

**City of Santa Cruz  
Environmental Checklist Form/Initial Study**

**I. BACKGROUND**

1. **Application No:** CP-13-0075
2. **Project Title:** 170 Belvedere Terrace
3. **Lead Agency Name and Address:**  
City of Santa Cruz Planning Department  
809 Center Street, Room 206  
Santa Cruz, CA 95060
4. **Contact Person and Phone Number:** Michael Ferry, (831) 420-5118
5. **Project Location:** 170 Belvedere Terrace (APN 009-212-29) in the City of Santa Cruz; see Figure 1.
6. **Project Applicant's/Sponsor's Name and Address:**  
OWNER: James & Jeriann Bosso, 200 Linden Street, Santa Cruz, CA 94050  
REP: Jason Anderlite
7. **General Plan Designation:** Community Commercial
8. **Zoning:** CC – Community Commercial
9. **Description of the Project:** The project consists of an Administrative Use Permit for use determination to allow a single-family home in a CC zone, a Slope Modification Permit for construction within 20 feet of a 30 percent slope, and a Design Permit to construct a 2,704 square house in the CC district. The proposed single-family home is two-stories and approximately 20 feet in height. The structural square footage includes three bedrooms, one with a loft, and an attached two-car garage. The site plan is shown on Figure 2.
10. **Other public agencies whose approval is required:** None Known.

**II. ENVIRONMENTAL SETTING AND SURROUNDING LAND USES**

The approximate 10,000-square foot (0.23 acre) project site is located within the developed eastern portion of the City of Santa Cruz. The site is bordered by a slope that descends to Water Street on the south, Belvedere Terrace and newer homes on the east, single-family homes on the north, and a slope that descends to a residential area on the west.

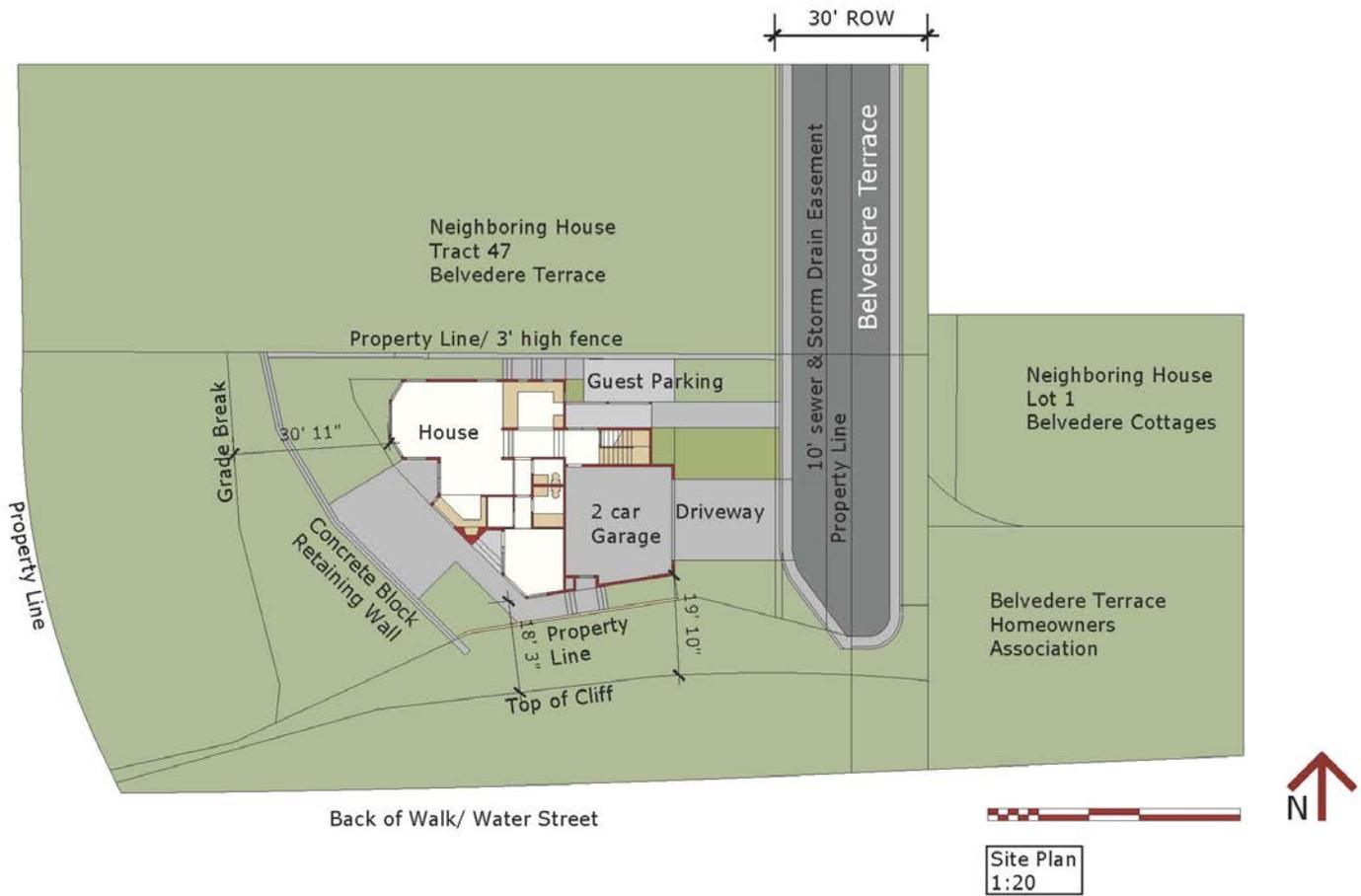
The project site has a relatively flat building area bordered by moderate to steep slopes to the south and west. The net site area without the areas of steep slopes and street right-of-way is approximately 4,600 square feet. The site consists of non-native, mowed grassland

with several small ornamental trees. The site is undeveloped except for a concrete block retaining wall.

**FIGURE 1: VICINITY LOCATION**



FIGURE 2: SITE PLAN



### III. ENVIRONMENTAL CHECKLIST

**Environmental Factors Potentially Affected by the Project:** The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

#### A. Instructions to Environmental Checklist

1. A brief explanation is required (see VI. "Explanation of Environmental Checklist Responses") for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question (see V. Source List, attached). A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that any effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier Analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case a discussion should identify the following on attached sheets:
  - a) *Earlier Analysis used.* Identify earlier analyses and state where they are available for review.
  - b) *Impacts adequately addressed.* Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) *Mitigation measures.* For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. The explanation of each issue should identify:
  - a) The significance criteria or threshold, if any, used to evaluation each question; and
  - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

## **B. Use of Earlier Analyses**

In analyzing the proposed project, the City may consider whether existing environmental documents already provide an adequate analysis of potential environmental impacts. An earlier analysis may be used where, pursuant to the tiering, program EIR, or other California Environmental Quality Act (CEQA) provisions, if it can be determined that one or more effects have been adequately analyzed in an earlier EIR or negative declaration (State CEQA Guidelines section 15063(c)(3)(D)).

The preparation of this Initial Study has drawn from analyses contained in the *City of Santa Cruz General Plan 2030 EIR* (April 2012), which includes the Draft EIR volume (September 2011) and the Final EIR volume (April 2012). The Santa Cruz City Council certified the EIR and adopted the *General Plan 2030* on June 26, 2012. The General Plan EIR is a "program" EIR prepared pursuant to State CEQA Guidelines Section 15168, which reviewed environmental impacts associated with future development and buildout within the City's planning area that would be accommodated by the General Plan. A program EIR can be used for subsequent projects implemented within the scope of the program/plan and where the project is consistent with the general plan and zoning of the city or county in which the project is located. Typically, site-specific impacts or new impacts that weren't addressed in the program EIR would be evaluated in an Initial Study, leading to preparation of a Negative Declaration, Mitigated Negative Declaration or EIR. Site-specific mitigation measures included in the General Plan EIR also would be a part of future development projects, and

supplemented, as may be necessary with site-specific mitigation measures identified in the subsequent environmental review process.

The General Plan EIR reviewed all of the topics included on the Appendix G environmental checklist in the State CEQA Guidelines. Specific future development of the project site was not noted or evaluated in the *General Plan 2030* EIR, and there were no site-specific impacts identified for the project site. However, as part of the overall estimated buildout, the EIR considered construction of new housing units and non-residential uses in the City with an estimated buildout of 3,350 new residential units throughout the City by the year 2030 with an associated population increase of 8,040 residents (SOURCE V.1c, page 3-13<sup>1</sup>). The proposed single-family structure would be within the residential buildout evaluated in the General Plan EIR. The project is consistent with the City's General Plan and zone designations as the implementing zone Community Commercial zone district allows residential uses with an Administrative Use Permit. (See section VI.10 below for further discussion.)

In accordance with CEQA and the State CEQA Guidelines, this Initial Study is being "tiered" from the *General Plan 2030* EIR. "Tiering" refers to using analyses of general matters contained in an EIR for a plan with later environmental analyses for development projects, concentrating solely on the issues specific to the later project. This approach is in accordance with State CEQA Guidelines section 15152, which encourages lead agencies to use an EIR prepared for a general plan or other program or ordinance, when the later project is pursuant to or consistent with the program or plan. The Initial Study tiers from the *General Plan 2030* EIR for the following topics:

- Cultural Resources – Paleontological Resources,
- Greenhouse Gas Emissions,
- Population and Housing,
- Public Services,
- Recreation, and
- Utilities, except for water supply.

The *General Plan 2030* EIR is on file at the City's Planning and Community Development Department, 809 Center Street, Room 107, Santa Cruz, California from 8:00 AM to 12:00 PM and 1 to 5 PM, Monday through Thursday and Friday mornings from 8:00 Am to 12:00 PM. The documents are also available for review on the City of Santa Cruz Planning Department's website at: <http://www.cityofsantacruz.com/index.aspx?page=348>.

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<sup>1</sup> See subsection V at the end of this document for a list of reference source documents.

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. AESTHETICS. Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista? (V.1c-Figure 4.3-1)				✓
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				✓
<b>2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement Methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</b>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? (V.1c-Figure 4.15-1)				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?				✓
b) Violate any air quality standard or contribute to an existing or projected air quality violation?			✓	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			✓	
d) Expose sensitive receptors to substantial pollutant concentrations?				✓
e) Create objectionable odors affecting a substantial number of people?				✓
<b>4. BIOLOGICAL RESOURCES. Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (V.1c-Figure 4.8-1 & 4.8-3)				✓
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (V.1c-Figure 4.8-1 & 4.8-3)				✓
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓
<b>5. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		✓		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	
d) Disturb any human remains, including those interred outside of formal cemeteries?		✓		
<b>6. GEOLOGY AND SOILS. Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (V.1c)</li> <li>ii. Strong seismic ground shaking?</li> <li>iii. Seismic-related ground failure, including liquefaction? (V.6)</li> <li>iv. Landslides? (V.6)</li> </ul>			✓	✓
b) Result in substantial soil erosion or the loss of topsoil?			✓	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		✓		

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		✓		
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓
<b>7. GREENHOUSE GAS EMISSIONS. Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓
<b>8. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				✓
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				✓
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ miles of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				✓
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>9. HYDROLOGY AND WATER QUALITY. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?				✓
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				✓
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				✓
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			✓	
f) Otherwise substantially degrade water quality?			✓	
g) Place housing within a 100-year flood-hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? (V.lc-Figure 4.7-1)				✓
h) Place within a 100-year flood-hazard area structures which would impede or redirect flood flows? (V.lc-Figure 4.7-1)				✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Inundation by seiche, tsunami, or mudflow?				✓
<b>10. LAND USE AND PLANNING. Would the project:</b>				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?				✓
<b>11. MINERAL RESOURCES. Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? (V.1)				✓
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				✓
<b>12. NOISE: Would the project:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?		✓		
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				✓
c) Substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				✓
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓
<b>13. POPULATION AND HOUSING. Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>14. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:</b>				
a) Fire protection?			✓	
b) Police protection?			✓	
c) Schools?			✓	
d) Parks?			✓	
e) Other public facilities?			✓	
<b>15. RECREATION. Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	
<b>16. TRANSPORTATION/TRAFFIC. Would the project:</b>				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment)?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?				✓
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				✓
<b>17. UTILITIES AND SERVICE SYSTEMS. Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction or which could cause significant environmental effects?				✓
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				✓
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				✓

<b>ENVIRONMENTAL IMPACTS Issues (and Supporting Information Sources):</b>	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>18. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:</b>				
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.)			✓	
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				✓

## DISCUSSION OF ENVIRONMENTAL EVALUATION

See Section VI--ENVIRONMENTAL EVALUATION for discussion.

#### IV. DETERMINATION

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	✓
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

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Michael Ferry, Associate Planner

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Date

## V. REFERENCES AND DATA SOURCE LIST

1. City of Santa Cruz *General Plan 2030* and EIR.
  - a) June 26, 2012. Adopted. *General Plan 2030*.
  - b) April 2012. "City of Santa Cruz *General Plan 2030* Final EIR."
  - c) September 2011. "City of Santa Cruz *General Plan 2030* Draft EIR."
2. City of Santa Cruz. Adopted December 2011. *2010 Urban Water Management Plan*. Prepared by City of Santa Cruz Water Department.
3. Monterey Bay Unified Air Pollution Control District.
  - a) August 2008. *2008 Air Quality Management Plan for the Monterey Bay Region*.
  - b) February 2008. "CEQA Air Quality Guidelines."
4. Archaeological Resource Service.
  - a) July 2013. "Results of an Archaeological Testing Program, 170 Belvedere Terrace, Santa Cruz, Santa Cruz County, California."
  - b) May 22, 2013. "A Cultural Resources Evaluation of 170 Belvedere Terrace, Santa Cruz, Santa Cruz County, California."
5. Archaeological Resource Management. December 10, 2007. "Archaeological Monitoring Program for the Property at 175 Belvedere Terrace in the City of Santa Cruz."
6. Bauldry Engineering, Inc. April 2013. "Geotechnical Investigation for Proposed Single Family Residence, 170 Belvedere Terrace, Santa Cruz, California, APN 009-212-29."

Initial Study Preparation: Strelow Consulting and City of Santa Cruz Planning and Community Development Department.

## VI. EXPLANATION OF ENVIRONMENTAL CHECKLIST RESPONSES

### 1. Aesthetics.

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Eliminate or substantially adversely affect a scenic vista or scenic resources, including visually prominent trees, rock outcrops, or historic buildings along a state scenic highway;*
- *Substantially degrade the existing visual character or quality of the site and surroundings, i.e., be incompatible with the scale or visual character of the surrounding area; or*
- *Create a new source of substantial light or glare.*

(a-b) Scenic Views and Scenic Resources. The project site is located north of Water Street within a developed residential neighborhood. According to maps developed for the City's *General Plan 2030* and included in the General Plan EIR (SOURCE V.1c-Figure 4.3-1), the project site is not within a mapped panoramic view. The project area is developed, and based on field observations, the project site is not within a scenic view. Thus, there would be no impacts to scenic views.

The proposed building site is relatively flat, consisting of non-native grassland. There are five small ornamental trees on the western edge of the building site that are 10 inches in diameter or less. The trees are not visually prominent and would not be considered scenic resources. Although they would be removed, they are not heritage trees under City regulations, and removal would not result in an impact to scenic resources.

(c) Effects on Visual Character of Surrounding Area. The proposed project is located within a developed area of the City of Santa Cruz on the edge of a residential and commercial area. The residential area along Belvedere Street is characterized by primarily single-story single-family homes of various sizes and age. Four newer, two-story single-family homes are located on Belvedere Terrace immediately east of the project site. The home to the north of the project site is a single story home.

*Impact Analysis.* The proposed project will result in construction of one single-family home within a developed residential neighborhood. The size and scale is similar to other newer homes in the immediate vicinity, although the structure is more modern and of slightly more massing than other older structures along Belvedere Street. However, the proposed structure is compatible in size and massing with the newer homes and other two-story homes in the immediate vicinity along Belvedere Terrace. Details of the proposed design will be reviewed by City staff and decision-makers as part of the Design Permit. The project would not result in a substantial degradation to the visual character of the surrounding area, and the impact is considered less than significant.

(d) Light and Glare. The project will not result in introduction of a major new source of light and glare, although there will be exterior building and driveway lighting that is typical of residential neighborhoods throughout the City. This is not expected to create significant visual impacts on the surrounding area as lighting would not be directed to offsite adjacent properties.

## **2. Agriculture and Forest Resources.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Convert prime farmland, unique farmland or farmland of state importance to non-agricultural uses;*
- *Conflict with existing zoning for agricultural use or a Williamson Act contract;;*
- *Conflict with existing zoning for, or cause rezoning of, forest land;*
- *Result in the loss of forest land or conversion of forest land to non-forest use; or Involve other changes to the existing environment which, due to their location or nature, could*

*result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.*

The project site does not contain prime or other agricultural lands as mapped on the State Farmland Mapping and Monitoring Program, (SOURCE V.1c-Figure 4.15-1). The site is not designated for agricultural uses in the City's General Plan, and is not located adjacent to agricultural lands. The project site is not zoned Timberland Preserve. Thus, the proposed project would not result in conversion of agricultural or forest lands to other uses.

### **3. Air Quality.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Conflict with or obstruct implementation of the applicable air quality plan;*
- *Violate any air quality standards or contribute substantially to an existing or projected air quality violation, i.e. result in generation of emissions of or in excess of 137 pounds per day for VOC or No<sub>x</sub>, 550 pounds per day of carbon monoxide, 150 pounds per day of sulfur oxides (SO<sub>x</sub>), and/or 82 pounds per day of PM<sub>10</sub> (due to construction with minimal earthmoving on 8.1 or more acres per day or grading/excavation site on 2.2 or more acres per day for PM<sub>10</sub>) pursuant to impact criteria for significance developed by the MBUAPCD (MBUAPCD, "CEQA Air Quality Guidelines," February 2008);*
- *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);*
- *Expose sensitive receptors to substantial pollution concentrations; or*
- *Create objectionable odors affecting a substantial number of people.*

**(a) Conflict with Air Quality Management Plan.** The project site is designated for residential uses. The proposed project will result in construction of one single-family home. Effective September 1, 2011 the Monterey Bay Unified Air Pollution Control District (MBUAPCD) Board approved a new procedure for determining whether a residential project conflicts with the District's adopted *Air Quality Management Plan* (AQMP). The new procedure uses AMBAG's adopted housing unit forecast instead of population, and the MBUAPCD has developed a spreadsheet to assist jurisdictions with developing calculations, which was used in the following analysis.

The City had 23,410 existing dwelling units as of January 1, 2013 with a total population of 62,372 residents.<sup>2</sup> There are 403 residential units that are under construction or have been approved. With these units and the proposed project increase of one residential unit, there would be a total of 23,813 dwelling units within the City, which is below the AMBAG forecast of 24,133 dwelling units in 2015. With addition of pending permit applications for 155 proposed residential units, the total dwelling unit count for the City (23,968) would still be

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<sup>2</sup> California Department of Finance. May 2013. "E-5 Population and Housing Estimates for Cities, Counties and the State, 2010-2013 with 2010 Census Benchmark." Online at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

below the amount forecast for 2015. Therefore, the proposed project is consistent with the AQMP, and would not conflict with or obstruct implementation of the AQMP.

**(b) Project Emissions.** To protect public health, both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards (AAQS) that are the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety to protect public health and welfare. The national standards address six criteria pollutants, including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, fine particulate matter (both PM<sub>10</sub> and PM<sub>2.5</sub>, which refer to particles less than 10 microns and 2.5 microns, respectively), and lead. The state standards, which are generally more stringent than the federal standards, apply to the same pollutants as the federal standards do, but also include sulfate, hydrogen sulfide, and vinyl chloride.

The North Central Coast Air Basin (NCCAB), in which the project site is located, is under the jurisdiction of the Monterey Bay Air Pollution Control District (MBUAPCD) and includes Santa Cruz, Monterey and San Benito Counties. The NCCAB is currently in attainment for the federal PM<sub>10</sub> (particulate less than 10 microns in diameter), ozone, nitrogen dioxide, sulfur dioxide, and carbon monoxide standards and is unclassified or attainment for the federal PM<sub>25</sub> and lead standards. The basin is designated non-attainment for the state ozone and PM<sub>10</sub> standards, and is in attainment for all other state standards, except for carbon monoxide for which it is unclassified (SOURCE V.3a).

*Impact Analysis.* The proposed project consists of construction of one single-family dwelling. The proposed residential use is at a level that is substantially below the District's screening level for the number of single-family units that could result in potential significant ozone impacts as set forth in the MBUAPCD's "CEQA Air Quality Guidelines" (SOURCE V.3b). Therefore, project emissions would not be considered substantial or result in an air quality violation, and the impact is considered a less-than-significant impact.

Project construction could result in generation of dust and PM<sub>10</sub> emissions. According to MBUAPCD's "CEQA Air Quality Guidelines" (as updated in February 2008), 8.1 acres could be graded per day with minimal earthmoving or 2.2 acres per day with grading and excavation without exceeding the MBUAPCD's PM<sub>10</sub> threshold of 82 lbs/day. The project site area totals approximately 0.23 acres, which would be substantially below this threshold. Thus, no significant dust generation or PM<sub>10</sub> emissions impacts would occur with project grading.

**(c) Cumulative Pollutant Increases.** According to the MBUAPCD CEQA Guidelines, projects that are consistent with the "Air Quality Management Plan" (AQMP) would not result in cumulative impacts as regional emissions have been factored into the Plan. The MBUAPCD prepares air quality plans, which address attainment of the state and federal emission standards, and which, incorporate growth forecasts developed by AMBAG. As indicated above, the proposed project is within projected development accounted for in the AQMP and would not conflict with the adopted Air Quality Management Plan for the region. The AQMP takes into account cumulative development within the City, and thus, cumulative emissions have been accounted for in the Plan.

(d) Sensitive Receptors. The project site is located within a developed portion of the City of Santa Cruz. The proposed residential use would not result in stationary emissions. Thus, the proposed project will not expose sensitive receptors to substantial pollutant concentrations.

Diesel particulate matter was identified as a toxic air contaminant (TAC) by the State of California in 1998. Following the identification of diesel as a TAC, the California Air Resources Board (CARB) developed a comprehensive strategy to control diesel PM emissions. The “Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles”—a document approved by ARB in September 2000—set goals to reduce diesel PM emissions in California by 75% by 2010 and 85% by 2020. This objective would be achieved by a combination of approaches (including emission regulations for new diesel engines and low sulfur fuel program). An important part of the Diesel Risk Reduction Plan is a series of measures for various categories of in-use on- and off-road diesel engines, which are generally based on the following types of controls:

- Retrofitting engines with emission control systems, such as diesel particulate filters or oxidation catalysts,
- Replacement of existing engines with new technology diesel engines or natural gas engines, and
- Restrictions placed on the operation of existing equipment.

Once the Diesel Risk Reduction Plan was adopted, the CARB started developing emission regulations for a number of categories of in-use diesel vehicles and equipment. In July 2007, the CARB adopted regulations for in-use, off-road diesel vehicles that will significantly reduce particulate matter emissions by requiring fleet owners to accelerate turnover to cleaner engines and install exhaust retrofits.

*Impact Analysis.* Demolition, excavation, grading and project construction could involve the use of diesel trucks and equipment that will emit diesel exhaust, including diesel particulate matter, which is classified as a toxic air contaminant. Adjacent residents to the north and east could be exposed to construction-related diesel emissions, but activities that would use diesel equipment would be of temporary and of short-term duration. Thus, potential exposure to adjacent residents is considered a less-than-significant impact.

Construction-related diesel emissions would be of limited duration (i.e., primarily during grading) and temporary. CARB has identified diesel exhaust particulate matter as a toxic air contaminant, and assessment of toxic air contaminant cancer risks is typically based upon a 70-year exposure period. Project excavation and construction activities that would utilize diesel-powered equipment would expose receptors to possible diesel exhaust for a very limited number of days out of a 70-year (365 day per year, 24-hour per day) period. Because exposure to diesel exhaust will be well below the 70-year exposure period, and given the limited and short-term duration of activities that would use diesel equipment, construction-related diesel emissions are not considered significant. Furthermore, the State is implementing emission standards for different classes of on- and off-road diesel vehicles and equipment that applies to off-road diesel fleets and includes measures such as retrofits. Additionally, Title 13 of the California Code of Regulations (section 2485(c)(1)) prohibits idling of a diesel engine for more

than five minutes in any location. Thus, the project would not expose sensitive receptors to substantial pollutant concentrations, and potential exposure of sensitive receptors to diesel emissions and associated risks is considered a less-than-significant impact.

(e) Odors. Due to the nature of the proposed – a single-family home, the project would not result in creation of odors or significant impacts related to odors.

#### **4. Biological Resources.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Have a substantial adverse effect, either directly or through habitat modifications on; or substantially reduce the number or restrict the range of any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*
- *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;*
- *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*
- *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;*
- *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*
- *Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan;*
- *Substantially reduce the habitat of a fish or wildlife species;*
- *Cause a fish or wildlife population to drop below self-sustaining levels; or*
- *Threaten to eliminate a plant or animal community.*

The project site is located within a developed, urbanized area of the City. The currently vacant project site contains non-native grasses and several small trees on the building site. According to maps developed for the City's *General Plan 2030* and included in the General Plan EIR, the project site is not within a mapped sensitive habitat area (SOURCE V.1c-Figure 4.8-3). Project construction would not result in impacts to special status species, sensitive habitat areas or biological resources as none are present on or adjacent to the site.

(e) Conflict with Local Ordinances - Tree Removal. The project site contains five small trees that will be removed for construction. However, all the trees are 10 inches or less in diameter and are not heritage trees according to City regulations. Therefore, the project would not result in conflicts local policies or regulations to protect trees.

(f) Habitat Conservation Plans. There are no adopted Habitat Conservation or Natural Community Conservation Plans in the project vicinity.

## 5. Cultural Resources.

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Cause a substantial adverse change in the significance of an archaeological resource.*
- *Disturb any human remains, including those interred outside of formal cemeteries.*
- *Cause a substantial adverse change in the significance of an historic resource pursuant to Section 15064.5 of the State CEQA Guidelines. A “substantial adverse change in the significance of an historical resource” means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of an historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources or local register of historical places.*
- *Pursuant to CEQA Guidelines, “historical resources include a resource listed in, or determined to be eligible for listing in the California Register of Historical Resources; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.*

(a-b,d) Historical and Archaeological Resources. According to maps developed for the City's *General Plan 2030* and included in the General Plan EIR and General Plan, the project site is not within a designated historic district (as identified in the City's General Plan or Historic Building Survey) (SOURCE V.1c-Figure 4.9-4). The site is undeveloped, and there are no structures present on the site.

According to maps developed for the City's *General Plan 2030* and included in the General Plan EIR, the project site is within a mapped “highly sensitive” archaeological area (SOURCE V.1c-Figure 4.9-1) and within a “highly sensitive” historical archaeological area (SOURCE V.1c-Figure 4.9-3). The project site is located adjacent to a recorded archaeological site that includes remnants of the Cornelio Perez Adobe, one of several structures in the original Spanish era Villa de Branciforte settlement (SOURCE V.4b). Remains of the Perez adobe were recorded as an archaeological site in 2004 after parts of the foundation were discovered during construction of a home in the vicinity (Ibid.).

Subsurface testing conducted at nearby 175 Belvedere in 2005 discovered some artifacts, but the foundation of the Perez Adobe was not found and impacts were not deemed historically sensitive, although archaeological monitoring during construction was recommended (SOURCE V.4b). A subsequent review later in 2005 concluded that the recorded site is a significant and unique historic resource, and concluded that construction at 175 Belvedere Terrace could impact significant cultural resources because although foundation remains of the Perez Adobe were not found, historic artifacts associated with the adobe were identified (Ibid.).

An archaeological monitoring program was implemented during construction of four new homes at 175 Belvedere Terrace. A number of historic materials were recovered, and four segments of the siltstone foundation, presumed to be associated with the Perez Adobe, were encountered primarily in the public street outside of the primary building area. Aside from the adobe foundation segments, no significant mid-nineteenth century artifactual material, which would have linked the site to the adjacent Perez Adobe, was recovered (SOURCE V.5). In response to these findings, a National Register Eligibility Statement was completed for the property and submitted to the State Historic Preservation Office (SHPO), which concluded that the property was potentially eligible for inclusion in the National Register of Historic Places, and recommended mitigation in the form of avoidance of the adobe foundation and continuance of the ongoing archaeological monitoring. Evidence was also found during construction of what seems to be an associated prehistoric archaeological site (SOURCE V.4a).

An archaeological investigation was conducted for the project site at 170 Belvedere Terrace, which included a records search and site survey. The field survey did not result in the identification of any potentially significant cultural artifacts or features. The report concluded that the adjacent recorded site is both a significant and unique historic site pursuant to CEQA, dating to the Spanish, Mexican and American periods. While the survey did not result in the identification of artifacts or features that appeared to be associated with the former adobe, most features and artifacts that have been found were located subsurface and were not visible on the surface (SOURCE V.4b). Due to potential subsurface presence of features associated with the adjacent recorded site, further investigation was recommended (Ibid.). Three trenches were excavated on the project site under the direction of an archaeologist to further investigate subsurface conditions. The results found that the project site does not contain any remnant of the old adobe building or concentrated historic or prehistoric artifacts; no potentially significant archaeological resources or were observed during the process (SOURCE V.4a).

*Impact Analysis.* Project construction could result in discovery of subsurface cultural and/or historical materials or artifacts due to proximity to a recorded significant historical archaeological site, even though no concentrated artifactual or structural features were found in the three trenches excavated at the project site. This is considered a potentially significant impact. Therefore, the project archaeologist recommended that archaeological monitoring be conducted during the initial site preparation and grading for underground excavation for foundations and utility lines. Should unknown resources be found during construction, section 24.12.430 of the City's Municipal Code sets forth the procedure to follow in the event that prehistoric or cultural features are accidentally discovered during construction. The following mitigation measures will reduce the impact to a less-than-significant level.

MITIGATION MEASURE 1: Require a qualified archaeologist be present for all subsurface disturbance associated with the excavation for building foundations and utility lines. The archaeologist shall monitor construction activities and collect all cultural materials encountered in accordance with procedures specified in an archaeological monitoring program. The archaeologist shall have the authority to stop construction as needed to collect and assess cultural materials.

MITIGATION MEASURE 2: If cultural resources are found at any time, and the find is determined to be significant, the Planning Director shall be immediately notified, and appropriate mitigation measures shall be formulated and implemented in accordance with section 24.12.430 of the City's Municipal Code – "Protection of Archaeological Resources." The County Coroner and shall be notified in accordance with provisions of Public Resources Code 5097.98-99 in the event human remains are found and the Native American Heritage Commission shall be notified in accordance with the provisions of Public Resources Code section 5097 if the remains are determined to be Native American.

(c) Paleontological Resources. According to maps developed for the City's *General Plan 2030* and included in the General Plan EIR, the project site is within an area mapped as Purisima Formation geologic formation (SOURCE V.1c-Figure 4.9-5), which is known to contain fossils (SOURCE V.1c). The General Plan EIR mitigation 4.9-2 added General Plan Action HA1.2.3 which requires the City to notify applicants within paleontologically sensitive areas of the potential for encountering such resources during construction and condition approvals that work will be halted and resources examined in the event of encountering paleontological resources during construction. If the find is significant, the City would require treatment of the find in accordance with the recommendations of the evaluating paleontologist. Treatment may include, but is not limited to, specimen recovery and curation or thorough documentation. With application of the notification and process to follow in the event that paleontological resources are discovered during construction, as required by the General Plan, the project would not result in significant impacts. The following Condition of Approval is recommended in the event that unknown resources are encountered.

RECOMMENDED CONDITION OF APPROVAL: The City shall notify applicants within paleontologically sensitive areas of the potential for encountering such resources during construction and condition approvals that work will be halted and resources examined in the event of encountering paleontological resources during construction. If the find is significant, the City should require the treatment of the find in accordance with the recommendations of the evaluating paleontologist. Treatment may include, but is not limited to, specimen recovery and curation or thorough documentation.

## 6. Geology and Soils.

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Expose people or structures to potential substantial adverse effects resulting from the rupture of a known earthquake fault, seismic ground shaking, landslides, or seismic-related ground-failure, including liquefaction, and that cannot be mitigated through the use of standard engineering design techniques.*
- *Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide or slope failure.*
- *Result in substantial soil erosion or the loss of topsoil and subsequent sedimentation into local drainage facilities and water bodies.*

- *Be located on an expansive soil, as defined by the Uniform Building Code (1997) or subject or other soil constraints that might result in deformation of foundations or damage to structures, creating substantial risks to life or property.*

(a-i) Fault Rupture. The project site is located in a seismically active region of California and the region is considered to be subject to very intense shaking during a seismic event. The City of Santa Cruz is situated between two major active faults: the San Andreas, approximately 11.5 miles to the northeast and the San Gregorio, approximately nine miles to the southwest. There are no active fault zones or risk of fault rupture within the City (SOURCE V.1c).

(a-ii-iv,c) Seismic and Geologic Hazards. According to maps developed as part of the City's recently adopted *General Plan 2030* and included in the General Plan EIR and General Plan, the project site is not located in an area identified as being subject to liquefaction hazards (SOURCE V.1c-Figure 4.10-4). The site is located adjacent to mapped steep slopes (SOURCE V.1c-Figure 4.10-5), but is not located within mapped landslide deposits (SOURCE V.1c-Figure 4.10-3). A geotechnical investigation was conducted for the project site that including soils testing. The report concluded that the potential for liquefaction at the site is considered low (SOURCE V.6).

*Impact Analysis.* The proposed residential structure would be subject to seismic shaking from an earthquake on regional faults. Construction of the building in conformance with current California Building Code, as will be required, will provide a design to withstand an ordinary level of seismic risk and generally prevent collapse (SOURCE V.6). Construction of the building in conformance with recommendations contained in the project geotechnical report will be required, which includes seismic design parameters.

(b) Erosion Potential. The project site is not located within an area that is mapped as having high erosion potential (SOURCE V.1c-Figure 4.10-6), although the project geotechnical report indicates that the surface soils are classified as moderately to highly erodible (SOURCE V.6). The housing site is flat, and substantial excavation and grading are not proposed, so significant erosion impacts are not anticipated. Standard erosion control measures, including revegetation after construction would minimize erosion. Although mitigation measures are not required as no significant impacts have been identified, the following Condition of Approval is recommended.

RECOMMENDED CONDITION OF APPROVAL.. Implement erosion control measures, including, but not limited to: conduct grading prior to the rainy season if possible; protect disturbed areas during the rainy season; implement other Best Management Practices (BMPs) during construction to protect water quality; and immediately revegetate disturbed areas.

(c) Landslides and Slope Stability. The project site has a relatively flat building area bordered by moderate to steep slopes to the south and west. The steep slope on the south side of the parcel is near vertical and ranges in height from 30 to 35 feet. Concrete debris and sand bags filled with concrete appear to have been placed and grouted along the upper portion of the southern slope face to inhibit erosion and sloughing. The moderate slope west of the building area is approximately 30 feet in vertical height. A concrete block retaining wall approximately five feet in height has been constructed along the west edge of

the building pad on the upper western slope and has rotated and has some substantial vertical cracks (SOURCE V.6).

The project site does not contain mapped landslide deposits, and no evidence of deep-seating landsliding within the project area was observed during the geotechnical investigation (SOURCE V.6). However, a full-scale investigation to determine whether the proposed development is located on an existing deep-seated landslide or the potential for an existing deep-seated landslide to reactivate was not performed as part of the geotechnical investigation. The geotechnical investigation did not recommend additional investigation as there was no evidence of deep-seated landslides during the field investigation (per communication between City staff and project geotechnical engineer).

As indicated above, the proposed building site is bordered by a steep descending slope on the south and a moderate descending slope on the west with a failing retaining wall adjacent to the building site. The subject slopes are comprised of siltstone bedrock overlain by approximately three to eight feet of artificial fill and native soil; the surficial soils overlying bedrock are susceptible to shallow slope failure (SOURCE V.6).

*Impact Analysis.* Project construction could result in exposure to shallow slope failure of the moderate to steep slopes adjacent to the project, and the existing retaining wall is failing (SOURCE V.6). However, with the proposed structural setbacks and with implementation of the recommendations set forth in the geotechnical report, potential impacts of exposure would be mitigated to a less-than-significant level. The project geotechnical report recommends a structural setback of 10 feet from the southern property line, and the proposed setback is approximately 18 feet. An eight-foot structural setback from the retaining wall on the west side of the building site is recommended, and the project site plan provides a 15+-foot setbacks. Therefore, the proposed setbacks exceed the geotechnical recommendations.

The geotechnical investigation also recommends that the existing retaining wall be replaced and/or improved, and recommendations for retaining wall design are presented. Additionally, the geotechnical investigation recommends that surface drainage and landscape irrigation be controlled to maintain long-term stability of adjacent slopes as uncontrolled surface drainage could cause slope instability.

MITIGATION MEASURE 3: Require implementation of all recommendations set forth in the April 2013 "Geotechnical Investigation for Proposed Single Family Residence 170 Belvedere Terrace," by Bauldry Engineering, including structural setbacks, site preparation, foundation and retaining wall designs, and drainage controls.

(d) Soils. A geotechnical study prepared for the project found that encountered earth materials were residual materials typically derived from the underlying Purisima Formation that was interbedded with fine grained sandstone (SOURCE V.6). Undocumented artificial fill consisting of the residual soils was encountered in three of the four test borings ranging in depth from 1½ to two feet and was found to be generally loose and considered moderately compressible.

*Impact Analysis.* If shallow foundations and/or slab on grade floors are utilized, the proposed home could be subject to settlement and cracking due to undocumented fill

underlying the proposed structure that consists of loose silty to clayey sand, which is considered to be moderately compressible (SOURCE V.6). However, with implementation of the recommended pier and grade deep foundation system design as forth in the geotechnical report, potential impacts of exposure would be mitigated to a less-than-significant level. Implementation of Mitigation Measure 3 would reduce the impact to a less-than-significant level.

(e) Use of Septic Systems. The project will be connected to City sanitary sewers and will not use septic systems.

## **7. Greenhouse Gas Emissions.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;*
- *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.*

(a) Greenhouse Gas Emissions. Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of greenhouse house gas (GHG) emissions in the atmosphere. Greenhouse gases trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities (SOURCE V.1c). Climate change models predict changes in temperature, precipitation patterns, water availability, and rising sea levels, and these altered conditions can have impacts on natural and human systems in California that can affect California's public health, habitats, ocean and coastal resources, water supplies, agriculture, forestry, and energy use (Ibid.).

The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide (SOURCE V.1c). The primary contributors to GHG emissions in California (as of 2008) are transportation (about 37%), electric power production (24%), industry (20%), agriculture and forestry (6%), and other sources, including commercial and residential uses (13%). Approximately 81% of California's emissions are carbon dioxide produced from fossil fuel combustion (Ibid.).

The State of California passed the Global Warming Solutions Act of 2006 (AB 32), which requires reductions of GHG emissions generated within California. The Governor's Executive Order S-3-05 and AB 32 (Health & Safety Code, § 38501 et seq.) both seek to achieve 1990 emissions levels by the year 2020. Executive Order S-3-05 further requires that California's GHG emissions be 80 percent below 1990 levels by the year 2050. AB 32

defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrocarbons, perfluorocarbons and sulfur hexafluoride.

The California Air Resources Board (CARB) is the lead agency for implementing AB 32. In accordance with provisions of AB 32, CARB has completed a statewide Greenhouse Gas (GHG) Inventory that provides estimates of the amount of GHGs emitted to, and removed from, the atmosphere by human activities within California. Based on review of this inventory, in December 2007 CARB approved a 2020 emissions limit of 427 CO<sub>2</sub> equivalent million metric tons (MMT CO<sub>2</sub>e)<sup>3</sup>, which is equivalent to the 1990 emissions level. In accordance with requirements of AB 32, a Scoping Plan was released in October 2008 and adopted by CARB in December 2008, which includes elements for reducing the state's greenhouse emissions to 1990 levels. The Scoping Plan identifies 18 emissions reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related greenhouse gas targets, vehicle efficiency measures, goods movement, solar roofs program, industrial emissions, high speed rail, green building strategy, recycling, sustainable forests, water and air (SOURCE V.1c).

The City's *General Plan 2030* includes goals, policies and actions on climate change, including reducing community-wide greenhouse gas emissions 30 percent by 2020, reducing 80 percent by 2050 (compared to 1990 levels), and for all new buildings to be emissions neutral by 2030. In October 2012, the City also adopted a "Climate Action Plan" that outlines the actions the City will take over the next ten years to reduce greenhouse gasses by 30%.

*Impact Analysis.* The proposed project will result in the construction of one single-family home. As indicated in section III.B above, the City's *General Plan 2030* EIR considered construction of approximately 3,350 new residential units throughout the City to the year 2030 (SOURCE V.1c). The General Plan 2030 EIR estimated greenhouse emissions that could result from potential development and buildout accommodated by the plan that included 3,350 residential dwelling units with an associated population increase of 8,040 residents and approximately 3,140,000 additional square feet of new commercial, office and industrial uses by the year 2030 with an estimated 8,665 new jobs. The EIR analysis determined that the emissions levels associated with buildout would not be considered substantial compared to long-term forecasts and state and regional targets, and would actually be less than forecast statewide per capita emission rates with required reductions. Implementation of the proposed General Plan 2030 policies and actions, as well as planned implementation statewide actions, would further reduce emissions. Therefore, the impact was considered less than significant. (The analysis is included on pages 4.12-24 to 4.12-31 of the Draft EIR volume and pages 3-26 to 3-27 of the Final EIR volume.)

The project size of one residential unit would be within the overall amount of future residential use evaluated at a program level in the General Plan EIR. This Initial Study tiers off and incorporates by reference the General Plan EIR (as discussed in section

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<sup>3</sup> The CO<sub>2</sub> equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent (MMT CO<sub>2</sub>e)". The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by the associated Global Warming Potential (GWP).

III.B above) for the greenhouse gas emissions analysis, which concluded impacts would be less than significant.

**(b) Conflict with Applicable Plans.** The project would not conflict with state plans adopted for the purpose of reducing greenhouse gas emissions. The *General Plan 2030* EIR found no impacts related to conflicts with applicable plans related to greenhouse gas emissions and reduction strategies.

In October 2012, the Santa Cruz City Council adopted a Climate Action Plan (CAP) that addresses citywide greenhouse emissions and reduction strategies. The CAP outlines the actions the City and its partners may take pertaining to reduction of greenhouse gas emissions to meet the goals and implement the policies and actions identified in the *General Plan 2030*. The CAP provides City emissions inventories, identifies an emissions reduction target for the year 2020, and includes measures to reduce energy use, reduce vehicle trips, implement water conservation programs, reduce emissions from waste collection, increase solar systems, and develop public partnerships to aid sustainable practices. Measures are outlined for the following sectors: municipal, residential, commercial, and community programs. Each chapter, as well as Appendix A, provides a table of actions necessary to meet each reduction measure, quantifies the potential GHG emission reduction, and prioritizes implementation based on funding, ease, and current infrastructure. With a couple of exceptions, all measures establish the year 2020 as the target date to achieve the specified reductions. The CAP includes an Implementation chapter that identifies tracking and reporting of the success of the measures, including City staff responsibilities.

The proposed project is a single-family home that will be subject to approval of building permits that meet the California Building Code and City Green Building Code requirements, as well as City requirements for installation of water conserving fixtures and landscaping. These measures are consistent with those recommended for residential uses in the CAP related to building and energy efficiency and water conservation. Thus, the project would not conflict with provisions of the City's adopted CAP.

## **8. Hazards.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.*
- *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.*
- *Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.*
- *Impair the implementation of or physically interfere with an adopted emergency response or evacuation plan.*
- *Expose people or structures to a significant risk of loss, injury or death involving wildland fires.*

The proposed residence would not involve the transport, use, or disposal of hazardous materials or wastes and would not result in creation of a public health hazard. The project consists of a one single-family home, and as such, the proposed use will not result in creation of risks associated with hazardous material use, exposure to health hazards, creation of a health hazard, or interference with an emergency response plan. The site location and project scale have no impact on emergency response or emergency evacuation. The project site is not located near a public airport, a private airstrip or a wildland fire hazard area.

## 9. **Hydrology.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge;*
- *Substantially alter the existing drainage pattern of the site or area or result in offsite drainage or flood problems;*
- *Substantially increase the rate or amount of surface runoff which would exceed capacity of existing or planned storm drain facilities, cause downstream or offsite drainage problems, or increase the risk or severity of flooding in downstream areas;*
- *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality;*
- *Result in construction of habitable structures within a 100-year floodplain as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would expose people or structures to a significant risk of loss, injury or death due to flooding;*
- *Locate structures within a 100-year flood hazard area that would impede or redirect flood flows;*
- *Expose people or structures to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam; or*
- *Expose people or structures to a significant risk of loss, injury or death as a result in inundation by seiche, tsunami, or mudflow.*

The project site is located within a developed area and would not affect groundwater supplies or violate any water quality standards or waste discharge requirements.

(c-e) Drainage. The project site is located within a developed urban area. The proposed residential development will result in an incremental increase in impervious surfaces and runoff. Project runoff will be collected and discharged into the City's storm drain system.

*Impact Analysis.* The proposed development will result in an increase in runoff due to construction of the proposed home and driveway, resulting in an increase in impervious surfaces. However, the site is located within an existing developed area that is served by a storm drain system, and construction of one single-family home would not result in a substantial increase in stormwater runoff relative to the existing runoff. Thus, project runoff and impacts to drainage facilities is considered a less-than-significant impact.

Drainage improvements will be required to be designed in accordance with City standards and Public Works requirements.

(f) Water Quality. The project site consists of a relatively flat building site flanked by moderate to steep slopes that descend to canyons along both the south and west sides. The site is not located adjacent to any water courses.

Within urbanized areas such as the City, pollutants frequently associated with storm water include sediment, nutrients, oil and grease, heavy metals, and litter. The primary sources of storm water pollution in urban areas include automobiles, parking lots, landscape maintenance, construction, illegal connections to the storm water system, accidental spills and illegal dumping.

Urban runoff and other “non-point source” discharges are regulated by the 1972 Federal Clean Water Act (CWA), through the National Pollutant Discharge Elimination System (NPDES) permit program that has been implemented in two phases through the California Regional Water Quality Control Boards (RWQCB). Phase I regulations, effective since 1990, require NPDES permits for storm water discharges for certain specific industrial facilities and construction activities, and for municipalities with a population size greater than 100,000. Phase II regulations expand the NPDES program to include all municipalities with urbanized areas and municipalities with a population size greater than 10,000 and a population density greater than 1,000 persons per square mile. Phase II regulations also expand the NPDES program to include construction sites of one to five acres (SOURCE V.1c).

The City of Santa Cruz (City) has developed a Storm Water Management Program (SWMP) in order to fulfill the requirements of the Phase II NPDES General Permit for Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems (MS4) (General Permit) and to reduce the amount of pollutants discharged in urban runoff. In compliance with the Phase II regulations, the City’s comprehensive SWMP is designed to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP) and to protect water quality (SOURCE V.1c).

In 1998, the City of Santa Cruz adopted an ordinance for “Storm Water and Urban Runoff Pollution Control” (Chapter 16.19 of the city’s Municipal Code), as part of its Storm Water Management Program in accordance with the RWQCB’s requirements. The ordinance identifies prohibited discharges and required Best Management Practices (BMPs) for construction and new development.

*Impact Analysis.* Project runoff from, as well as potential erosion during construction, could result in water quality degradation to the storm drainage system. However, project runoff would not result in significant water quality degradation due to the limited increase in impervious surfaces that would carry urban pollutants into the storm drain system and required implementation of Best Management and erosion control practices.

State and Federal storm water regulations require development and remodel projects in the City to incorporate design standards and Best Management Practices (BMPs) in order to reduce storm water pollution and minimize the potential for erosion. Pursuant to City requirements, plans submitted for building permits shall demonstrate compliance with the requirements for single-family residential dwelling projects contained in Chapter

6 of the City's Best Management Practices Manual revised March 2012. The project shall comply with all Tier 1 Low Impact Development (LID) requirements that will be subject to review and approval by the City Public Works Department. At a minimum, downspouts shall be disconnected from underground pipes or prohibited from directly flowing onto impervious surfaces and instead be redirected to landscaping or bioswales. Pervious walkway surfaces and driveways shall be installed where possible. Furthermore, as discussed above in subsection 6(b), substantial erosion is not anticipated due to the relatively level site and significant grading is not anticipated. Nonetheless, implementation of standard erosion control measures are required.

## **10. Land Use and Planning.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Physically divide an established community;*
- *Conflict with any applicable City land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect; or*
- *Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan.*

(a) Divide an Established Community. The project site is located within a developed neighborhood in the city of Santa Cruz. The project would not divide an established community, but rather represents infill development.

(b-c) Consistency with Local Policies/Plans. The project site is designated Community Commercial in the City's General Plan and Zoning Ordinance. The implementing CC zone district allows 3-9 multi-family residential units subject to approval of Administrative Use and Design Permits. Since the zone district allows residential uses, but the lot is not large enough to support multiple dwellings, the applicant has requested a Use Determination to allow a single-family home. Although the site is designated for commercial use, the CC zone district allows residential uses, and the project site is surrounded by residential uses, including the four single-family homes to the east of the site that were also constructed within the Community Commercial zone district. The site is located adjacent to a residential neighborhood, is not contiguous to existing commercial uses, and does not have access from a major commercial access point. Therefore, the proposed residential use is consistent with residential uses allowed in the underlying CC zone district, and therefore is consistent with the General Plan.

The proposed residential buildings are set back between 15-19+ feet from the edge of the 30+% slope area. The project is subject to approval of a Slope Modification Permit due to encroachment within the 20-foot setback area established in section 24.14.030 of the City's Municipal Code. The regulations allow an exception through the slope modification permit process when the exception is no less than 10 feet from a top edge of the slope. The project meets this requirement, and also exceeds the setbacks recommended in the project geotechnical report as discussed above in subsection 6(c).

There are no policies adopted for the purpose of mitigating an environmental impact applicable to the project, and the project would not result in conflicts with any policies. There

are no Habitat Conservation or Natural Community Conservation Plans that include the project site.

## 12. **Noise.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Expose persons to or generate noise levels in excess of standards established in the County's "Land Use Compatibility for Community Noise" chart.*
- *Expose persons to or generate excessive groundborne vibration or groundborne noise levels.*
- *Result in a substantial permanent increase in ambient noise levels above existing levels if it will expose outdoor activity areas of noise-sensitive land uses to a 5 dB increase in noise where existing noise levels are below 60 dBA  $L_{dn}$ , a 3 dB increase in noise where existing noise levels are between 60 and 65 dBA  $L_{dn}$ , or a 1.2 dB increase in noise where existing noise levels are above 65 dBA  $L_{dn}$ . An outdoor noise standard of 65 dBA (CNEL) at the property line shall be used in the assessment of operational noise impacts.*
- *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels.*

The proposed residential use would not result in generation of or exposure to vibration as neither the proposed use or other existing residential uses in the vicinity are known to be sources of vibration.

(a-b) Exposure to Noise. The primary noise source within the project area is traffic noise along Water Street located south of the site. According to studies conducted for the General Plan 2030 EIR, noise levels along Water Street between Market Street and Branciforte Drive were found to be about 69 decibels Ldn (24-hour day-night average) at a distance of 50 feet from the center of the roadway (SOURCE v.1c). Future noise levels of between 65 and 70 dBA were projected at 160 and 50 feet, respectively from the centerline of Water Street along this segment with future development accommodated by the General Plan (Ibid.).

The project site is located approximately 40-50 feet north of Water Street and would be located in an area subject to future ambient noise levels of 65 to 70 decibels. According to the General Plan, residential uses are normally acceptable in areas with ambient noise levels of 60 decibels or less and conditionally acceptable where ambient levels reach 70 dBA as measured in Ldn.

*Impact Analysis.* The proposal consists of construction of one single-family home. Project interior and outdoor areas may be exposed to noise levels that exceed City standards due to traffic noise along Water Street. This is considered a potentially significant impact.

The City of Santa Cruz General Plan sets forth noise and land use compatibility standards. Exterior noise levels of 50 to 65 decibels CNEL or less are considered normally acceptable for single-family residential uses. Noise levels of 55 to 70 decibels

CNEL are considered conditionally acceptable, and may need additional noise insulation or attenuation in building designs. City and State standards require interior noise levels of 45 decibels (dB) or less. Closed windows, building materials and design features, such as insulation and noise-attenuating windows, can reduce interior noise levels. Typical residential construction (i.e., light frame construction with sash windows) with closed windows and doors can result in an exterior-to-interior noise reduction of at least 20 dBA and approximately 15 dBA with windows partially open for ventilation (SOURCE V.1c). Buildings constructed of stucco or masonry with dual-glazed windows and solid core exterior doors can be expected to achieve an exterior to interior noise reduction of approximately 25-30 dBA (Ibid.). Implementation of the following mitigation will reduce the impact to a less-than-significant level.

MITIGATION MEASURE 4: Require preparation of an acoustical study with building permit submittal and require building plans to incorporate any recommended building or window design measures, if needed, to achieve required indoor noise levels.

(c-d) Noise Increases. The nature of the proposed use, one single-family residence, would not result in creation of new substantial noise sources. There will be a temporary increase in existing noise levels during construction of the proposed home. Noise levels would vary throughout a given day depending on the construction activity and type of equipment being used at the time. Overall, construction noise levels would be temporary, short-term and fluctuate throughout the construction period. Thus, the project impact related to temporary increased noise levels during construction is considered less than significant.

### **13. Population and Housing.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure;*
- *Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere; or*
- *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.*

Construction of one single-family residence will not result in significant population growth and is consistent with population growth projections developed for the City. As indicated in section III.B above, the City's *General Plan 2030* EIR considered construction of approximately 3,350 new residential units throughout the City to the year 2030 (SOURCE V.1c). The proposed project would result in construction of one new home with approximately 2.4 additional residents, which would be within the overall amount of residential development and population increase previously evaluated in the General Plan EIR. This Initial Study tiers off and incorporates by reference the General Plan EIR for public services as discussed in section III.B above.

The project site is vacant, and the development will not result in displacement of housing or people.

#### **14. Public Services.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Result in substantial adverse physical impacts associated with provision of new or physically altered facilities, the construction of which could cause significant impacts, in order to maintain acceptable service for fire protection, police protection, schools and parks.*

(a-b, d-e) Fire, Police, Parks & Other Public Services. The proposed project will be served by existing services and utilities. The project will have no measurable effect on existing public services in that the incremental increase in demand will not require expansion of any services to serve the project. Construction of new fire or police facilities to serve the project would not be warranted. New development will be required to install automatic fire sprinklers and alarms in accordance with City requirements and comply with other Fire Department recommendations regarding access.

As indicated in section III.B above, the City's *General Plan 2030* EIR considered construction of approximately 3,350 residential units throughout the City to the year 2030 (SOURCE V.1.c). Thus, the project size of one new single-family residence would be within the overall amount of residential square footage evaluated at a program level in the General Plan EIR, and this Initial Study tiers off and incorporates by reference the General Plan EIR for public services as discussed in section III.B above. The EIR analyses concluded that impacts of potential development and buildout accommodated by the General Plan would be less-than-significant for fire and police protection services and parks and recreation. (The analyses are included on pages 4.6-33 to 4.6-40 of the Draft EIR volume and pages 3-19 to 3-22 of the Final EIR volume.) Since the size of the proposed project would fall within the total amount of potential development analyzed in the General Plan EIR, no further analysis is required regarding public services.

(c) Schools. The proposed home would be served by the Santa Cruz City Schools. All the schools closest to the project site (Gault Elementary, Branciforte Middle School and Santa Cruz High School had enrollments below capacity for the 2012-13 school year.<sup>4</sup>

The proposed project's addition of one single-family residence would result in an estimated enrollment increase of less than one student throughout all grades based on student enrollment factors included in the General Plan EIR (SOURCE V.1.c). Schools serving the site have capacity to serve the project based on current enrollments, and expansion would not be required to serve the project. The project would be required to pay school impact fees that are collected at the time of issuance of a building permit.

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<sup>4</sup> Based on school capacity identified in the General Plan 2030 EIR (SOURCE V.1.c) and state enrollments provided online at: <http://dq.cde.ca.gov/dataquest/>.

## 15. **Recreation.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Increase the use of existing parks or recreational facilities such that substantial physical deterioration would occur or be accelerated; or*
- *Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.*

As indicated in section III.B above, the City's *General Plan 2030* EIR considered construction of approximately 3,350 residential units throughout the City to the year 2030 (SOURCE V.1.c). Thus, the project size of one new single-family residence would be within the overall amount of residential square footage evaluated at a program level in the General Plan EIR, and this Initial Study tiers off and incorporates by reference the General Plan EIR for public services as discussed in section III.B above. The EIR analyses concluded that impacts of potential development and buildout accommodated by the General Plan would be less-than-significant for parks and recreation. (The analyses are included on pages 4.6-37 to 4.6-40 of the Draft EIR volume and pages 3-19 to 3-22 of the Final EIR volume.)

## 16. **Transportation/Traffic.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;*
- *Change the level of service of a State Highway roadway segment from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E or F);*
- *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*
- *Substantially increase hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses (for example, farm equipment);*
- *Result in inadequate emergency access; or*
- *Conflict with adopted policies, plans, programs that support supporting alternative transportation (for example, bus turnouts, bicycle racks).*

The project site is located northwest of the Water Street/Branciforte Drive intersection, which currently operates at an acceptable level of service of D (SOURCE V.1.c). The project would result in a net increase of one single-family residential unit, which will result in the generation of approximately 10 daily trips, with one trip in the PM peak hours. The PM peak hour trips would be distributed throughout the vicinity road system and would not have a measurable or significant traffic impact on traffic operations at vicinity intersections or cause a substantial increase in traffic or delays. Thus, traffic generated by the project would

not be significant. Additionally, the project will be required to pay the City's traffic impact fee at the time of building permit issuance.

## **17. Utilities and Service Systems.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Result in a water demand that exceeds water supplies available from existing entitlements and resources, and new or expanded supplies may be needed.*
- *Result in water demand that exceeds capacity of the water supply or infrastructure system or would require expansion of water supply, treatment or distribution facilities, the construction of which could cause significant environmental effects.*
- *Result in wastewater flows exceed treatment plant capacity or require expansion of existing facilities.*

The project will be served by existing utilities and will have no measurable effect on existing sewer or storm drainage utilities or solid waste disposal facilities in that the incremental increased demand will not require expansion of any of those services or construction of new facilities to serve the project. Furthermore, as indicated in section III.B above, the City's *General Plan 2030* EIR considered construction of approximately 3,350 residential units throughout the City to the year 2030 (SOURCE V.1c). The EIR analyses concluded that impacts of potential development and buildout accommodated by the General Plan would be less-than-significant for wastewater treatment, solid waste disposal, and energy use. Thus, the project size of one single-family home would be within the overall amount of residential development evaluated at a program level in the General Plan EIR, and this Initial Study tiers off and incorporates by reference the General Plan EIR for public utility and service systems as discussed in section III.B above, except for water supply, which is discussed below. (The analyses are included on pages 4.6-41 to 4.6-48 of the Draft EIR volume.)

(b, d) Water Supply. The project site is located within the service area of the City of Santa Cruz Water Department. The City of Santa Cruz Water Department serves approximately 22,000 connections in an approximate 20 square mile area that includes lands within existing City limits, a portion of UCSC, a portion of Live Oak in the unincorporated area of Santa Cruz County, a small part of the City of Capitola and coastal agricultural lands outside City limits.

In December 2011, the Santa Cruz City Council adopted the *2010 Urban Water Management Plan* (UWMP) in accordance with State law, which evaluates water supply and demand within the City's service area over the next 20 years. Additionally, the City of Santa Cruz updated its General Plan, which was adopted by the City Council in June 2012. The City of Santa Cruz *General Plan 2030* EIR was certified at the same time. The EIR provides a comprehensive analysis of impacts of water demand within the City's service area. Both the UWMP and General Plan EIR assess future water demand within the City's water service area that is located outside Santa Cruz city limits based on population growth projections developed by the Association of Monterey Bay Area Governments (AMBAG).

*Water Supplies.* The City's water system is comprised of four main sources of supply: North Coast sources; San Lorenzo River diversions; Loch Lomond Reservoir; and Live Oak wells. On average, about 84 percent of the City's annual water supply needs are met by surface diversions from the coastal streams and San Lorenzo River, while approximately 12 percent is supplied by Loch Lomond Reservoir and four percent of the supply is derived from the Live Oak Well system (SOURCE V.2). Major facilities include two water treatment plants, several pump stations and 16 distribution reservoirs storing almost 15 million gallons of treated water. There are also about 300 miles of water pipelines throughout the service area (Ibid.).

Water production has fluctuated over the past ten years; annual production has ranged from a high of nearly 4,100 MGY in 1987 to a low of approximately 2,900 MGY in 2009 (SOURCE V.2). Average water production between 2006 and 2010 averaged approximately 3,400 MGY (Ibid.).

The 2010 UWMP estimates a 20-year future water supply in the year 2030 as 4,160 MGY, depending on the outcome of negotiations between the City and regulatory agencies regarding potential limitations on City diversions at its surface water supplies, such as the San Lorenzo River, Laguna Creek and other North Coast diversions, in order to increase base flows for federally listed endangered fish species. Continued access to the same amount of North Coast supply sources will depend on the outcome of a Section 10 "incidental take" permit application and accompanying Habitat Conservation Plan (HCP) that are being prepared by the City pursuant to the federal Endangered Species Act for City activities. The permit and plan must be approved by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS). The City entered into the HCP process in 2001, and over the past 6 years, the City has coordinated and met with U.S. Fish and Wildlife Service and NMFS on HCP-related issues and has conducted a number of studies. A draft HCP has not yet been completed, but the City has prepared and submitted a Draft Conservation Strategy that identifies and proposes minimum in-stream flows at City diversions to minimize the effect of diversions on habitat conditions for steelhead and coho salmon.

The water supply estimates in the 2010 UWMP were developed using the City's water supply operations model and incorporates the best available information about future operations beginning in 2015 under a yet to be approved Habitat Conservation Plan (HCP). The final outcome is not known as the City of Santa Cruz is currently negotiations with the federal agencies on flow requirements.

*Water Demand.* As indicated above, water demand has fluctuated over the past 10 years, but water production averaged about 3,400 MGY between 2006 and 2010. Water demand in 2011 and 2012 was slightly below 3,000 MGY, although 2012 demand was slightly higher than demand in 2011.

The adopted 2010 UWMP estimates a 20-year water demand of between 4,046 and 4,537 MGY in the year 2030 within the entire water service area. This is based on two scenarios; the higher demand reflects water use trends experienced between 1999 and 2004, while the lower demand reflects more recent water use trends experienced in 2007-08. The 2010 UWMP indicates that the lower demand scenario is more reasonable given recent trends and state mandates for water conservation (SOURCE V.2).

The UWMP also includes a 2020 per capita water use target of 110 gallons per capita per day (gpcd), established in accordance with state law requirements. The UWMP notes that over the last 10-year period, per capita water use within the City of Santa Cruz water service area has declined from about 126 gpcd in 2001 to 93 gpcd in 2010 (Ibid.). The City's 10-year baseline (ending 2010), determined in accordance with the state's technical methodologies, is 113 gpcd.

When any new water service is connected to the City system, it is charged a System Development Charge (SDC) that is to be used to do whatever needs to be done to the system to accommodate new demand. A portion of that SDC is dedicated to funding and administering water conservation projects that help to offset the increased demand. The 2010 UWMP compares annual growth in water demand attributable to new connections over the last decade with the reduction in water demand accomplished through water conservation programs during the same time. As shown on Figure 6-1 of the 2010 UWMP and cited in the plan, "there has been a larger reduction in water use from water conservation programs than there has been an increase in water use by new connections, with a net decrease over the last ten years of almost 80 million gallons per year." Additionally, the UWMP calls for continued implementation of conservation programs that would serve to further reduce demand, even as the City inevitably grows.

*Water Supply Reliability.* The primary water reliability issue currently facing the City of Santa Cruz is the lack of adequate water supply during droughts due to the wide range in the yield of surface water sources from year to year and limited storage capacity. Updated modeling conducted for the 2010 UWMP found that the worst-year peak season shortage could range between 23 and 37% and between 42 and 51% with additional flow releases for fish habitat. Historically, one dry or critically dry year has not created a water shortage due to sufficient storage in Loch Lomond Reservoir. Based on past experience, however, a shortage is likely to occur when the central coast region experiences two or more dry or critically dry years in a row (SOURCE v.2). The total water supply estimated to be available to the City in single dry years (i.e., 1994) is 3,900 MG (Ibid.). However, during an extreme two-year drought similar to the 1976-77 event, the estimated water supply available to the City in the second year of that event is 2,800 MG with a resulting deficit of approximately 1,200 MG (Ibid.). The peak season is between April and October since this is the period that would be most affected by a supply shortage due to peak water demand.

The City faces a series of ongoing challenges that potentially could lead to some loss of existing supply in the future, although it is uncertain at this time to what extent and which supplies might be affected. These considerations include: potential flow releases associated with the HCP as described above, the outcome of water rights petitions, groundwater availability and climate change issues. These considerations are described in section 4.5 of the City of Santa Cruz General Plan 2030 Draft EIR as updated by the Final EIR document.

The City of Santa Cruz has been actively considering possible new water supplies for nearly 20 years. In 2005, the City adopted an Integrated Water Plan (IWP), which identifies a water management strategy. The purpose of the IWP is to help the City reduce drought year water shortages and provide a reliable supply that meets long-term needs while ensuring protection of public health and safety. The adopted IWP water management strategy consists of the following three major components:

- Water conservation programs.
- Customer use curtailment (water use cutback) in times of shortage.
- Supplemental water supply for drought protection provided by a 2.5 million-gallon-per-day (mgd) desalination plant with potential for expansion up to 4.5 mgd in increments of one mgd.

The City is actively implementing water conservation programs, and also is in the process of developing a Conservation Master Plan. Additionally, the City and Soquel Creek Water District are pursuing regulatory approvals for a permanent, 2.5 mgd (with potential for expansion to 4.5 mgd) desalination plant. The facility would provide a backup water supply to the City in times of drought and would provide water to the District at other times to reduce its reliance on well water and avert the threat of seawater intrusion in local groundwater aquifers.

One year of testing at a pilot desalination plant has been completed, and environmental review is underway for a permanent facility; the public review period for a Draft EIR has closed. A Final EIR has not yet been prepared. Although, the design and environmental review phases are currently underway, there is some uncertainty regarding approval and timing a permanent desalination plant construction and operation as the EIR has not yet been completed, the matter will go before city voters, and it cannot be predicted at this time whether the Coastal Commission and other agencies would issue the necessary approvals.

*Impact Analysis.* The proposed project is estimated to result in a net increase in water demand of approximately 0.071 MGY based on water demand rates developed by the City Water Department for the General Plan EIR. Current water supplies are adequate during normal years to serve the project. The 2010 UWMP and General Plan EIR predict that water supplies will be adequate in normal years to serve estimated growth within the City of Santa Cruz water service area, although the documents acknowledge that the outcome of the pending HCP may affect supplies in the future. Under present conditions, there are adequate supplies to serve the proposed residence during normal conditions. The impact of increased water demand on water supplies due to the proposed project under normal conditions is a less-than-significant project impact.

During periods of dry years and drought, water customers would be subject to water curtailment as enacted by the City. The minimal increased water demand associated with the proposed project would not cause any noticeable effects on the level of curtailment that would be required of all water customers in a single dry year scenario. A multiple dry year scenario would require more substantial curtailment of all water customers. However, the proposed project's increased demand is considered minimal and would not have significant effects on the levels of curtailment that would be required throughout the service area. Additionally, as indicated above, savings from implementation of the City's water conservation program has resulted in a decrease in water demand compared to the growth in new water connections. The City continues to administer its water conservation program and also is in the process of developing a Conservation Master Plan. The City of Santa Cruz in partnership with the Soquel Creek Water District also has been pursuing development of a desalination facility that would serve the City during periods of drought. Therefore, the impact of increased water demand on water supplies due to the proposed project under dry conditions is not considered significant.

(c) Storm Drainage Facilities. See discussion above under subsection 8—Hydrology.

## **18. Mandatory Findings of Significance.**

*In accordance with the California Environmental Quality Act (CEQA), State CEQA Guidelines, City of Santa Cruz plans and policies, and agency and professional standards, a project impact would be considered significant if the project would:*

- *Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory;*
- *Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.); or*
- *Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.*

(a) Quality of the Environment. The proposed project would have no significant effect on biological resources, and would have no significant effect on cultural resources with implementation of mitigation measures and would not result in elimination of important examples of major period of California history or prehistory. The project would not degrade the quality of the environmental or otherwise affect fish and wildlife habitat.

(b) Cumulative Impacts. The proposed project would contribute to significant cumulative impacts related to greenhouse gas emissions, public services and utilities, traffic, water supply and population growth. Cumulative impacts related to development accommodated by the City's General Plan over the next 15+ years were found to be less than significant in the *General Plan 2030* EIR, except for potential significant cumulative impacts related to traffic, water supply, population and noise. The proposed project would not contribute to the identified significant cumulative noise impact as the identified street segments where increased noise levels are projected are outside of the project area (Westside industrial area). The cumulative population impact included growth within the City and at the University of California Santa Cruz campus if the North Campus area were annexed to the City. While the proposed project would contribute to cumulative population growth, the population resulting from the proposed single-family residence would not be cumulatively considerable given the projected cumulative growth.

The proposed project would contribute to significant cumulative impacts related to traffic and water supply. CEQA allows a lead agency to avoid repeating analyses that were already provided in a certified General Plan EIR (Public Resources Code section 21083.3) for projects that are consistent with the General Plan. Pursuant to section 21083.3(b), if a development project is consistent with the general plan of a local agency for which an environmental impact report was certified, the application of CEQA shall be limited to effects on the environment which are "peculiar to the parcel or to the project" and which were not addressed as significant effects in the prior environmental impact report. Section 15183 of the State CEQA Guidelines provides further guidance related to Public Resources

Code section 21083 in order to streamline review of projects consistent with the General Plan for which an EIR was prepared and certified, and to reduce repetitive environmental studies. As indicated in section IV.B above, the City's *General Plan 2030* EIR considered development of 3,350 residential units throughout the City to the year 2030 (SOURCE V.1c). The proposed project is consistent with the *General Plan 2030* as the underlying zone district allows residential use on the site, and neither a General Plan amendment nor rezoning is required.

The City's General Plan includes a range of policies and actions to reduce vehicular trips, and the City has also updated its Traffic Impact Fee Program, which identifies improvements to citywide intersections. The project will be subject to payment of traffic impact fees that will mitigate the project's contribution to a significant cumulative traffic impacts.

Project water demand also has been accounted for in the General Plan EIR cumulative impact analyses. The project would be subject to City requirements for installation of water conserving fixtures and landscaping in accordance with City Municipal Code and building requirements. In addition, the project will pay the required "System Development Charge," which is used in part to implement conservation and desalination plant costs planned under the IWP. Under drought conditions, the project, like other City customers, would be required to curtail water use by varying amounts, depending on the severity of the drought. The minor increase in project water demand would not substantially exacerbate water supply reliability during a drought or in the future due to cumulative growth because, as explained above (in section 16b,d), it is not expected to result in any noticeable increase in the curtailment in customer use that would be implemented during drought conditions. The General Plan EIR indicates that the General Plan includes policies and actions to reduce water demand, promote additional water conservation, manage and protect water supplies, and develop a reliable, supplemental water source, such as desalination, which could be reduce the impact to a less-than-significant level. The EIR also discloses and discusses uncertainties associated with these future actions.

The General Plan 2030 EIR did identify a potential significant impact related to increased student enrollments in grades K-12, which could exceed existing school facility capacities depending on the timing and rate of growth as the increase would not happen all at once. The EIR concluded that with required payment of school impact fees to fund necessary facility expansion and/or additions, in conjunction with the District's potential reuse of the former Natural Bridges Elementary School if needed, the impact would be mitigated to a less-than-significant level. The EIR also found that potential addition or expansion of school classroom facilities is not expected to result in significant physical impacts due to the location of existing facilities within developed footprints.

The currently proposed project would not result in new significant cumulative impacts or more significant cumulative traffic or water impacts than analyzed in the General Plan EIR. Nor would the project result in impacts peculiar to the site or project that were not considered in the General Plan EIR. The project would be subject to payment of traffic impacts and other requirements regarding provision of water service. Since the potential project contribution to cumulative impacts fall within the total level of those analyzed in the General Plan EIR, no further environmental analysis is required pursuant to Public Resource Code section 21083.3. The *General Plan 2030* EIR is available for review on the

City's website and at the City's Planning and Community Development Department at the locations identified in Section III.B above.

(c) Substantial Adverse Effects on Human Beings. No environmental effects have been identified that would have direct or indirect adverse effects on human beings.