988) 2020 Cal.App.3d 296, 311.
[21] *Gentry v. City of Murietta* (1995) 36 Cal.App.4th 1359, 1378-1379, citing *Sundstrom, supra.*
[22] *Id.*
[23] 2001 Phase I ESA (Kleinfelder) p. 13.
[24] http://www.sciencelab.com/msds.php?msdsId=9927125
[25] *Ibid.*
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Fourth, the maximum concentrations of cadmium, chromium, lead, nickel, zinc, and petroleum hydrocarbons measured in the groundwater beneath the Project site were astronomically higher than their maximum groundwater ESLs.[26] The 2012 Phase I ESA tries to explain this away, by pointing out that the reported concentrations may have been skewed by sediment in the groundwater samples, and that the correlating soil tests did not reveal high levels of metals. A close review of the testing shows, however, that in the sampling locations with the highest reported concentrations of metals in groundwater, particularly sites K-5 and K-7, the correlating soil samples were not analyzed for metals at all.[27]

Even if the 2001 Phase II ESA used a poor groundwater testing technique and did not perform consistent and corollary tests for metals and other contaminants throughout the Project site, this does not mean that the significant levels of reported groundwater pollution can be ignored. The 2012 Phase I ESA tries to explain that the groundwater will not be used for drinking, but the relevant ESL's are put in place to meet "Aquatic Habitat Goals," even in areas where groundwater will not be used for drinking.[28] This is relevant for dewatering operations associated with soil preloading and Project construction, discussed below. Overall, there is substantial evidence of significant soil and groundwater contamination on the Project site.

2. Mitigation is inadequate

4-45 A fair argument exists that the proposed mitigation is not sufficient to ensure that impacts from soil and water contamination will be reduced below a level of significance. Furthermore, the proposed mitigation for contamination impacts is legally inadequate because it is unenforceable, vague and relies upon undisclosed and improperly deferred details. First, compliance with DTSC's Clean Imported Fill Material Information Advisory is not intended to reduce risks associated with potentially contaminated stockpiled soil below a level of significance. To the contrary, the Advisory strongly recommends against using any fill from a site with a history of industrial use and/or contamination, and it recommends testing soil from unverified sites *before* moving it to the project site.[29] Furthermore, the

[26] 2012 Phase I ESA (Isis Environmental) Table 3; *see also* fn. 15, *supra*.
[27] 2001 Phase II ESA (Kleinfelder) Table 1 (soil from K-5 and K-7 not analyzed for metals) and Table 3 (groundwater from K-5 and K-7 had highest levels of metals).
[28] *See* footnote 15, *supra*.
[29] http://www.dtsc.ca.gov/Schools/upload/SMP_FS_Cleanfill-Schools.pdf
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Advisory does not provide specific performance criteria, such as human health criteria or screening thresholds, for determining if imported fill is safe for use.

Second, the mitigation measure requiring a soil and groundwater management plan "in the event that potentially affected soil or groundwater is encountered during construction" is unenforceable and meaningless because no preconstruction testing is required to determine if the soil and groundwater encountered during construction is contaminated and no performance standards are identified for determining if hazardous levels of contamination have been encountered.

In addition, the details of the soil and groundwater management plan are improperly deferred. Deferring formulation of mitigation measures to post-approval studies is generally impermissible.[30] Mitigation measures adopted after Project approval deny the public the opportunity to comment on the Project as modified to mitigate impacts.[31] If identification of specific mitigation measures is impractical until a later stage in the Project, specific performance criteria must be articulated and further approvals must be made contingent upon meeting these performance criteria.[32] The Courts have held that simply requiring a project applicant to obtain a future report and then comply with any recommendations that may be made based upon the report is insufficient to meet the standard for properly deferred mitigation.[33]

4-46 Because substantial evidence exists that the Project may result in unmitigated impacts from soil and groundwater contamination, an EIR must be prepared to fully evaluate these impacts. Further Phase II or Phase III ESA testing of soil and groundwater should be conducted, and an adequate site cleanup and remediation plan should be prepared as part of the EIR analysis.

[30] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309; CEQA § 21061.
[31] *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical Gardens Foundation v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1604, fn. 5.
[32] *Id.*
[33] *Id.*

B. Substantial Evidence Exists of Severe Geologic Hazards that May Pose a Significant Hazard to Proposed Project Structures and Infrastructure

1. Potential impacts are significant, but are only partially identified

4-47 The Project site sits on former marshland. The IS/MND relies on a preliminary geotechnical ("soils") report prepared seven years ago for a different version of the Project, and two update letters of three to five pages in length. These documents conclude that the "soft soil" conditions will make it very difficult to safely construct the proposed Project.

First, the soils report finds that the Project site is underlain by a thick layer of "bay mud." The mud is approximately 15 to 20 feet thick near the northern part of the site, farthest from the river, and approximately 35 to 40 feet thick near the southern part of the site near the river. Bay mud is highly compressible, and the soils report estimates that the increased weight load caused by adding fill and constructing roads and structures will cause the Project site to settle (i.e. to sink or subside) by up to two feet, mostly in the first five years but continuing for several decades. This will cause damage to buildings, streets, underground utilities, parks, and other facilities. It would also increase the Project's flood risk.

4-48 Second, the soils report concludes that the Project site has a very high potential for strong seismic shaking caused by seismic activity at the nearby Rodgers Creek and San Andreas faults. This can lead to soil liquefaction and related settlement and lateral spreading of soils, particularly loose sandy soils. The report acknowledges that one of its soil borings identified a nine-foot deep layer of sandy soil in the center of the Project site, likely caused by an old stream meander. A reasonable inference exists that the old stream meander bisects the entire Project site with a swath of loose, sandy soil. The soil tests conducted for the preliminary soils report, shown in Figure 2 of the soils report, were a series of only five holes drilled hundreds of feet apart, in a line from north (away from the river) to south (near the river). Therefore, if the old stream meander bisects the site from east to west, as it naturally would, only one of these test holes would have—and did—detect it. Although the soils report concludes that the old stream meander is "localized" and therefore liquefaction and seismic settlement would not be widespread on the Project site, there is still a significant risk of liquefaction along

the route of the old stream meander, the location and width of which has not yet been determined.

4-49 Third, the soils report finds that the strip of land along the bank of the Petaluma River has the potential for lurching and lateral spreading. The preliminary soils report was concerned with potential hazards to structures, and therefore concluded that this lurching and spreading would be acceptable, because it would only occur in the public park that is planned for the river bank area. The current project, however, proposes several structures along the river bank that were not taken into account in the soils report. These include a planned 10,000 square foot boat house, boat launch and public dock.[34] The soils report conclusion that geologic conditions along the river bank pose a potential hazard to structures creates a fair argument that the development along the river bank contemplated by the IS/MND may result in significant hazard impacts.

Because substantial evidence exists that the Project site's unstable soils may pose a significant hazard, an EIR must be prepared for the Project.

4-50 2. Proposed mitigation measures for impacts caused by soil settlement and liquefaction are infeasible and inadequate

Mitigations measures under CEQA must be feasible.[35] They cannot be remote and speculative.[36] If a mitigation measure might not be effective in minimizing a significant effect, the lead agency must acknowledge this uncertainty in an EIR, and adopt a statement of overriding considerations recognizing that the mitigation measure might not be successful.[37] Also, the lead agency cannot put off its analysis of feasible mitigation by ordering a later report unless the agency either sets standards for such mitigation or demonstrates how the impact can be mitigated in the manner described in the CEQA document.[38]

Despite the fact that an update to the 2006 preliminary soils report was prepared five years later, in 2011, the soil engineering consultants have still not identified feasible mitigation measures for addressing soil settlement. The 2011 update states that "development of settlement mitigation options will require more

[34] *See* description of planned boathouse facilities at http://petalumasmallcraftcenter.org/
[35] CEQA Guidelines § 15126.4(a)(1).
[36] *Federation of Hillside & Canyon Assns. v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260.
[37] *Citizens for Open Gov't v. City of Lodi* (2012) 205 Cal.App.4th 296, 322.
[38] *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 915.
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detailed investigation, analysis and consultation." It notes that there are four common mitigations for this impact: (1) using deep foundations made of driven piles or drilled piers; (2) "preloading" or precompression of the site to force soil settlement before construction; (3) using rammed aggregate piers ("RAP") to reduce, but not eliminate, future settlement; and (4) using stiffened foundations to "withstand" the impact of soil settlement, but not reduce it.

The IS/MND and soils report conclude that it is not feasible to apply these measures to the entire project. They acknowledge that the first commonly used measure, pile foundations, would not be cost-effective given the depth of the bay mud, and that the only "likely" solution would therefore be a combination of the remaining three measures.

However, the IS/MND only requires compliance with the second measure, preloading the site to induce settlement, "if the development timeline of the project allows." Although the soils report suggests that the northern part of the site could be developed first, and fill from that area plus imported fill could be used for preloading the southern part of the site, the IS/MND notes that "it is not likely that phasing of the project would allow development of the northern portion of the site prior to the southern portion of the site as suggested in the geotechnical review to mitigate the settlement hazard." Furthermore, nowhere in the IS/MND or the soils report is there any discussion of how much fill would be needed in order to compress up to 40 feet of bay mud in the southern part of the site, how long the precompression process would take, or where the fill would be disposed of after use. In other words, there is no evidence that this measure is even feasible, and it actually appears from the IS/MND that this measure will not be feasible.

The IS/MND also acknowledges that the third common mitigation measure, using RAP to strengthen the soil and reduce settlement, "would likely not be able to reach the bottom of the mud layer at the south half of the site," and would therefore only be appropriate at "certain locations." This is confirmed by the 2011 soils report update, which states that the "maximum practical depths for RAP are on the order of 20 to 30 feet."

The fourth measure, using stiffened building foundations, is not a measure that will reduce or avoid the degree of soil liquefaction and settlement on the Project site; it will simply help structures withstand these potentially significant impacts. Stiffened foundations will also do nothing for roads, utilities, parks, and other Project facilities. By itself, this is not an adequate mitigation measure to

reduce impacts, which are caused by building a new community on soft bay mud, to a less than significant level. Most projects use deep foundations that extend beyond soft soil to more suitable soil, but this mitigation measure has been rejected as un-economical. There is no substantial evidence that the limited mitigation recommended in the IS/MND will reduce Project impacts to a less than significant level. An IS/MND is inappropriate and an EIR must be prepared.

4-51 The City must also prepare an EIR for the Project to analyze the potentially significant impacts of any proposed mitigation to address these soil instability impacts, including impacts of importing additional fill to preload the Project site soils, and from potentially contaminated groundwater dewatering associated with preloading. The import and export of large amounts of fill, for example, is likely to cause its own significant environmental impacts, including but not limited to air quality and construction traffic impacts. Using "wicking drains" to reduce groundwater during preloading would threaten aquatic habitats, if the groundwater is discharged into the Petaluma River.

C. Potential Floodway Impacts Are not Adequately Identified and Mitigated

4-52 The IS/MND states that the Project site is outside of the 100-year flood plain, based on the City's General Plan and preliminary Flood Insurance Rate Maps ("FIRM") accepted by the Federal Emergency Management Agency ("FEMA") in April 2012.[39] However, both the City's and FEMA's website explain that the April 2012 preliminary FIRMs were revised in June 2013, based on a recent flood study, and that FEMA is now updating its flood maps to reflect these revisions.[40]

The June 2013 revised FIRMs expand the length and width of the Special Flood Hazard Area that borders the Project site to the east and south. This "floodway" is an area that "must be kept free of encroachment" in order to avoid a substantial increase in flood height.[41] The floodway now extends north to Hopper Street, in the area of the proposed Project townhomes, and encroaches further into

[39] IS/MND p. 42.
[40] http://www.r9map.org/Pages/ProjectDetailsPage.aspx?choLoco=49&choProj=372; http://www.cityofpetaluma.net/pubworks/plan-flood.html
[41] The June 2013 revised preliminary FIRM for the Project site is found here, by clicking on the link labeled "06097C1001F (Revised Preliminary)" in the the "Preliminary FIRM Panel" menu under "Project Documents": http://www.r9map.org/Pages/ProjectDetailsPage.aspx?choLoco=49&choProj=372

the southeast corner of the Project site, in the area of the proposed community boathouse and dock.[42] Contrary to the IS/MND, the base flood elevation is now 9 feet instead of 10, and the floodway strip that borders the property is much larger than 5 feet in width. The IS/MND fails to examine whether it will be feasible to construct a boathouse and dock without encroaching into the floodway, and if not, how that would affect the Project's impacts on recreation and land-use consistency.

D. Greenhouse Gas Emissions Thresholds Will Be Exceeded and Mitigation Should be Required

4-53 In this day and age in California, it is very rare to see a proposed large mixed-use project that does not expressly incorporate greenhouse gas reduction measures as a fundamental part of its design, construction, and operation. This is such a Project.

The City has chosen to use the numeric greenhouse gas ("GHG") emissions standards that were adopted by the Bay Area Air Quality Management District ("BAAQMD") in 2011 and are now under judicial review. Under these standards, a project's GHG emissions are considered cumulatively significant and must be mitigated unless the project falls below 1,100 million tons of GHG emissions per year ("MTY"), or, if that threshold is exceeded, falls below an efficiency metric of 4.6 MTY per capita (including residents and employees).

A GHG emissions analysis was prepared for the Project, which estimated that construction-related emissions will not exceed 876 MTY, and operational emissions will be 4,696 MTY (well above the 1,100 MTY threshold), but per capita emissions will be approximately 4.13 MTY, below the threshold for energy efficiency. The data used to calculate these estimates (Attachment 1 to the GHG analysis) was not made available until July 23rd, and will require further review. However, several of the basic assumptions described in the GHG analysis are clearly speculative or inaccurate. There is substantial evidence to support a fair argument that Project GHG emissions will be cumulatively significant and should be mitigated.

[42] Changes can be viewed by visiting the FEMA's website, *ibid*., clicking on the menu for "Map" under "Project Documents," and selecting one of the files labeled "Changes since last FIRM": 2912-005j

1. The IS/MND underestimates Project-related GHG emissions

4-54 First, the GHG analysis calculates that 272 residential units would be constructed, but the Project description now includes 273 units.[43] This miscalculation leads to a reduced estimated amount of GHG emissions caused by the Project.

4-55 Second, the GHG analysis improperly reduced the Project's GHG emissions by changing several of the default assumptions built into the 2011 "CalEEMod" model. For operational emissions, the GHG analysis reduced the estimated emissions associated with electricity consumption, from 641.3 pounds per megawatt to just 288.8 pounds, a 55% reduction from the 2011 CalEEMod default assumption. The reason stated in the GHG analysis is that "in part" the Project may not be complete until 2020, and by that time PG&E will be required to have a renewable energy portfolio of 33 percent. The GHG analysis used the Public Utilities Commission's "GHG Calculator" to estimate this 55% reduction in electricity-related GHG emissions.

The significant reduction from the default assumption is unsupportable. The GHG Calculator is a model that can be manipulated in any number of ways by the user, to estimate potential future GHG emissions associated with statewide electricity production. The calculator does not provide hard answers, but instead allows users to "run their own scenarios" by varying the parameters associated with statewide future energy efficiency achievements and costs, electricity load, regulatory compliance, the effectiveness of the state's new cap and trade policy, and numerous other parameters.[44]

All of this is speculation. CEQA requires that when analyzing Project impacts, the lead agency "should normally limit its examination to changes in the existing physical conditions in the affected area *as they exist at the time the notice of preparation is published*."[45] This language has been interpreted to mean that the lead agency does not have "carte blanche to select the conditions on some future,

[43] *Compare* 2012 GHG Analysis (Illingworth & Rodkin) pp. 5 *with* IS/MND p. 1.
[44] CPUC's GHG Calculator Revised Report (2010), pp. 18-21: http://ethree.com/documents/GHG%20update/CPUC_GHG_Revised_Report_v3b_update_Oct2010.pdf
[45] CEQA Guidelines § 15126.2 (emphasis added); *see also id.* § 15125(a).
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post-approval date."[46] Even if the City could consider future GHG emissions related to energy consumption, there is no substantial evidence to support the conclusion in the GHG analysis that a 55% reduction in future energy-related GHG emissions is a reasonable expectation.

4-56 Third, the GHG analysis states that its emissions estimate for off-road construction equipment was reduced to 33% below the CalEEMod default assumptions, "to be consistent with the latest 2010 CARB estimates."[47] The 2011 CalEEMod default assumption is based on 2007 equipment emissions levels. An adjustment for this Project is inappropriate, because there is no requirement that off-road construction equipment must meet CARB's 2010 equipment standards. To the contrary, mitigation proposed to reduce construction-related air quality impacts only requires off-road construction equipment to meet CARB's "2000 or newer certification standards."[48]

Accordingly, a fair argument exists that the estimated Project emissions will be much higher than 4,696 MTY.

2. The IS/MND overestimates per-capita energy efficiency

4-57 The GHG analysis estimates that the Project will have approximately 718 residents and 420 workers. It uses general census data to estimate that each residential unit in the Project will house approximately 2.64 persons. It uses generic per-square-foot commercial estimates for the number of employees at offices, retail stores, and hotels. This approach greatly overestimates the number of residents and employees who will use the Project. As a result, estimated per capita energy use goes down, so that the Project appears to fall below the energy efficiency threshold of 4.6 MTY per capita. In other words, the greater the number of people who are estimated to use the Project site, the easier it is to meet the GHG efficiency metric.

The most recent estimate of Project residents and employees, contained in the Fiscal and Economic Impact Analysis ("FEIA") for the Project, is much more accurate. As described in the FEIA, calculating the total number of Project

[46] *Sunnyvale W. Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351, 1379.
[47] 2012 GHG Analysis p. 4.
[48] IS/MND p. 30, Mitigation Measure AIR-2.
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residents must take into account the fact that apartments typically have fewer people per unit.[49] Though the FEIA uses estimates similar to the GHG analysis for the number of people per unit in single-family and town homes, it estimates that the 100 apartments on the Project site will have an average of 1.2 people per unit.[50] The FEIA indicates that this estimate was verified by the Applicant itself, and is based on apartment occupancy rates for other apartment projects in the City with similarly sized units. Taking these factors into account, the FEIA estimates that the Project will house approximately 565 residents, which is much lower than the 718 residents predicted in the GHG analysis.[51]

Similarly, the FEIA estimates that the Project will employ approximately 348 people, which is much lower than the 420 estimated in the GHG analysis.[52] The FEIA explains that its employment estimates were confirmed by the Applicant, and were based on the Applicant's own experience operating similar developments. The FEIA estimates that there will be more hotel staff (25 rather than the 20 estimated in the GHG analysis), and also estimates that there will be 3 employees at the proposed apartments. However, the estimates of employees at the Project's commercial space ranges from 2.5 employees per 1,000 square feet of commercial retail space, 3 employees per 1,000 square feet of restaurant space, and 4 employees per 1,000 square feet of office space. This is more realistic and slightly more conservative than the GHG analysis, which estimated 3.3 employees per 1,000 square feet of retail and restaurant space, and 5 employees per 1,000 square feet of office space.[53]

Overall, the FEIA estimates a total of 913 residents and employees on the Project site, whereas the GHG analysis estimates 1,138. Using the FEIA estimates, per capita energy use would be at least 5.14 MTY, which is far above the 4.6 MTY threshold of significance for energy efficiency. Accordingly, substantial evidence exists that the Project will result in significant GHG emissions.

[49] 2013 FEIA (Keyser Marston Associates) p. 24.
[50] *Ibid.* p. 23.
[51] *Ibid.* p. 24.
[52] *Ibid.*
[53] 2012 GHG Analysis (Illingworth & Rodkin) p. 6.
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As stated in the BAAQMD's GHG Guidelines, "[w]here operational-related emissions exceed project thresholds, lead agencies are responsible for implementing all feasible mitigation measures to reduce the project's GHG emissions."[54] An EIR must be prepared for the Project using more realistic estimates of GHG emissions and per-capita energy use (based on the project-specific FEIA estimates), and must adopt feasible mitigation measures to reduce potentially significant cumulative impacts from GHG emissions.

E. Cumulative Traffic Impacts

1. Substantial evidence exists that daily trips are higher than estimated in the IS/MND

4-58 Substantial evidence exists that traffic impacts will be significantly higher than estimated in the IS/MND. There is a large discrepancy between the current and prior traffic trip estimates for the proposed office space. A technical memorandum for a prior version of the Project that included 40,000 square feet of office space was prepared in 2010.[55] It reportedly applied the same standard trip generation rate for office use as the current traffic study for the Project.[56] The technical memorandum concluded that 40,000 square feet of office space would generate approximately 659 daily trips, including 90 peak morning trips and 124 peak evening trips.[57]

The more recent traffic analysis for the Project applied the same standard rate to 60,000 square feet of office space, and came up with a result almost identical to the prior estimate for 40,000 square feet, but with much fewer peak evening trips: 661 daily trips, including 93 peak morning trips and 89 peak evening trips.[58] The IS/MND contains no evidence or analysis demonstrating that the prior analysis was in error. Accordingly, the prior analysis provides substantial evidence that traffic impacts will be substantially greater than assumed in the IS/MND. An EIR

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[54] http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_Final_May%202012.ashx?la=en (BAAQMD's updated 2012 Guidelines, p. 4-6; *see also* pp. 4-11 to 4-18 for suggested on-site mitigation measures).
[55] Feb. 23, 2010 Technical Memorandum from Bill Cisco to Vin Smith (Dowling Associates, Inc.).
[56] *Compare ibid.*, p. 1 and Exhibit 1 *with* 2012 Traffic Impact Study (W-Trans) p. 21 (both studies applied ITE's 8th Edition (2008) Code 710 (Office).
[57] 2010 Technical Memorandum (Dowling Associates, Inc.) Exhibit 1.
[58] 2012 Traffic Impact Study (W-Trans) p.25, Table 8.
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must be prepared to fully evaluate and disclose potential impacts and to answer questions regarding the discrepancies in these analyses.

2. Substantial evidence exists that the Project may result in traffic impacts to city surface streets that have not been adequately analyzed or mitigated in the IS/MND

4-59 In 2008 the Sonoma-Marin Area Rail Transit ("SMART") District approved the SMART rail project.[59] The project includes construction of a new SMART rail station in downtown Petaluma, and the introduction of passenger rail service. Development of the new rail station and introduction of rail service is expected to occur in the next few years. In February 2013, the City published an IS/MND for the "Petaluma Smart Rail Station Areas: TOD Master Plan."[60] The Master Plan was approved by the City in June.[61] The TOD Master Plan describes the potential impacts of the new rail station, and sets forth the City's plan for managing rail commuters and encouraging surrounding development.

Construction of the rail station and introduction of rail service through downtown is an approved project that has evolved to a point where its cumulative impacts can be measured against those of other proposed projects, including this Project. As described in the TOD Master Plan, the downtown SMART rail station is expected to draw up to 102 cars daily by 2015, increasing to 166 cars by 2025, and 247 cars by 2035.[62] The City plans to utilize temporary surface parking lots adjacent to the new station, until permanent lots are constructed.[63] The "baseline" traffic conditions analyzed for this Project considered nine other projects "that have been approved, but have not yet been constructed."[64] However, these conditions fail to include the SMART rail project. The analysis must be revised to include the estimated commuter traffic that will be generated by the downtown Petaluma SMART rail station.

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[59] *See* the EIR for the project: http://www2.sonomamarintrain.org/index.php/docs/eir/#DSEIR
[60] http://cityofpetaluma.net/cmgr/pdf/Petaluma.SAMP.MND.022813.pdf ("TOD" stands for "transit oriented development").
[61] http://cityofpetaluma.net/cmgr/sapg.html
[62] TOD Master Plan, p. 5-42: http://cityofpetaluma.net/cmgr/pdf/samp-final.pdf.
[63] *Ibid.* pp. 5-47 to 5-48; *see also* 2012 Station Access and Circulation Plan and Design Standards Memo, pp. 17-21: http://cityofpetaluma.net/cmgr/pdf/final.access.memo.pdf
[64] 2012 Traffic Impact Study (W-Trans) pp. 14-15.
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4-60 Moreover, the SMART rail passenger service will operate at 15- to 30-minute intervals in the morning and evening peak commuting hours during the week.[65] Preliminary estimates are that SMART trains will cause an average delay of approximately 35 seconds every 15 minutes during peak morning and evening hours, at the Caulfield Lane rail crossing.[66] There will also be approximately six to eight freight trains using the rails each day, and it is not guaranteed that these trains will avoid peak commuting hours.[67] Nothing in the traffic study for the Project indicates that delays caused by passing trains were factored into the calculations for the estimated levels of service at relevant intersections, or estimated traffic queue lengths. The baseline analysis must be revised to include these foreseeable conditions. Because the SMART rail service may result in delays that were not included in the traffic study, a reasonable inference exists that when these delays are taken into account, the Project may result in significant additional traffic impacts.

4-61 Finally, the proposed traffic mitigation for the Project is inadequate. Under cumulative future conditions, the Project will have significant adverse traffic impacts at three intersections: Lakeville and D Streets, Lakeville Street and Caulfield Lane, and Hopper Street and Caulfield Lane.[68] These intersections are predicted to degrade from currently acceptable conditions to the worst possible condition, "LOS F," which represents "forced flow or breakdown conditions" at those intersections.[69] Wait times during peak travel hours will exceed 80 seconds, and cars will likely wait through more than one traffic light cycle to clear the intersection.[70] This is a much more significant impact than the "LOS E" conditions predicted in the City's General Plan EIR.[71]

4-62 The IS/MND requires the Applicant to partially mitigate its impacts at the Lakeville and Caulfield intersection by constructing minor improvements

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[65] http://cityofpetaluma.net/cmgr/pdf/samp-final.pdf, p. 1-10; *see also* October 19, 2009 letter regarding the Project from Steven J. Lafranchi & Associates entitled "Analysis of traffic delays due to anticipated passenger and freight service at the Caulfield Lane at-grade crossing."
[66] 2009 Lafranchi letter, *ibid.*
[67] http://www.sctainfo.org/pdf/smart/deir_ch2_%20project_description.pdf, p. 2-6; *see also* IS/MND p. 55 (estimating six freight trains during the day).
[68] 2012 Traffic Study (W-Trans) pp. 20 and 30 (note that upon reanalysis in accordance with these comments, more intersections may be adversely affected).
[69] *Ibid.* p. 10.
[70] *Ibid.*
[71] http://cityofpetaluma.net/cdd/pdf/deir-without-exhibits.pdf, pp. 3.2-24 to 3.2-35 (concluding that cumulative future traffic conditions would only result in "LOS E" conditions).
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(extending the stripe in the road and constructing a raised median). The IS/MND also requires the Applicant to make future fair-share payments to signalize the Hopper and Caulfield intersection, if and when a signal is needed as a result of extending Caulfield Lane over the Petaluma River.

No fair-share payments, however, are proposed to offset the Project's impacts at Lakeville and D Streets. Accordingly, the Project's impact to this intersection is significant and unmitigated, requiring preparation of an EIR.

The IS/MND cannot rely on the statement in the General Plan EIR that "installing additional lanes or expanding capacity" at this particular intersection would conflict with General Plan policies, because the General Plan EIR identifies other ways to reduce impacts at this intersection.[72] The EIR explains that future construction of the Caulfield Lane extension to Petaluma Boulevard South is designed to "reduce traffic congestion along the D Street and Washington Street corridors."[73] The General Plan EIR found that the following policies would reduce the impacts of congestion at City intersections that operate at LOS D or below:

> 5-P-2A Ensure new developments pay a fair share of mobility improvements and that those improvements are undertaken in context with that development.
>
> 5-P-11 Require proposed development to assist . . . in the funding and construction of the following improvements: . . . Caulfield Lane extension to Petaluma Boulevard South (southern crossing).[74]

The Applicant should fund its fair share of traffic mitigation fees for the Caulfield Lane extension, in proportion to its contribution to cumulative "LOS F" conditions at the intersection of Lakeville and D Streets. The payment should be calculated by assessing the Project's cumulative impacts at this intersection *without* the existence of the Caulfield Lane extension in place. Payment of fair share fees for this improvement is eminently reasonable, not only to offset significant traffic impacts, but also because the Project will rely on the Caulfield extension for its required permanent second access point.

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[72] *Ibid.* p. 3.2-35.
[73] *Ibid.* p. 3.2-22.
[74] *Ibid.* pp. 3.2-32 to 3.2-34.
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The City has not adopted mitigation measures consistent with the requirements of the General Plan and the General Plan EIR. Significant unmitigated impacts remain, and an EIR must be prepared.

F. Potentially Significant School Impacts

4-63 The IS/MND's statement that elementary school enrollment in the Old Adobe Union Elementary School District has "declined by approximately 235 students since the 2004-2005 school year" is misleading and fails to disclose or evaluate substantial evidence of actual Project impacts to schools.[75] In 2004 to 2005, the school district had five elementary schools: La Tercera, Miwok Valley, Old Adobe, Sonoma Mountain, and Bernard Eldredge.[76] Due to budget problems, the City voted to close the Bernard Eldredge school in 2010.[77] The California Department of Education's most recent data shows that enrollment at the remaining four schools has increased by approximately 112 students since 2004-2005.[78] According to the school capacity limits reported in the City's General Plan EIR, the capacity of all four schools is now at 99%. Enrollment at two of the schools exceeds their capacity, including the school closest to the Project site, Miwok Valley, which is operating at 111% of capacity.[79]

The closure of Bernard Eldredge is significant new information that changes the assumptions in the General Plan EIR. Whereas the General Plan EIR predicted that elementary schools in the Old Adobe School District would be at 94% of capacity even in 2025, this is certainly no longer the case.[80] According to the data, all four schools together can only accept a total of 31 more students before the entire district will exceed capacity. The Project alone, with 273 proposed residential units in the Old Adobe School District, will likely exceed this threshold. The Project will also have a potentially significant cumulative impact with other approved residential projects, such as the Park Square and Lindberg Circle projects, which have recently added almost 200 new residential units to the district.[81]

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[75] IS/MND p. 73.
[76] City's General Plan EIR, p. 3.4-5: http://cityofpetaluma.net/cdd/pdf/deir-without-exhibits.pdf
[77] http://www.petaluma360.com/article/20100402/community/100409899?p=1&tc=pg
[78] *Compare ibid.* with http://cityofpetaluma.net/cdd/pdf/riverfront/School-Info-Old-AdobeEnrollment.pdf
[79] *Ibid.*
[80] *See* City's General Plan EIR p. 3.4-13.
[81] *See* 2012 Traffic Impact Study (W-Trans) p. 15.
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The General Plan EIR acknowledges that although it is "unlikely" that elementary school capacity will be exceeded by 2025, "schools located in areas where growth is anticipated may experience capacity limitations." The EIR concludes that the appropriate mitigation would be "redistribution of enrollment among elementary schools throughout the city."[82] The IS/MND, however, fails to require any mitigation to offset its potentially significant impacts on schools. Moreover, the redistribution of students to other elementary schools does not appear to be a feasible option for this Project and other new residential projects in the school district. First, as mentioned above, there is only space for approximately 31 more elementary students, total, in the district. Thus, redistribution among the schools within the district will not mitigate the apparent overcrowding problem. Second, there appears to be only one elementary school in another school district that is anywhere near the Project site: the Live Oak Charter School. A comparison of Department of Education data and the school capacity reported in the General Plan EIR shows that this school is operating at approximately 118% of its capacity.[83]

Accordingly, a fair argument exists that the Project will result in significant impacts on school resources. An EIR must be prepared to evaluate and mitigate these impacts.

G. The Zoning Code Applicable to the Project has Changed; Consistency with the New Code Should be Analyzed

4-64 The IS/MND states that the Project plans comply with the land use policies and regulations set forth in the Central Petaluma Specific Plan, including the "SmartCode" set forth in Appendix A of that plan. However, on July 1, 2013, the City adopted an amended SmartCode, in connection with its approval of the Petaluma SMART Rail Station Areas TOD Master Plan.[84] It is unclear whether the proposed Project conforms to the new SmartCode. This should be analyzed in the EIR, and changes to the Project should be made as needed to conform the Project to the new code.

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[82] City's General Plan EIR p. 3.4-12.
[83] *Ibid.* p. 3.4-5 (capacity of Live Oak Charter School listed as 220); http://dq.cde.ca.gov/dataquest/Enrollment/GradeEnr.aspx?cType=ALL&cGender=B&cYear=2012-13&Level=School&cSelect=LIVE+OAK+CHARTER%2D%2DPETALUMA+CITY+E%2D%2D4970854%2D6119036&cChoice=SchEnrGr (enrollment for 2012-2013 reported as 260).
[84] *Ibid.*
2912-005j

V. CONCLUSION

4-65 The CEQA Guidelines require that an EIR be prepared if there is substantial evidence that any aspect of a project, either individually or cumulatively, may cause a significant effect on the environment.[85] As discussed in detail above, there is substantial evidence that the Project would result in significant adverse impacts that were not identified in the IS/MND and that are not adequately mitigated.

We urge the City to fulfill its responsibilities under CEQA by withdrawing the IS/MND and preparing an EIR for the Project. In this way, the City and the public can ensure that all adverse impacts of the Project are mitigated to the full extent feasible and required by law.

Thank you for your consideration of these comments. If you require further information or have any questions, please call us.

Sincerely,

Daniel L. Cardozo
Ellen L. Trescott

ELT:ljl

[85] CEQA Guidelines § 15063(b)(1).
2912-005j

LETTER 4 – ADAMS BROADWELL JOSEPH & CARDOZO for PETALUMA RESIDENTS FOR RESPONSIBLE DEVELOPMENT

4-1 Background. The comment letter is on behalf of the Petaluma Residents for Responsible Development, which is so noted. The comment also provides an overview of the proposed project. The comment further asserts that the DEIR does not adequately address impacts raised in the commenter's prior comments on the Initial Study (June 2013), and does not commit to further mitigation measures to reduce those impacts to a less-than-significant levels. The comment also notes that the DEIR and its technical appendices have been reviewed with the assistance of commenter's technical consultant, Matt Hagemann. The comment is noted, but as explained in responses to commenter's specific comments on the DEIR analyses provided below, the City believes all potentially significant impacts have been adequately addressed, and the analyses are supported by substantial evidence.

4-2 Interest of Commenters. The comment describes the interest of the commenters and that Petaluma Residents for Responsible Development ("Petaluma Residents") is an unincorporated association of individuals and labor unions that may be adversely affected by the potential public and worker health and safety hazards and environmental and public service impacts of the Project.

4-3 Summary of Comments and Request for Recirculation of DEIR. The comment indicates that the project will "generate" impacts, including air quality, hazardous materials, greenhouse gas emissions, geologic hazards, flooding, and traffic and further alleges that the DEIR either mischaracterizes, mis-analyzes, underestimates or fails to identify many of these impacts and that many of the mitigation measures in the DEIR will not mitigate impacts to the extent claimed. The comment further states that as discussed in the commenter's comments, the DEIR does not adequately establish the environmental setting from which to analyze the project's impacts, the project will result in significant environmental impacts that are not analyzed in the DEIR, and there are feasible mitigation measures available to reduce significant impacts that have not been required in the DEIR. The commenter states that the DEIR must be revised to resolve its inadequacies and must be recirculated for public review and comment.

The comment broadly summarizes the commenter's opinion but does not raise a specific comment regarding the DEIR analyses. The following responses are made to specific comments raised in this letter regarding DEIR analyses. As discussed in these responses, the DEIR thoroughly describes both the environmental setting and applicable regulatory setting for each impact category, and the DEIR does not mis-characterize or underestimate project impacts. Feasible mitigation measures to reduce significant impacts have been identified as further explained in responses to specific comments below. As discussed in Response to Comment 4-37, the responses and

clarifications presented in this document do not meet the criteria for re-circulation of the DEIR.

4-4 Lack of Substantial Evidence to Support DEIR Conclusions. The comment states that the DEIR does not satisfy two basic purposes of CEQA: to inform decision makers and the public about the potentially significant environmental impacts of a project and to propose and evaluate mitigation measures to avoid or minimize identified potentially significant impacts. The commenter further alleges that the DEIR's conclusions regarding air quality, greenhouse gas emissions, hazardous materials, geologic hazards, flooding, and traffic are not supported by substantial evidence. In preparing the DEIR, the City: (1) failed to provide sufficient information to inform the public and decision-makers about potential environmental impacts; (2) failed to accurately identify and adequately analyze all potentially significant environmental impacts; and (3) failed to incorporate adequate measures to mitigate environmental impacts to a less than significant level. The commenter asks that the City "correct these shortcomings "and recirculate a revised DEIR for public review and comment.

The referenced EIR analyses specifically address the applicable setting, potential impacts and feasible mitigations for each impact category. Further, the DEIR analyses were supported by the technical studies summarized and referenced in the DEIR that include: air quality and greenhouse gas emissions analyses (Illingworth & Rodkin, December 2013); environmental site assessments conducted to assess hazardous materials (Kleinfleder,2001, Iris Environmental, 2013); geotechnical studies and peer review (Miller Pacific Engineering Group, 2006, 2009, 2011, January 2013, December 2013); and traffic analyses (2012, April 2013, November 2013). Flood hazards were assessed based on flood elevations and studies developed by FEMA in conjunction with the City of Petaluma. For each of these sections, the DEIR carefully identifies the impact, provides supporting analyses drawing from these studies that taken together provide substantial evidence to support the impact conclusion, and where significant, provides feasible mitigation measures. As discussed in the following responses to comments, there is no basis for suggesting that the City failed to provide sufficient information to inform decision-makers and the public about potential impacts. The DEIR adequately and accurately analyzed potentially significant impacts, and the conclusions have not changed as a result of the comments received on the DEIR and the responses herein. As discussed in responses to specific comments presented below, no new significant impacts have been identified with regards to air quality, greenhouse gas emissions, hazardous materials, geotechnical issues, traffic or flooding. As discussed in Response to Comments 4-6, 4-7, 4-14, 4-15, 4-16, 4-26, 4-27, 4-30, 4-32, 4-33, and 4-35, adequate mitigation measures have been identified that reduce identified significant impacts to a less-than-significant level. As discussed in Response to Comment 4-37, the responses and clarifications presented in this document do not meet the criteria for re-circulation of the DEIR.

4-5 Construction Air Emissions and Emissions Model. The comment notes that mass grading will be conducted on the site and that heavy diesel construction equipment will be utilized that produce ozone precursor and particulate matter emissions for which the Bay Area Air Quality Management District (BAAQMD) is considered to be in non-attainment. The comment claims that the DEIR's conclusion that air thresholds of significance will not be exceeded (particularly for No_x) is not supported by substantial evidence. The comment states that the CalEEMod air emissions model "was manipulated to achieve such a result," and that the DEIR did not disclose modifications to the CalEEMod defaults.

As explained in responses to specific comments regarding CalEEMod defaults in Response to Comments 4-6 and 4-7 (construction equipment), 4-8 (project size), and 4-9 (construction period), the CalEEMod defaults and settings were not inappropriately modified. The calculations include mass grading of the site in the air quality analysis conducted for the EIR (see pages 9-16 of the attachment in DEIR Appendix C-2) that were supplemented as part of these responses to comments (see Response to Comment 4-8). Taken together, mass grading of the site is reflected in the emissions modeling. The model was appropriately run without equipment improvements and provides emission estimates without mitigation (see pages 13 and-15 of the attachment in DEIR Appendix C-2). The construction period was modified due to eight proposed construction phases that are estimated to occur over a five-year period; see Response to Comment 4-8 below regarding the construction period.

As noted in the comment, BAAQMD's CEQA Guidelines ask the lead agency to calculate the "average daily emissions" during construction. The air quality analyses prepared for the DEIR (see DEIR pages 4.1-8 to 4.1-12 and DEIR Appendix C-1) and supplemental modeling conducted for this FEIR (see Response to Comment 4-8 and Appendix C of this FEIR) show that construction-related emissions are below BAAQMD significance thresholds, except for potential fugitive dust generated during grading and construction. As to the NOx emissions mentioned in the comment, revised Table 4.1-1 in the CHANGES TO DRAFT EIR (3.0) Section of this document (page 3-3) shows that expected average daily construction-related emissions remain below the applicable threshold. As noted in the comment, technical details are presented in Appendix C-1 of the DEIR. This is just as the CEQA Guidelines direct in section 15147. The technical air quality data was summarized in the body of the DEIR with the supporting technical study attached as an appendix. The supporting study was specifically identified in the Section 4.1 DEIR discussion and referenced frequently throughout the analysis. It is also noted that the comment also erroneously indicates that the BAAQMD's CEQA Guidelines requires use of the CalEEMod model. While the CalEEMod model has been recommended by the air districts throughout the state

since 2011 when the model was developed, it had not been developed at the time the BAAQMD's CEQA Guidelines were adopted in 2010 or updated in 2011.

4-6 Construction Equipment Assumptions. The comment claims that modifications were made to the CalEEMod default settings to assume that construction equipment would be equipped with newer, cleaner engines instead of calculating the unmitigated exhaust emissions from equipment without newer engines, and the commenter alleges that the DEIR assumed that every diesel engine would automatically be "mitigated" and would have a "Tier 2" engine. This claim is incorrect. First, the table cited in the comment's footnote 23 (page 2-3 of the attachment to the air quality analysis included in DEIR Appendix C-1) summarizes the changes to equipment with mitigation. Secondly, the air quality analysis incorporated into the DEIR did not assume the use of diesel construction equipment with Tier 2 engines except when such engines were required by a mitigation measure. The air quality analysis in DEIR Appendix C-1 evaluated unmitigated emissions for both construction and operations. Regional emissions and emissions affecting sensitive receptors were both analyzed using unmitigated exhaust emissions based on the default diesel equipment selected by the CalEEMod. Table 4.1-1 on page 4.1-9 of the DEIR reports the findings of the model output without mitigation.[3] (The table has been revised to clarify that the reported emissions are without mitigation; see CHANGES TO DRAFT EIR (3.0) section (page 3-3) of this document.) No significant impacts were identified for regional emissions or for off-site sensitive receptors. (See discussion of Impact 4.1-1 on page 4.1-8 through 4.1-9 and Impact 4.1-2b on page 4.1-13 through 4.1-15 of the DEIR.) However, a significant impact was identified for on-site sensitive receptors (Impact 4.1-2b on page 4.1-13 through 4.1-15 of the DEIR). A model run that was performed with inclusion of mitigation measures, found that the impact would be reduced to a less-than-significant level. Thus, Mitigation Measure AIR-3 was included to require the use of Tier 2 engines for any work within 200 feet of residences to avoid any significant impact to on-site sensitive receptors and thus, to mitigate the identified significant impact to less than significant. The mitigation inputs to CalEEMod were modified to select Tier 2 equipment for the "Mitigated Construction Emissions" model run, and the "mitigated" emissions calculation also included dust controls required in Mitigation Measure AIR-1. The model runs included in the DEIR Appendix C-1 clearly show separate tables for summaries for unmitigated construction and operational emissions, as well as for, mitigated construction and operational emissions (see pages 7 to 30 of the attachment in DEIR Appendix C-1).

[3] This table reports average daily emissions that were based on the air quality and greenhouse emissions analysis prepared by Illingworth & Rodkin, Inc., December 10, 2013 (the Technical Report), which is included in Technical Appendix C-1 of the DEIR. The Technical Report describes the modeling methodology and includes the CalEEMod modeling output files as "Attachment 1: CalEEMod Output for Annual Construction and Operation". Reported emissions are based on "Unmitigated Construction Emissions on page 6 of Attachment 1 of Appendix C-1. Attachment 3 to the Technical Report included CalEEMod model output used for modeling the health risk impacts from construction activity.

4-7 Mitigation Measure AIR-3-Construction Equipment Standards. The comment states that the DEIR only requires the use of Tier 2 engines under a "worst-case" scenario: if the single family residences are constructed and occupied first, then the remainder of construction must use Tier 2 engines. The commenter states that the DEIR does not require the use of Tier 2 engines as a matter of course, and therefore the DEIR's modifications to the CalEEMod default settings were inappropriate. Mitigation Measure AIR-3 requires the use of Tier 2 engines within 200 feet of any residence, not just the single family homes and regardless of the phasing of the project as discussed on pages 4.1-15 and 4.1-16 of the DEIR. The mitigation measure has been clarified to indicate that the measure applies to construction within 200 feet of any residential use; see CHANGES TO DRAFT EIR (3.0) section of this document (page 3-2). In addition, as discussed in Response 4-6, reductions in engine emissions below the default level of the CalEEMod were only assumed in connection with Mitigation Measure AIR-3, which requires the reduction of emissions through the use of Tier 2 engines.

4-8 Air Model - Project Size Assumptions. The comment indicates that the project will disturb 39 acres, including roads and parks, but the CalEEMod default settings were changed to model the project acreage as 25 acres, and thus, the CalEEMod model failed to account for all the emissions associated with constructing the entire Project.

In response to this comment, an additional CalEEMod model run was performed by Illingworth & Rodkin with the same assumptions applicable to grading and paving as the CalEEMod model run for project included in the DEIR, but with the addition of 13.2 acres of land use type "Other Asphalt Surfaces" and 1.27 acres of land use type "City Park" that were inadvertently left out of the project modeling. Construction phases for these portions of the project included the default phases of site preparation, grading, and paving. Development of roadways and the park only involved site preparation, grading and paving phases, and thus, the building construction and architectural coating phases were not included for this construction activity. As with the CalEEMod model run used in the DEIR, the CalEEMod default construction schedule was doubled from 60 days to 120 days, and the equipment selection and equipment usage assumptions were used without modification. The grading period was extended from 60 to 120 days to be consistent with the approach in the DEIR analysis that extended the construction periods to match a 5-year construction period. Had the model defaults been used, the grading emissions would have been one-half or less of the emissions predicted in this analysis. These total emissions are set forth in the table below.

Project Roadway/Park Area Construction Emissions (in tons)

	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Additional Emissions from construction of 14.5 acres of roadways and parks (tons)	0.33	3.53	0.18	0.16

These emissions were then added to the DEIR construction emissions reported in Table 4.1-1 on page 4.1-9 of the DEIR, with the result being a small increase in daily total project emissions that remain well below applicable BAAQMD thresholds. The table below shows total average daily construction emissions based on the above update, which also includes an update to account for emissions from water trucks during grading as explained in Response to Comment 4-12 below.

Project Average Daily Construction Emissions (Lbs/day)

	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Construction Emissions[1]	13.4	34.8	1.8	1.7
Additional Emissions from construction of 14.5 acres of roadways and parks[2]	0.5	5.35	0.27	0.242
Additional Emissions from Water Truck Usage during Grading[3]	0.015	0.227	<0.015	<0.015
Adjusted Construction Emissions Sum	**13.9**	**40.4**	**2.1**	**2.0**
BAAQMD Threshold	**54**	**54**	**82**	**54**

1. From Table 4.1-1 Project Air Emissions for construction as presented on page 4.1-9 of the DEIR.
2. Converted from tons to pounds per day assuming a 5 year buildout period, per Table 1 of Appendix C to the FEIR provided by Illingworth and Rodkin March 21, 2014, and updated table below.
3. Converted from tons to pounds per day assuming a 5 year buildout period, per Table 2 of Appendix C to the FEIR provided by Illingworth and Rodkin March 21, 2014 and updated table provided below in Response to Comment 4-12.

An air quality memo is included in Appendix C of this document that provides the technical analysis for this response. Based on the foregoing, the inclusion of 13.2 acres of roadways and 1.27 acres of additional park land use does not result in emissions that exceed criteria for determining impact significance as identified in the DEIR (see DEIR pages 4.1-6 and 4.1-7), does not require any additional mitigation measures, and does not otherwise affect the conclusions of the DEIR. However, the DEIR text for pp. 4.1-9 and 4.1-15 has been revised to show the results of the additional model run. See CHANGES TO DRAFT EIR (3.0) section of this document (pages 3-2 and 3-3). Taken

together, this supplemental analysis and the analysis included in the DEIR conservatively addresses mass grading of the entire site, since the emissions associated with dividing the grading into two model runs results in higher total emissions.

4-9 Air Model – Construction Period. The comment states that another modification to the CalEEMod default settings was to extend the construction period "out 5 years," which is far beyond the model's assumption for a project of similar size. The comment further claims that the analysis and DEIR deviate "dramatically" from the default assumptions for grading, building construction and architectural coatings, and there is no evidence to support the conclusion that the number of active constructions days could reasonably occupy every single working day over a five-year period.

As indicated on page 3-5 of the DEIR and shown on the proposed Tentative Map, the project is estimated to be built out in eight phases over an estimated six-year period in accordance with timeframes permitted under the SMARTCODE regulations applicable to the project. Given the phasing and size of the project (273 residential units, hotel, office and commercial uses), a five-year buildout period is reasonable and based on the applicant's estimate of the shortest likely time period necessary to construct the project. As indicated above in Response to Comment 4-8, the model accounts for site preparation and mass grading, which would occur mostly within the first year. It is anticipated that the various components of the project (single-family homes, town homes, mixed-use building, hotel and office building) will be built at different times given the proposed phasing. This will increase the overall period of construction of the project compared to constructing all five components of the project at the same time. The comment states that the CalEEMod default is 575 days, which is roughly equivalent to a two-year construction period. That is not what the project proposes. Given the amount of development and phases, the five-year construction period used in the CalEEMod modeling is reasonable, and as the minimum reasonable timeframe in which the project could be completed, provides a "worst-case" scenario for the air quality modeling. The CalEEMod default schedule was thus properly adjusted to reflect a five-year construction build-out period rather than the default two-year period. There are no periods of "non-construction" included in the modeling.

Extending the length of the construction period for the project does not necessarily result in a reduction in daily emissions because the CalEEMod model assumes equipment usage and emissions for each day of the construction period. With more assumed construction days, there are more construction emissions. As a result, any reduction in emissions associated with an increase in the construction period would be limited to the CalEEMod's default assumption that the emission rates for construction equipment decrease over time. In addition, the DEIR assumed construction would begin in February 2014, at least one year earlier than what would now likely occur.

The emission rates assumed in 2014 are higher than those that would occur in subsequent years.

4-10 Air Model – Partial Emissions Analysis. The comment indicates that the DEIR includes a separate "partial" emissions analysis for the project components other than the single-family homes, and "adopts" the CalEEMod default for construction period time, and indicates that it is inconsistent to use the default number of construction working days when analyzing part of the project, but not when analyzing the entire project (as raised in Comment 4-9). The comment claims that there is no justification for presuming that the active building construction phase for the entire Project will take longer than predicted by the CalEEMod model.

A "partial" emissions analysis was included as part of the technical air quality analysis to account for emissions from construction of the non-residential and multi-family scenario as part of the health risk analysis for construction. This is reasonable since it is possible that single-family homes could be constructed and occupied prior to construction of the other portions of the project. The default CalEEMod construction period of 520 days for construction of the portions of the project other than single family homes is a reasonable estimate given the amount of development and the proposed build out period. The construction period for land uses without single-family homes was confirmed as reasonable in conversations with the applicant. Such schedule is also consistent with the assumptions in the DEIR for the entire project (1,320 total construction days), keeping in mind that the single family homes are by far the largest single portion of the project and the site preparation and grading for the entire project were assumed to occur prior to the construction of the other phases. The estimates used for the construction period for the whole project and the portion of the project containing only the single family homes were reasonably made based on input from the applicant and reflect a reasonable allocation of construction time between the single family homes and the full project site preparation and grading, on the one hand, and the townhomes, hotel, office building and mixed-use buildings, on the other hand. See also Response to Comment 4-9 above.

4-11 Air Model – Application of Architectural Coatings. The comment indicates that based on the square footage of the buildings to be constructed, CalEEMod assumed it would take 35 working days to paint buildings constructed under the "partial emissions analysis", but the DEIR assumed that it would take 325 working days, which the commenter characterizes as "an absurd amount of time." The comment indicates that the partial emissions analysis for the project also increased the length of the architectural coatings phase by 10 times the number of days predicted by CalEEMod and that the City lacks substantial evidence for its presumption that the active architectural coatings phase for the Project will take 290 working days longer than predicted by the CalEEMod model.

The CalEEMod default period for architectural coatings was extended for two reasons. First, consultation with the applicant indicated that applying all interior and exterior architectural coatings, including building paint and road and parking lot striping is unreasonably short for a project of this size with five distinct land uses. Second, additional interior work (e.g., mechanical work, electrical, plumbing, sheet rock, etc .was added to this phase of work because such work is typically performed in connection with interior painting. As a result, the 325 days estimate for architectural coatings is a reasonable assumption for this project for the purpose of the modeling. See also Response to Comment 4-10 regarding the partial analysis.

4-12 Emissions From Water Trucks. The comment states that the DEIR did not incorporate the emissions associated with water trucks, which will be required on site throughout construction to reduce fugitive dust. This assertion is incorrect. The CalEEMod model automatically accounts for water truck trips as part of the number of vendor trips that are included in construction phases (see CalEEMod User's Guide page 25). The estimate of vendor trips is based on surveys conducted by the Sacramento Metropolitan Air Quality Management District and South Coast Air Quality Management District (see Appendix E of the CalEEMod User's manual). However, the CalEEMod does not include vendor trips in connection with grading, and in response to this comment, a supplemental analysis was performed by Illingworth & Rodkin with respect to the grading phase of construction only, as more fully described in Appendix C of this document. The addition of emissions from water trucks during the grading phase of the project is extremely small as shown in the table below. When added to other construction emissions, the total construction emissions would remain well below impact significance criteria identified in the DEIR (see DEIR pages 4.-6 and 4.1-7) and do not change conclusions of the impact discussion or require new mitigation measures. The revisions to the portion of Table 4.1-1 on page 4.1-9 of the DEIR concerning construction emissions include these emissions. See revised DEIR Table 4.1-1 in the CHANGES TO DRAFT EIR section of this document (page 3-3) and see also Response to Comment 4-8.

Water Truck Construction Emissions (in tons)

	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Additional Emissions from Water Truck Usage during Grading (Tons)	0.01	0.15	<0.01	<0.01

4-13 Emissions From Off-site Hauling of Excavated Soil. The comment states that the DEIR did not incorporate emissions associated with "off-haul of tens of thousands of cubic yards of fill" with a citation of page 4.4-13 of the DEIR. The referenced citation addresses erosion potential associated with project development. The text states that approximately 75,000 cubic yards of material will be hauled offsite for Caltrans use in its Highway 101 improvement project that is currently underway. As indicated in Response to Comment 3-22, as of October 2013, approximately 70 percent of the stockpiled soil had been removed from the project site, and the remaining soil is expected to be removed by the spring of 2014 (Iris Environmental, October 2013, page 5 in Appendix C-5 of the DEIR). As of June 2, 2014 most of the remaining stockpiled soils had been removed. The limited remaining stockpiled soils are concentrated along the western property line shared with the old Pomeroy facility. The project proposes a balanced site and would not include substantial import or export of fill material. Any off-haul of materials occurring prior to construction of the project will be performed pursuant to an existing stockpile permit, which is not a part of the project.

4-14 Construction-Related Air Quality Impacts. The comment states that "there are not sufficient reasons for the City to avoid a finding that construction-related air quality impacts from criteria pollutants will be significant" and that the DEIR does not require stringent controls for dust during and after mass grading of the project site, which the BAAQMD require, posing a threat to City residents and workers. The commenter repeatedly suggests that changes to the CalEEMod default assumptions were done to avoid significant impacts that would occur if the CalEEMod defaults had been used instead.

The CalEEMod model default assumptions represent a "baseline" data set that the authors intended to be modified to reflect the facts and circumstances of each unique project. [CalEEMod User's Guide, Version 2013.2, pages 9 and 24-25] As discussed fully in the above Response to Comments 4-6 through 4-13, each deviation from the CalEEMod defaults was reasonable under the proposed project as explained in these responses. In addition, the DEIR incorporates Mitigation Measure AIR-1 and AIR-2 for Impact 4.1-1 construction dust control. These mitigations for dust control include the "Basic Construction Mitigation Measures" recommended by BAAQMD and also include additional measures imposed by the City that make up most of the BAAQMD-recommended "Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Thresholds." Furthermore, as explained in Response to Comment 4-15 below, Mitigation Measures AIR-1 and AIR-2 are consistent with BAAQMD recommendations for construction-related impacts. As demonstrated in the DEIR, these responses, and related technical reports, air quality impacts are reasonably identified based on applicable thresholds and appropriate mitigations are identified in response.

4-15 Mitigation Measure AIR-1. The comment states that three of the 13 construction mitigation measures required by the Bay Area Air Quality Management District (BAAQMD) have not been fully incorporated into the DEIR. The comment further states that the DEIR fails to incorporate all eight of the BAAQMD's "basic" construction mitigation measures in that one is missing.

According to the BAAQMD's current "Air Quality Guidelines" posted on their website (May 2012), BAAQMD "recommends" the implementation of all "Basic Construction Mitigation Measures" (Table 8.1) as mitigation for dust and exhaust construction impacts. Thirteen additional construction measures are listed in Table 8-2 if more mitigation is necessary. The Additional Measures are recommended and not required, as further discussed below.

As indicated on page 4.1-8 of the DEIR and page 8 of Appendix C-1, the air quality analysis found that the although the construction of the project would not result in emissions that exceed BAAQMD thresholds, construction activities would increase fugitive dust and elevate levels of particulate matter, which is considered potentially significant if unmitigated (Impact 4.1-1). The air quality analysis recommended all eight "basic" construction measures for dust control recommended by the BAAQMD (except for one as discussed below), which were included in Mitigation Measure AIR-1 (a [1-water two times a day]; e [2-cover haul trucks]; f [3-remove mud]; g [4-vehicle speeds]; k [6-equipment idle times]; l [7-equipment maintenance]; and m [8-notice]). The mitigation establishes a stricter measure of maximum equipment idling time of two minutes instead of five minutes recommended by the BAAQMD [6]. However, one measure regarding paving roads and driveways as soon as possible was included in the air quality report recommendations but inadvertently left out of the mitigation list in the DEIR. The mitigation measure has been revised to include this measure. See the revised SUMMARY OF IMPACTS (2.0) and CHANGES TO DRAFT EIR (3.0) section (see page 3-2) of this document. The inadvertent omission of this mitigation measure does not affect the analysis or conclusions of the DEIR. The impact remains less than significant with implementation of the mitigation measures as amended to add the paving requirement to the DEIR list.

The commenter incorrectly assumes that the project exceeds the BAAQMD thresholds that would require the use of the 13 additional mitigations measures. Nonetheless, the City has elected to include most of the of the 13 additional measures, but such election is at the discretion of the City, based on the feasibility of the additional measures, as none of the 13 additional mitigation measures is required unless the BAAQMD thresholds are exceeded. Instead, the City focused on the measures most effective for dust control under the project circumstances and included them in the measures for fugitive dust control impacts in Impact 4.1-1. The comment indicates that three

measures are not included. However, one measure was included in Mitigation Measure AIR-1 to require watering of exposed soil to maintain a soil moisture of 12% is included, except for the suggested measurement tools. The mitigation measure also included watering two times per day that is established in the BAAQMD's "Basic Construction Mitigation Measures" list. Specification of the tool of measurement for moisture content was not included since twice daily watering is expected to be sufficient. The other two measures (regarding equipment specifications and installation of wind breaks) are not required and were not included because: 1) equipment emissions did not exceed thresholds; and 2) wind breaks were not deemed necessary due to lack of nearby sensitive receptors. Accordingly, none of the commenter's discussion as to the inadequacy of each specific additional mitigation measure is valid.

4-16 Greenhouse Gas Emissions (GHG) Impact. The comment states that the DEIR conclusion that the project's operational emissions will be below the 4.6 million [sic] tons per year per capita, and therefore, does not require mitigation, is not supported by substantial evidence. This comment incorrectly states the MTY standard as "million tons per year." The correct standard is "metric tons per year" [see page 4.1-6 of the DEIR). As explained in the following Response to Comment 4-17, 4-18 and 4-19, as well as the preceding Response to Comments 4-5 through 4-13, the emissions modeling was conducted in accordance with requirements and adjustments set forth in the CalEEMod manual. The results of the model run are described in the DEIR under Impact 4.1-4. The DEIR analysis and supporting technical reports provide substantial evidence that supports the conclusion that the project impacts will be less than significant. That conclusion is further supported in these responses to comments. See Response to Comment 4-19 regarding the per capita threshold as applied to the project.

4-17 GHG Emissions Model – Project Occupancy Assumptions. The comment indicates that the DEIR improperly changed the CalEEMod default settings for operational GHG emissions that the project would not be occupied until 2020, but the DEIR predicts that the project may be built in phases, ending in 2018. The commenter alleges that the DEIR attempts to manipulate the date of project occupancy so that its emission swill look more favorable and it can avoid GHG mitigation and that substantial evidence does not support this conclusion.

The air quality analysis assumed a five-year construction period as the shortest, and therefore, worse case scenario for criteria pollutant emissions. As discussed in the DEIR and Response to Comment 4-9, it is likely that buildout of the site and full occupancy will take longer. The DEIR described the air quality analysis assumptions regarding build out and occupancy of the project, likely in 2020 or later (pp. 4.1-17 and -18). Thus, the assumptions in the analysis were reasonable and supported by

substantial evidence. At this point, project construction is not expected to start until 2015 at the earliest. Even assuming the shortest possible construction period of five years, complete construction and full occupancy of the project would not occur until 2020 or beyond. Since GHG emissions are in part based on project energy and water use, the timeframe for occupancy is distinguished from the construction period as reflected in the DEIR. The DEIR assumed a credible worst-case construction scenario of five years that was based on the most aggressive construction schedule for the project, and as of the date of these responses it is clearly unlikely that construction will even commence before 2015 given the remaining project review process. Thus it is highly unlikely that the project will be fully constructed, let alone occupied, prior to 2020. Accordingly, the 2020 estimate of initial full occupancy is in fact quite conservative.

Additionally, the comment incorrectly cites that the air quality analysis (DEIR Appendix C-1) used the 2020 year for the "sole purpose" of evaluating project GHG emissions against AB32 emission targets for PG&E. As explained on pages 6-7 of DEIR Appendix C-1, the analysis clearly states that the project is not likely to be fully built and occupied prior to 2020, and thus, project emissions were developed for 2020, consistent with BAAQMD significance thresholds that were developed to be consistent with targets established in AB32 and set forth in the State's Scoping Plan. As such, PG&E's emission rates for 2020 were used as further explained in Response to Comment 4-18 below

4-18 GHG Emissions Model – Energy Assumptions. The comment states that the DEIR reduces the estimated emissions associated with the project's electricity consumption as it reduced PG&E's "CO2 intensity factor" from 641.3 pounds per megawatt of electricity to just 288.8 pounds, a 55% reduction from the CalEEMod default assumption. The comment indicates that the CalEEMod model reflects PG&E's "2008 base emission rate, and that "PG&E's 2020 emission rate, as reported by PG&E using the California Public Utilities Commission's CPUC GHG Calculator," is 288.8 pounds, but that there is no substantial evidence or supporting data to support this reduction or deviate from the CalEEMod default. The comment also indicates that project analyses should examine physical conditions as they exist at the time the Notice of Preparation is published,[4] and that the GHG emissions would be higher than estimated in the EIR. The comment also indicates that the DEIR mischaracterizes

[4] The comment cites to the Sunnyvale West case to say that a lead agency does not have "carte blanche" to select the conditions on some future post-approval date." The California Supreme Court overruled the Sunnyvale West case to the extent it said a lead agency may never use a future conditions baseline (Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (2013) 57 Cal.4th 439, 457.) The state high court ruled that a lead agency may, in fact, substitute a future conditions baseline for existing conditions upon proper justification (Id.).

PG&E's CO_2 intensity factor as "steadily decreasing," and suggests that the intensity factor is only affected by PG&E's increasing renewable energy portfolio.

The air quality and greenhouse gas analysis included in the DEIR Appendix C-1 explains that the CalEEMod model includes the 2008 emission rates for PG&E and describes the CO_2 intensity factors used in the analysis (see page 6 of Appendix C-1). The CalEEMod default intensity factor is based on the most up to date information available when the model was developed. This is the historical intensity factor for 2008. In April 2013, PG&E published historical and future CO2 intensity factors that are based on more up-to-date emissions information, which is included in Appendix C of this document. PG&E's third-party-verified GHG inventory submitted to the California Climate Action Registry (2003-2008) and The Climate Registry (2009-2011) show historical emissions of 641 pounds of CO_2 per megawatt hour in 2008 and 393 pounds per megawatt hour for the most recent verified inventory in 2011. PG&E also reports their projected emissions, based on requirements to meet AB32 requirements. These emission rates are independently forecasted (Greenhouse Gas Calculator for the California Electricity Sector, Developed by Energy + Environmental Economics under contract to the California Public Utilities Commission (CPUC) and the California Air Resources Board (CARB), Version 3C, March 2010). The DEIR used the most recent available PG&E intensity factors, whereas the CalEEMod default value is based on 2008 historical data that were the most recent historical data available when the original model (i.e., CalEEMod 2011) was developed. The recent PG&E data are the best available data, and thus, it is appropriate to use the projected future emissions as the basis for estimating emissions related to power consumption.

4-19 Project Population (Resident and Employee) Used to Determine Per Capita GHG Emissions. The comment indicates that the per capita estimate of greenhouse gas emissions (GHG) did not use the project fiscal analysis' population estimate, but rather used a household size based on U.S. Census data, although employee estimates were taken from the project fiscal analysis. The comment further claims that "the failure to make a finding of significance for GHG impacts is not supported by substantial evidence."

The normal protocol for determining the number of workers in a project for air quality purposes is to rely on applicant estimates based on applicant interviews. The project fiscal assessment is a professional study of the economic impacts of the project prepared at the direction of the City by a consultant selected by the City. Accordingly, the workforce estimates provided in the assessment are more reliable than reliance on applicant estimates and thus were appropriate as the basis for the DEIR analysis.

The project residential service population was calculated by applying the persons per household rate developed from the U.S. Census. This rate is based on all households

in Petaluma using the latest census data (2006-2010) for the City of Petaluma.[5] The project fiscal analysis used this average household size for single-family homes and townhomes, but applied a lower rate for apartments. However, the census data is based on all housing units in Petaluma, including multi-family housing and apartments. The household size is derived by dividing the total population by the total number of housing units, which also factors in vacant units. The population estimate in the project fiscal assessment was not utilized because it made an overly-conservative estimate in terms of population by only applying the persons per household rate from the Census to detached single-family homes and attached townhomes, while applying a lower rate for apartments. However, the census data is based on all households in Petaluma, including apartments. The U.S. Census Bureau defines a housing unit as "a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters". Thus, the U.S. Census is the more accurate source for determining the number of residential occupants in the project, and thus was appropriate as the basis for estimating the number of residents.

The GHG emissions analysis assumed a total onsite residential population of 718 people based on the average household size provided in the most current U.S. Census of 2010 as described above, which is 2.64. The GHG emissions analysis erroneously reported a population of 718 instead of 721. The current California Department of Finance population estimates also indicate that Petaluma's average household size is 2.64[6], which would yield a project population of approximately 721 residents when applied to the proposed 273 residential units. This would slightly lower the per capita greenhouse gas emissions, but was not utilized in the air quality analysis. Thus, the DEIR reasonably captures the population growth expected to result from the proposed development and appropriately applies the per capita GHG emissions. It is clear from the above discussion that one data source will not necessarily be appropriate for all analyses. The City exercised its judgment to select the most appropriate data for purposes of a particular analysis in light of CEQA's goal of providing information on potential project impacts. Also consistent with CEQA, the data and analyses were documented and disclosed for public review

4-20 Potential Hazardous Materials Contamination. The comment states that the site contains "three sources of potentially significant contamination", that the DEIR's investigation and disclosure of these environmental conditions are inadequate, and

[5] U.S. Census Bureau, 2012. Petaluma (city), California. Available on-line at: http://quickfacts.census.gov/qfd/states/06/0656784.html. Accessed: March, 14. 2012.

[6] California Department of Finance. May 2014. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2014 with 2010 Census Benchmark." Online at: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php

that the proposed mitigation is insufficient to protect the health of workers and those who will live on or use the project site. The comment states that the first source is the Pomeroy Corporation, which owned the site for 50 years and built a railroad spur that terminated on the project site to serve its concrete fabrication yard. The comment further states that 1999 photographs show old tanks and containers as being hazardous, suggesting that the site looks like a typical "superfund" site Subsequent comments address the other two alleged potential sources of contamination. See Response to Comment 4-21 regarding potential contamination in former wastewater treatment settling ponds and Response to Comments 4-22 and 4-26 regarding stockpiled soils. See Responses to Comments 4-26 and 4-27 regarding mitigation measures.

The suggestion that the project site's environmental conditions are typical of a "superfund site", i.e. a grossly contaminated site, is simply untrue. No evidence supports this statement, which wholly misrepresents the nature of the project site. The comment inappropriately characterizes historical site conditions and speculates about supposed threats unsupported by facts. The comment ignores the sound technical work that has been completed as part of the environmental assessments conducted at the project site to understand local environmental conditions, which were based on science rather than speculation. As presented in the DEIR, Phase I and Phase II Environmental Site Assessments (ESAs) were conducted for the project site in 2001 (Kleinfelder, January 2001 and May 2001). Additionally, a Phase I Environmental Site Assessment was completed for the proposed project by Iris Environmental in March 2012, and a subsequent Phase I Environmental Site Assessment was prepared in October 2013 by Iris Environmental. See DEIR Figures 4.2-2 and 4.5-1 for accurate examples of current site conditions.

These ESAs were comprehensive and completed in accordance with appropriate industry standards for assessing environmental conditions at sites and for identifying environmental concerns that could impact the safe use of a site. The foundation of understanding a site's environmental condition is the Phase I Environmental Site Assessment. The U.S. Environmental Protection Agency (U.S. EPA) and ASTM International set standards for Phase I Environmental Site Assessments. Iris Environmental's Phase I Environmental Site Assessments completed in 2012 and 2013 fulfill the USEPA requirement of "All Appropriate Inquiries" (AAI) through a defined process of evaluating a property's environmental conditions and assessing the likelihood of contamination. Every Phase I assessment conducted with EPA Brownfields Assessment Grant funds must be conducted in compliance with the All Appropriate Inquiries Final Rule at 40 CFR Part 312. The All Appropriate Inquiries Final Rule provides that the ASTM E1527-05 and E1527-13 standards are consistent with the requirements of the final rule and may be used to comply with the provisions

of the rule (U.S. EPA Brownfields and Land Revitalization Website 2014 at http://www.epa.gov/brownfields/aai/).

The Kleinfelder 2001 Phase I ESA, and the Iris Environmental 2012 and 2013 Phase I ESAs all included a check of databases of businesses and properties that handle hazardous materials or hazardous waste. The project site was not listed on any of the federal and state databases reviewed.

As documented in the referenced Phase I Environmental Site Assessment reports, the project site does not have a "storied history" of industrial use and hazardous materials storage and disposal as suggested in the comment. To the contrary, the project site has been unused for most of its history (Iris Environmental, 2013). The site is formerly a marshland that was filled between 1914 and 1944. It was purchased in the early 1950s by the Ben C. Gerwick Company, which became the Pomeroy Corporation, and remained unused until the early 1980s, other than usage of the northeastern portion of the by the adjacent former Petaluma Wastewater Treatment Plant as a settling pond in the 1960s and 1970s. The comment implies that that the project site was used for concrete fabrication, however, the Pomeroy Corporation concrete fabrication was not done at the project site. Those operations were conducted off-site on the property to the west as indicated on page 5 of the 2013 ESA contained in Appendix C-5 of the DEIR. The ESA also notes that Pomeroy routed a railroad spur along the western edge of the Site and used areas around the spur for the storage of materials and supplies.

The 1999 photographs mentioned in the comment were taken by Kleinfelder as part of their site reconnaissance in 1999 that was then reported in their Phase I Environmental Site Assessment issued in 2001. Kleinfelder followed up on their 1999 field observations by appropriately investigating the areas of interest through Phase II subsurface investigations including testing in the rail spur area. The Phase II subsurface investigation included excavation of three trenches measuring 10-20 feet in length and 7-12 feet deep, as well as installation of 17 soil borings across the project site. Some of the sampling locations for the Phase II investigation were selected to evaluate the soils in the portion of the site where debris and waste storage was observed during the 1999 site visit (Borings K-2, K-3, K-4, and Trench T-3). After completion of this testing, Kleinfelder's technical conclusion was that contamination was not found in significant concentrations and soil materials do not appear to represent a risk to human health or the environment (page 17, Kleinfelder 2001a). These findings are in stark contrast to the comments characterizing the Project site as a "Superfund Site".

To evaluate the significance of detected concentrations in soil and groundwater and determine whether the levels present may pose a risk to human health and the environment under current or potential future land uses, the analytical results were

compared against current applicable screening criteria by Iris Environmental in 2013. As noted in the DEIR, with the exception of arsenic, none of the soil samples collected from this area had chemical concentrations above the current Environmental Screening Levels (ESLs) developed by the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) for residential land use where groundwater is not a current or potential source of drinking water, which were in effect at the time the DEIR was prepared and released for public review. As discussed in Response to Comment 4-25, the test results were reviewed against ESLs that were subsequently revised after the DEIR was released for public review. Although arsenic concentrations are above the ESLs, as concluded in the Kleinfelder 2001 Phase II report, they are similar to concentrations in native soils throughout the Bay Area, and are considered to reflect ambient (background) conditions (Kleinfelder, May 2001). This conclusion is further supported by a recent evaluation of background concentrations of arsenic in urbanized flatland soils within the Bay Area, completed at San Francisco State University in coordination with RWQCB staff, which established an upper-limit background concentration of 11 milligrams per kilogram (mg/kg).[7] The maximum arsenic concentration detected at the Project site is 9 mg/kg.

In conclusion, the review of the project site history conducted as part of the Phase I ESA shows that there is not a history of industrial site use; instead most of the project site has been unused through its history. A review of federal and state environmental regulatory databases does not show a history of hazardous materials usage or disposal on the project site. Lastly, although the Pomeroy Corporation used a portion of the project site for storage of materials and debris, soil sampling and analysis in this area showed chemical concentrations below the current ESLs for residential land use, or, in the case of arsenic, below background concentrations. Thus, the DEIR adequately identified and disclosed concentrations of contaminants onsite and based on the evidence provided in the technical Environmental Site Assessments, correctly concluded that the proposed project would not expose workers or future residents to a substantial health risk.

4-21 Former Wastewater Settling Ponds. The comment states that the northern part of the project site was used formerly used by the City as settling ponds for its wastewater treatment plant, and in the 1990s, Pomeroy laid plastic sheets over a portion of this area and covered it with petroleum-contaminated soil from a leaking underground storage tank. The comment claims that the soil and plastic sheeting are still on the site.

[7] Duvergé. December 2011. "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region." Online at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/available_documents/2011_Arsenic_Background_Duverge.pdf

The northern portion of the project site was used by the City in the 1960s and 1970s as settling ponds for its wastewater treatment plant. When the settling ponds were no longer in use, limited amounts of diesel-impacted soils were responsibly and safely stockpiled on plastic sheeting on a portion of the former settling ponds. The diesel-impacted soils were generated during a legal underground storage tank (UST) removal project conducted at the adjacent Pomeroy property and overseen by Sonoma County Department of Health Services. The UST was not located on the Project site. The County issued a closure letter for the adjacent site's UST in 2008 and even complimented the UST owner in the closure letter for their promptness in responding to the County's inquiries.[8] The UST was closed in compliance with subdivisions (a) and (b) of Section 25296.10 and the corrective action regulations adopted pursuant to 25299.3 of the California Health and Safety Code.

As presented in the DEIR, the presence of the settling ponds and the UST-related stockpiled soils were identified as concerns in the Kleinfelder 2001 Phase I ESA (Kleinfelder, May 2001). Kleinfelder appropriately conducted subsurface soil investigations to understand what environmental impacts might have been associated with these operations. Kleinfelder completed excavation of three trenches measuring 10-20 feet in length and 7-12 feet deep, as well as installation of 17 soil borings across the Project site (Kleinfelder, January 2001). Sampling locations included both the areas of the former settling ponds and areas where UST-related stockpiled soils were stored from 1995 to 1996. Borings K-6 and Trenches T-1 and T-2 were located to investigate the UST-related soil stockpile area. All chemical concentrations were below the current ESLs for residential land use with the exception of two detections of total petroleum hydrocarbons in the motor oil range (TPH-mo) that exceeded a residential ESL, which are discussed in Response to Comment 4-25 (Iris Environmental, March 2014 included in Appendix E of this document).

The assertion in the comment that "the soil and the plastic sheeting are still on the project site" is not accurate or true. Neither the plastic sheeting nor the soils were observed to be present during the October 16, 2013 site visit performed as part of the Iris Environmental 2013 Phase I Environmental Site Assessment.

In conclusion, the northern portion of the project site was used by the City as settling ponds associated with its nearby wastewater treatment plant and diesel-impacted soils associated with a legal UST removal from an adjacent site were stockpiled on plastic sheeting after the settling ponds were no longer in use. Soil investigations in this area do not show significant impacts from these operations. Soil sampling results show that chemical concentrations are below the current conservative and protective ESLs for

[8] Iris Environmental, March 2014: County of Sonoma Department of Health Services, August 8, 2008, "500 Hopper Street, Petaluma, California, Leaking Underground Storage Tank Site."

residential land use, except for two detections of TPH-mo that are further discussed below in Response to Comment 4-25. Furthermore, stockpiled soils generated during a 2008 UST removal from an adjacent site have been removed and are no longer present on the project site.

4-22 Stockpiled Soils. The comment raises concerns that soils stockpiled on the site since 2005 may be contaminated and that the DEIR does not indicate whether previously stockpiled soils thought to be hazardous were removed from the project site. The comment is correct in noting that soils have historically been moved to the project site from nine off-site areas. This is a standard soil management procedure and by no means suggests or documents an environmental issue or impact. The soil import was clearly identified in the Iris Environmental Phase I Environmental Site Assessment (October 2013). Soils that had been historically moved to the project site were identified in Table 4 of the 2013 Phase I ESA report (DEIR Appendix C-5, page 29). The commenter's assertion that imported soils were contaminated is mere speculation unsupported by observation or data.

Of the nine off-site local soil borrow areas, six were included in a beneficial project in a six-block area in downtown Petaluma (Sources 1-6 in Table 4 of the Iris Environmental 2013 ESA included in the DEIR as Appendix C-5). Soils in two of these areas had no contamination, and thus, no investigation or cleanup was necessary (Sources 1 and 2 in Table 4). The RWQCB Geotracker database indicates that the RWQCB oversaw the investigation and cleanup of the remaining four borrow areas within this six-block area (Sources 3 through 6 in Table 4). Contaminated soils at these properties were removed and disposed of at licensed landfills during redevelopment activities. Three of these cases are listed as closed on the Geotracker database (Sources 3, 5 and 6 in Table 4). After closure was granted by the RWQCB, excess clean soils that were subsequently excavated during construction of new buildings on these properties were moved to the project site (Iris Environmental, 2013).

The fourth case listed on the Geotracker database includes the Petaluma Theater Square project (DEIR Appendix C-5, page 15) that was cited in the comment. Theater Square was identified as Source 4 in Table 4 (Iris Environmental 2013). Soil managed during the development of Theater Square included a limited volume of soil with slight hydrocarbon impacts (Source 4 in Table 4). Soil removal from the Theater Square site was completed under RWQCB oversight. The 6,100 cubic yards of removed soil that is referenced in the comment were tested, and the results showed the soil was safe for residential use. The test results were shared with the RWQCB in a formal communication dated September 8, 2005 (DEIR Appendix C-5, page 375). The soil was not a hazardous waste. The soil simply had a hydrocarbon odor. Soil that had a hydrocarbon odor (approximately 1,000 of the total 6,100 cubic yards) was analyzed and disposed of at an off-site landfill. The remainder of the soil was cleared by the

RWQCB and was used in an off-site levee reconstruction project. Theater Square soils have been removed from the Project site.

Regarding Source 7 in Table 4, soils with no visible contamination generated during redevelopment of the Redwood Business Center in Petaluma were moved to the project site. Source 8 in Table 4 refers to soils originating from various projects performed for the City of Petaluma within the city limits that were moved to the project site. Surplus soils from these small projects were sampled and analyzed before they were moved to the project site. Source 9 in Table 4 consisted of uncontaminated concrete and roadbed material from a project in San Rafael, California that were moved to the project site.

As of October 2013, approximately 70 percent of the stockpiled soil had been removed from the project site, and the remaining soil is expected to be removed by the spring of 2014 (Iris Environmental, October 2013, page 5 in Appendix C-5 of the DEIR). As of June 2, 2014 most of the remaining stockpiled soils had been removed. The limited remaining stockpiled soils are concentrated along the western property line shared with the old Pomeroy facility. As described in DEIR Mitigation Measure HAZMAT-1, if any stockpiled soils remain on the project site at the time of development they will be sampled in accordance with the Department of Toxic Substances Control (DTSC) Clean Fill Material Information Advisory (DTSC 2001) (Clean Fill Advisory) prior to re-use as fill material on the project site. The Clean Fill Advisory was developed by DTSC to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material, including construction projects that will result in sensitive land uses such as residential development. The DEIR text has been expanded to discuss the above sources of soil stockpiles on the site; see the CHANGES TO DRAFT EIR (3.0) section of this document (pages 3-7 to 3-8). See also Response to Comment 4-26 for further discussion of Mitigation Measure HAZMAT-1.

4-23 Potential Sources of Contamination Require Further Investigation. The comment indicates that the three potential sources of contamination (cited in the previous three comments) require further investigation and more stringent mitigation to protect worker and public health.

Potential sources of contamination have been appropriately investigated dating back to 2001. Details related to past project site subsurface investigations are discussed on pages 4.5-7 to 4.5-11 of the DEIR and in the Responses to Comments 4-20, 4-21 and 4-24. See also Response to Comment 4-22 regarding stockpiled soils.

The comment also alleges that the Applicant, Basin Street Properties, has a history of encountering unexpected contamination during construction on at least one of its nearby project sites, the Theater Square site. This is not related to the investigations

conducted at the proposed project site, however the City provides the following information as clarification for the public. The Applicant's consultants have indicated that a comprehensive Phase II Environmental Site Assessment was prepared by Iris Environmental for the Theater Square site and dated October 28, 2004 in which the subject of impacted soils was clearly identified prior to development. The impacted soils were not "unexpected" as stated in this comment. Instead, they were known to exist and they were properly managed under the oversight of the RWQCB.

4-24 Lead and Environmental Screening Levels. The comment states that the soil samples in the area of the former Pomeroy storage materials were not adequately tested, particularly with reference to lead, which the comment asserts could be found at higher levels in soils closer to the surface. The comment also states that soil sampled from the top five feet in Trench 3 was not tested for lead despite proximity to boring K-2 that was four feet beneath the surface and contained a lead concentration of 75 mg/kg, which is just below the residential ESL. The comment states that this site should be further investigated as the area with the highest lead concentration is proposed for an active park.

Soils at the project site have been tested for the presence of lead as well as other potential chemicals of concern. None of the lead test results from anywhere on the project site exceeded the conservative ESL for residential use (see Table 4.5-1 on page 4.5-13 of the DEIR). The entire lead data set supports the finding that lead is not found at concentrations of concern at the project site. The residential ESLs assume that future users of a site would have full access to the soil for skin contact and for ingestion. Residential ESLs assume that a future resident is on site for 30 years. The residential ESLs are, therefore, protective of an incidental future park user who would be at the site for a much shorter period of time and hence have lower exposure levels.

In general, the project site has been tested for chemicals of concern in the locations of potential occurrence as a result of the 2001 Phase I review. Kleinfelder investigated the area used by Pomeroy for material and debris storage in 2001 (Kleinfelder 2001a). The Pomeroy concrete fabrication operation itself was located off the project site. Soils in boring locations K-2, K-3, and K-4 were appropriately analyzed for metals, total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), and/or polychlorinated biphenyls (PCBs) and samples from Trench-3 were analyzed for California Leaking Underground Fuel Tank (CA LUFT-5) metals, volatile organic compounds (VOCs), pesticides and PCBs, or TPH (including benzene, toluene, ethylbenzene, and xylenes [BTEX]). Concentrations of all analytes at these sampling locations were below the current ESLs for residential land use, with the exception of arsenic. As explained in the DEIR and Response to Comment 4-23, the Kleinfelder 2001 Phase II report concluded that the observed arsenic concentrations are similar to concentrations in native soils throughout the Bay Area, and are considered to reflect

ambient (background) conditions. As further explained in Response to Comment 4-20, this conclusion is also supported by a recent evaluation of background concentrations of arsenic in urbanized flatland soils within the Bay Area, completed at San Francisco State University in coordination with RWQCB staff, which established an upper-limit background concentration of 11 mg/kg.[9]

With respect to the lead concentration of 75 mg/kg detected at 4 feet below ground surface (bgs) at boring location K-2, although shallower soil samples were not collected at this specific location, or in nearby Trench T-3, an analysis of lead concentrations collected throughout the project site shows no evidence of elevated lead concentrations in project site soils from the surface to 4 feet below ground surface. Twenty-three samples were analyzed for lead in this interval. Concentrations ranged from a minimum of 5.5 mg/kg to a maximum of 75 mg/kg. The next highest lead concentration was 34 mg/kg. These data do not suggest that lead concentrations in project site soils present a risk to human health or the environment. The field observation of signs of "garbage" in a test trench (Trench T-3) does not translate to the presence of lead. The lead results in this trench were below residential ESLs (Iris Environmental, March 2014 included in Appendix E of this document).

Environmental conditions at the project site have been thoroughly investigated. As discussed in the 2013 Phase I (Iris Environmental 2013), Kleinfelder conducted a Phase I of the Site, in 1999 and identified several areas of concern that were further investigated in a Phase II investigation. During the Phase II investigation in 2000 (Kleinfelder, January 2001), 17 borings and three exploratory trenches were sampled. Samples were collected throughout the Site in areas including the former settling pond area, a storage area in the southwestern portion of the site that was used for storage of materials and supplies associated with Pomeroy operations, which was in use when the 1999 Phase I was conducted, and in the southern portion of the Site, which was planned for future residential use. Grab soil samples were also collected from the drainage channel.

Boring and grab soil samples from the investigation were analyzed for metals, total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), and/or polychlorinated biphenyls (PCBs). Trench soil samples were analyzed for California Leaking Underground Fuel Tank (CA LUFT-5) metals, volatile organic compounds (VOCs), pesticides and PCBs, or TPH (including benzene, toluene, ethylbenzene, and xylenes [BTEX]). As reported by Kleinfelder in 2001 (January, 2001), there were no detections of SVOCs, PCBs, or pesticides in the collected samples, and only one VOC

[9] Duvergé. December 2011. "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region." Online at: http://www.waterboards.ca.gov/sanfranciscobay/water_issues/available_documents/2011_Arsenic_Background_Duverge.pdf

(carbon disulfide) was detected at a concentration of 0.0089 mg/kg. ESLs have not been promulgated for this compound, but a comparison of the detected concentration with the USEPA Regional Screening Level (RSL) for residential soil (USEPA 2013) as an alternative risk-based criterion shows that the detected concentration is below the RSL of 820 mg/kg (Iris Environmental, March 2014 included in Appendix E of this document).

A total of 39 soil samples, including five trench samples, one grab surface sample, and 33 samples from borings were analyzed for TPH as diesel range hydrocarbons (TPH-d) and TPH as motor oil range hydrocarbons (TPH-mo) in the Kleinfelder Phase II investigation (Kleinfelder, January 2001). Of the 33 samples analyzed from borings, three were collected at depths of 1.5 to 2.0 feet below ground surface (bgs), seven were collected at depths of 3.5 to 4.0 feet bgs, 18 were collected at depths of 6.0 to 10.0 feet bgs, and five were collected below 10.0 feet bgs (11.0 to 20.0 feet bgs). While TPH-d and TPH-mo were detected in several soil samples, detected concentrations were below residential ESLs with the exception of two samples collected in Trenches 1 and 2. These detections are discussed further in the Response to Comment 4-25 below.

A total of 37 soil samples, including three trench samples, one grab surface sample, and 33 samples from borings were analyzed for metals in the Kleinfelder Phase II investigation (Kleinfelder, January 2001). Of the 33 samples analyzed from borings, 11 were collected at depths of 1.5 to 2.0 feet below ground surface (bgs), 11 were collected at depths of 3.5 to 4.0 feet bgs, eight were collected at depths of 5.5 to 10.0 feet bgs, and three were collected below 10.0 feet bgs (at 11.0 feet bgs). All detected concentrations of metals in soil samples were below the residential ESLs with the exception of arsenic, however the detected concentrations are within the range of background concentrations found in Bay Area soils as explained in Response to Comment 4-20.

Project site soils have been thoroughly investigated as described above. Of the compounds detected during the Kleinfelder Phase II investigation (Kleinfelder, January 2001), other than arsenic, all metals concentrations are below their respective ESLs for residential land use (RWQCB 2013b), and the detected arsenic concentrations are consistent with naturally occurring background conditions. Two detections of TPH-mo were above the ESLs for residential land use based on nuisance concerns, such as odor. These detections did not exceed ESLs for residential land use based on protection of human health (RWQCB 2013b). (These detections are further discussed in the Response to Comment 4-25 below); all other TPH concentrations are below all ESLs for residential land use.

In conclusion, testing data from the project site support the conclusion that there are no unacceptable threats to public health and the environment at the Project site, and there is no need for an environmental cleanup at the Project site. Soils in the area used

by Pomeroy for storage of materials and debris have been investigated, and other than background concentrations of arsenic, all chemical concentrations are below residential ESLs. Arsenic concentrations are consistent with documented naturally occurring background conditions. No lead detections exceed the residential ESL. The entire lead data set supports the finding that lead is not at concentrations of concern at the Project site. The comment further notes an observation that "signs of garbage" was noted in a trench log, but this does not correlate with the presence of lead as suggested in the comment. Lead concentrations in this trench were below residential ESLs. Project site soils have been thoroughly investigated, and the analytical results (other than two detections of TPH-mo) are either below the ESLs for residential land use or are consistent with naturally occurring background conditions. The two detections of TPH-mo were only slightly above residential ESL screening levels for nuisance concerns, such as odor; they were not above levels for the protection of human health. Soil samples were adequately tested as reported in the ESAs and evaluated in the DEIR. Results confirm that no concentrations exceed established thresholds or would present a potential health risk. Thus, no further testing or investigation is warranted.

4-25 Petroleum Hydrocarbon Concentrations and Environmental Screening Levels. The comment indicates that the DEIR improperly substituted petroleum hydrocarbon Environmental Screening Level (ESL) for industrial land use in its table of residential ESLs, which is an error and that the applicable ESL is 100 mg/kg. The comment further asserts that soil tested in the former treatment ponds exceeded the residential ESL, and there is a clear risk that this entire portion of the site exceeds the contamination threshold for public health. The comment claims that the DEIR's conclusion that petroleum hydrocarbons on the project site are not likely to cause a potentially significant impact is not supported by substantial evidence and must be revised.

The 2013 Iris Environmental Phase I ESA (October 23, 2013) included an evaluation of the analytical data collected by Kleinfelder in their 2001 Phase II ESA (Kleinfelder, January 2001) using ESLs for residential land use that were published by the RWQCB on May 23, 2013. These ESLs were in effect at the time the EIR Notice of Preparation was released (September 13, 2013) and were also in effect at the time the Draft EIR was circulated for public review on December 19, 2013. Therefore, the DEIR correctly presented the ESLs for residential land use that were in place at the time that the DEIR was prepared and released. The DEIR did not incorrectly substitute the ESLs for commercial/industrial land use.

Subsequent to the release of the DEIR, the RWQCB revised the ESLs on December 23, 2013. The comment also is incorrect with regards to the changes in ESLs. Only one ESL screening level for TPH changed as a result of the December 2013 revisions. The ceiling value for TPH as motor oil (TPH-mo) dropped to 100 milligrams per kilogram (mg/kg) as stated in the comment, from 500 mg/kg. Ceiling values are not based on

human health effects, but are driven by nuisance concerns such as odor. Other TPH ESL values for residential land use, including those for protection of human health, were not revised in the December 2013 ESL revisions, and remain the same as those that were in effect when the DEIR was issued. As shown in the table below, the maximum TPH-d and TPH-mo concentrations are well below both the human health based ESLs for residential land use and for construction workers. Only two soil samples have TPH-mo concentrations that slightly exceed the nuisance-based residential ESL ceiling value (Iris Environmental, March 2014 included in Appendix E of this document). The DEIR text has been revised to include the changes in the ESL and the following discussion; see the CHANGES TO DRAFT EIR (3.0) section of this document (pages 3-4 to 3-7).

Chemical	Maximum Detected Concentration (mg/kg)[1]	ESL for Residential Land Use (mg/kg) Ceiling Value[2]	ESL for Residential Land Use (mg/kg) Human Health[3]	ESL for Construction Workers (mg/kg)[4]
TPH-d	88	100	240	900
TPH-mo	220	100	10,000	28,000

[1] Source: Phase II Soil and Groundwater Investigation, Pomeroy Site, Petaluma, California (Kleinfelder 2001).

[2] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (RWQCB, December 2013); Table A-1: Shallow Soil Screening Levels (<3m bgs), Residential Land Use, (groundwater is not a current or potential source of drinking water).

[3] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (RWQCB, December 2013); Table K-1: Direct Exposure Soil Screening Levels, Residential Exposure Scenario.

[4] ESL = Environmental Screening Level (Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (RWQCB, December 2013); Table K-3: Direct Exposure Soil Screening Levels, Construction/Trench Worker Exposure Scenario.

Evaluating the TPH data and drawing conclusions from the entire data set leads to a conclusion that TPH is not present at the project site at concentrations of concern. Thirty-nine soil samples, including five trench samples, one grab surface sample, and thirty-three samples from borings were analyzed for TPH as diesel range hydrocarbons (TPH-d) and TPH as motor oil range hydrocarbons (TPH-mo) in the Kleinfelder Phase II investigation (Kleinfelder, January 2001). TPH-d was not detected in nine of the thirty-nine samples analyzed. Concentrations of TPH-d in the remaining thirty samples ranged from 1.0 mg/kg to 88 mg/kg, with an average concentration of 10.5 mg/kg.

TPH-mo was not detected in twelve of the thirty-nine samples analyzed. Concentrations of TPH-mo in the remaining twenty-seven samples ranged from 6.3 mg/kg to 220 mg/kg, with an average concentration of 32.8 mg/kg. TPH concentrations at the project site are well below the ESL values that are protective of human health for both residents and construction workers. These TPH-mo concentrations do not pose a

health risk to either future residents or to construction workers and these conclusions are fully supported by existing data.

The comment also states that "the laboratory notes for these soil samples indicate that oil and diesel range compounds were 'significant'." A detailed review of this specific laboratory report shows that what is being termed "significant" is actually related to the laboratory's evaluation of the chromatogram itself. This lab note refers to the chromatogram which is generated during the analytical procedure. The referenced note is a qualitative evaluation, confirming that the chromatogram showed detections of TPH compounds in the diesel and motor oil ranges that were significant, or real. It is not a quantitative evaluation of the concentrations detected during the laboratory analysis. The laboratory notes do not offer a value judgment on the magnitude of hydrocarbon detection. Thus, the comment misconstrues the meaning of the laboratory data sheet note.

In conclusion, the ESLs for residential land use were properly presented in the DEIR, and the DEIR did not incorrectly substitute the ESLs for commercial/industrial land use. The ESLs were revised on December 23, 2013, after the Project Notice of Preparation was released on September 13, 2013, and after the Draft EIR was released for public review on December 19, 2013. The ESL for residential land use for TPH-mo based on nuisance concerns, such as odor, was lowered from 500 mg/kg to 100 mg/kg in the revised ESLs. TPH human health based ESLs that are protective of residents and construction workers did not change. TPH-mo concentrations in two of thirty nine samples analyzed are slightly above residential ELS based on ceiling values for nuisance concerns such as odor; the TPH concentrations detected in Project site soils are well below human health based ESLs, and the TPH data set taken as a whole supports the finding that TPH is not present at the Project site at concentrations of concern. Furthermore, the field and laboratory test results from the 2001 Phase II ESA as described in this response provide the substantial evidence, e.g., concentration levels, to support the conclusions relative to ESLs.

4-26 Potentially Contaminated Stockpile Soils and Mitigation. The comment states that the mitigation regarding potentially contaminated soils brought to the project site is inadequate and that the mitigation provides no agency oversight, timeframe for testing, health thresholds against which samples must be compared, or delineation of the extent and location of stockpiled soils. The comment states that the mitigation (HAZMAT-1) should be revised to require soils testing prior to the issuance of grading permits for the project, to require that such testing be conducted under the oversight of a regulatory agency, that all soils stockpiled or spread on the project site be subject to this mitigation, and that soil tests be compared against the applicable residential ESLs.

As of October 2013, approximately 70 percent of stockpiled soils had been removed from the Project site, and the remaining soils are expected to be removed by the spring of 2014 (Iris Environmental 2013). As of June 2, 2014 most of the remaining stockpiled soils had been removed. The limited remaining stockpiled soils are concentrated along the western property line shared with the old Pomeroy facility.

As described in DEIR Mitigation Measure HAZMAT-1, if any stockpiled soils remain on the project site at the time of development they will be sampled in accordance with the Department of Toxic Substances Control (DTSC) Clean Fill Material Information Advisory (DTSC 2001) (Clean Fill Advisory) prior to re-use as fill material on the project site. The Clean Fill Advisory was developed by DTSC to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material, including construction projects that will result in sensitive land uses such as residential development. The following process established in the Clean Fill Advisory would be applied to the project through Mitigation Measure HAZMAT-1. Any stockpiled soils that are identified for potential reuse on the project site will be sampled at a frequency based on the volume of material under consideration as defined by the Clean Fill Advisory. The collected samples will be analyzed for the target compounds presented in the Clean Fill Advisory, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), metals, and asbestos. If the stockpiled soil is shown to contain chemical concentrations above the most recent ESLs developed by the RWQCB for residential land use, it will be removed from the Project site.

Regulatory agency oversight for testing of import soils is not required, and not necessary provided that the recommendations included in the Clean Fill Advisory are followed. As indicated above, Mitigation Measure HAZMAT-1 requires that the recommendations in the Clean Fill Advisory for sampling frequency and target analyses be followed. If the quality of stockpiled soil does not meet applicable RWQCB ESLs in place at the time of testing, that soil will be removed from the Project site. This mitigation measure will provide an effective means to evaluate and appropriately manage any stockpiled soils, if any, that may be potentially reused on the project site, will prevent exposure to hazardous materials potentially contained in stockpiled soils during construction, is protective of human health, and is consistent with proper site management procedures. The mitigation measure as presented imposes the DTSC recommendations as requirements and provides adequate mitigation (together with Mitigation Measure HAZMAT-2) to reduce any potential impact from stockpiled soils to less than significant.

Specific actions required for implementation of mitigation measures, as well as identification of the entities responsible for and timing of implementation are specified in the Mitigation Monitoring and Reporting Program (MMRP) that is required

pursuant to CEQA. The MMRP is included in Appendix A of this Final EIR document. The referenced Mitigation Measure HAZMAT-1 will be required to be implemented prior to issuance of grading permits as suggested in the comment.

4-27 Soil and Groundwater Management Plan Mitigation Measure. The comment indicates that the mitigation measure requiring a soil and groundwater management plan will not protect worker health because it has been demonstrated that the site contains potentially affected soil and groundwater. The comment states that a voluntary cleanup agreement with the Regional Water Quality Control Board (RQWXB) or DTSC should be required before construction begins.

Soil chemical detections are well below construction worker ESLs, demonstrating that Project site soils do not present a health risk to construction workers. (See Response to Comment 4-28 regarding ESLs related to construction workers.) Therefore, no voluntary cleanup agreement or cleanup is required or appropriate. The comment implies that the soil and groundwater management plan will be required only in the event that potentially affected soil or groundwater is encountered during construction. This is not correct. A soil and groundwater management plan will be prepared in advance of development and will provide a clear framework for response to discovery of any unknown conditions that may be encountered during redevelopment activities at the Project site. As indicated in the DEIR (page 4.5-19), elements of the soil and groundwater management plan shall include:

- Soil management: Provide guidelines for identification and analysis of unknown environmental conditions and define responsibilities for management of discovery of unknown features or site conditions
- Groundwater management: Prohibit use of groundwater encountered during construction activities for dust control and allow discharge of groundwater to surface waters under a permit from applicable agencies. All permit conditions must be satisfied prior to discharge.
- Preparation and implementation of a site-specific Environmental Health and Safety Plan by the general contractor to ensure that appropriate worker health and safety measures are in place during redevelopment activities. Elements of the plan must include all practices and procedures necessary to comply with all new and existing Federal, California, and local statutes, ordinances, or regulations regarding health and safety. Specific components of the EHASP must include the following; identification of site hazards; assignment of specific health and safety responsibilities for site work; establishment of appropriate general work practices; establishment of control zones and decontamination procedures; job hazard analysis / hazard mitigation procedures; air monitoring; required personal protective and related safety equipment; contingency and Emergency information.

Thus, no voluntary cleanup agreement is required to protect worker health since chemical detections in project site soils are below the RSLs established for construction workers. In any case, a soil and groundwater management plan will be prepared prior to commencement of construction activities, and will be implemented once construction begins. The soil and groundwater management plan will provide a clear framework for dealing with any unknown soil or groundwater conditions that may be encountered. This mitigation measure is protective of worker health and safety and together with Mitigation Measure HAZMAT-1 is adequate to reduce any potential impact to worker health to less than significant.

4-28 Metals and Petroleum Hydrocarbons in Groundwater. The comment states that the groundwater testing revealed high levels of toxic metals and petroleum hydrocarbons. The comment states that the 2012 Environmental Site Assessment (ESA) compared groundwater contaminants with applicable residential ESLs for groundwater that would not be used as a drinking water source and found concentrations of metals and petroleum hydrocarbons higher than applicable ESLs and that groundwater ESLs are for protection of aquatic resources in situations where there may be discharges of groundwater to surface water. The comment indicates that the 2013 ESA compares groundwater contaminant levels with gross contamination ESLs, which are intended to apply to groundwater that does not meet drinking water quality requirements and that the project may involve discharges of groundwater to the Petaluma River that exceed the applicable ESLs for the protection of aquatic resources.

Grab groundwater samples were collected for analysis as part of the Kleinfelder Phase II subsurface investigation (Kleinfelder, January 2001). These grab groundwater samples were not filtered and contained visible sediment. The sediment was extracted with the liquid groundwater sample and analyzed in accordance with USEPA analytical protocols. Therefore, the groundwater test results noted by Kleinfelder for metals and total petroleum hydrocarbons (TPH) represent measurement not only of metals dissolved in the groundwater, but also of metals and organic materials in the entrained sediment which resulted in reported groundwater concentrations appearing to be higher than they actually are. The laboratory analytical note (note I on page 447 of Appendix C-5) for metals analyses describes the samples as "liquid sample that contains greater than ~2% sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect [sic] reported metal concentrations." This lab note refers to the chromatogram which is generated during the analytical procedure. The referenced note is a qualitative evaluation, confirming that the chromatogram showed detections of TPH compounds in the diesel. It is not a quantitative evaluation of the concentrations detected during the laboratory analysis or a finding of significance in the CEQA context. As indicated in the DEIR (page 4.5-12) and Response to Comments 4-20 and 4-25, soils at the project site do not have

unacceptable concentrations of metals or TPH; thus, there is no evidence to support a finding that groundwater beneath the Project site would be contaminated from site conditions.

Use of gross contamination ESLs to evaluate groundwater beneath the project site is appropriate since discharge of groundwater from the project site to ground or to surface waters is not proposed and is unlikely. This is because groundwater will not be used as a drinking water source. Further, groundwater encountered during development activities will either be trucked off site for disposal or discharged to the sanitary wastewater system. Contrary to the comment, the project would not be expected to result in groundwater discharge to the Petaluma River. Under these circumstances, the gross contamination ESLs used in the 2013 ESA were appropriate.

The comment also notes that the EIR does not commit the Applicant to obtaining and complying with Waste Discharge Requirements imposed by the RWQCB with reference to page 4.6-13 of the DEIR. This citation is the Hydrology and Water Quality section of the DEIR that addresses storm water quality. The project proposes discharge of stormwater into the Petaluma River via an existing storm drain, and the EIR notes that modified or new waste discharge requirements may be required by the RWQCB for this discharge. Since it is a state regulatory requirement, a specific mitigation is not required, and in any case, does not involve discharge of groundwater to the river.

In conclusion, the DEIR does not "miss the mark" as suggested in this comment, and there is no "sweeping the problem under the rug" as suggested in the comment. Instead the DEIR appropriately relies on current science and appropriate regulations and guidance to support its findings and conclusions. As discussed in detail in the DEIR (section 4.5), supporting technical studies, and in the above responses to comments, environmental conditions at the project site have been thoroughly and appropriately investigated. The environmental investigations have shown that concentrations of chemicals detected on the project site are below human health based Environmental Screening Levels established by the Regional Water Quality Control Board or are consistent with background concentrations. Only two detections of total petroleum hydrocarbons in the motor oil range are slightly above nuisance-based screening levels. In summary, the entirety of technical investigations and findings indicates that the Project site is fully safe and appropriate for its intended use.

4-29 Lack of Evidence – Request to Recirculate DEIR. The comment states that the City lacks substantial evidence to support its conclusions that all potentially significant impacts related to hazardous materials exposure will be mitigated to a less-than-significant level and that further investigation, disclosure and mitigation is needed in a revised and recirculated DEIR. See Response to Comment 4-20, 4-21, 4-22, 4-24 and 4-28 regarding hazardous materials reviews and conclusions. See Response to Comment 4-

23 as to why further investigation is not warranted as identified contaminants do not exceed current Environmental Screening Levels. See Response to Comment 4-25 regarding comparison of detected contaminant concentrations with current ESLs. See Response to Comments 4-26 and 4-27 regarding mitigation measures and explanation of why they are adequate to protect public health and safety. The preceding responses to comments provide further clarification in response to specific comments regarding hazardous materials and contamination, but do not meet any of the tests for recirculation of the DEIR as explained in Response to Comment 4-37. The identified responses to comments collectively, as well as the identified impact determinations and any related mitigation measures are reasonable and supported by substantial evidence in the record.

4-30 Geotechnical Reports and Geotechnical Peer Review. The comment refers to five geotechnical reports prepared for the project and indicates that measures to address bay mud, liquefaction and other geotechnical challenges will not work. The comment further indicates that the DEIR mitigation (GEO-3) to require a "third party peer review" of the geotechnical reports to verify measures to mitigate against soil settlement constitutes deferral to develop feasible and proven mitigation measures with measurable standards for compliance in the DEIR itself.

The DEIR Appendix C-4 includes the Preliminary Geotechnical Report that was initially prepared in 2006 and subsequent reviews and updates. Each review builds upon the initial geotechnical report and introduces additional recommendations based on modified site design or updates to the grading plan that occurred as the project became further defined. The combination of the Preliminary Geotechnical Report, along with the subsequent memo updates adequately identifies potential geotechnical concerns onsite and presents recommendations to address the identified geotechnical hazards. In particular, the 2013 memo (page 49 of DEIR Appendix C-4) specifically addresses differential settlement, liquefaction, and riverbank instability, and sets forth recommendations to address potential impacts due to these geotechnical concerns.

Differential Settlement: The DEIR identifies a potentially significant impact due to soil settlement under Impact 4.4-2 on page 4.4-9. As described therein the concerns associated with soil settlement are "distress to new residential structures, disruption of underground gravity flow unities (storm drain and sanitary sewer), and distress to new pavements and flatwork." Page 4.4-10 of the DEIR specifies common mitigation measures including the use of deep foundations, preloading, soil treatment such as densification, the use of stiffened foundation systems, or a combination of one or more of these measures. On page 4.4-11 the use of lightweight fill is also identified as a method to equalize new fill loading and limit differential settlement.

It is discussed in the DEIR that the differential settlement concerns are largely limited to the area in the southern portion of the site where fills would be thickest (greater than 2 feet and up to 10 feet). All other area of the project site would contain less than 2 feet of fill. In order to accommodate increased fill loads, the area proposed for residential development will be subject to specific design measures as set forth in Mitigation Measure GEO-2 including stiff, shallow foundations systems consisting of stiff matt slabs or rigid, interconnected grade beams. Impact from differential settlement to streets and utilities are addressed through the use of flexible coupling and connections that allow for movement. Mitigation Measure GEO-2 also provides for the use of deep foundation for heavier structures planned in the northern portion of the site to address differential settlement. These are standard geotechnical practice that as stated in the DEIR Appendix C-4 letter (page 2) have been utilized in several Bay Area Projects constructed over Bay Mud such as Harbor Bay Isle in Alameda, Bel Marin Keys in Marin County, and development in Foster City.

The recommendations set forth in the Geotechnical reports, and imposed as project requirements through the mitigation measures, provide proven methods to address concerns relating to differential settlement. These measures would sufficiently protect new structures onsite, roadways, and utilities from distress and reduce settlement impacts to less than significant levels. The design level geotechnical report will provide for specific recommendations for each aspect of development. Should a third party review identify recommendations that are infeasible, then Mitigation Measure GEO-3 (as amended) provides for two proven options to manage settlement including lightweight fill and preloading. (Also see the Response to Comment 4-47 below.)

Ground Shaking and Liquefaction: The DEIR identifies a potentially significant impact due to strong seismic shaking and liquefaction under Impact 4.4-1 on page 4.4-7. As described therein the concerns associated with liquefaction are due to the loss of soil stability and can result in settlement and damage to structures. It is noted that Bay Mud is not particularly susceptible to liquefaction, but that a channel meander was identified that could represent a localized risk. Accordingly, Mitigation Measure Geo-1 (page 4.4-9) requires implementation of the recommendations set forth in the Geotechnical Reports including structural foundation systems, such as mat slabs or rigid interconnected beam for lighter weight structures, and the use of deep foundation systems for heavier structures. Furthermore, standard requirements established by the California Building Code are also provided in the Geotechnical reports. The DEIR appropriately concludes that with these measures potential impacts associated with liquefaction would be reduced to less than significance levels. (Also see the Response to Comment 4-48 below.)

Lateral Spreading: The DEIR addresses lateral spreading on page 4.4-7, which can occur during ground shaking on slopes such as the bank of the Petaluma River. The

project provides for a 100-foot setback from the Petaluma River, which avoids any impacts associated with this geotechnical concern. Should any structures be developed within the 100-foot setback it is noted that deep foundation systems would mitigate risks due to lateral spreading. Mitigation Measure Geo-1, as described above, provides for deep foundations and would reduce impacts from lateral spreading to less than significant levels. (Also see the Response to Comment 4-49 below.)

The DEIR has done a full assessment of potential impacts and provided direction for implementation at the design level stage. All of the potentially significant impacts related to seismic hazards, i.e., liquefaction, soil settlement, expansive soils, the onsite presence of highly compressible bay mud, and erosion are analyzed in Impacts 4.4-1, 4.4-2, 4.4-3 and 4.4-4 of the DEIR (pages 4.4-6 to 4.4-14) and are accompanied by specific mitigation measures that would reduce impacts to levels below significance. The mitigation measures set forth to address each of these potentially significant impacts appropriately relies upon the recommendations established in the geotechnical reports and imposed as requirements through the mitigation measures.

For example, specific design measures such as the use of deep foundations is recommended for development in the northern portion of the site where compressible layers have a thickness of 15 to 20 feet. It is noted that deep foundations for residential development would not be cost effective in the southern portion of the site, due to the depth of bay mud, which is reported to be between 35 and 40 feet. Lightweight structures such as residential units will utilize stiff, shallow foundation systems to avoid distress caused by settlement. Additionally, where deep foundations are infeasible, the DEIR identifies the use of lightweight fill as an option to "equalize total settlement" (page 4.4-11).

Contrary to the commenter's assertion, mitigation measures are identified in the DEIR that are feasible, effective, and consistent with standard industry practice. The DEIR proposes mitigation measures that address identified significant impacts. The DEIR addresses each of the geotechnical issues through impact 4.4-1 (seismic related hazards and liquefaction), impact 4.4-2 (soil settlement/bay mud), impact 4.4-3 (expansive soils), and impact 4.4-4 (erosion). Mitigation Measures GEO-1 and GEO-2 identify feasible design measures that reduce potentially significant impacts to less than significant levels. Specifically, a list of potential approaches such as the use of mat slabs for residential structures, deep foundations or RAP for heavier buildings, the use of lightweight fills, among others are identified. These measures would be effective in avoiding or lessening the significant impacts and are reasonably expected to be feasible and effective. Presented as an array of potential approaches, their application across the various elements of the site will be specified at the design stage. Although the specific type of mitigation that will be used for each project component and phase has not yet been selected, a menu of options approach is provided, which allows for

the application of various techniques once the design level analysis is complete. Thus, the geotechnical report and supporting memos sufficiently characterize the onsite geotechnical constraints, and adequate mitigation measures are included in the DEIR that address the geotechnical concerns onsite.

The commenter's assertion that the required peer review outlined in Mitigation Measure GEO-3 constitutes deferred mitigation is incorrect. It is not considered deferred mitigation to conduct design level analysis at the final engineering stage and when construction and buildings plans are developed in order to determine the specific application at the design level. Although the final design-level geotechnical reports have yet to be prepared, the preliminary geotechnical investigation adequately identifies and assesses the magnitude of potential geologic and geotechnical impacts and presents feasible mitigation measures. Mitigation Measure GEO-3 specifically relates to placement of fills up to ten feet near the future Caulfield Lane Bridge. The measure has been modified in order to provide clarity on the timing and focus of the peer review and subsequent actions that may be taken as a result of this peer review. The measure has been revised as set forth in the SUMMARY OF IMPACTS (2.0) and CHANGES TO DRAFT EIR (3.0) sections of this document.

In response to the comment, a peer review of the Preliminary Geotechnical Report and associated memos was completed in May 2014 by RGH Consultants as part of the preparation of this Final EIR and is included in Appendix B of this document. The peer review found that the Preliminary Geotechnical Report and subsequent reviews used appropriate methodology, reached reasonable conclusions about geotechnical constraints, and set forth feasible design measures that would reasonably be expected to avoid or substantially reduce potential impacts. Specifically the peer review letter states, "the level of work completed to date is appropriate for the DEIR stage of the project. The documents have identified hazards, recommended additional work where necessary, and provided concept measures to mitigate the hazards."

A peer review has been conducted as anticipated in DEIR Mitigation Measure GEO-3 and affirms that the Preliminary Geotechnical Report is adequate, appropriately identifies potential impacts and sets forth feasible design recommendations that would reduce potential impacts associated with the Geotechnical concerns onsite to less than significant levels. Section 4.4 of the DEIR, including Mitigation Measure GEO-3, has been revised to include a summary of this review; see CHANGES TO THE DRAFT EIR (3.0) section of this document.

As indicated above, the revised Mitigation Measure GEO-3 specifies the focus and timing of a subsequent peer review that will be performed for the design level Geotechnical Report. However for CEQA purposes, the level of geotechnical information that has been provided in the DEIR is sufficient to adequately characterize site conditions,

analyze potential significant impacts, and identify a range of mitigation measures that would be feasible to reduce potential impacts to a level below significance. This has been affirmed by an independent third party peer review. Therefore, the DEIR adequately identifies measurable standards for compliance and does not defer mitigation based on a future study.

4-31 Issues Not Addressed in DEIR. The comment claims that the DEIR did not address several issues on the previously prepared Initial Study/Mitigated Negative Declaration and incorporates commenter's prior letter with these comments. These comments are addressed in Response to Comments 4-38 through 4-65.

4-32 Boathouse Location and Flood Hazards. The comment indicates that the site of the City's future boathouse is within the FEMA flood hazard zone, which is prohibited, as are "docks and other improvements that may interfere with the elevation of water during a flood." Contrary to the commenter's assertion, all proposed lots and parcels, including Parcel D (boathouse parcel) would be located outside of the 100-year floodplain. The flood hazard discussion in Section 4.6 of the DEIR considered flooding risks including the effects due to the 100-year floodplain. Impact 4.6-3 of the DEIR states that the potential impacts due to flooding of the Petaluma River would be considered a less than significant impact. This conclusion is based upon the 100-year floodplain (FIRM published February 19, 2014) and the site's finished elevations. No project development would be in the 100-year floodplain.

In addition to the recently published FIRM, the Federal Emergency Management Agency (FEMA) completed the draft San Francisco Bay Area Coastal Study, which remaps the flood hazards of the area including the subject project site (see DEIR page 4.6-15). The draft maps from the Coastal Study indicate that the 100-year flood surface elevation proximate to the Riverfront project site will increases from 9 feet NAVD to 10 feet NAVD.

As described in the DEIR (page 4.6-15) the project site is located outside of the 100-year floodplain under a base flood elevation of 9 feet and the 10 feet alike. In regards to Parcel D in particular, the finished grade elevation would range from 15 to 16 feet, which is sufficiently elevated outside of the current 100-year floodplain at 9 feet NAVD and would remain so in the event that the Coastal Study results in remapping to the 10 foot NAVD elevation. It should be noted that although Parcel D will be created as part of the proposed Tentative Tract Map, the development of a boathouse is not part of the project. The design and exact configuration of the boathouse as well as any associated dock or launch facility is unknown at this time and cannot be analyzed with any level of certainty as it would be presumptive and speculative. Although a dock and/or launch area design are unknown, for discussion purposes it should be mentioned that floating docks built on piers are able to adjust along with

surface water elevations that change pursuant to tides and flooding events. Such a mechanisms would be an effective means to ensure that structures within the floodplain do not interfere with the elevation of the water during a flood. Again, the design, orientation and other components on Parcel D are unknown at this time and cannot be assessed with a any certainty. Any development on Parcel D will be subject to subsequent discretionary review by the City through Site Plan and Architectural Review, with related CEQA review including potential impacts associated with flooding and will be designed and mitigated accordingly. Any approval of the Riverfront project would not constitute or require approval of a future boathouse facility; the City would retain full discretion over any future application, including the ability to impose CEQA mitigations.

Although the project site is located adjacent to the Petaluma River, no project development is in the 100-year floodplain. Similarly, the finished grade of any building proposed in the future on Parcel D could reasonably be sited outside of the 100-year floodplain. Therefore, like the project, impacts associated with risk of flooding due to the 100-year floodplain would be less than significant for Parcel D. Thus, the DEIR adequately addresses potential floodplain impacts on Parcel D and no further analysis is warranted.

4-33 Boathouse Foundation. The comment states that the DEIR indicates that the boathouse will require a deep foundation to avoid potential damage from soil lurching, but that the geotechnical reports indicate that deep foundations are not an option on the "river-side" portion of the site. Contrary to the comment, this type of design (deep foundations) would be appropriate for a future boathouse, but as described in the geotechnical report and subsequent reviews may be infeasible for the lighter residential structures. Accordingly, the DEIR reports (on page 4.4-8) that "stiff shallow foundation systems for light residential structures constructed over bay mud deposits has been a standard engineering practice in the Bay Area for many years." While deep foundations may not be feasible for residential structures, this type of design would be feasible for a future boathouse. In assessing Parcel D, Miller Pacific Engineering Group found that:

> *"Although not part of the project, it is our opinion that the development of structures within 100 feet of the Petaluma River is feasible from a geotechnical standpoint. The foundations for future structures near the river bank can be designed to take into account the risk of lateral spreading. Structures along the river bank may need to be supported on deep foundations extending through the Bay Mud to mitigate the lateral spreading risk."* (Pacific Miller Engineering Group, December 2013)

Therefore, the DEIR correctly characterizes the various types of geotechnical designs that would be effective for the different buildings proposed for development onsite as well as a potential future boathouse. It should be reiterated that the future boathouse is not part of the subject project and potential Geotechnical concerns associated with stability of a boathouse can not be determined with any certainty until a specific design for future structures has been proposed. Accordingly, the future boathouse's susceptibility to lateral spreading and specific geotechnical design recommendation will be further assessed by the subsequent environmental document that will be required at the time development of a boathouse on Parcel D is proposed.

4-34 Relocate Boathouse As An Alternative. The comment states that the potential need to relocate the boathouse away from its currently designated site should have been addressed in the DEIR as a project alternative to avoid construction in a "flood hazard zone and/or soil hazard zone." Such an alternative is not necessary to examine as no significant flood hazard impacts have been identified, and geotechnical impacts can be mitigated as explained in Responses to Comments 4-32 and 4-33. Although any future boathouse project will be analyzed when proposed, the DEIR clarifies that the Parcel D site would have a less than significant flooding risk and is feasible, contrary to the commenter's assertion.

4-35 Fair Share Payment of Future Bridge Construction. The comment states that the DEIR makes "vague" references to traffic impacts, but does not require the Applicant to contribute its fair share toward the cost of the Caulfield bridge extension to "south Petaluma."

Future construction of a bridge is included in the City's General Plan, and the proposed project design accommodates this future improvement as indicated on page 3-11 of the DEIR. This future improvement is specifically identified in the list of improvements and costs developed as part of the City's "Traffic Mitigation Fee Program Update" (page 24, 26, 29) for which traffic impact fees were developed.[10] Like all development in the City, the project is required to pay traffic impact fees prior to issuance of building permits (Municipal Code Chapter 19.24). No mitigation measure is needed as such payment is existing regulatory requirement and is intended to fund the future bridge extension, among other improvements. As part of the cumulative analysis, however, the DEIR includes Mitigation Measure CUM-1, which requires the project to contribute its share (21%) to the future cost of signalization of the Hopper Street/Caulfield Lane intersection; payment will be required concurrent with recordation of the Final Map. This contribution is required in the future when the bridge is constructed, as this intersection was not included in the traffic impact fee

[10] Fehr and Peers. August 2012. "City of Petaluma Traffic Mitigation Fee Program Update".

program and would not otherwise be covered through the collection of traffic impact fees.

4-36 Rail Station Traffic. The comment states that the traffic analysis "improperly dismisses the significant amount of traffic that will likely be generated by the City's new rail station." However, the Downtown Petaluma SMART station and associated traffic is addressed on page 5-9 of the DEIR as part of the cumulative traffic analysis and in the DEIR Appendix C-7 (November 13, 2013 traffic memo). As indicated, traffic associated with the station is accounted for in the City of Petaluma's traffic model, which was used as the basis for the project analysis of near-term and long-term cumulative traffic impacts. The traffic review in Appendix C-7 explains that the station is not intended to serve park-and-ride users, but is intended to be used primarily by residents, visitors and employees in the downtown area who walk or ride shuttles to the station. However, some traffic in the vicinity of the station may result, although the station will also reduce commuter-related automobile traffic oriented to and from Highway 101.

Based on parking estimates provided in the Station Area Master Plan, which also indicates that in the near-term, station parking would likely be located along D Street, the traffic consultant estimates that station traffic would result in approximately 36 AM peak hour trips and 38 PM peak hour trips. As discussed in Appendix C-7 and reported on page 5-9 of the DEIR, the Lakeville Street/D Street intersection would operate at an unacceptable level of service (LOS) of E during the PM peak hour under near-term cumulative conditions with the project and rail station traffic. This is the same LOS that was reported in the project traffic report without the station traffic. While there would be a slight increase in delay (less than one second) with the addition of estimated rail station traffic, neither the amount of traffic nor the resulting effects on the intersection is substantial. Furthermore, cumulative traffic impacts were considered in the City's General Plan EIR, which accounted for the proposed project as described on page 5-8 of the DEIR. Thus, the amount of traffic expected to be generated by the Downtown SMART rail station was not significant and was accounted for in the cumulative traffic analysis.

4-37 DEIR Analyses and Recirculation. The comment states that the DEIR fails to include an adequate analysis of and mitigation measures for the project's potentially significant impacts and its conclusions lack substantial evidence as required by CEQA. The comment further states that the DEIR must be revised and recirculated. As explained in the preceding Responses to Comments, all significant impacts were evaluated based on technical studies conducted by appropriate professionals. Minor revisions and clarification has been provided in response to some of the comments.

The State CEQA Guidelines section 15088.5 requires a lead agency to recirculate an EIR when "significant new information" is added to an EIR after public review but before certification. New information is not significant unless the "EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect." "Significant new information" that would require circulation according to this section of the State CEQA Guidelines include:

- A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted to reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impact of the project, but the project proponents decline to adopt it.
- The DEIR was so fundamentally inadequate that meaningful public review and comment were precluded.

The changes to the Draft EIR as a result of the responses to comments have not identified a new environmental impact or a substantial severity in an identified impact. The changes, revisions, and clarifications do not result in "significant new information," do not result in any of the above conditions that would warrant recirculation.

4-38 Attachments to Comment Letter. Attachments A through D are appended to the comment letter, and are so noted. Attachment E consists of comments on the previously prepared Initial Study and Mitigated Negative Declaration and are provided responses below.

THE FOLLOWING RESPONSES ARE TO COMMENTS ON INITIAL STUDY/MITIGATED NEGATIVE DECLARATION [dated June 3, 2013] INCLUDED AS ATTACHMENT E TO LETTER 4

4-39 Comments on IS/MND. The comment states that the Initial Study/Mitigated Negative Declaration (IS/MND) does not adequately describe existing conditions. The IS/MND were prepared in June 2013, and the City subsequently revised the Initial Study and issued a Notice of Preparation to prepare an Environmental Impact Report on September 17, 2013. Thus, comments on the former IS/MND are no longer applicable. Where specific comments address applicable project analyses, responses are provided.

4-40 Timely Provision of Information. The comment references a Public Records Act request to the City and indicates that the City was not responsive to these requests at the time the June 2013 Initial Study/Mitigated Negative Declaration were prepared. All documents were provided to the commenter and also posted on the City's website on the page with all the Riverfront project documents. The comment is not pertinent to the DEIR analyses.

4-41 Preparation of An EIR is Required. The comment provides background on an EIR and a mitigated negative declaration, and states that "substantial evidence" shows there may be potentially significant impacts, and thus, a fair argument can be made that and EIR should be prepared. The comment is on the former IS/MND, and is no longer relevant as an EIR has been prepared.

4-42 Petroleum Hydrocarbon Concentrations in Soil and Groundwater. This comment references the former Initial Study analyses regarding concentrations of petroleum hydrocarbons in sampled soils and groundwater. The analyses were subsequently revised in the DEIR based on a 2013 Environmental Site Assessment. Petroleum hydrocarbon concentrations are discussed on pages 4.5-8 to 4.5-14. See also Responses to Comments 4-24 and 4-25 above.

4-43 Soil Stockpiles. This comment references the former Initial Study analyses regarding potential soil contamination of stockpiled soils. The analyses were subsequently revised in the DEIR based on a 2013 Environmental Site Assessment. Stockpiled soils are discussed on pages 4.5-15 and 4.5-17 to 4.5-18 of the DEIR. See also Response to Comment 4-2 above.

4-44 Soil and Groundwater Samples for Hazardous Materials. The comment refers to the 2012 Environmental Site Assessment (ESA) that was summarized in the June 2013 IS/MND and addresses diesel hydrocarbons, lead, volatile organic compounds, and potential metal concentrations in groundwater. An ESA prepared in October 2013 supersedes this former ESA, and is summarized on pages 4.5-11 to 4.5-15 of the DEIR. The 2013 ESA is included in Appendix C-5 of the DEIR. This information provides additional analyses based on screening levels in effect at the time the DEIR was prepared. Thus, the comment is no longer relevant. See also Response to Comment 4-25 regarding petroleum hydrocarbons and laboratory notes that oil diesel compounds are significant and Response to Comment 2-24 regarding lead and screening levels.

4-45 Hazardous Materials Mitigation Measures. The comment references mitigation measures contained in the June 2013 IS/MND, which were subsequently reviewed and revised in the DEIR as presented on page 4.5-18-4.5-19. See Response to Comments 4-26 and 4-27 regarding mitigation measures related to hazards and hazardous materials and Response to Comment 4-22 regarding soil stockpiles on the project site.

4-46 Request to Prepare EIR. This comment states that an EIR must be prepared with further Phase II or Phase III ESA testing and clean-up. An EIR has been prepared. As discussed on pages 4.5-15 and 4.5-17 to 4.5-18 of the DEIR and in Responses to Comments 4-20 and 4-23, there are no identified contaminant levels that warrant further investigation of cleanup.

4-47 Effects of Settlement of Bay Mud. The comment asserts that previous project geotechnical studies conclude that site soil conditions make it very difficult to safely construct the proposed project due to presence of bay mud and potential settlement due to fills placed on bay mud that would increase the project's flood risk. The commenter's assertion that geotechnical reviews at the site concluded that "soft soil" conditions on the project site make it very difficult to safely construct the proposed Project is incorrect. Project geotechnical reviews have identified potential constraints and mitigation measures as discussed in DEIR impacts 4.4-1 and 4.4-2, and Response to Comment 4-30. Bay Mud substrate is found throughout the Bay Area and has been successfully developed. The DEIR fully analyzes the potential impacts associated with development atop Bay Mud including differential settlement; see pages 4.4-9 to 4.4-12 of the Draft EIR and Response to Comment 4-30 above. In addition, the proposed project has been designed to minimize the amount of fill generally to two feet or less as discussed on pages 4.4-10 to 4.4-11 of the DEIR. Furthermore, as described in Response to Comment 4-30, a peer review of the project geotechnical report and reviews was conducted and concludes that soils conditions onsite have been adequately defined and reasonabe, feasible mitigation measures have been identified.

The commenter also asserts that settlement onsite will cause damage to building, streets, underground utilities, parks, and other facilities. As stated in the DEIR, this is identified as a potentially significant impact, Impact 4.4-2 (page 4.4-9). Specifically, the DEIR discloses that potential hazards associated with settlement include "distress to new residential structures, disruption of underground gravity flow utilities (storm drain and sanitary sewer), and distress to new pavement and flatwork. Page 4.4-10 of the DEIR presents commonly accepted and feasible measures to mitigate the potential risks associated with settlement including a)the use of deep foundations b) preloading c) RAP or densification d) stiffened foundations and e) one or more of the above. Mitigation Measure GEO-2 imposes these measures as requirements for the Project. Mitigation Measures GEO-1, GEO-2 and GEO-3 are provided in order to reduce potential impacts due to settlement and other geotechnical hazards to levels below significance. Thus, the potential impacts related to the presence of bay mud are disclosed and feasible measures to mitigate the impacts are presented in the DEIR. Therefore, the DEIR sufficiently addresses the potential settlement risks associated with Bay Mud onsite.

The commenter further asserts that settlement onsite will increase the project's risk of flooding. This is incorrect. As described in the HYDROLOGY AND WATER QUALITY (4.6) section of the DEIR, the site is sufficiently elevated outside of the base flood elevation for the Petaluma River. The finished site elevation following site grading will range from 15.1 feet in the northeast portion of the site to 25.7 feet in the southern portion of the site (NAVD 1988). The base flood elevation using the latest FEMA map is 9 feet. Settlement onsite due to increased fill loads would not result in increased risks associated with flooding as site elevations would remains well above the base flood elevation of the Petaluma River. The presence of Bay Mud onsite does not increase the project's flood risk. Therefore, the DEIR correctly concludes that flood hazards would be less than significant (Impact 4.6-3).

4-48 Liquefaction From Old Stream Meander. The comment states that there is a potential for liquefaction from an identified old stream meander through the project site, but that the location and width has not been determined. This comment references the former Initial Study analyses regarding seismic and liquefaction hazards. The analyses were subsequently revised in the DEIR. The referenced stream meander is described and addressed on pages 4.4-5 and 4.4-7 of the DEIR and mapped on Figure 4.4-1 (page 7-13) of the DEIR, which taken together identify the location, depth and width of this feature. The location of the old channel meander is based on the different composition of the soil boring from surrounding soils and a map of the Petaluma River dated 1860.

4-49 Lateral Spreading. The comment indicates that several structures along the river bank were not taken into account in the soils report (boathouse and boat launch), and there is a potential hazard of lurching and lateral spreading, creating a "fair argument" that development along the river bank may result in significant impacts related to hazards and that an EIR should be prepared. This comment references the former Initial Study analyses that were subsequently revised in an EIR. The DEIR addresses the potential impacts associated with lurching and lateral spreading along the swath of land within 100 feet of the Petaluma River (Impact 4.4-6, page 4.4-7). Parcel D on the Tentative Map will be dedicated for use as a boathouse; however, a potential future boathouse facility, the design of which is currently unknown, is not part of the proposed project. A supplemental geotechnical review prepared in December 2013, evaluated the risk of lateral spreading and lurching in proximity to the River. As set forth in the DEIR, buildings and structures within 100 feet of the River would be feasible from a geotechnical standpoint. To withstand lurching and lateral spreading, buildings within 100 feet of the River and would need to be supported on deep foundations extending through the bay mud. See Response to Comment 4-33. Development of the boathouse and associated structures such as a boat launch and public dock are not part of the proposed project, and specific siting and design are unknown. A subsequent environmental analysis will be conducted for these facilities once a development proposal is submitted. At that time, the design, location and extent of

development will be identified and can then be fully evaluated for potential environmental impacts, including lurching and lateral spreading. For purposes of the proposed project, the DEIR adequately identifies the potential exposure to geological hazards associated with development in proximity to the Petaluma River and sets forth measures to mitigate exposure to those identified hazards.

4-50 Geotechnical Mitigation Measures. The comment asserts that feasible mitigation measures have not been identified to address soil settlement, and there is no evidence that mitigation proposed in the Initial Study/Mitigated Negative Declaration will reduce project impacts to a less-than-significant level, and an EIR must be prepared. The IS/MND were prepared in June 2013, and the City subsequently revised the Initial Study and issued a Notice of Preparation to prepare an Environmental Impact Report on September 17, 2013. Thus, comments on the former IS/MND are no longer applicable. See DEIR impacts 4.4-1 and 4.4-2 regarding project impacts related to bay mud and liquefaction. See also Response to Comment 4-30 regarding the geotechnical studies and mitigation measures, and see Response to Comment 4-47 regarding bay mud soils.

4-51 Request to Prepare EIR To Analyze Soil Impacts. This comment references the former Initial Study analyses regarding geology and soils. The analyses were subsequently revised in an EIR, which are discussed on pages 4.4-6 to 4.4-14 of the DEIR. There will be no "pre-loading" of the site as indicated in the comment (see DEIR page 4.4-11). Water encountered during construction would not be discharged into the Petaluma River. The effects of grading in relation to potential air quality impacts are addressed on pages 4.1-8 to 4.1-9of the DEIR; see also Response to Comment 4-5. There is no planned use of "wicking drains" as suggested in the comment.

4-52 Flood Hazards. This comment references the former Initial Study analyses regarding flood hazards. The analyses were subsequently revised in an EIR, which are discussed on pages 4.6-15 to 4.6-16 of the DEIR. See also Response to Comment 4-32.

4-53 Greenhouse Gas Emissions (GHG). The comment on the former IS/MND indicates that project GHG emissions will be cumulatively significant as the basic assumptions in the GHG analysis are speculative or inaccurate and require further review. An EIR was prepared and the GHG analysis is included on pages 4.1-17 to 4.1-18 of the DEIR. A revised air quality and GHG emissions analysis is included in Appendix C-1 of the DEIR. Responses to specific comments on the GHG analysis, modeling and assumptions, as well as overall impact conclusion and mitigation, are provided above in Response to Comments 4-6 through 4-19.

4-54 GHG Analysis – Residential Project Size. The comment states that the GHG analysis includes 272 residential units, while the project description includes 273 residential

units. This comment is on the former IS/MND, and an EIR was subsequently prepared with an updated GHG analysis that accounted for 273 residential units.

4-55 GHG Emissions Model – PG&E Energy Assumptions. The comment questions the adjustment to the CalEEMod model regarding electricity consumption. See Response to Comment 4-18.

4-56 GHG Emissions – Construction Equipment Assumptions. The comment indicates that an adjustment to the CalEEMod default assumptions for off-road construction period is inappropriate because there is no requirement that off-road construction equipment must meet CARB's 2010 equipment standards. CalEEMod incorporates emission factors from the California Air Resources Control Board (CARB) OFFROAD2007 model to predict emissions from construction equipment. These emission factors are based on horsepower and load factor, which OFFROAD2007 assigns default values for various types of construction equipment. CalEEMod allows users to change horsepower and load factor, but defaults to the OFFROAD2007. New data from 2009 academic studies and from engine manufacturers suggested CARB's load factors should be reduced by 33%, and therefore, CARB incorporated the adjustment into their subsequent OFFROAD model updates (e.g., OFFROAD2010[11]). These adjustments were applied to the predictions of the construction emissions.

4-57 GHG Emissions Model – Project Population Assumptions. The comment indicates that the per capita estimate of greenhouse gas emission did not use the worker and resident estimates in the project fiscal analysis. As indicated in Response to Comment 4-53 above, the comment is on the former IS/MND, and an EIR was prepared that updated the GHG analysis based on a revised air quality and GHG emissions analysis that is included in Appendix C-1 of the DEIR. The updated analysis used worker estimates included in the project fiscal analysis and used U.S. Census population data as indicated on page 4.1-18 of the DEIR and further explained in Response to Comment 4-19.

4-58 Office Trip Generation. The comment indicates that a traffic review for a previous project on the project site had less office space than the current proposal, but a higher PM peak hour traffic volume. The comment states that the traffic impacts will be greater than assumed in the IS/MND and an EIR should be prepared.

An EIR was prepared. As described in the DEIR Traffic discussion and set forth in Table 4.8-4 (Draft EIR page 4.8-12), the project's trip generation rates were derived using standard Institute of Traffic Engineers (ITE) categories based on the land uses proposed for the Riverfront Project. These are well accepted standards used

[11] See http://www.arb.ca.gov/regact/2010/offroadlsi10/offroadappd.pdf.

consistently for traffic modeling purposes nationwide. As indicated in the DEIR Appendix C-7 (November 2013 memo), average trip generation rates for the "General Office Building" land use category as reported in ITE's *Trip Generation*, 8th Edition, ITE were applied to the Riverfront project. In addition to providing average trip generation rates, *Trip Generation* includes formula-based rates based on linear or logarithmic "best fit" curves. Based on a review of the data points, statistics, and guidance provided in *Trip Generation*, the project traffic consultant deemed the use of average rates to be appropriate. ITE provides specific guidance on this topic when describing the trip characteristics of the office land use:

> *Some of the regression curves plotted for this land use may produce illogical trip end estimates for small office buildings. When the proposed site size is significantly smaller than the average-sized facility published in this report, caution should be used when applying these statistics.* (Trip Generation, 8th Edition, page 1194)

The 60,000 square feet of proposed office space is significantly smaller than the 216,000 square feet average reported in *Trip Generation* for the sites used to determine PM peak hour trip generation. The use of average rates instead of formula-based regression formulas was therefore determined to be more appropriate. The resulting analysis is a realistic and accurate basis for the DEIR discussion of potential traffic impacts from the project, and project traffic volumes therefore are not underestimated. Also see response PH 3-2.

4-59 Rail Station Traffic. The comment states that the traffic analysis should include estimated commuter traffic that will be generated by the downtown Petaluma SMART rail station. The DEIR does include the station traffic in the cumulative analysis on page 5-9 and as explained in Response to Comment 4-36.

4-60 Traffic Delays Due to SMART Rail Operations. The comment states the traffic study does not factor in effects of delays due to train SMART rail operations. The effects of rail operations on intersection operations and potential traffic delays are discussed on page 5-9 of the DEIR and on pages 2 and 3 of the DEIR Appendix C-7 (November 2013 memo). As stated therein, the SMART EIR (2006, page 3.2-23) identified measures to minimize rail impacts including signal timing and sequencing that integrates train detection systems with traffic signals. The system would allow for non-conflicting traffic movements to continue and would provide hardware interconnection systems that allow gates to stay up while trains are stopped at adjacent rail stations. The SMART FEIR concludes that impacts due to traffic delays including both passenger and freight train activity would be less than significant.

The DEIR (page 5-9) states that rail gate operations would be active for approximately 2.3 minutes out of each peak hour. These delays represent a small portion of the total delay encountered by the entire construction period. Accordingly, the traffic study and subsequent memos do in fact account for delays associated with SMART rail operations and find that impacts due to delays would be less than significant.

4-61 Future Cumulative Traffic. The comment indicates that the traffic mitigation for the project is inadequate as the project will have significant adverse traffic impacts under cumulative future conditions at the Lakeville Street/D Street, Lakeville street/Caulfield Lane, and Hopper Street/Caulfield Lane intersections, which are more significant than conditions predicted in the City's General Plan EIR.

As indicated on page 5-5 of the DEIR, the project traffic report updates the General Plan EIR cumulative analysis and also provides supplemental review of near-term cumulative projects, and thus, the cumulative traffic impacts in the DEIR account for updated cumulative impacts. The results of the updated cumulative traffic analysis as reported on pages 5-7 to 5-8 in the DEIR identifies a future LOS of F at the Lakeville Street/D Street, Lakeville street/Caulfield Lane, and Hopper Street/Caulfield Lane intersections. While the City's General Plan EIR identifies a future LOS of E at the Lakeville Street intersections with Caulfield Lane and D Street, the future LOS F identified in the project traffic study does not change the impact conclusion in the City's General Plan EIR that identified a significant unavoidable impact due to buildout accommodated by the General Plan. The project will be required to pay traffic impact fees that would mitigate its cumulative contribution to future traffic impacts resulting from buildout accommodated by the General Plan. The General Plan does identify extension of Caulfield through the project site as a future extension over the Petaluma River that would help reduce traffic in a wider area (see Response to Comment 4-62 below), but did not identify impacts to the Hopper Street/ Caulfield Lane intersection. The Riverfront traffic analysis and DEIR identify this intersection as being potentially impacted with a projected future LOS of F. As indicated on page 5-8 of the DEIR, implementation of Mitigation Measures CUM-1 and CUM-2 will mitigate the project's contribution to cumulative traffic impacts, including a pro-rata share (21%) to future improvement of the Hopper/Caulfield intersection when the road/bridge extension are developed. The fee will be collected concurrent with recordation of the Final Map. The DEIR text has been clarified; see the CHANGES TO DRAFT EIR (3.0) section of this document (page 3-15). See the following Response to Comment 4-62 regarding project mitigation for cumulative impacts.

4-62 Project Traffic Mitigation. The comment indicates that the traffic mitigation for the project is inadequate as the project will have "significant adverse traffic impacts." See Response to Comment 4-61 above regarding cumulative traffic impacts. The project traffic analysis indicates that the intersection of Lakeville Street/D Street is projected to

operate unacceptably at LOS F in the future both without and with the Riverfront project. The City of Petaluma General Plan EIR includes overriding considerations for future traffic operation at this intersection, finding that the installation of additional lanes or expanding vehicular capacity at this location (and five other intersections throughout the City) would conflict with General Plan goals and policies related to improving multi-modal circulation. The General Plan specifies roadway improvements including the Caulfield Lane extension (Southern Crossing) that may benefit area wide circulation at a broader level, including impacts at Lakeville Street/D Street. Specifically, the General Plan indicates that this extension is incorporated "to reduce traffic congestion along the D Street and Washington Street corridors."

From a traffic operations perspective and as described in the General Plan, the Caulfield Lane extension/Southern Crossing will benefit east-west connectivity for a large area of Petaluma. The Riverfront project would construct a portion of the extension between Hopper Avenue and the Petaluma River. The remaining component of the extension involving construction of a bridge over the Petaluma River and roadway extension to Petaluma Boulevard is included in the City's Traffic Mitigation Fee. Developers of the Riverfront project would be subject to payment of traffic impact fees, which are intended to be used for projects that meet the demand created by new development, and would thereby be contributing toward the cost of numerous improvements including the Southern Crossing. Thus, the proposed project would be contributing to improvements that will improve future operation at Lakeville Street/D Street, as well as other streets, intersections, and multimodal facilities by paying their applicable traffic impact fees, and mitigating their incremental contribution to cumulative traffic impacts.

4-63 Potentially Significant School Impacts. The comment questions the analysis of schools in the IS/MND that was prepared in June 2013. The City subsequently revised the Initial Study and issued a Notice of Preparation (NOP) to prepare an Environmental Impact Report on September 17, 2013. Thus, comments on the former IS/MND are no longer applicable. The school section was revised in the Initial Study that accompanied the NOP, and it is noted that the commenter did not provide specific comments on the NOP. The updated schools section is on pages 40-42 of the Initial Study that is included in Appendix A of the DEIR. Nonetheless, a response is provided below.

The City's General Plan addresses the cumulative impacts to the school system from the anticipated population growth that will be realized through implementation of the General Plan. The population growth generated by the Riverfront Project was included as part of the cumulative analysis of the General Plan that analyzes potential impacts to schools. The Riverfront Project Initial Study appropriately relies on the findings of the General Plan in determining that the subject project would have a less than significant effect on school enrollment and facilities. This determination was

based on enrollment and capacity statistics outlined in the 2025 Petaluma GP EIR dating from 2004/2005 and updated enrollment figures for the 2013/2014 school year. The Initial Study provides the data that was collected and upon which the less than significant impacts to school facilities determination was made (see table on page 41 of Appendix A of the DEIR). The General Plan determined that although a small increase in enrollment would occur within the Old Adobe Union School District and the Petaluma City Unified School District, this would not require additional school facilities. This determination was based on declining enrollment figures within the City's other school district and the redistribution of student would alleviate enrollment limitations. Accordingly, should enrollment approach or exceeds the maximum capacity for the Old Adobe Union School District, potential impacts would be avoided with the redistribution of enrollment among the other school districts in the City. This potential impact is identified as less than significant in the General Plan EIR (Impact 3.4-1) since enrollment figures are projected to decline in certain school district and redistribution would sufficiently accommodate projected enrollment increases.

The Riverfront project site is located within the Old Adobe Union Elementary School District, which supports five elementary schools. As indicated in the Initial Study, the Old Adobe Union School District currently serves approximately 1,675 students with a capacity of 2,165, which means that the district as a whole is at 77% capacity and has the ability to comfortably accommodate 490 additional students. The alternate school district nearest the project site is the Petaluma City School District, which includes both elementary and secondary schools that are at 84% capacity.

The Old Adobe Union School District is at 77% capacity and can accommodate additional students. Even in the event that capacity is exceeded, the surrounding school districts maintain a sufficient amount of capacity to accommodate new students through redistribution of enrollees among the various districts. The available capacity in Old Adobe Union School District is expected to sufficiently meet the demands placed on the school system by the proposed Riverfront project. Therefore, the Riverfront Initial Study correctly concludes that any impacts to school facilities would be less than significant. In any case, state law preempts CEQA as to impacts and mitigation related to a school district's ability to accommodate enrollment (Government Code section 65995€). The project is required to pay statutory developer impact fees, which is the "exclusive method of … mitigating impacts on school facilities …" (Government Code section 65996(a).

4-64 SmartCode Applicable to the Project. The comment indicates that it is unclear whether the project would need to conform to the new SmartCode. As described on page 3-3 of the DEIR, the project has been designed utilizing the current Urban Standards for Zones T-4, T-5 and T-6 from the existing 2003 SmartCode. A new Station Area Master

Plan and a Revised SmartCode were adopted by the City Council on June 17, 2013. Because the Riverfront Tentative Subdivision Map was deemed complete prior to the June 2013 adoption of the Revised SmartCode and pursuant to the Subdivision Map Act Section 66474.2(c), the Tentative Subdivision Map will continue to be processed under the 2003 SmartCode.

On July 1, 2013 the City Council approved revisions to the SmartCode, which went into effect on July 31, 2013. The revisions included language providing a hybrid approach to the existing and amended SmartCode for the Riverfront Project as Section 2:

> Section 2. Adoption. The City Council hereby adopts the Amended Smart Code; provided, however, that notwithstanding anything to the contrary in the Amended Smart Code, Section 4 of the Amended Smart Code, entitled Urban Standards, will not apply to applications for projects within the Central Petaluma Specific Plan area that are subject to the Subdivision Map Act (California Government Code §66410 and following) and that are complete pursuant to the Subdivision Map Act prior to the effective date of the Amended Smart Code, until the earlier of: six (6) years following the effective date of the Amended Smart Code, or until all buildings of such projects that require certificates of occupancy are completed and issued certificates of occupancy. All other applications for projects within the Central Petaluma Specific Plan will be subject to all provisions in the Amended Smart Code upon the effective date of the Amended Smart Code, subject to applicable law.

The above provision is limited to the Riverfront Project as currently proposed, as it is the only complete application within the plan area. Should the subdivision map not be approved, or the project not be built out within six years of adoption of the Amended SmartCode, any future project proposal at this location would be processed under the Amended SmartCode. Thus, the DEIR adequately addresses the project's compliance with the amended SmartCode and no further discussion is warranted.

4-65 Require EIR. The comment states that there is substantial evidence that the project would result in significant adverse effects that were not identified in the IS/MND and not adequately mitigated and an EIR should be prepared. The comment is not applicable as an EIR was prepared for the project.

LETTER 5

February 24, 2014

For: Mr. Dan St. John

Cc: Mr. Mike Harris

Re: Riverfront Development & Caulfield Lane

Dear Mr. St John,

5-1

My neighbors and I are very concerned about the new Waterfront development, specifically with the opening of Caulfield Lane and the potential negative impact to our Eastside neighborhood. Many of the homes on Caulfield Lane are actually street facing homes. It is already very busy street with speeders often driving in excess of 40mph, making it difficult for residents to safely exit their driveways and is very dangerous for pedestrians and cyclists. Caulfield Lane has three crossing areas for children to access schools, all of which could be improved for safety (at Crinella, Louise and Ely).

Our concern is that the opening of Caulfield Lane will increase cross-town traffic, speeding and pollution. There is also the concern that those issues will increase traffic accidents and injuries.

Our hope is to improve safety, slow traffic down and maintain a cleaner neighborhood. We have requested improvements in the past, but have often been informed that while the city is aware of the situation, funding is currently being diverted to other projects. We would like to request that with the new riverfront project on the table and so early in the planning process, that some time and funds be allocated to assess the impact to all of Caulfield Lane (through Ely) in terms of speed, safety and pollution. It seems as if a road diet with roundabouts , similar to the McDowell project a few years back, could potentially help. We would like to avoid the installation of stop lights as there is great evidence that this increases speeding to make the green light, increases pollution from idling cars and increases injury accidents and fatalities. We want to restore a sense of safety and a sense of a real neighborhood so that we can enjoy spending time on our street with our families without the fear of being run down.

We greatly appreciate your time and consideration. We understand the need for progress, however, we need to know that our neighborhoods and families aren't forgotten in that pursuit.

Sincerely,

Rachel Starr

Petaluma Resident, Business Owner & Parent

Phone: 707-779-9337

Rstarr33@yahoo.com

LETTER 5 – Rachel Starr

5-1 Caulfield Lane. The comment expresses concern about the opening of Caulfield Lane and potential negative impacts to the neighborhood. The comment is noted, however, the proposed project does not include opening up Caulfield Lane. The Riverfront project will include Caulfield Lane through the project site that will intersect with Hopper Street. At such time that a future extension across the Petaluma River is planned, streets may be connected near Caulfield north of Hopper Street as envisioned in the City's General Plan. Any future extension is not proposed with the project and is outside the scope of the project EIR.

PLANNING COMMISSION HEARING – January 14, 2014

PLANNING COMMISSSIONER COMMENTS

PH 1: Jennifer Pierre, Vice Chair

PH 1-1 Noise Modeling Methodology. The commenter requests clarification on the noise measurement methodology that was used to assess noise levels onsite including the timing ("peak hour"), age of information (over ten years old), and location (1st floor or second floor) of measurements.

Response: The DEIR analyzed noise in Section 4.7, based on a March 2013 Noise and Vibration Assessment and on the General Plan EIR. The noise emitters in the project vicinity consist primarily of traffic traveling along Hwy 101, Lakeville Street and the adjacent NWPR, which supports freight rail operations and is planned to carry commuter rail service in the near future. In October 2003 Illingworth and Rodkin (I&R) performed noise measurements for a continuous 48 hour period overlooking US Highway 101 south of the Petaluma River at a distance of 100 feet from the centerline of the highway (I&R, 2004). This measurement location captured representative highway noise as it provided an unobstructed view of the highway. Noise measurements were made in consecutive 15 minute intervals. The hour by hour variation in the hourly average noise levels (Leq) and the daily weighted average noise levels (Ldn and CNEL) were calculated from the field measurement data.

The highest hourly average noise levels generated by the highway occurred between 9:00 AM and 12:00 PM, which is typical for a highway that operates over capacity. This is due to the condition that during peak traffic volumes, traffic speeds slow down, resulting in lower noise levels relative to shoulder hours (non-peak traffic) when the combination of maximum volume at the design speed result in the maximum noise levels. The 24-hour average CNEL was 1 dBA higher than the hourly average (Leq) during the noisiest hours. There was no highway construction occurring when the noise measurements were collected, so the hourly traffic distribution for the highway was normal. The "peak hour" traffic measurement was captured because a 48-hr, 15-minute interval measurement period was conducted. The methodology utilized to collect noise measurements effectively captured the peak hour traffic as well as the greatest traffic noise period generated by the highway and provides an accurate reference noise level.

Short term noise measurements were subsequently made on the Riverfront Project site between 9:00 AM and 12:00 PM (the noisiest time period) in 2005 and 2013. These data were directly correlated to the 2003 measurement during the same time periods to determine the CNEL on the Riverfront Project Site. It should be noted that through this correlation, the 2013 noise exposure increased by 3 dBA CNEL as compared to the

2005 noise exposure, likely the result of the addition of the southbound auxiliary lane and increased traffic on the highway. The baseline data collected in 2003 was verified in 2005 (I&R, 2005) and was determined to have increased in 2013 (I&R, 2013). This increase in noise by 3 dBA CNEL was accounted for in the 2013 noise assessment and reported in the DEIR.

Noise measurements were collected at a height of about 5 feet above the existing ground, which is a standard height for measurement as it represents the average height of a human's ears. As described in the DEIR, Hwy 101 is elevated well above the project grade, which substantially reduces noise levels relative to an at-grade condition. Hwy 101 at the Riverfront Site contains an additional concrete vehicle barrier at the edge of the highway that enhances the noise reduction effect.

The noise report and data measurements presented in the DEIR assumed that noise levels at the second floor windows of a two-story building would be no more than 1 to 2 dBA higher than the first story. Accordingly, a 2 dBA factor was included in the CNEL noise exposure levels presented in the March 2013 Noise Study. In order to verify that this assumption was valid I&R subsequently conducted traffic noise modeling using the Federal Highway Administration Traffic Noise Model (FHWA, 2004[12]) to confirm the presumed difference in first and second story noise exposure.

Modeling was conducted using the specific elevation of the future townhome buildings proposed in the northeast corner of the site) nearest to the highway, as well as the location and elevation of the highway where it continues north over Lakeville Boulevard. The northern most area was assessed because Hwy 101 trends in a downward slope as it overpasses Lakeville Street. The highway is located at 39 feet msl in the northeast portion of the project site. Based on the proposed grading plan, the base pad elevation of the townhomes would be at 17 feet msl. Noise levels for the first floor and second floor elevations were modeled at 5 feet and 15 feet above the base pad elevation. Traffic data volumes for Hwy 101 were obtained from the Caltrans website. Using the Federal Highway Administration's Traffic Noise Model (TNM), Version 2.5 (February 2004), the second story noise exposure of the most affected building was calculated to be 1.6 dBA higher than the first story exposure. The noise exposure levels reported in the 2013 Noise Study (I&R, 2013) and DEIR included a 2 dBA factor. Thus, the presumed 2 dBA factor that was utilized in the DEIR is affirmed to be an appropriate representation of the maximum second story noise exposure. Therefore, the noise levels provided in the DEIR provide an accurate representation of noise levels that would be experienced on the second floor of a two

[12] Federal Highway Administration website (Updated 7/5/12), online at: http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/documents_and_references/.

story buildings located in proximity to Hwy 101. As described in the DEIR, noise levels are within the range of what is conditionally acceptable and would be effectively mitigated through insulation features and design.

PH 1-2 Noise Reduction Effectiveness. The commenter asks for an explanation as to the effectiveness of noise reduction measures for traffic and railway noise.

Response: The effectiveness of noise reduction measures is well documented, described in the DEIR and further clarified herein. The noise modeling conducted using the project's traffic generation rates conclude that project generated traffic would not contribute to the noise environment such that traffic noise levels would increase by more than 4 dBA, which is the threshold used to assess a potentially significant increase to the ambient noise environment due to project generated traffic. Accordingly, the DEIR reports that traffic noise levels generated by the project would be less than significant (Impact 4.7-4) and no mitigation measures are necessary to reduce traffic related noise (DEIR Page 4.7-19).

Primarily due to the linear noise emitters in the project vicinity, namely Highway 101 Lakeville Street and the Northwest Pacific Rail corridor, the noise exposure level at the location of the proposed Townhomes would fall within the Conditionally Acceptable category of the City of Petaluma General Plan Land Use Compatibility Standards (Figure 10-2). The Conditionally Acceptable category is described as follows: "New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning systems will normally suffice." This is an accurate characterization of the noise exposure and noise insulation requirements at the Project site. What constitutes adequate ventilation depends upon the climate, but always must meet minimum fresh-air supply rates assuming that the occupants have chosen to keep the windows closed to control noise intrusion. The specific requirements for the sound ratings of individual building elements cannot be determined until final design, but as stated in Mitigation Measure Noise-1, the design of the building must provide the sound insulation necessary to reduce the noise level inside the unit to 45 dBA CNEL or less as required by the General Plan. The DEIR provides a menu of options that would be feasible to obtain the necessary noise insulation levels.

The noise from infrequent railroad train operations does not adversely affect most people using outdoor activity areas in residential areas. However, the noise often disturbs or annoys people inside their homes, and can cause sleep interference. The highest noise level associated with a train is the warning horn that must be used as a train approaches and passes through an at-grade crossing, unless Quiet Zone status

has been approved. Outdoor to indoor noise reduction of up to 40 to 45 dBA is feasible with proper noise controls. With or without the approval of Quiet Zone status for the grade crossing at Caulfield, the proper incorporation of building sound insulation treatments would achieve both the City of Petaluma maximum interior noise limit of 45 dBA CNEL and adequate control of the maximum noise levels during the passage of the trains. Clearly, the performance requirements for the sound insulation treatments, particularly in the bedrooms, would be much greater if Quiet Zone status is not approved and the trains must sound their warning horns. It should be noted that the adverse effect of train horns would not be limited to this project; it would affect the entire City and be more profound on existing uses in the proximity of at-grade crossings.

As described in the DEIR, the project site is situated in a noise environment with noise levels that are identified as being conditionally acceptable and requires mitigation in order to ensure that new receptors introduced onsite will not be subjected to excessive noise levels. The proposed mitigation measures to achieve interior noise standards of 45 dBA or less are practicable and feasible. Although the precise measure of each individual noise reducing component is difficult to quantify, the sum of these measures provides that the building envelope design achieves noise reduction of 45 dBA or less. Noise attenuation measures include thicker walls, stucco siding, orienting bedrooms away from noise emitters, use of sound rated windows and doors, and forced air ventilation. These measures are common practice for achieving noise reduction for the entire building envelope. The DEIR discloses a potential impact from noise exposure and sets forth mitigation to reduce said impact to levels below significance. Mitigation Measure Noise-1 ensures that the required noise level of 45 dBA is achieved for the proposed Townhomes on the Riverfront Site and reduces potentially significant impacts due to noise exposure to less than significant levels. Thus, the DEIR, adequately characterizes the effectiveness of noise insulation measures and determines that measures are sufficient to reduce impacts to levels below significance.

PH 1-3 Noise Mitigation. The commenter states that small or no windows facing noise emitter as set forth pursuant to Mitigation Measure NOISE-1 are unacceptable and that once occupied construction noise could impact new residents during subsequent phases.

Response: Mitigation Measure NOISE-1 set forth in the DEIR provides a list of noise attenuation measures that could be incorporated into the design of buildings to reduce noise intrusion. One of these measures is "…small or no windows facing noise emitters…," which caused understandable concern. Although this was only one of a menu of noise attenuation options, it is less attractive because: a) it is not normally feasible due to a number of other considerations including egress, natural light, and ventilation; and, b) there are available construction techniques and improvements (i.e.

insulated walls, sound rated windows, etc.) that can achieve acceptable noise levels within a residence without the need for such a provision. Accordingly, Mitigation Measure NOISE-1 has been amended as follows:

> NOISE-1: Pursuant to General Plan Policy 10-P-3C and the CPSP EIR Mitigation Measure 10-1, ~~and the State Building Code~~, a detailed acoustical report shall be prepared by a qualified acoustical specialist as part of design phase to determine the noise control treatments for the residential buildings, offices and the hotel to meet local and state standards. Noise attenuation measures shall include as appropriate thicker walls, stucco siding, sound insulating windows and/or doors ~~treatments~~, building and bedroom orientation, ~~and/or small or no windows facing noise emitters~~, and other measures pursuant to the detailed acoustical report. To achieve the noise reduction requirements, some form of forced air mechanical ventilation, satisfactory to the local building official, would be required in all residential units and the hotel. Special sound rated building elements such as windows and doors may also be necessary to reduce the intrusiveness of the train noise given that typical noise levels could reach 95 dBA Lmax outside the nearest townhomes if Quiet Zone status is not approved.

With the amended text, the reference to no windows facing emittersor inoperable windows has been removed. There are sufficient design measures and noise insulation techniques to ensure that noise standards are achieved while retaining normal sized and operable windows and attractive architectural design. The impact will continue to be less than significant after implementation of the mitigation measure as revised.

Mitigation Measure NOISE-2 set forth in the DEIR provides a list of practices to reduce noise impacts during construction to levels below significance. It has been noted that a 7 AM construction start time during the weekday pursuant to item a. is too early when residents are within 100 feet of active construction. Accordingly, the text for Construction Scheduling of Mitigation Measure NOISE-2 (first bullet) has been amended to indicate that no construction within 100 feet of an occupied residence will occur before 8 AM on weekdays and 9 am on weekends. (See CHANGES TO DRAFT EIR (3.0) section of this document [page 3-13].) Therefore, as described in the DEIR noise impacts from construction of subsequent project phases once the Riverfront site is occupied will be reduced to level below significance.

With the amended text, the start time for construction when in proximity to occupied residences has been changed from 7 AM to 8 AM on weekdays. No construction within 100 feet of an occupied residence will occur before 8 AM on weekdays and 9 AM on Saturdays, and prohibited on Sundays and Holidays. Therefore, as described

in the DEIR noise impacts from construction of subsequent project phases once the Riverfront site is occupied will be reduced to level below significance.

PH 1-4 Groundwater Intrusion. The commenter requests that the risk of groundwater intrusion due to the presence of Bay Mud onsite be explained.

Response: Groundwater intrusion typically occurs when the extraction of groundwater leaves a void that is filled by another water source. The proposed project does not include groundwater extraction, so the potential for intrusion of Petaluma River water is expected to be low.

The project site is underlain by fill material, bay mud, and bedrock. Soil columns contain varying amount of waters within pockets between particles. For example, sandy soils tend to have a higher water bearing capacity relative to clayey soils due to the condition that sand is a larger sized particle and creates more "pockets." Although the site contains water within the soil column there is not a groundwater aquifer or extractable water supplies underlying the project site.

Development onsite will result in increased loads on the soil, which as addressed in the DEIR (See Impact 4.4-2 discussion on pages 4.4-9 to 4.4-12), has the potential to result in soil consolidation and settlement. As heavy loads are placed upon the soil it is expected that air and water pockets within the soil column will compress and result in settlement. Although the geotechnical investigation did not measure groundwater depth in onsite soil borings, it is expected that groundwater would be near the elevation of the Petaluma River, approximately 10 to 15 feet below ground surface (Miller Pacific Engineering Group, March 2006). Groundwater levels in the area will likely fluctuate throughout the year and likely be relatively close to the ground surface during and immediately after the wet winter rain season (Ibid.).

The presence of Bay Mud onsite does not introduce an associated risk for groundwater intrusion. Based on the DEIR discussion, the project geotechnical study, and this discussion, the risk of groundwater intrusion is low and would not be a potentially significant impact.

PH 2: Richard Marzo

PH 2-1 Timeframe for Implementation of Mitigation Measures. The commenter asks for understanding the timeframe for implementing mitigation measures.

Response: Mitigation measures are implemented pursuant to the Mitigation Monitoring and Reporting Program (MMRP). The intent of the MMRP to: 1) document implementation of required mitigation; 2) identify monitoring/reporting

responsibility, be it the lead agency (City of Petaluma), other agency (responsible or trustee agency), or a private entity (applicant, contractor, or project manager); 3) establish the frequency and duration of monitoring/reporting; 4) provide a record of the monitoring/reporting; and 5) ensure compliance. Each measure is identified, along with specific implementation actions if required, the timing of implementation, and the party that is responsible for implementation. The timing for verification of implementation is specified at the plan check stage such as prior to Final Map, issuance of grading permit, building permit or certificate of occupancy, as appropriate. The Riverfront MMRP is included in Appendix A of this document, can be referred to in order to identify the specific party and timing that has been identified for each mitigation measure.

PH 3: Diana Gomez

PH 3-1 Noise Levels at Townhomes. The commenter asks that noise levels for the townhomes be evaluated.

Response: See DEIR Impact 4.7-1, and Response to Comments PH 1-1 through PH 1-3.

PH 3-2 Trip Generation Rates. The commenter asks that confirmation be provided that the project generated trip rates are appropriate.

Response: As described in the DEIR Traffic discussion and set forth in Table 4.8-4 (Draft EIR page 4.8-12), the project's trip generation rates were derived using standard ITE categories based on the land uses proposed for the Riverfront Project. These are well accepted standards used consistently for traffic modeling purposes nationwide. They represent a reasonable projection of the traffic volumes that will be generated by the proposed mix of uses on the project site. Thus, the DEIR appropriately utilizes trip generation rates and adequately represents the project's contribution of traffic to the circulation system.

PH 4: Bill Wolpert, Chair

PH 4-1 Sea Level Rise. The commenter states that Sea Level Rise should be further discussed in the FEIR.

Response: The DEIR discusses sea level rise on pages 4.6-6 to 4.6-7 and 4.6-15 to 4.6-16 as part of the DEIR's flood hazard discussion and considered inundation risks including the future effects due to sea level rise. This discussion considered inundation risks including future effects due to sea level rise. An expanded discussion to the DEIR text further substantiating the determination that the project site is sufficiently elevated to provide protection against the reasonably foreseeable effects of

rising sea levels is provided in the "Hydrology & Water Quality" subsection of the CHANGES TO DRAFT EIR (3.0) section of this FEIR document (see pages 3-8 to 3-11 and 3-17).

It is important to note that sea level rise is not uniform and is largely dependent on factors such as atmospheric and oceanic circulation, tectonics, and gravitational/ deformational effects generated by land mass changes. Sea level rise will most directly affect areas that are on the coast. However, as a tidally influenced river, the Petaluma River will also be affected. An extreme high tide event coupled with a storm event would result in the most elevated river levels.

While the magnitude of sea level rise ranges widely, the San Francisco Bay Conservation and Development Commission (BCDC) have developed Sea Level Rise Index Maps, which show areas vulnerable up to 16 inches of sea level rise by mid century (year 2050) and those areas susceptible up to 55 inches of sea level rise at the end of the century (year 2100). BCDC generally suggests that the anticipated sea level rise projections largely correspond with today's 100-year flood zone. Meaning that under reasonably foreseeable expectation of sea level rise, the 100-year flood zone would be subject to flooding not just during a 100-year flood event, but also during high tide. As described in the DEIR the project site is elevated outside of the current 100-year floodplain and sufficiently elevated to protect against the reasonably foreseeable effects of sea level rise. It is also noted that the DEIR analysis identifies a recent report by the National Research Council that estimates sea level rise south of Cape Mendocino as approximately 24 inches by 2050 and 65.7 inches by 2100 as reported by the California Environmental Protection Agency (August 2013)(See DEIR p. 4.6-7). .

In an effort to provide additional information on the project site's susceptibility to sea level rise, Figure 4.6-1 has been prepared by the Project Engineer showing the localized inundation potential assuming up to six feet (72 inches) of sea level rise, which is included in the CHANGES TO DRAFT EIR (3.0) section of this document. Based on the projected rates of sea level rise provided by BCDC and recent National Research Council estimates, six feet of sea level rise would not occur until well beyond year 2100 and should be considered as highly speculative. In preparing this figure, it is important to understand that FEMA's Flood Rate Insurance Map (FIRM), which provides the current 100-year floodplain elevations, is based on the 1988 North American Vertical Datum (NAVD). The base flood elevation set forth on the FIRM is 9.0 feet NAVD (1988). However, the finished site elevations are based on NGVD[13]

[13] Regulatory floodplains are defined by the elevation of the base flood in relation to the elevation of the ground. NGVD 29 stands for National Geodetic Vertical Datum of 1929. It is a system that was used by surveyors and engineers for most of the 20th century, but has been replaced by the more-accurate North American Vertical Datum of 1988 (NAVD 88).

1929, which are 2.7 feet lower than NAVD 1988. Accordingly, in order to relate the 1929 datum to the 1988 datum, a 2.7-foot vertical datum shift must be applied. For example, as reported in the DEIR, the lowest site elevation is approximately 15 feet, which would translate to approximately 17.7 feet NAVD 1988. The vertical datum shift does not change the depth of the flooding hazards nor does it change the area of 100 year flood zone. Using the 1988 Datum, the finished site elevations will range from a low of 15.1 feet in the northeast portion of the site to a high of 25.7 feet at the southern portion of the site where the future Caulfield Lane Bridge would connect on the Riverfront site. Based on the elevation difference between the lowest finished site grade (15.1 feet) and the base flood elevation (9 feet), up to 6.1 feet of sea level rise could be accommodated without flooding occurring onsite. As shown on the Figure 4.6-1 in the CHANGES TO DRAFT EIR (3.0) section of this document, the project site remains sufficiently elevated to avoid substantial inundation from 6 feet of sea level rise.

Impact 4.6-3 of the DEIR states that the potential effects due to sea level rise would be considered a less than significant impact. This conclusion is based upon the existing 100-year floodplain, the site's finished elevations, and projections of future sea level rise. As discussed in the DEIR (page 4.6-15), portions of the proposed offsite Riverfront Park, as well as portions of Parcel C (open space along the property's eastern boundary), may be inundated as a result of sea level rise. These areas are not proposed for development and provide a naturalized buffer to accommodate potential sea level rise without affecting residential buildings. Thus, the project design provides adaptive capacity if sea level rise should exceed 6 feet in the next century. Projections of sea level rise of six feet remain largely speculative at this time and would not occur before the year 2100. There is sufficient time for adaptive planning to provide protection from future effects of sea level rise. Even with six feet of sea level rise, the project site is sufficiently elevated to avoid inundation of structures. Thus, the DEIR correctly concludes that sea level rise would have a less than significant impact on project flooding, and adequately addresses the future effects of sea level rise given the known body of knowledge regarding anticipated sea level rise and reasonably foreseeable projections of sea level rise in the future.

To provide additional information on the project site's susceptibility to sea level rise relative to surrounding areas, the following series of figures have been prepared that show the inundation potential at the higher high water level (current high tide), and sea level rise of three feet, five feet and six feet. In each of these scenarios, the project site remains sufficiently elevated to avoid the direct adverse effects of sea level rise as

discussed below. The Index maps were developed from the BCDC website, and are presented on the next page.[14]

As discussed in the DEIR (page 4.6-15), a portion of the proposed offsite Riverfront Park may be inundated during high tide under future year sea level rise greater than three feet, but is not expected to intrude beyond the Riverfront Park. Similarly, under five feet of sea level rise, the project site remains sufficiently elevated to avoid inundation of habitable structures. Portions of Parcel C (a low lying area that will support a multi-use trail), Parcel D (the boathouse dedication parcel), and the Riverfront Park would potentially be inundated. As mentioned, projections of sea level rise beyond 55 inches (4.58 feet) is speculative and cannot be anticipated with a high level of certainty. Nonetheless, Index Maps provide projections of up to six feet of sea level rise, which are shown below.

The Index Maps below show that the Riverfront Project site is sufficiently elevated and would remain outside of the inundation area under the various sea level rise scenarios. However, certain areas in proximity to the project site, downtown, near the turning basin, and north of Lakeville Street are low laying areas that may be susceptible to shallow inundation under future sea level rise scenarios. The Index Maps show that under five and six feet of Sea Level Rise, portions of Hopper Street and Lakeville Street may be inundated. Even under these future year sea level rise scenarios, (projected beyond 2100) the Riverfront Site is sufficiently elevated. It should be mentioned that pursuant to the General Plan, looking this far out into the future, beyond 2100 the Caulfield Lane Bridge crossing would presumably be developed, which would ensure that site access would be preserved even if Hopper Street and Lakeville Street were to become inundated. It should also be understood that due to the tidal nature of the Petaluma River inundation events would be associated with high tides and floodwaters would recede during lower tides. Thus, inundation would be periodic and temporary. Furthermore, given the time horizon there is adequate time for planning and adaptation to occur to protect against the future effects of sea level rise. Given the elevations of existing neighborhoods located north of Lakeville Street as well as development within downtown Petaluma there is a need for strategic planning and the developed of policies that will provide Citywide protection against the future effects of sea level rise.

For CEQA purposes in review of the of the subject project and based on the proposed project design and site elevations, the Riverfront Project is sufficiently protected from inundation associated with rising sea levels for the foreseeable future. This conclusion is set forth in the DEIR and further discussed in this FEIR and no new potentially

[14] San Francisco Bay Conservation and Development Commission. "San Francisco Bay Scenarios for Sea Level Rise Index Map." Online at: http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml.

significant impacts have been identified. Therefore, the DEIR and FEIR sufficiently addresses the potential effects of sea level rise on the project site, which would be less than significant.

PH 5: Kathy Miller, Council Liaison

PH 5-1. Use of Groundwater. The commenter asks for clarification on the project's use of groundwater onsite.

Response: The project will not use onsite groundwater and does not include the development or construction of any additional groundwater wells onsite or offsite. Rather, the proposed project will connect to the City's existing water service system and will be provided with potable water supplies via the Water Resources and Conservation Department. As described on page 4.6-4 of the DEIR and reported in the City's General Plan and the UWMP, the City's water supply comes primarily from surface water and groundwater provided by the Sonoma County Water Agency and is supplemented with groundwater extracted from Petaluma wells.

PH 6: Joycelyn Lin

PH 6-1 Alternative Transportation Modes. The commenter requests that alternative modes of transportation be evaluated in the FEIR and that access to downtown and the SMART station be provided for pedestrians and cyclists.

Response: Alternative modes of transit are described on page 4.8-14 of the DEIR. The project site is situated within the Lower Reach Subarea of the Central Petaluma Specific Plan area and would tie into existing and planned trails and networks in the vicinity. In addition to the internal street network, which will support sidewalks, pedestrian paths and sufficient width for shared bicyclist on streets, the proposed project includes dedicated trails (Parcel C and the Riverfront Park) that will accommodate both pedestrians and bicyclists alike. It should also be mentioned that the City obtained funding for the design and construction of Class II bike lanes along Caulfield Lane and on Lakeville Street, west of Highway 101. These facilities are expected to be developed in 2015, which would be in advance of occupancy on the Riverfront Site. The existing Class III Bike facility on Hopper Street provides connectivity from the site to D Street, from which downtown can easily be accessed as well as the SMART Rail Station. Improvements to Hopper Street as part of the proposed project will further enhance safety and usability of this roadway for all modes of transit, including bicyclists and pedestrians. Additionally, the project site includes the development of an offsite EVA, which would parallel Hopper Street south of the City owned property east of the Riverfront Site. This EVA would also be accessible to pedestrians and bicyclist.

The project will result in the construction of onsite and offsite trails, paths and public right-of-way, which will greatly enhance the safety and availability of routes in the project vicinity that serve alternative modes of transit. As set forth in the DEIR, the subject project provides ample opportunities for alternatives modes of transit and does not conflict with the City's Bicycle and Pedestrian Plan. Rather, the project implements the intent of the Plan by providing for passive multi-use trails along the project frontage to the Petaluma River and along the margins of the project site. The DEIR adequately addresses the alternative modes of transit that are available onsite and the project vicinity and no further analysis or discussion is warranted.

PH 7: Gina Benedetti-Petnic

PH 7-1 Impacts to Land Uses on South Side of Petaluma River. Impacts to Land Uses on South Side of Petaluma River. The commenter requests clarification that existing land uses on the south side of the Petaluma River have been considered as part of the impact analysis in the DEIR.

Response: The DEIR analysis includes an evaluation of the potential environmental impacts to the subject site and in the project vicinity where relevant depending on the topic being addressed. Although the McNear Landing development to the south of the Petaluma River was identified as a sensitive receptor in the Air Quality section of the DEIR (page 4.1-14), no impacts resulting from construction or operation of the proposed project were identified. The DEIR considered potential impacts associated with construction noise (pages 4.7-19 to 4.7-20), but did not identify any significant impacts to properties south of the Petaluma River. No offsite impacts were identified, other than traffic, which would not affect properties to the south.

PUBLIC COMMENTS

PH 8: Carl Sanchez, Jack Buckhorn, Frank Cuneo and Richard Kenney

PH 8-1 Hazardous Materials. The commenters express concerns due to hazardous materials onsite and the exposure to construction workers.

Response: DEIR section 4.5 as updated in Section 3.0 of this FEIR document (see pages 3-4 to 3-8), fully evaluates hazardous materials, including the potential impacts due to the exposure of construction workers onsite to hazardous materials. The potential for hazardous materials and hazardous substances presence onsite has been investigated through the initial Phase I Environmental Site Assessment (ESA) that was conducted in 1999, a Phase II ESA that was conducted in 2000, and a subsequent Phase I ESA that was conducted in 2013. The 2013 ESA provides an up to date review of the

environmental site conditions and presents findings of the earlier studies relative to current Environmental Screening Levels (ESL). A comprehensive overview of each ESA is provided in the DEIR. Concentrations of constituents in soil and groundwater samples collected onsite were evaluated using residential ESLs, which capture potential exposure to construction workers. Other than arsenic, all chemical concentrations detected in soil samples were below the ESL for a Residential Land Use, including the ESLs revised by the RWQCB in December 2013. The arsenic levels onsite are consistent with background levels observed in native soils throughout the Bay Area. Concentrations of chemicals in groundwater samples were all below the identified ESLs. Based on these findings the Phase I Report did not recommend further testing or remedial action since all chemical contaminants were detected in concentrations below ESLs. Review of the revised ESLs did not find any chemical concentrations above the revised ESLs; see Responses to Comments 4-24, 4-25 and 4-26 regarding ESLs.

As reported in the DEIR, the project site contained stockpiled soils that were to be removed prior to development. Based on the 2013 ESA, some of the stockpiled soils were previously tested and remediated prior to being placed onsite. Although these soils are expected to be removed prior to project implementation in the event that they remain onsite Mitigation Measure HAZMAT-1 requires that the quality of soils be reaffirmed prior to use. See also Response to Comment 4-26.

Although substantial testing and hazardous material investigation has occurred onsite, there remains a potential that undetected contaminants could pose a risk hazard to worker if encountered onsite. Accordingly, impact 4.5-2 identifies a potentially significant impact due to exposure of unknown hazardous materials to construction workers. Mitigation Measure HAZMAT-2 requires the preparation and implementation of a Risk Management Plan, which among other procedures mandates that the contractor prepare a Health and Safety Plan to protect worker health during redevelopment. Accordingly, the conclusion set forth in the DEIR as revised in this document (see pages 3-4 to 3-8), that sufficient measures are in place to ensure that potential impacts to construction workers health and safety are reduced to levels below significance is a reasonable conclusion based on an adequate characterization of the potential risks and hazards onsite associated with the presence of potentially hazardous material. Therefore, the DEIR as revised provides sufficient information and documentation regarding concerns associated with potential exposure to hazardous materials.

PH 8-2 Sea Level Rise. The commenters state that Sea Level Rise was a concern and was not fully addressed in the DEIR.

Response: See Response to Comment PH 4-1 above.

PH 8-3 Traffic Impact Fee Payment. The commenter stated that the developer should be responsible for the payment of Traffic Impact Fees.

Response: The project applicant is subject to the following special development fees plus any other in effect at time of building permit issuance: City Facilities Fee, Commercial Development Housing Linkage Fee, Open Space Acquisition Fee, Park Land Acquisition Fee (Quimby Act Projects), Park Land Development Fee, Wastewater Capacity Fee, Water Capacity Fee and Water Connection, Community Facilities Fee, Storm Drainage, Public Art Fee (ordinance No. 2202 N.C.S.), School Facilities (to school districts), Traffic Mitigation Fee, Central Petaluma Specific Plan Fee and the Affordable Housing In-Lieu Contribution fees. The development impact fees are due at time of issuance of building permit (commercial uses) or occupancy (residential uses) at which time, other pertinent fees that are applicable to the proposed project will be required. As such the applicant is responsible for the payment of all impact fees, specifically including Traffic Impact Fees.

PH 8-4 Parking for Play Field and Boathouse. The commenter asks for clarification that parking for the playfield and boathouse is adequate.

Response: The surface parking lot that will serve the hotel and office development is located directly north of the proposed Active Park. This parking lot will be utilized for shared parking and will allow for public parking including the Park use during certain time periods, which will accommodate all users.

The project requires 378 parking spaces for the commercial land uses (60,000 s.f. office, 30,000 s.f. retail/commercial and 120 room hotel). A time of use parking analysis indicates that the maximum peak hour commercial parking usage is at 10:00 AM and that the total number of parking spaces needed is 304. As a recreational playfield, the Active Park would be most heavily used on the weekends, when the parking lot would generally have empty spaces because the office buildings would not be in high use during that time.

The preliminary parking layouts provide 155 onsite parking spaces and 129 on-street parking spaces within the commercial areas for a total of 284 parking spaces. The Central Petaluma Specific Plan allows the frontage street parking to be counted toward the number of required spaces. There are an additional 280 on-street parking spaces within the residential portions of the project site. This results in a total public parking supply of 564 spaces.

Based on the shared parking proposed, the additional ample on-street parking within the development, and the variable timing of the parking demand generated by the

shared users, sufficient parking is provided consistent with the goals of the specific plan. It is expected that the parking lot will have sufficient capacity to meet parking demands generated by the hotel, retail, and playfield. The shared use of the parking lot is expected to be complimentary as each use would generate parking demands across different times of the day while still providing sufficient capacity for those overlap periods. Onstreet parking along public street internal to the project would also provide parking opportunity ties for the public park.

Although the precise design of the boathouse facility is currently unknown, it is reasonable to presume that there is sufficient room for adequate parking to be contained on Parcel D. Additionally, internal public streets provide for on-street parking and there are dedicated parking stalls adjacent to Parcel D that would provide parking for the Riverfront Park component and other public uses. Combined the onsite parking is expected to be sufficient to meet the parking demands generated by residences, visitors to the Riverfront Park, and uses associated with the future boathouse concept on Parcel D.

CITY COUNCIL HEARING – February 3, 2014

CITY COUNCIL COMMENTS

PH 9: David Glass, Mayor

PH 9-1 Fill Near Caulfield Lane Bridge Crossing. The commenter stated concerns about fill near the future Caulfield Lane Bridge Crossing resulting in settlement and asks for clarification that necessary elevations will be achieved.

Response: The grading plan calls for the placement of up to ten feet of fill in the southern portion of the site in order to achieve the necessary elevation to connect to the future bridge. The settlement potential including the area where the future Caulfield Lane Bridge would tie in has been addressed in the project geotechnical report and in the Draft EIR (see Impact 4.4-2). Given the settlement potential, this area will be closely examined at the design level geotechnical engineering stage in order to provide for sufficient fill to achieve the necessary grade alignment. The project geotechnical engineer recommends that the roadway elevation be planned so that the elevation will match the proposed bridge elevation after the predicted roadway settlement has occurred (Miller Pacific Engineering Group, December 2013). This can be accomplished by overfilling at that location equal to the expected settlement and/or the use of lightweight fill. Excavating soils and filling with lightweight fill material is another strategy that would limit the localized settlement potential and ensure that necessary elevations are achieved (Personal Communication, Olivia Ervin with Dan Caldwell, Miller Pacific Engineering Group, April 2014).

The Geotechnical Report recommends allowing for a short transition zone in order to adjust the elevation as necessary at the time the bridge is constructed (Ibid.). The grading plan has been developed to achieve the necessary elevations in the southern portion of the site to provide for ease of alignment at the time the future Caulfield Lane Bridge is constructed. Thus, horizontal alignment will be achieved. Additionally, Mitigation Measure GEO-3 calls for further design review at this location; see also Response to Comment 4-30.

PH 9-2 Onsite Wetland Mitigation. The commenter asks for an explanation as to the feasibility of onsite wetlands mitigation.

Response: The proposed project will result in fill of 0.24 acres identified as seasonal wetlands including a linear drainage ditch (0.16 acres) and isolated seasonal wetlands (0.8 acres). As designed, the proposed project will retain 0.34 acres of wetlands within the Riverfront Park. The Biological Site Assessment and Wetlands Delineation found that the wetlands on the project site to be filled (0.24 acres) are considered "low quality" due to disturbed soils, presence of non- native species and lack of significant habitat value. No riparian habitat was identified.

As described under Impact 4.2-1 of the DEIR, fill to 0.24 acres requires a 404 nationwide permit #29 from the Army Corps of Engineers and a 401 Water Quality Certificate from the Regional Water Quality Control Board. Mitigation Measure BIO-1 require that offsets to wetlands habitat consider opportunities for onsite remediation. The onsite wetlands that would be impacted are not natural wetland features, but have been created as a result of past grading and other activities on the site. Thus, suitable conditions may not be present to support created wetlands within the Riverfront Park component. Furthermore, in 2008, the U.S. Army Corps of Engineers adopted Wetlands creation requires a high level of expertise, ongoing monitoring and management once established, and performance criteria to determine if expected benefits are realized. As indicated in the DEIR, the required permits from the agencies (ACOE and the RWQCB) that regulate fill to wetlands triggers a review process that assesses the value of the habitat disturbed, determines the preferred offset (onsite, offsite or inkind), and establishes performance criteria along with a mitigation monitoring and reporting program. This process is expected to be sufficient for City purposes to ensure that adequate mitigation is provided to offset fill to 0.24 acres of wetlands.

While the creation of wetlands as part of the Riverfront Park may be technically feasible, it should be mentioned that the creation and maintenance of wetlands presents a number of technical, economical, and scientific considerations. In general, use of a mitigation bank to compensate for minor aquatic resource impacts (e.g.,

numerous, small impacts associated with linear projects; impacts authorized under nationwide permits) is preferable to on-site mitigation because of the following reasons:

1) Mitigation banks provide enhanced integrity relative to isolated creation of wetlands. The quality of the aquatic ecosystem within a mitigation bank tend to be much higher as it supports a diversity of wetland species extending onto a large contiguous parcel.
2) The level of expertise including management and scientific analysis tends to be much greater under a mitigation bank relative to project level establishment. The continuous and long-term management offered through a mitigation bank maximizes the potential for success in achieving biodiversity and watershed function goals.
3) The use of a mitigation bank increases the efficiency of review and compliance monitoring by relying on the mitigation bank manager.

In addition, in 2008 the U.S. Army Corps of Engineers (ACOE) and the U.S. Environmental Protection Agency (EPA) issued regulations governing compensatory mitigation for activities authorized by permits issued by the ACOE (40 CFR Part 230). The "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" establishes performance standards and criteria for the use of permittee-responsible compensatory mitigation, mitigation banks, and in-lieu programs to improve the quality and success of compensatory mitigation projects for activities authorized by the ACOE. The rule sets a hierarchy of methods to address wetland mitigation with a preference for mitigation bank credits, since mitigation banks must have an approved mitigation plan and other assurances. Because of the requirements imposed on mitigation banks, they generally involve less risk and uncertainty than in-lieu fee programs and permittee-responsible mitigation.

The Burdell Ranch Wetlands Conservation Bank provides in-kind wetland mitigation credits to projects that are located within the San Pablo Bay Watershed and within a 20 mile radius of the Mitigation Bank. The Riverfront Site is within the service area of the Burdell Ranch Wetland Bank and would provide beneficial function and value to the Petaluma River watershed. The ACOE is a signatory to the conservation bank agreement, whereas the RWQCB reviews wetland mitigation on a project by project basis. ACOE identifies the Burdell Mitigation Bank as an approved credit type for wetlands creation. The Burdell Bank provides an opportunity for compensation via an established and successful wetland mitigation bank that benefits the Petaluma River watershed by creating wetland habitat, restoring and enhancing riparian and native grasslands, and achieving soils and hydrological performance standards. The purchase of credits from the Burdell Bank at a mitigation ratio determined by the

regulatory agencies (preliminarily expected to be 1:1) would sufficiently compensate for environmental impacts due to fill of wetlands on the Riverfront Site.

The feasibility and efficacy of onsite wetlands creation will be further assessed during the permitting process. As described on page 4.2-11 of the DEIR either onsite wetland creation or the purchase of wetland credit from a reputable mitigation bank such as the Burdell Bank would be sufficient to reduce potential impacts due to fill of wetlands to levels below significance while providing benefit to the Petaluma watershed. Accordingly, the DEIR sufficiently addresses the potential impacts due to fill of wetlands and Mitigation Measure BIO-1 and BIO-2 is adequate to offset losses due to fill and protect wetlands within the Riverfront Park element.

PH 9-3 Petaluma River Dredging. The commenter expressed concern that financing for dredging of the Petaluma River hasn't been addressed.

Response: The project is not responsible for financing the dredging or maintenance of the Petaluma River. This is a Citywide issue that needs to be addressed through the development of a comprehensive program for the continued operation and function of the Petaluma River as a navigable waterway.

The City's General Plan and CPSP includes a number of policies that promote the preservation and expansion of River Dependent Industrial land uses. The Army Corps of Engineers will continue to provide dredging and maintenance so long as there are River-Dependent Industrial Land Uses that utilize the River as a means for transporting commerce (specified tonnage).

This understanding is evident in the City's definition of River Dependent Industrial Land Use:

> Heavy industrial manufacturing, raw material processing and related uses that require river access as an integral part of daily operations for the purpose of regularly shipping or receiving raw materials and finished products by water transport. Businesses that locate on properties with this designation shall be dependent on the Petaluma River for transporting a significant portion of its goods and materials.

The subject Riverfront project site is not designated River Dependent Industrial nor was it previously utilized or envisioned for such a use. As such, the proposed project does not change the amount of land designated as River Dependent Industrial within the Planning Area. The Riverfront site was envisioned as a Mixed-Use development as part of the CPSP and the General Plan and the subject project proposes a mix of uses. Accordingly, the Riverfront project will not affect the continued dredging of the

Petaluma River due to a change in a currently designated River Dependent Industrial uses.

In any event, the Petaluma River has not been dredged since 2006. The Army Corps of Engineers is responsible for dredging from San Pablo Bay to the Balshire Bridge, while the City is responsible for the stretch between the Turning basin and the Marina. Currently, there is no planned program for the City to conduct dredging activities and the Army Corps, who has historically provided dredging has minimal funding ($500,000) to initiate the permitting and environmental process necessary to conduct dredging. City Officials are pursuing a meeting with Army Corps of Engineers to discuss a strategy to levee funds and implement a dredging program. Staff recommends that a separate discussion ensue regarding financing opportunities for ongoing dredging of the River, however no further discussion is required for the EIR.

PH 9-4 Hydrological Impacts. The commenter expressed concern that the site hydrology and drainage could adversely affect river flows.

Response: The hydrology discussion in Section 4.6 of the DEIR addresses the proposed project storm drain system. As discussed on pages 4.6-9 to 4.6-10 of the DEIR, areas in close proximity to the River, such as the Riverfront site, do not trigger a need for onsite detention. Rather, the hydrological model suggests that those flows in proximity to the River be allowed to quickly drain and enter the waterway as opposed to being detained onsite. This determination is based on the City's surface water hydraulic model XP-SWMM, which was developed as part of the Surface Water Management Master Plan. The XP-SWMM watershed model has been reviewed and approved by FEMA. The intent of the model is to "conduct a hydrologic/hydraulic analysis of the Upper Petaluma River Watershed and evaluate potential flood mitigation alternatives, with a focus on detention basins, which may provide regional flood reduction benefits.[15] As described in the DEIR and based on City staff review of the site's hydrological conditions development of the subject site would not adversely affect river flows if storm drains are properly sized (Impact 4.6-1). Related Mitigation Measure HYRDO-1 requires the preparation of a final drainage plan as part of the Subdivision Improvement Plan, which ensures that culverts and storm drains onsite are adequately sized to manage stormwater flows and effectively provide drainage for the project site. Thus, the conclusion in the DEIR that with mitigation the project will not adversely affect hydrological conditions is reasonable and supported by the evidence in the record; no further analysis is required.

[15] Upper Petaluma River Watershed Flood Control Project Scoping Study prepared by Christy Kennedy, Phoebe Grow, Tim Harrison (RMC Water and Environment), prepared August 24, 2012.

PH 9-5 Hydrological Issues. The commenter asks that the community be educated about the hydraulic conditions.

Response: The comment is not specific to the project or DEIR analysis; however, the City provides the following discussion as background on hydrological issues. The Petaluma River is the primary drainage course for flood control and protection. There are a number of studies and publicly available documents that provide information about the Petaluma Rivers hydraulic conditions. These include the Petaluma Floodplain Management Plan,[16] which is updated every five years. As part of this updated effort, the City undergoes a public outreach effort to inform the community of hydraulic conditions and solicit input on strategies to address flooding and hydrologic concerns within the watershed. The Petaluma Floodplain Management Plan provides the following excerpt that helps to clarify the flood risk areas of the Petaluma River and activities undertaken to reduce flooding risks:

> "Historically, there are two main areas of significant flooding along the Petaluma River. The first area, lying between Denman Flat and the confluence of the Petaluma River with Lynch Creek, consists mainly of commercial, industrial, retail and undeveloped properties. The second area, located between the Lynch Creek/Petaluma River confluence and the Lakeville Street Bridge, consists mainly of residential properties developed during the 1960's. This residential area is referred to as the Payran reach Floodplain. Significant flooding can occur in the urbanized "Payran Reach" between the Lynch Creek confluence and the Lakeville Street Bridge. As of October of 2010, over 90% of the Petaluma River flood control project has been constructed. The project consists primarily of a trapezoidal channel with steel sheet pile walls along the Payran Area of the Petaluma River. The flood control project was designed flood protection in the Payran Area for the 100-year event. As a result, the Payran Area did not flood during the December 31, 2005 storm event. Flooding is reduced in depth downstream of Lakeville Street and is fairly well contained in the Petaluma River channel below the "D" Street Bridge.

It should also be mentioned that the City implements the National Flood Insurance Program and participates in the community rating system. FEMA recently updated the Flood Insurance Rate Maps (FIRMs). City and County Officials as well as multiple agencies were involved in this effort, which included several opportunities for public

[16] City of Petaluma Floodplain Management Plan, prepared October 4, 2010.

education, input and outreach. This process provided information to the community regarding floodplain issues, flooding risks, and identified areas subject to inundation.

The project site has not historically been subject to flooding, nor is a flooding hazard anticipated. However, in order to ensure that the Riverfront Project efficiently and effectively manages storm water flows and drainage, Mitigation Measure HYDRO-1 requires the preparation of a Final Drainage Plan that shows discharge culverts and storm drains are developed with adequate capacity to manage anticipated flows. Thus, there is sufficient information provided in the DEIR to adequately inform the public of the potentially significant effects associated with hydrology onsite.

PH 9-6 Intersections Evaluated in Traffic Study. The commenter asks for clarification as to the limit of the Traffic area Intersections that were analyzed.

Response: As described in the DEIR (page 4.8-13) the level of service evaluation included an in-depth analysis of six (6) study area intersections. These intersections were selected since they have the greatest potential to be affected by the proposed project. Figure 4.8-1 of the DEIR provides a graphic of the study area intersections evaluated. As is typical, project specific traffic contributions decrease with increasing distance from the project site. This is due to the condition that area wide traffic substantially overwhelms the portion of traffic that is specifically attributable to a given site. When study area intersections achieve acceptable LOS (D or greater) and project-induced deterioration (LOS E or below) is not observed, it is reasonable to conclude that intersections outside of the study area would also not deteriorate due to the project. Trips may also be further distributed among numerous streets (See DEIR Table 4.8-5 on page 4.8-13), and project-generated traffic would not further degrade LOS at intersections farther from the project site. Since study area intersections evaluated for the Riverfront project site did not compromise LOS, other intersections in the project vicinity would be expected to continue to operate at acceptable level of service. Thus, the limit of the study area intersection analysis as provided in the DEIR is sufficient and adequately captures the potential impacts to LOS.

PH 9-7 Impact Fees. The commenter asks for an understanding of the various impact fees that would be generated under the different project alternatives and how those relate to what was presumed as part of the Central Petaluma Specific Plan.

Response: Impact fees are assessed on the final entitled project. The most recent impact fee studies were completed in 2012 and were based on development assumptions for vacant and underutilized land; and in the case of projects under formal review at the time of the fee study, the proposed project assumptions at that time were used. In the case of vacant and underutilized land, the assumed intensity of development was less than the maximum buildout potential of any given parcel based on its land use

designation. The level of intensity assumed was based on historic development trends for that land use type. For example, most single-family development in recent years occurred at around 85% of maximum, as such an assumption of 85% of buildout was used for that land use type.

Development over time will vary from the fee study assumptions. Some projects may be more intense than originally assumed, while other less intense. In the best case, the variation in actual projects versus fee study development assumptions balance themselves out resulting in little change to anticipated fee revenues. However, to address this issue impact fee studies are typically reviewed every 5 years to make any necessary changes. In the case of the 2012 impact fee study, the development assumptions were adjusted from the 2008 fee study to reflect changes in development – both approved projects as well as current proposed projects at the time. Additionally the infrastructure costs were also reviewed and updated.

In the case of Riverfront, the development assumptions for that parcel were updated in 2012 to reflect the currently proposed project. Accordingly, there is no conflict with the assumptions from the CPSP. If a less intense alternative were approved then the anticipated fee revenues would be less. However, as noted above, this may be balanced by other projects that may have higher than assumed intensity. Staff has prepared fee estimates for each of the proposed Alternatives, which are included in the Staff Report.

PH 9-8 Alternative 3. The commenter requests clarification on what impacts Alternative-3 would mitigate.

Response: Alternative 3, Reduced Project Size, is addressed beginning at p. 5-18 of the DEIR. As described in the DEIR, all potential impacts generated by the project can be feasibly reduced to levels below significance with implementation of mitigation measures set forth therein. The intent of the Alternatives analysis is to provide options that avoid or substantially reduce project impacts. Beginning on page 5-18 of the DEIR is an overview of the various environmental components that would be avoided, reduced, or remain the same under Alternative 3 relative to the proposed project. In particular, relative to the proposed alternative, Alternative 3 would protect nearly 90% of the identified wetland areas, remove a number of homes from the potential affects of seismic activity and subsidence, and provide an enhanced noise buffer area by increasing the setback from the rail corridor. However, Alternative 3 would not fulfill all of the project objectives and would result in removal of the Active Park. It should be reiterated that all the proposed project impacts can be reduced to levels below significance with implementation of mitigation measures.

PH 10: Chis Alberston

PH 10-1 Air Quality Issues. The commenter requests that the impacts analysis correctly account for construction workers traveling from outside areas. .

> Response: The DEIR includes air quality analysis that accounts for construction worker trips, the delivery of materials during construction, and hauling of materials offsite. The Air Quality modeling utilized CalEEMod Version 2013.2.2, which presumes a worker trip length of 12.4 miles, a vendor trip length of 7.4 miles, and a hauling trip length of 20 miles (page 31 of Appendix C-1). These estimates are expected to reasonably capture the potential impacts associated with construction activities generated by site development. The temporary traffic generated by construction activities is not expected to overwhelm the street network or adversely affect traffic flows or conditions. The project site is situated such that all staging and construction will occur off-road and away from travel corridors.

PH 10-2 Local Labor. The commenter requests that local labor be utilized and that a preference for use of local labor be added, if feasible.

> Response: It is acknowledged that the use of local labor provides several community benefits including economic and environmental. The use of local labor infuses the local economy by providing existing residents with employment opportunities. Use of local labor also benefits the environment by requiring less travel time and reduced emissions relative to workers commuting from outside areas. It is common in Petaluma and other jurisdictions for decision makers at the time of considering a project application to encourage developers to utilize local labor. However, use of local labor is not a CEQA requirement, and there is no City or State law authority or permitting requirement applicable to the project that mandates the use of local labor in constructing the project. Thus, the DEIR does not prescribe the use of local labor or establish a preference for the use of local labor in constructing the project.

PH 11: Teresa Barrett

PH 11-1 Noise Issues. The commenter stated concerns about inoperable windows, train noise, and the generally high noise levels on the project site.

> Response: See Responses to Comments PH 1-1 through PH 1-3.

PH 11-2 Play Field Location. Commenter suggests that the location of the playfield would be a better site for the Townhomes and that the FEIR consider a swap.

Response: As described above, the noise levels at the location of the proposed townhomes are conditionally acceptable. There are design parameters that will reduce potential noise impacts to level that are below significance. The location of the Park in the central western portion of the site is ideal, as the General Plan calls for a seven-acre park on the property line. The proposed Park has been sited with the intent that in the future the adjacent parcel may be developed with a complimentary park facility that combined would achieve the 7-acres envisioned. Relocating the Townhomes would not avoid any potentially significant impact that could not otherwise be avoided, but would introduce a potential conflict with the planned development of park facilities. Accordingly, a swap of the playfield and the Townhomes is not recommended.

PH 11-3 Wetland Mitigation. The commenter asks that mitigation measure for BIO-1 state a preference for the offset to occur onsite.

Response: Please see Response to Comment PH 9-2 above.

PH 11-4 Evacuation. The commenter requests that the time estimate for an evacuation of the project site be provided.

Response: Staff from the City's Planning, Fire and Police Departments have considered the feasibility of evacuating the project site. With the use of the EVA and the primary access point, site evacuation would be feasible, although a precise time estimate is difficult to quantify as it would be dependent on the time of day, type of emergency, and several other logistical parameters that cannot be determined with a high level of certainty.

As described in the General Plan, there are a number of emergency situations that may occur within City limits. The various types of disasters resulting in emergency situations include earthquakes, floods, fires, airplane crashes, chemical spills, pipeline leaks and others. The strategy to manage emergency situations is dependent upon the type of emergency. In general emergency situations employ two approached to manage risks to residents: 1) shelter in place, or 2) evacuate.

Potential emergencies that could occur in proximity to the project site include chemical spills along the rail corridor or project area roadways. This type of emergency would result in the shelter in place strategy where residents would be alerted to the emergency, directed to stay in doors, close windows, and listen to the radio or TV for emergency instructions.

An evacuation strategy is typically employed when advanced warning is available, such as in a flood. The City has developed and employs the Flood Alert System, which monitors stream heights and precipitation. This system allows managers to coordinate

resources and provide warning in the event that evacuation is necessary. When a rainfall rate of ½ inch per hour continues for more than one hour, emergency personnel begin continuous monitoring of river levels. As certain water elevations are registered on monitoring gauges, City procedures are initiated including activation of the City's Emergency Operations Center (EOC). Once activated, City staff begins to execute standard management operation plans. Once the evacuation order is given, field personnel go door-to-door to notify residents that they must leave. When stream gauge readings reflect a pre-determined level, the National Weather Service Alert System is activated, and a flash flood warning is automatically announced to the National Oceanic and Atmospheric Administration (NOAA). These warnings are relayed as standard radio and TV broadcasts.

The City's fire and police departments are responsible for Disaster Preparedness and executing standard management operation plans once an emergency has occurred. Through the Disaster preparedness program, the Fire Department provides information and training to the community, and representation to the Office of Emergency Services Coordinator.

The project site is sufficiently elevated such that historic flooding events have not adversely impacted the subject site. Based on the 100-year flood event, project elevations, and site hydraulic conditions, a flooding emergency requiring site evacuation is not expected to occur. However, given the site's proximity to the Petaluma River an extreme flooding event could result in flooding along the SMART railway, portions of Hopper Street and low lying areas in the northeast portion of the site. Given the Flood Alert System, the City's EOC, and adopted emergency policies, sufficient advanced warning is expected to be provided to resident to facilitate a timely evacuation. The proposed project does not introduce new residents or structures to areas that are particularly susceptible to disasters or emergency situation that would increase exposure risks beyond what was analyzed in the General Plan EIR.

The DEIR characterizes the potential hazards and risks associated with the proposed development. Although a precise evacuation time is unknown the City's EOC, established protocols for emergencies, and the EVA routes onsite provide for sufficient warning, protection, and support to be provided in the event of a disaster or emergency occurring in proximity to the project site.

PH 11-5 SmartCode Clarification. The commenter asks for clarification about the amended SmartCode.

Response: See Response 4-64. City Council amended Section 2 of the 2013 SmartCode Amendments, providing that the Riverfront Project need not comply with Section 4 –

Urban Standards. This allowance was granted given that the project was designed utilizing the Urban Standards for Zones T-4, T-5 and T-6 from the 2003 SmartCode and that the application for the Riverfront Tentative Subdivision Map was deemed complete prior to the July 1, 2013 adoption of the Revised SmartCode. Pursuant to the Subdivision Map Act Section 66474.2(c) the Tentative Subdivision Map will continue to be processed under the 2003 SmartCode.

In order to address potential conflicts in the Riverfront Project design with the amended SmartCode 2013, the Section 2 amendment was granted, which allows the Riverfront Project to utilize the 2003 SmartCode until the earlier of: six (6) years following the effective date of the Amended SmartCode (2019), or until all buildings that require certificates of occupancy are completed and issued certificates of occupancy. Should the Riverfront Tentative Subdivision Map not be approved, or the project not be built out within six years of adoption of the Amended SmartCode 2013, future applications and project proposals would be processed under the 2013 Amended SmartCode. Essentially, certificates of occupancy would need to be obtained by July 2019 in order to strictly comply with provision Section 2 of the Amended SmartCode.

Based on the projected development schedule and phasing staff anticipates that a majority of the site development that warrants deviating from the SmartCode, primarily in the southern residential area, will be buildout within the 6 year horizon. In the event that development were to be delayed to such an extent that limited improvements where to occur onsite by 2019, then staff would presume the 6 year period to have expired and require redesign of the site to comply with the 2013 Amended SmartCode 2013

PH 12: Mike Harris

PH 12-1 Groundwater Impacts. The commenter asks for clarification about the project's impact to groundwater wells onsite and in the project vicinity.

Response: There are no groundwater wells located on the project site or in the immediate project vicinity. The nearest groundwater well is located more than one mile east of the site is currently inactive. The project does not propose use of groundwater to serve the project. As indicated on page 24 of the Initial Study (Appendix A in the Draft EIR), the project site is not located within a groundwater recharge area. Thus, the project would not result in any impacts to groundwater wells or directly or indirectly interfere with groundwater recharge.

PH 13: Mike Healy

PH 13-1 Sea Level Rise. The commenter asks for clarification about the project specific elevations and onsite topography considering sea level rise and how it relates to downtown.

Response: Please see Response to Comment PH 4-1 and Section 3.0 revisions to DEIR.

PH 14: Gabe Kearney

PH 14-1 Sea Level Rise. The commenter asks that information be provided describing sea level rise onsite and relative to downtown.

Response: Please see Response to Comment PH 4-1 and Section 3.0 revisions to DEIR.

PH 15: Kathy Miller (Not in Attendance)

PUBLIC COMMENTS

No Public Comments