

TOWN OF ROSS

# 2023-2031 HOUSING ELEMENT

MARCH 17, 2023

**DRAFT ENVIRONMENTAL IMPACT REPORT**

**SCH: 2022110593**



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# Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the potential impacts of the proposed General Plan Housing Element Update, referred to as the “Proposed Project,” in the Town of Ross, located in Marin County, California. The Proposed Project is both a policy document and an implementation tool for implementing the Town’s General Plan. It contains goals, policies, and programs to guide future housing development within the approximately 1.6-square-mile Planning Area that encompasses the entire town. Implementation will include amendments to the Town’s Zoning Ordinance. The Town is the Lead Agency for environmental review, as defined by the California Environmental Quality Act, Public Resources Code Section 21000, *et seq.* (CEQA).

An EIR is intended to inform decision-makers and the general public about the potential significant environmental impacts of a proposed project. The EIR also considers mitigation measures to minimize significant impacts and evaluates feasible alternatives to the Proposed Project that may reduce or avoid one or more significant environmental impacts. Based on the alternatives analysis, the EIR identifies an environmentally superior alternative.

This EIR is a program EIR that examines the potential effects resulting from implementing designated land uses, goals, and policies in the Proposed Project. The impact assessment evaluates the Proposed Project as a whole and identifies the broad, area-wide, and regional effects that may occur with implementation. As a programmatic document, this EIR does not assess project-specific impacts that may result from developments pursuant to the Proposed Project. To the extent that any future development project made possible by the Proposed Project may have individual, site-specific impacts not addressed in this program EIR, such projects would be subject to separate, project-level environmental review, as required by State law. Projects consistent with the Proposed Project and the findings of this EIR may also be eligible for streamlined environmental review as permitted under CEQA. This EIR represents the Town’s best effort to evaluate the implementation and buildout of the Proposed Project through its horizon year of 2031. While it is anticipated that conditions may change, the assumptions used are the best available at the time of preparation and reflect existing knowledge of patterns of development.

## 1.1 Proposed Project

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The Proposed Project involves updates to the Town of Ross General Plan Housing Element. In compliance with State law, the Housing Element is being updated to account for changing demographics, market conditions, and projected housing need over an eight-year planning period that runs from 2023 through 2031.

This Housing Element touches many aspects of community life. It builds upon the goals, policies and implementing programs contained in the City's 2015-2023 Housing Element and other Town policies and practices to address housing needs in the community. The overall focus of the Housing Element is to preserve and enhance community life, character, and serenity through the provision of adequate housing opportunities for people at all income levels, while being sensitive to the unique and historic character of Ross that residents know and love. The objectives of the Proposed Project, included below, inform the policies and implementing actions of the Proposed Project. A full project description is included in Chapter 2 of this Draft EIR.

## **PLANNING AREA**

The Planning Area is comprised of the entire Town of Ross. Encompassing approximately 1.6 square miles, Ross is the second smallest jurisdiction in Marin County. The town is largely developed with single-family homes set in a valley between wooded hillsides. At the heart of the community is the Ross Common, located just west of Sir Francis Drake Boulevard and flanked by the Ross Post Office, the Ross School, and the downtown commercial area. The Ross Civic Center, comprised of the Town Hall and Public Safety Building, is located just north of the Post Office on the west side of Sir Francis Drake. Locally, Sir Francis Drake Boulevard (SFD Blvd) bisects the Town of Ross and serves as the major east-west arterial from West Marin to Highway 101.

## **PROJECT OBJECTIVES**

The following objectives have been established for the Project:

1. **Maintain Quality of Life.** Maintain the high quality of life, small town charm and historic character of Ross, which make it distinctive and enjoyable to its residents.
2. **Assure Diversity of Population.** Assess housing needs and provide a vision for housing within the Town to satisfy the needs of a diverse population.
3. **Provide a Variety of Housing Opportunities.** Provide a variety of housing opportunities proportionally by income to accommodate the needs of people who currently live in Ross, such as elderly residents and large families.
4. **Address Regional Housing Needs Allocation (RHNA).** Ensure capacity for the development of new housing to meet the Regional Housing Need Allocation at all income levels for the 2023-2031 planning period.
5. **Maintain Existing Housing.** Maintain the existing housing stock to assure high quality maintenance, safety, and habitability of existing housing resources.
6. **Address Affordable Housing Needs.** Continue existing and develop new programs and policies to meet the projected affordable housing need of extremely low, very low, low and moderate-income households.
7. **Address the Housing Needs of Special Need Groups.** Continue existing and develop new programs and policies to meet the projected housing needs of persons living with disabilities, elderly residents, and other special needs households in the community.
8. **Remove Potential Constraints to Housing.** Evaluate potential constraints to housing development and encourage new housing in locations supported by existing or planned

infrastructure, while maintaining existing neighborhood character. Develop design directions to help eliminate barriers to the development of housing for all income levels.

9. **Provide for Special Needs Groups.** Provide for emergency shelter, transitional and supportive housing opportunities.
10. **Provide Adequate Housing Sites.** Identify appropriate housing sites, within specified areas proximate to transportation, shopping and schools, and the accompanying zoning required to accommodate housing development.

## **ESTIMATED BUILDOUT OF THE PROPOSED PROJECT**

Buildout refers to the estimated amount of new development and corresponding growth in population that is likely to take place under the Proposed Project through the planning horizon year of 2031. Buildout estimates should not be considered a prediction for growth, as the actual amount of development that will occur through 2031 is based on many factors outside of the Town's control. Therefore, buildout estimates represent one potential set of outcomes rather than definitive figures. Amid the ongoing housing crisis in California, Ross is required to plan for at least 111 new housing units between 2023 and 2031, including 34 Very Low Income units, 20 Low Income units, 16 Moderate income units, and 41 Above Moderate units.

As required by State law, the Draft Housing Element includes a map of sites available for housing and an inventory of realistic capacity. The inventory demonstrates a total capacity of up to 148 new housing units, which is sufficient to meet the Town's RHNA obligations at all income levels with a buffer. This amount of development would result in approximately 355 new residents. The buffer is required to ensure that there is sufficient capacity to meet RHNA obligations at all times during the planning period, in the event that some sites on the inventory develop at lower densities than envisioned. Implementation of the Draft Housing Element would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites.

## **1.2 Areas of Known Controversy**

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During the drafting of the Proposed Project and this EIR, public agencies and members of the public were invited to provide feedback on the documents. The following topics were identified as areas of controversy, based on comments at public meetings on the Proposed Project and at the EIR Scoping Meeting, and responses to the Notice of Preparation (NOP):

### **BIOLOGICAL RESOURCES**

The California Department of Fish and Wildlife (CDFW) submitted a comment letter with a list of special-status species that are known to occur or have the potential to occur in or near the Planning Area. Development under the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites, limiting the potential for adverse impacts on special-status species and sensitive natural communities. However, given the extent of biological resources throughout the community, future development under the Proposed Project could have a significant direct or indirect impact on special-status species if it would result in the removal or degradation of the species or suitable habitat. Housing sites

identified in the Proposed Project do occur along riparian areas and in the western and southern portions of the town; the construction of which could potentially adversely affect several special-status species.

Additionally, environmental impacts classified as significant and unavoidable have been identified in the resource topics of transportation and greenhouse gas emissions; inasmuch as they may be controversial to the general public, agencies, or stakeholders, they are described briefly here.

## **TRANSPORTATION**

Goals and policies in the Proposed Project are designed to reduce vehicle miles traveled (VMT), which refers to the amount of automobile travel attributable to a project as well as the distance traveled, in the Planning Area by identifying sites for development in Housing Opportunity areas. These sites encourage housing opportunities in commercial districts and adequate residential access to pedestrian infrastructure, neighborhood services, and recreation facilities to further reduce VMT. Further, Mitigation Measure VMT-1 requires the implementation of VMT reduction measures, such as reduced off-street parking requirements and bikeshare facilities, for city-owned housing development sites. While these VMT reduction measures can be expected to reduce VMT, their effectiveness cannot be guaranteed, and they may be insufficient to reduce residential VMT per capita in the Planning Area below the applicable significance threshold of 15 percent reduction from baseline town levels by 2040 as recommended by the Governor's Office of Planning and Research (OPR) Technical Advisory. There are no other feasible mitigation measures available because the Proposed Project emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT. Therefore, impacts would remain significant and unavoidable.

## **GREENHOUSE GAS EMISSIONS**

As discussed above, the Proposed Project would not achieve the 15 percent VMT per capita reduction target under buildout conditions. Based on information in Chapter 3.6, Transportation, implementation of VMT reduction strategies would not be adequate to reduce the impact to a less-than-significant level. Therefore, the Proposed Project's mobile-source greenhouse gas (GHG) emissions would conflict with SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2022 Scoping Plan, which is the plan that outlines the main strategies California will implement to achieve its legislated GHG emissions targets, operation of the Proposed Project would conflict with the statewide GHG target for 2030 mandated by SB 32. Overall, the Proposed Project would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, however, GHG emissions from mobile sources would conflict with goals of SB 743. There are no other feasible mitigation measures available because the Proposed Project emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT. Therefore, the impact would remain significant and unavoidable.



## **1.3 Alternatives to the Proposed Project**

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The following alternatives are described and evaluated in Chapter 4 of this Draft EIR.

### **REDESIGNED CIVIC CENTER ALTERNATIVE**

This alternative would not involve development of workforce housing at the Ross Post Office, but would instead involve the development of six additional affordable units on the Civic Center site for a total of 12 housing units as part of the Master Plan project. As with the Proposed Project, the historic Town Hall and Fire House would be preserved on site and housing development at the Ross Civic Center site would be located on the corporate yard in the northern portion of the site away from the historic Town Hall and Fire House. The total number of new housing units would be the same as with the Proposed Project; however, the alternative would result in more affordable units closer to transit on Sir Francis Drake Boulevard.

### **INCREASED DEVELOPMENT ON THE VALLEY FLOOR ALTERNATIVE**

This alternative would focus more residential development in the more walkable areas of Ross within a half mile of transit service on Sir Francis Drake Boulevard to cumulative VMT and GHG emissions by promoting more compact housing development in mixed use areas and the downtown of Ross. To achieve this, the inventory and action plan would be revised to facilitate more residential development on institutional and public sites and to incentivize ADU/JADU production within a half mile of Sir Francis Drake Boulevard only, rather than throughout the Town. Specifically, this would involve 9 units at the Civic Center, 9 units at the post office, 15 units at Branson, and 5 units at MAGC. The additional 16 affordable units on these sites would be offset by a commensurate reduction in ADU projections to 8 per year for a total of 64 over the planning period. As such, the number of housing units developed under this Alternative would be equivalent to the Proposed Project.

## **1.4 Impacts Summary and Environmentally Superior Alternative**

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### **IMPACTS SUMMARY**

Table ES-1: Summary of Impacts and Mitigation Measures presents the summary of the significant impacts of the Proposed Project identified in the EIR, and the Proposed Project mitigation measures that reduce these impacts. Detailed discussions of the impacts and proposed policies and mitigation measures that reduce impacts are in Chapter 3.

### **IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

California Environmental Quality Act (CEQA) Guidelines (Section 15126.6) require the identification of an environmentally superior alternative among the alternatives analyzed. Table 4-1: Summary of Impacts for Alternatives, summarizes the alternatives' overall environmental impacts for each topic presented in Section 4.4. For the Proposed Project, two impacts are expected

to be significant and unavoidable, 12 impacts are expected to be less than significant with mitigation, and 17 impacts are expected to be less than significant.

For the Redesigned Civic Center Alternative, similar to the Proposed Project, two impacts were expected to be significant and unavoidable, 12 impacts were expected to be less than significant with mitigation, and 17 impacts were expected to be less than significant. However, impacts would be marginally reduced for special-status species, sensitive habitat, and wildlife corridors as compared to the Proposed Project. For the Increased Development on the Valley Floor Alternative, similar to the Proposed Project, two impacts were expected to be significant and unavoidable, 12 impacts were expected to be less than significant with mitigation, and 17 impacts were expected to be less than significant. However, impacts would be marginally reduced for special-status species, unstable soils, GHG emissions, and VMT as compared to the Proposed Project.

The Increased Development on the Valley Floor Alternative reduces the greatest number of environmental impacts. However, the Town cannot prohibit the development of ADUs on residentially-zoned properties in steep terrain more than 0.5 miles from transit on Sir Francis Drake Boulevard and there is no guarantee that the additional incentives would be sufficient to incentivize substantially more ADU development on the Valley floor than in other areas of Ross. Additionally, parcels adjacent to Sir Francis Drake Boulevard tend to be smaller and have less capacity to accommodate ADU development than larger residential properties farther from the main transit route in Ross. Further, given that this Alternative would only result in an additional 16 units on the Valley floor, the resulting decrease in VMT and GHG emissions would be only a marginal improvement over the Proposed Project. Therefore, the Increased Development on the Valley Floor Alternative cannot be considered the Environmentally Superior Alternative.

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<b>3.1 Biological Resources</b>			
<p>3.1-1 Implementation of the Proposed Project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, but impacts would be reduced with implementation of Mitigation Measures BIO-1 through BIO-4.</p> <p>Given the extent of biological resources throughout the community, future development under the Proposed Project could have a significant direct or indirect impact on special-status species if it would result in the removal or degradation of the species or suitable habitat.</p> <p>Impacts would be further reduced through Mitigation Measure BIO-1, which would require implementation of a worker environmental awareness training program to train construction staff on the needs of</p>	<p><b>MM BIO-1: Worker Environmental Awareness Training Program.</b></p> <p>Where a biologist has identified areas supporting or potentially supporting sensitive biological resources, the Town shall require project applicants proposing development projects within the Planning Area to prepare and implement a worker environmental awareness training program prior to equipment staging, ground disturbing activities (e.g., grading, excavation, backfill), or vegetation trimming and removal. The training program should be provided to all construction personnel (contractors and subcontractors) and include the following information:</p> <ul style="list-style-type: none"> <li>• The need to avoid effects on sensitive biological resources and the importance of protecting habitat;</li> <li>• Penalties for not complying with applicable State and federal laws and permit requirements;</li> <li>• General restrictions and guidelines to be followed by all construction personnel to reduce or avoid effects on sensitive biological resources during construction;</li> <li>• The life history and habitat requirements of special-status species potentially occurring in or adjacent to the improvements footprint;</li> <li>• The terms and conditions of the Biological Opinions and other applicable permits; and</li> <li>• The training program should educate construction supervisors and managers about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations.</li> </ul> <p><b>MM BIO-2: Disturbance to Special-Status Plant Species.</b></p>	<p>Potentially significant</p>	<p>Less than significant with mitigation incorporated</p>

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>protecting sensitive biological resources and the ramifications for not complying with applicable laws. Further, Mitigation Measures BIO-2 through BIO-4 outline additional construction requirements to ensure the protection of special-status plant species, bat species, and the Foothill Yellow-Legged Frog. Therefore, with implementation of Mitigation Measures BIO-1 through BIO-4 and adherence to existing policies and local regulations, as discussed above, the impacts of future development under the Proposed Project on special-status species would be less than significant.</p>	<p>A qualified botanist shall conduct a pre-construction focused plant survey within the project site during the blooming or other identifiable season to determine presence/absence of special-status plant species. The surveying botanist shall determine the distribution and population, as well as assess the potential for immediate impact from project activities to special-status plant species. It may be determined that special-status plant species are present within the project site, but impacts to such plants may be generally avoided. These plants shall be clearly demarcated by a qualified botanist, and all construction personnel instructed to avoid these species. Consultation with the USFWS shall occur prior to any impacts to federal listed species (i.e., Santa Cruz Tarplant), as well as consultation with the CDFW for impacts to any of the special-status plant.</p> <p>If special-status plant species are present and cannot be avoided by project construction, at a minimum the special-status plant species shall be relocated on-site away from further impacts directly relating to the project. All site preparation, seed/cutting/root collection, grow-out, and plant installation shall be conducted by a qualified landscape company approved by the Town of Ross with experience working on restoration projects and within the habitats present on-site. Following the relocation, the plantings/seedings shall be monitored annually for three to five years by a qualified biologist to determine the success of the relocation, potential threats, and make necessary recommendations (e.g., removal of invasive species, increase/defense irrigation) for the on-site maintenance to the contracted landscaping company. An annual report shall be drafted and submitted to all responsible agencies (e.g., CDFW, USFWS) for their review.</p> <p><b>MM BIO-3: Disturbance to Bat Species.</b></p> <p>Preconstruction surveys for bats shall take place during the maternity roosting season (defined as: April 1 through August 31) within riparian habitat and any old wooden buildings within a project site. Surveys shall be conducted by a qualified biologist approved by the Town of Ross no less than 14 days prior to removal of trees, snags or buildings within the</p>		

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>project area. Ultrasonic acoustic surveys and/or other site appropriate survey method may be performed to determine the presence or absence of bats utilizing the project site as roosting or foraging habitat. Additionally, the following measures shall be implemented to lessen impacts to bats:</p> <ul style="list-style-type: none"> <li>a) If special-status bat species are detected during surveys, species and roost specific mitigation measures shall be developed by the qualified biologist. Such measures may include postponing removal of trees, snags or structures until the end of the maternity roosting season or construction of species appropriate roosting habitat within, or adjacent to the project site.</li> <li>b) Trees, snags and buildings may be removed outside of the maternity roosting season without performing preconstruction bat surveys.</li> <li>c) Feld trees shall remain on the ground for 24 hours prior to being removed or chipped.</li> <li>d) For all buildings to be demolished, internal entrance surveys shall be performed by a qualified bat biologist no less than 14 days prior to demolition to determine if buildings currently or previously support roosting bats. If bats are determined to be present, appropriate methods shall be used to exclude bats from the building. Such methods may include installation of one way “valves” to allow bats to exit, but not allow them to reenter the building.</li> <li>e) If an identified maternity roost location is removed, species and roost appropriate mitigation shall be developed in consultation with CDFW. Mitigation shall include at minimum the replacement of a suitable roost structure within or immediately adjacent to the project site, such that similar structure shape and thermal properties are met with the replacement roost.</li> </ul>		

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>f) If no active roosts are identified then work may commence as planned. Survey results are valid for 30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated. No preconstruction bat surveys are required for work conducted between the hibernation season and maternity season (i.e., September 1 through October 31).</p> <p><b>MM BIO-4: Disturbance to Foothill Yellow-Legged Frog (FYLF).</b></p> <p>To minimize disturbance to dispersing or foraging FYLF, all grading activity within 100 feet of aquatic habitat shall be conducted during the dry season, generally between May 1 and October 15, or before the onset of the rainy season,<sup>1</sup> whichever occurs first, unless exclusion fencing is utilized. Construction that commences in the dry season may continue into the rainy season if exclusion fencing is placed between the construction site and Ross Creek or Corte Madera Creek, and includes drainage features to keep the frog from entering the construction area. Additionally, the following measures shall be implemented to lessen impacts to FYLF:</p> <p>a) Prior to building permit issuance the applicant shall submit evidence to the building department to demonstrate that they have retained a qualified biologist to implement each of the following measures.</p> <p>b) Prior to the start of construction, pre-construction surveys for FYLF shall be conducted by a qualified biologist and shall cover the project site and aquatic features within 200 feet of the project site. Additionally, for construction activity within 100 feet of Ross Creek or Corte Madera Creek, a survey shall be conducted by a qualified biologist each day prior to the start of construction activities to ensure that no FYLF are present in the</p>		

<sup>1</sup> The rainy season includes periods when a ½-inch of rain or more is predicted within a 24-hour period and is generally between October and April.



<b>Table ES-I: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
	<p>construction area. If FYLF are observed in the construction area or access areas, all work in the vicinity of the FYLF shall be stopped and the USFWS shall be consulted immediately. The biologist shall submit a summary of their findings to the town planner by email prior to the start of construction.</p> <p>c) Exclusion fencing shall be installed around any work area within 100 feet of a drainage, wetland, or Ross Creek or Corte Madera Creek, unless construction activity will be completed in one day or less at that location. A qualified biologist shall be present to monitor the installation of the exclusion fence.</p> <p>d) Because dusk and dawn are often the times when FYLF are most actively foraging, all construction activities shall cease one half hour before sunset and shall not begin prior to one half hour before sunrise. Construction activities shall not occur during rain events, as FYLF are most likely to disperse during periods of precipitation, unless a survey is conducted by a qualified biologist each day prior to the start of construction activities and one half hour before sunset to ensure that no FYLF are observed in the construction area or access areas.</p> <p>e) Any open holes or trenches shall be covered at the end of each working day to prevent FYLF from becoming entrapped.</p> <p>f) A Spill Prevention and Control Plan shall be created and made part of the plans for the building permit application. The plan and materials necessary to implement it shall be accessible on-site. Heavy equipment shall be checked daily for leaks. Equipment with leaks shall not be used until leaks are fixed. Refueling shall occur at designated sites outside of active stream channels or above the ordinary high water mark.</p> <p>g) Any disturbed ground shall receive appropriate erosion control treatment and native seed mix within seven days following</p>		

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>				
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>	
	<p>completion of construction or within seven days following a seasonal stoppage of construction.</p> <p>h) Any disturbed ground shall receive appropriate erosion control treatment and native seed mix within seven days following completion of construction or within seven days following a seasonal stoppage of construction.</p>			
3.1-2	<p>Implementation of the Proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.</p>	None required	Less than significant	Not applicable
3.1-3	<p>Implementation of the Proposed Project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	None required	Less than significant	Not applicable
3.1-4	<p>Implementation of the Proposed Project could interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or</p>	<p><b>MM BIO-1: Worker Environmental Awareness Training Program.</b></p> <p><b>MM BIO-3: Disturbance to Bat Species.</b></p>	Potentially significant	Less than significant with mitigation incorporated

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>migratory wildlife corridors, or impede the use of native wildlife nursery sites.</p> <p>Structures and trees in the Planning Area could provide nesting habitat for native wildlife—specifically, bats, and native resident and migratory birds, thereby potentially affecting native wildlife nurseries. Implementation of Mitigation Measure BIO-1 described above would require implementation of a worker environmental awareness training program to train construction staff on the needs of protecting sensitive biological resources and the ramifications for not complying with applicable laws. Further, Mitigation Measures BIO-3 and BIO-4 outline additional construction requirements to ensure the protection of special-status bat species and the Foothill Yellow-Legged Frog, resulting in less than significant impacts.</p>	<p><b>MM BIO-4: Disturbance to Foothill Yellow-Legged Frog (FYLF).</b></p>		
<p>3.1-5 Implementation of the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p>	<p>None required</p>	<p>Less than significant</p>	<p>Not applicable</p>

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
3.1-6 Implementation of the Proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	None required	No impact	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would not result in significant cumulative impacts related to special status species, riparian or natural habitat, federally protected wetlands, movement of native or migratory fish or wildlife species, conflict with adopted local policies or ordinances protecting biological resources, or conflict with adopted habitat conservation plans.	None required	Less than significant	Not applicable
<b>3.2 Cultural and Tribal Cultural Resources</b>			
3.2-1 Implementation of the Proposed Project could cause a substantial adverse change in the significance of a historical resource, as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource	<b>MM CUL-1: Evaluate Age-Eligible Properties That Have Not Previously Been Evaluated Prior to Development Projects to Identify Historic Resources.</b>  If a development project is proposed on a parcel within the Planning Area that includes a building, structure, or landscape more than 45 years old (typical age threshold applied by the California Office of Historic Preservation) and has not previously been evaluated for potential historic significance, the project sponsor shall retain a professional who meets the Secretary of the of the Interior's	Potentially significant	Less than significant with mitigation incorporated

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>would be materially impaired (Guidelines Section 15064.5).</p> <p>There are several homes older than 45 years in the Planning area that may be eligible for listing on local, state, or national registers. Mitigation Measure CUL-1 requires the evaluation of any structure impacted by development that is more than 45 years old for historic significance. Proposed development projects shall then be evaluated for potential direct and/or indirect effects on the identified historic resource(s) per CEQA Guidelines Section 15364, and Mitigation Measure CUL-2 shall be implemented as appropriate to reduce impacts to a less-than-significant level.</p>	<p>Professional Qualifications Standards for architectural history or history (as appropriate), to conduct an evaluation of historic significance and eligibility for listing on local, state, or national registers.</p> <p>Evaluation shall include a field survey, archival research, and preparation of a historic resource evaluation report. The report shall include documentation of methodology and the findings of the historic evaluation. Proposed development projects shall then be evaluated for potential direct and/or indirect effects on the identified historic resource(s) per CEQA Guidelines Section 15364, and Mitigation Measure CUL-2 shall be implemented as appropriate.</p> <p><b>MM CUL-2: Avoidance or Minimization of Effects on Identified Historic Resources.</b></p> <p>The project sponsor shall consult with Town staff to determine whether a project can be feasibly redesigned or revised to avoid significant adverse impacts on listed and identified eligible historic resource(s), including historic districts. If a local landmark or preservation district is part of a proposed project, the standard review procedure involving the Town staff and an Advisory Design Review (ADR) Group will be followed. If avoidance of historic resource(s) is not feasible, where feasibility is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors," the project sponsor shall seek to reduce the effect on historic resource(s) to a less-than-significant level pursuant to CEQA Guidelines Section 15364. Projects must conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties to be considered to have a less-than-significant effect on historic architectural resources.</p>		
<p>3.2-2 Implementation of the Proposed Project could cause an adverse change in the significance of an archaeological resource pursuant</p>	<p><b>MM CUL-3: Conduct Cultural Resources Awareness Training.</b></p> <p>Prior to the start of any ground disturbance or construction activities, developers of projects within 50 feet of a creek or within 50 feet of recorded archaeological resources in the Planning Area shall retain a</p>	<p>Potentially significant</p>	<p>Less than significant with mitigation incorporated</p>

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
to CEQA Guidelines Section 15064.5, but this impact is reduced through the implementation of Mitigation Measure CUL-3 which requires cultural resource awareness training for construction personnel.	qualified professional archaeologist to conduct cultural resource awareness training for construction personnel. This training shall include an overview of what cultural resource are and why they are important, archaeological terms (such as site, feature, deposit), project site history, types of cultural resources likely to be uncovered during excavation, laws that protect cultural resources, and the unanticipated discovery protocol.		
3.2-3 Implementation of the Proposed Project could have the potential to disturb human remains, including those interred outside of formal cemeteries, but this impact is reduced through the implementation of Mitigation Measure CUL-3.	<b>MM CUL-3: Conduct Cultural Resources Awareness Training.</b>	Potentially significant	Less than significant with mitigation incorporated
3.2-4 Implementation of the Proposed Project could cause an adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:  (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or	<b>MM CUL-3: Conduct Cultural Resources Awareness Training.</b> <b>MM CUL-4: Tribal Consultation.</b>  Prior to approval of housing projects pursuant to the 6th Cycle Housing Element, the Town of Ross will continue to offer consultation to the Federated Indians of Graton Rancheria with each proposed housing project in the 6th Cycle Housing Element. Consultation may result in mitigation measures beyond those identified herein. Town staff will ensure that all acceptable mitigation measures are implemented prior to issuance of a grading permit.	Potentially significant	Less than significant with mitigation incorporated



<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>(b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p> <p>However, this impact is reduced through the implementation of Mitigation Measures CUL-3 and CUL-4.</p>			
<p>In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would not result in significant cumulative impacts related to historic resources, archaeological resources, disturbance of human remains, or tribal cultural resources.</p>	<p>None required</p>	<p>Less than significant</p>	<p>Not applicable</p>
<b>3.3 Geology, Soils, and Seismicity</b>			
<p>3.3-1 Implementation of the Proposed Project could expose residents, visitors and employees, as well as public and private structures, to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a</p>	<p><b>MM GEO-1: Landslides and Slope Stability.</b></p> <p>Construction and grading will expose areas of weak soil/rock which may be sensitive to erosion and/or sloughing. Project applicants pursuing construction of more than three single-family residences or multi-family residential structures with more than six dwelling units in affected areas shall utilize erosion protection measures during and after construction</p>	<p>Potentially significant</p>	<p>Less than significant with mitigation incorporated</p>

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>known earthquake fault; strong seismic ground shaking; seismically related ground failure, including liquefaction; or landslides.</p> <p>However, this impact is reduced through the implementation of Mitigation Measures GEO-1 and GEO-2.</p>	<p>to reduce the risk of induced instability. Erosion protection measures shall include the use of seeding or hydromulch and the installation of hay bales and/or silt fences to hinder sedimentation. Detailed erosion protection recommendations shall be developed when grading plans are finalized and shall be implemented immediately after construction has been performed.</p> <p><b>MM GEO-2: Setbacks.</b></p> <p>Project applicants pursuing construction of more than three single-family residences or multi-family residential structures with more than six dwelling units in affected areas shall establish minimum building setbacks adjacent to the top or toe of new slopes in accordance with the current CBC to reduce the potential for seismic slope deformation, lateral fill extension, and/or slope creep from impacting the structures.</p>		
<p>3.3-2 Implementation of the Proposed Project would not result in substantial soil erosion or the loss of topsoil.</p>	<p>None required</p>	<p>Less than significant</p>	<p>Not applicable</p>
<p>3.3-3 Implementation of the Proposed Project could locate structures on expansive soils or on a geologic unit or soil that is unstable, or that would become unstable as a result of new development under the Proposed Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or create substantial risks to life or property.</p> <p>However, this impact is reduced through the implementation of</p>	<p><b>MM GEO-1: Landslides and Slope Stability.</b></p> <p><b>MM GEO-2: Setbacks.</b></p>	<p>Potentially significant</p>	<p>Less than significant with mitigation incorporated</p>

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
Mitigation Measures GEO-1 and GEO-2.			
3.3-4 Implementation of the Proposed Project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	None required	Less than significant	Not applicable
3.3-5 Implementation of the Proposed Project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	None required	Less than significant	Not applicable
3.3-6 Implementation of the Proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	None required	Less than significant	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would not result in significant cumulative impacts related to exposure to paleontological resources, seismic hazards, soil erosion, or location of structures on unstable soils.	None required	Less than significant	Not applicable

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<b>3.4 Greenhouse Gas Emissions</b>			
<p>3.4-1 Development under the Proposed Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</p> <p>Construction-related GHG emissions from the Proposed Project would be required to comply with Mitigation Measure GHG-1 which would reduce construction emissions consistent with BAAQMD guidance and statewide emission reduction goals.</p> <p>By nature, energy and greenhouse gas emissions impacts are cumulative because the effects specific to the Proposed Project cannot be reasonably differentiated from the broader effects of regional growth and development.</p>	<p><b>MM GHG-1: Require Implementation of BAAQMD-recommended BMPs.</b></p> <p>All applicants within the Planning Area shall require their contractors, as a condition of contract, to reduce construction-related GHG emissions by implementing BAAQMD’s recommended best management practices, including (but not limited to) the following measures (based on BAAQMD’s CEQA Guidelines):</p> <ul style="list-style-type: none"> <li>• Ensure alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet.</li> <li>• Use local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area).</li> </ul>	Potentially significant	Less than significant with mitigation incorporated
<p>3.4-2 Development under the Proposed Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p> <p><i>Construction</i></p>	<p><b>MM GHG-1: Require Implementation of BAAQMD-recommended BMPs.</b></p> <p><b>MM GHG-2: Prohibit Natural Gas Plumbing and Appliances in New Housing Sites.</b></p> <p>All applicants within the Planning Area shall require their contractors, as a condition of contract, to reduce operation-related natural gas emissions. Development shall include provision(s) that prohibit natural</p>	<p>Construction: Potentially significant</p> <p>Operations: Significant and Unavoidable</p>	Construction: Less than significant with mitigation incorporated

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>In lieu of a quantitative threshold for assessing construction-related GHG emissions, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals, based on whether feasible BMPs for reducing GHG emissions would be implemented. Construction-related GHG emissions from the Proposed Project would be required to comply with Mitigation Measure GHG-1, which would reduce construction emissions consistent with BAAQMD guidance and statewide emission reduction goals.</p> <p><i>Operations</i></p> <p>Implementation of Mitigation Measure GHG-2 would prohibit new development projects from building permanent natural gas infrastructure, thereby reducing conflicts with the 2017 Scoping Plan to a less-than-significant level. However, GHG emissions from mobile sources would conflict with the goals of SB 743. Overall, the Proposed Project would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, but emissions</p>	<p>gas plumbing and the use of natural gas appliances such as cook tops, water heaters, and space heaters in all new housing site developments unless the applicant can show an all-electric building design is not feasible due to specific economic, technical, logistical, or other factors associated with the development site.</p>		<p>Operations: Significant and unavoidable</p>

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
from mobile sources could result in plan conflicts. Therefore, the Proposed Project would result in a significant and unavoidable impact related to GHG plan/policy consistency.			
In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would result in a significant cumulative impact related to conflict with adopted plans for renewable energy or energy efficiency.	None required	Less than significant	Not applicable
<b>3.5 Noise and Vibration</b>			
<p>3.5-1 Implementation of the Proposed Project could result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</p> <p><i>Construction</i></p> <p>Since construction of housing units would likely exceed the exterior residential noise exposure threshold in residential areas of 55 dBA Ldn, implementation of</p>	<p><b>MM N-1: Construction Noise Reduction.</b></p> <p>For all construction projects of more than three single-family residences or multi-family residential structures with more than six dwelling units that are anticipated to exceed the exterior residential noise exposure threshold in residential areas of 55 dBA Ldn, the following mitigation would be required:</p> <ul style="list-style-type: none"> <li>• <b>Equipment Staging Areas.</b> Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors.</li> <li>• <b>Electrically-Powered Tools and Facilities.</b> Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.</li> <li>• <b>Smart Back-up Alarms.</b> Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound</li> </ul>	<p>Construction: Potentially Significant</p> <p>On-Site Operational: Less than significant</p> <p>Traffic: Less than significant</p>	<p>Construction: Less than significant with mitigation</p> <p>On-Site Operational: Less than significant</p> <p>Traffic: Less than significant</p>



<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
mitigation measures as recommended by General Plan Policy 5.10 would be required. Therefore, implementation of Mitigation Measure N-1 would be required to reduce noise impacts of construction projects to a less than significant level.	<p>level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.</p> <ul style="list-style-type: none"> <li>• <b>Additional Noise Attenuation Techniques.</b> During the clearing, earth moving, grading, and foundation/conditioning phases of construction, temporary sound barriers shall be installed and maintained between the construction site and the sensitive receptors. Temporary sound barriers shall consist of sound blankets affixed to construction fencing or temporary solid walls along all sides of the construction site boundary facing potentially sensitive receptors.</li> </ul>		
3.5-2 Development under the Proposed Project would not generate excessive groundborne vibration or groundborne noise levels.	None required	Less than significant	Not applicable
3.5-3 The Proposed Project would not be located within the vicinity of a private airstrip or an airport land use plan or expose people residing or working in the Planning Area to excessive noise levels.	None required	No impact	Not applicable
In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would not result in significant cumulative impacts related to ambient noise levels, groundborne vibration or	None required	Less than significant	Not applicable

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
groundborne noise levels, or airport noise.			
<b>3.6 Transportation</b>			
3.6-1 Implementation of the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities.	None required	Less than significant	Not applicable
3.6-2 Implementation of the Proposed Project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).  CEQA Guidelines Section 15064.3 requires that the determination of significance for transportation impacts be based on VMT instead of a congestion metric such as LOS. The change in the focus of transportation analysis is the result of SB 743. OPR's Technical Advisory provides recommendations for implementing Section 15064.3 of the CEQA Guidelines related to VMT. OPR recommends that if a project does not achieve a level of 15 percent or more below regional or citywide VMT, it may indicate a significant transportation impact. The VMT forecasts	<b>MM VMT-1: Implement VMT Reduction Measures for City-Owned Sites.</b>  The following VMT reduction measures would apply to the twelve (12) Civic Center and Post Office housing site units. <ul style="list-style-type: none"> <li>• Reduced off-street parking requirement: establish a maximum of 1 parking space per unit</li> <li>• Town-owned Bikeshare Facility: provide a secure bikeshare facility at or near Town Hall with 10 electric bicycles that would be accessible for use via digital methods to Town employees as well as residents of the Civic Center and Post Office housing units</li> </ul> VMT reduction measures are not available for the other sites as they are very small in scale in terms of number of units, low density, located far from the bus stop on Sir Francis Drake at Lagunitas Road, and/or not located in walkable mixed-use areas.	Significant and unavoidable	Significant and unavoidable

<b>Table ES-I: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>indicate that the proposed residential uses would result in a Home-Based VMT per capita that is 12 percent below the baseline 2019 Town VMT per capita. Even with Mitigation Measure VMT-I, the Town may not achieve the overall VMT threshold reduction level and the impact would conservatively remain significant and unavoidable.</p> <p>This impact is cumulative by nature because the effects specific to the Proposed Project cannot be reasonably differentiated from the broader effects of regional growth and development.</p>			
<p>3.6-3 Implementation of the Proposed Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment).</p>	None required	Less than significant	Not applicable
<p>3.6-4 Implementation of the Proposed Project would not result in inadequate emergency access.</p>	None required	Less than significant	Not applicable
<p>In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would not result in significant cumulative impacts</p>	None required	Less than significant	Not applicable

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
related to conflict with adopted transportation plans, hazards related to roadway design features, or emergency access.			
<b>3.7 Wildfire</b>			
3.7-1 Development under the Proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	None required	Less than significant	Not applicable
3.7-2 Development under the Proposed Project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	None required	Less than significant	Not applicable
3.7-3 Development under the Proposed Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	None required	Less than significant	Not applicable
3.7-4 Development under the Proposed Project could expose people or structures to significant risks, including downslope or	<b>MM GEO-1: Landslides and Slope Stability.</b>	Potentially significant	Less than significant with

<b>Table ES-1: Summary of Impacts and Mitigation Measures</b>			
<i>Impact</i>	<i>Mitigation Measures</i>	<i>Significance before Mitigation</i>	<i>Significance after Mitigation</i>
<p>downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.</p> <p>However, this impact is reduced through the implementation of Mitigation Measures GEO-1 and GEO-2.</p>	<b>MM GEO-2: Setbacks.</b>		mitigation incorporated
<p>In combination with other past, present, and reasonably foreseeable projects, the Proposed Project would not result in significant cumulative impacts related to adopted emergency response/evacuation plans, wildfire risk, associated wildfire infrastructure, or fire-induced flooding and landslides.</p>	None required	Less than significant	Not applicable

# I Introduction

This Draft Environmental Impact Report (EIR) has been prepared on behalf of the Town of Ross (Town) in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, *et seq.*). This EIR analyzes potential environmental impacts of the adoption and implementation of the proposed Town of Ross 2023-31 General Plan Housing Element Update, referred to as the “Proposed Project.” This chapter outlines the purpose and overall approach to the preparation of the EIR. The Town is the lead agency responsible for ensuring that the Proposed Project complies with CEQA. “Lead agency” is defined by Section 21067 of CEQA as “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.”

## I.1 Purpose of the EIR

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The primary intent of CEQA is to ensure that public agency decision-makers document and consider the environmental implications of their actions in order to avoid or minimize environmental damage that could result from the implementation of a project wherever feasible, and to balance environmental, economic, and social objectives. The purpose of an EIR is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (CEQA Section 21002.1).

### **PURPOSE**

This EIR serves the following purposes:

- To satisfy CEQA requirements for analysis of environmental impacts by including a complete and comprehensive programmatic evaluation of the physical impacts of adopting and implementing the Proposed Project;
- To recommend a set of measures to mitigate any significant adverse impacts;
- To analyze a range of reasonable alternatives to the Proposed Project;
- To inform decision-makers and the public of the potential environmental impacts of the Proposed Project prior to taking action on the Proposed Project, and to assist Town officials in reviewing and adopting the Proposed Project; and

- To provide a basis for the review of subsequent development projects and public improvements proposed within the Planning Area. Subsequent environmental documents may be tiered from the Final EIR.

The Proposed Project consists of policies, diagrams, and standards to guide the future development of the Planning Area, as described in Chapter 2: Project Description. This EIR contains analysis of all potential environmental impacts expected to result from implementation of the various policies and programs identified as part of the Proposed Project, including those that serve to avoid or minimize adverse environmental impacts. In accordance with CEQA requirements, this EIR also identifies and evaluates alternatives to the Proposed Project, including a Redesigned Civic Center Alternative and an Increased Development on the Valley Floor Alternative. An environmentally superior alternative is identified as part of the Alternatives analysis.

This EIR evaluates at a programmatic level the potential environmental impacts of the Proposed Project given its 2031 planning horizon. It can be anticipated that conditions will change; however, the assumptions used are the best data and information available at the time of EIR preparation and reflect existing knowledge of patterns of development.

## **INTENDED USES OF THE EIR**

The California Environmental Quality Act, Public Resources Code Section 21000, *et seq.* (CEQA) Guidelines (Section 15124(d)) require EIRs to identify the agencies that are expected to use the EIR in their decision-making, and the approvals for which the EIR will be used. This EIR will inform the Town, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of the Proposed Project and the identified alternatives. The Town will use the EIR as part of its review and approval of the Proposed Project. Other agencies that may use the EIR include local and regional agencies such as the Ross School District, the Ross Valley Fire Department, Marin Municipal Water District, San Francisco Regional Water Quality Control Board, and the Association of Bay Area Governments (ABAG); and State agencies such as the California Department of Transportation (Caltrans).

## **1.2 Approach and Scope of the EIR**

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### **TYPE OF EIR**

This EIR is a program EIR, defined in Section 15168 of the CEQA Guidelines as: “[An EIR addressing a] series of actions that can be characterized as one large project and are related either: (1) Geographically; (2) A[s] logical parts in the chain of contemplated actions; (3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways.”

Program EIRs can be used as the basic, general environmental assessment for an overall program of future projects, policies, and related implementation actions, such as the Proposed Project. A

program EIR has several advantages. First, it provides a basic reference document to avoid unnecessary repetition of facts or analysis in subsequent project-specific assessments. Second, it allows the lead agency to look at the broad, regional impacts of a program of actions before its adoption, and eliminates redundant or contradictory approaches to the consideration of regional and cumulative effects.

As a programmatic document, this EIR presents an assessment of the potential impacts of the Proposed Project on the entirety of the Planning Area which encompasses about 1.6 square miles, shown on Figure 2.1-1. It does not separately evaluate subcomponents of the Proposed Project, nor does it assess project-specific impacts of potential future developments under the Proposed Project, all of which are required to comply with CEQA and/or the National Environmental Policy Act (NEPA) as applicable.

As a program EIR, the preparation of this document does not relieve the sponsors of specific projects from the responsibility of complying with the requirements of CEQA (and/or NEPA for projects requiring federal funding or approvals). As noted, individual projects are required to prepare a more precise, project-level analysis to fulfill CEQA and/or NEPA requirements. The lead agency responsible for reviewing these projects shall determine the level of review needed, and the scope of that analysis will depend on the specifics of the particular project. These projects may, however, use the discussion of impacts in this EIR as a basis of their assessment of these regional, townwide, or cumulative impacts, provided that the projects are consistent with the Proposed Project and the data and assumptions used in this EIR remain current and valid.

## **ENVIRONMENTAL ISSUE AREAS**

Information gathered about the environmental setting is used to define relevant planning issues, determine thresholds of significance, and evaluate potential impacts. Based on the initial analysis of environmental setting and baseline conditions, and comments on the Notice of Preparation (NOP), the following issues are analyzed in this program EIR:

- Biological Resources
- Cultural, Tribal, and Historic Resources
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Noise and Vibration
- Transportation
- Wildfire

Issues not analyzed in detail in this EIR include aesthetics, agricultural and forestry resources, air quality, energy, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, and utilities and service systems. These issues were found to have no impact or a less-than significant impact as identified in the Initial Study. These topics will not be evaluated in detail in the EIR, which will focus on the potentially significant impacts of the Project, as identified in the Initial Study. For issue



areas where possible significant effects were determined not to be significant and therefore not discussed in detail, the CEQA Guidelines require a statement indicating the reasons for such determination (California Code of Regulations [CCR] Section 15182). See Appendix A, Initial Study, for an overview of issues that were found to have no impact or a less-than-significant impact.

## **PLANNING HORIZON**

For analytic purposes in this EIR, the base year is 2019 and the horizon year representing future conditions is 2031, unless otherwise noted. In cases where current data is not available, the most recent known data is used to depict baseline conditions. The horizon year of 2031 represents the target year of the Proposed Project when projects and programs are anticipated to be fully implemented.

## **ALTERNATIVES**

CEQA requires EIRs to evaluate a reasonable range of alternatives to the Proposed Project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. This EIR evaluates two alternatives, including a Redesigned Civic Center Alternative and an Increased Development on the Valley Floor Alternative. A No Project Alternative was considered but determined infeasible, given that State law requires each city and county in California adopt an updated Housing Element every 8 years and plan to accommodate its share of the regional housing need.

# **1.3 Planning Process and Public Involvement**

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## **NOTICE OF PREPARATION AND PUBLIC PARTICIPATION**

A NOP for the EIR on the Proposed Project was submitted to the State Clearinghouse on November 28, 2022 and circulated among relevant State and local agencies, as well as to members of the public. The Town received two comment letters from State public agencies during the NOP's 30-day review period, which ended on December 29, 2022. The NOP and comments on the NOP received by the Town are included as Appendix B of this EIR. Consistent with legal requirements and State guidance, an EIR Scoping Meeting was held on December 8, 2022, at the Ross Town Hall Chambers to receive comments and suggestions on scope and content for the EIR; solicit input on potential impacts, mitigation measures, and alternatives to consider; and consult with public agencies responsible for natural resources, other regulatory bodies, neighboring communities, Native American tribes, and members of the public. Comments on the NOP, along with input received during public workshops and meetings over the course of the Proposed Project's process, have helped to identify the major planning and environmental issues and concerns and establish the framework of this EIR.

## **TRIBAL CONSULTATION (SB 18 AND AB 52)**

Senate Bill (SB) 18, codified in California Government Code (CGC) Section 65352.3, requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places prior to the adoption or amendment of a general plan. Additionally, Assembly Bill (AB) 52 requires tribal cultural resources to be addressed under CEQA and established requirements for consultation with Native American tribes as part of the CEQA process, providing both federal and non-federally recognized tribes the right to formal consultation with project lead agencies (California Public Resources Code [PRC] Section 21080.3.1). In accordance with SB 18 and AB 52, the Town contacted the NAHC on April 29, 2022 to request a consultation list of tribes traditionally and culturally affiliated with the Planning Area. Upon receipt of a list of tribal contacts, the Town contacted tribal representatives in June 2022, providing information about the planning process and inviting them to initiate consultation under AB 52 if desired. One response and formal request for tribal consultation has been received by the Federated Indians of Graton Rancheria. Correspondence with the NAHC and tribal contacts is included in Appendix C. Additionally, the NOP was shared with the NAHC and in November 2022, the NAHC responded with recommendations for conducting cultural resources assessments.

The environmental setting in the Planning Area and the sites of known Native American archaeological resources in the Planning Area indicate that there is potential for the Planning Area to contain tribal cultural resources from past Native American activities.

## **DRAFT EIR REVIEW**

The CEQA Guidelines establish that the public review period for a draft EIR shall be no shorter than 30 days and no longer than 60 days. The public review period for a draft EIR that has been submitted to the State Clearinghouse for review by State agencies shall be no shorter than 45 days (CCR 15105). This Draft EIR is available for review to the public and interested and affected agencies for a period of 45 days. The purpose of the review period is to obtain comments “on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided and mitigated” (CCR Section 15204). The EIR and appendices are available for review within the Town Clerk’s Office at Ross Town Hall located at 31 Sir Francis Drake Boulevard, Ross, CA 94957 during normal business hours and online at <https://www.townofross.org/planning/page/town-ross-housing-element-update>.

Please submit comments on this Draft EIR in writing or via email to:

Rebecca Markwick, Director of Planning and Building  
Town of Ross  
P.O. Box 320  
Ross, CA, 94957  
Email: [rmarkwick@townofross.org](mailto:rmarkwick@townofross.org)

After the close of the public review period, Town staff and CEQA consultants will review the comments, respond to the comments received, and determine whether any changes are required to

the EIR. The Town Council will then consider certification of the Final EIR. Subsequent to certification of the Final EIR, the Town Council may approve the Proposed Project. If the Town Council approves the Proposed Project, a Notice of Determination will be filed with the State Office of Planning and Research and the Clerk of Marin County.

## **I.4 Other Relevant Plans and Environmental Studies**

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Plans and studies relevant to the Proposed Project include the following:

- Marin County Multi-Jurisdiction Local Hazard Mitigation Plan (2018)
- Town of Ross Bicycle & Pedestrian Plan (2018)
- Town of Ross Housing Element 2015-2023 (2015)
- Marin County Emergency Operations Plan (2014)
- Town of Ross Climate Action Plan (2010)
- Town of Ross General Plan 2007-2025 (2007)

## **1.5 Organization of the EIR**

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This Draft EIR is organized into the following chapters, plus appendices:

- ES. **Executive Summary.** Summarizes the EIR by providing an overview of the Proposed Project, the potentially significant environmental impacts that could result from the Proposed Project, the mitigation measures identified to reduce or avoid these impacts, alternatives to the Proposed Project, and identification of the environmentally superior Alternative.
- 1. **Introduction.** Introduces the purpose of the EIR, explains the EIR process and intended uses of the EIR, and describes the overall organization of this EIR.
- 2. **Project Description.** Describes in detail the Proposed Project, including its location and boundaries, purpose and objectives, and projected buildout.
- 3. **Environmental Analysis.** Analyzes the environmental impacts of the Proposed Project. Impacts are organized by major topic. Each topic area includes a description of the environmental setting, significance criteria, methodology, and potential impacts.
- 4. **Analysis of Alternatives.** Presents a reasonable range of alternatives to the Proposed Project, including the No Project alternative, provides discussion of environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the Proposed Project and other alternatives, discusses the relationship of each alternative to the Proposed Project's objectives, and identifies the environmentally superior alternative.
- 5. **CEQA Required Conclusions.** Summarizes significant environmental impacts, including growth-inducing, cumulative, and significant and unavoidable impacts; significant irreversible environmental change; and impacts found not to be significant.
- 6. **List of Preparers.** Identifies the persons and organizations that contributed to the preparation of the EIR.
- 7. **Appendices.** Includes the NOP and compilation of agency and public comments received on the NOP, as well as other technical appendices including data used for environmental analysis in this EIR.

## 2 Project Description

The project analyzed in this Environmental Impact Report (EIR) is the proposed General Plan 2023-31 Housing Element Update (Proposed Project) in the Town of Ross (Town). The Proposed Project is both a policy document and a tool for implementing portions of the Town's General Plan. It contains goals, policies, and programs to guide future housing development within the approximately 1.6-square-mile Planning Area that encompasses the entire town. Implementation will include amendments to the Town's Zoning Ordinance. The Town is the Lead Agency for environmental review.

This chapter summarizes the key components of the Proposed Project, including a description of its location and setting; an overview of the planning process and the Proposed Project's relationship to other past and ongoing planning efforts; a description of the Proposed Project's Objectives; a summary of the Proposed Project's key components and planning strategies; a statement of project buildout and phasing assumptions; a summary of regulatory mechanisms anticipated to implement the Proposed Project; and a description of intended uses of this EIR. A detailed analysis and context of specific CEQA topics including biological resources, cultural resources, geology and soils, greenhouse gas emissions, noise, transportation, and wildfire can be found in Chapter 3 of this EIR and the EIR appendices.

### 2.1 Location and Setting

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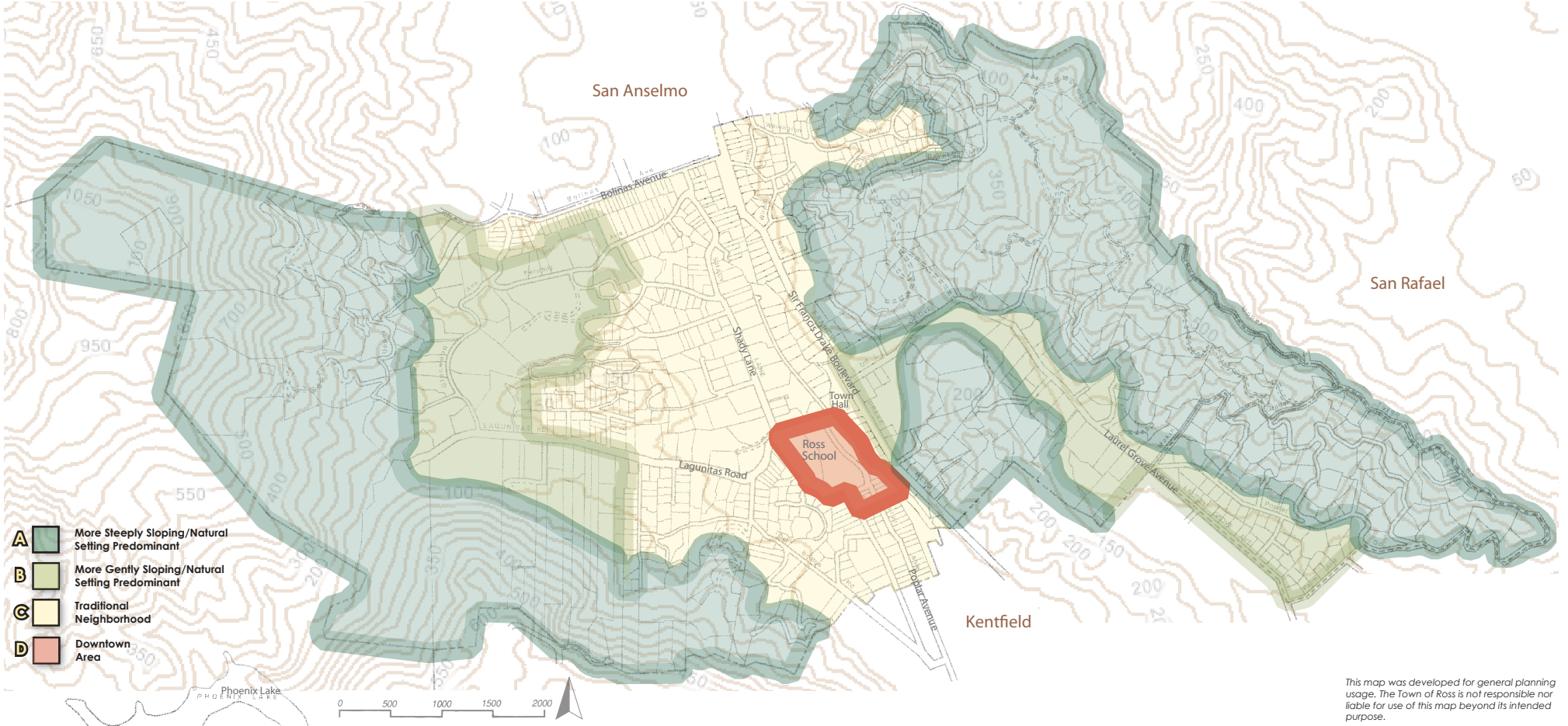
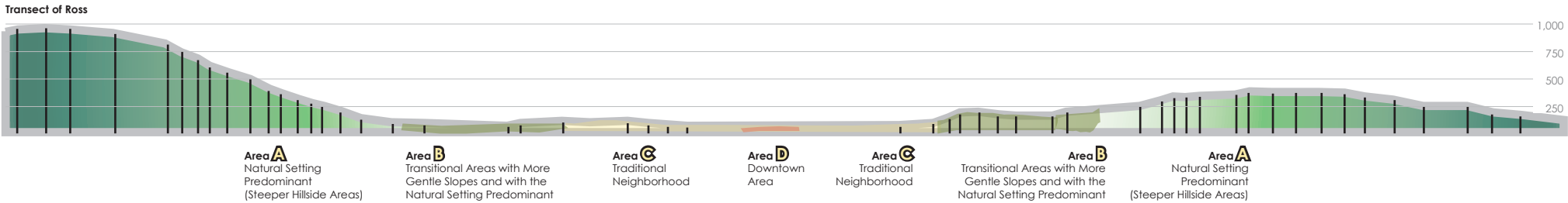
#### REGIONAL LOCATION

Ross is located in Marin County, which is one of the nine counties that comprise the Bay Area region. At the subregional level, Ross is centrally located in Marin County and approximately 18 miles north of San Francisco. Ross is bounded by the Town of San Anselmo to the north, the City of San Rafael to the east, and the unincorporated community of Kentfield to the south, with undeveloped open space administered by the Marin Municipal Water District in the hills to the west (Figure 2.1-1).

#### PLANNING AREA AND EXISTING SETTING

This section provides a general overview of the Planning Area; detailed setting for each topic area can be found in Chapter 3 of this EIR. The Town's location and planning boundaries are shown in Figure 2.1-1.

Figure 2.1-1: Location and Planning Boundaries



This map was developed for general planning usage. The Town of Ross is not responsible nor liable for use of this map beyond its intended purpose.

## **Land Use**

Home to 2,453 residents, the Town of Ross is the second smallest jurisdiction in Marin County, encompassing just 1.6 square miles. The town is largely developed with single-family homes with no vacant parcels on the valley floor. At the heart of the community is the Ross Common, located just west of Sir Francis Drake Boulevard and flanked by the Ross Post Office, the Ross School, and the downtown commercial area. The Ross Civic Center, comprised of the Town Hall and Public Safety Building, is located north of the Post Office on the west side of Sir Francis Drake, while on the opposite side street is the Marin Art and Garden Center, an 11-acre site that features gardens and historic buildings, added to the National Register of Historic Places in 2022. Other notable land uses in Ross include the Branson School, the Lagunitas Country Club, and Saint Anselms Church. Much of the rest of the community is made up of single-family neighborhoods with a dense tree canopy. The lots on the flat land of the valley floor tend to be smaller, with large lots in the hilly terrain further away from the center of the community. Overall, residential uses account for 657.3 acres, commercial uses occupy 20.3 acres, and institutional uses occupy 1.6 acres. Vacant land accounts for 145.6 acres; however, this is predominantly located in areas of steep terrain.

## **Transportation**

Regionally, US 101 is a major freeway that functions as the primary north-south route through Marin County, connecting Marin's major population centers to destinations to the south (including San Francisco) via the Golden Gate Bridge, as well as Sonoma County and northern California to the north. State Route (SR) 1 provides access along much of Marin County's coastline, connecting smaller coastal area communities to US 101 near Tamalpais Valley, and points north in Sonoma County near Tomales. Other key roadway connections to adjacent jurisdictions include I-580, which provides access between Marin County and the East Bay via the Richmond-San Rafael Bridge, and SR 37, which links Novato to Sonoma, Napa, and Solano Counties to the east.

Locally, Sir Francis Drake Boulevard (SFD Blvd) bisects the Town of Ross and serves as the major east-west arterial from West Marin to Highway 101. Collector streets that are intended to carry traffic from collector and minor residential streets to an arterial, such as SFD Blvd, include Bolinas Avenue, Shady Lane, Laurel Grove Avenue, Lagunitas Road, and Poplar Avenue. There are also several minor residential streets throughout the town which are low-capacity streets primarily serving low density residential uses. Minor residential streets are provided within the residential neighborhoods of the Planning Area. There is no existing transit service operating within the Town.

## **Environmental Resources and Natural Setting**

Set in a valley between wooded hillsides, Ross enjoys a natural environment with an abundance of green from tree-lined streets, hillsides, ridgelines, creeks, and parks and open space. This setting also provides natural habitat for wildlife and birds. Riparian forests along the Town's creeks provide habitat and movement corridors for flora and fauna. Residential development is limited in and near these resources to preserve existing biodiversity, including required setbacks along the creeks. Flooding is common within the 100-year flood zones along Corte Madera and Ross Creeks. These riparian areas along the creeks are also subject to high liquefaction risk. Landslides can occur along the hillsides of the western and eastern boundaries of the town. In addition, there is a very high wildfire hazard severity zone just southwest of the town limits while a high fire hazard severity zone exists within the town's boundaries. Such features in the town that bring risk of exposure to natural

hazards, including flooding, wildfires, liquefaction, and landslides, are shown in Figure 2.1-2. Additional details about the environmental resources and natural setting within the Planning Area can be found in the Environmental Setting sections in Chapter 3 of this EIR.

## **Utility Infrastructure**

### ***Water***

The Marin Municipal Water District (MMWD) supplies water to the Town. Most of the District's water supply comes from a network of seven local, rain-fed reservoirs. This supply is supplemented with water from Sonoma County Water Agency (SCWA or Sonoma Water), which provides surface water from the Russian River and to a lesser extent groundwater from the Santa Rosa Plain Subbasin of the Santa Rosa Valley Basin (California Department of Water Resources [DWR] Basin No. 1-55.01). Some recycled water is also used for non-potable uses such as landscape irrigation, cooling towers, car washes, and toilet flushing.<sup>1</sup>

### ***Wastewater***

The Central Marin Sanitation Agency (CMSA) treats wastewater from the central Marin County area, including Ross Valley. The CMSA plant has a permitted dry weather treatment capacity of 10 million gallons per day (mgd) and flows of 7.5 mgd. The plant's wet weather capacity is 90 mgd, and in 2010, the agency expanded the plant's wet weather capacity to over 125 mgd (CMSA, 2018).

### ***Stormwater***

The Town's Public Works operations staff provides maintenance and complete minor repairs of the Town's basic infrastructure including catch basin cleaning and storm drainage system and storm drain repairs. Development would be required to adhere to all applicable federal, State, and local regulations. According to Chapter 15.54 of the Town Code, new development must ensure there is no net increase in the rate and volume of peak runoff from the site compared to pre-project conditions.

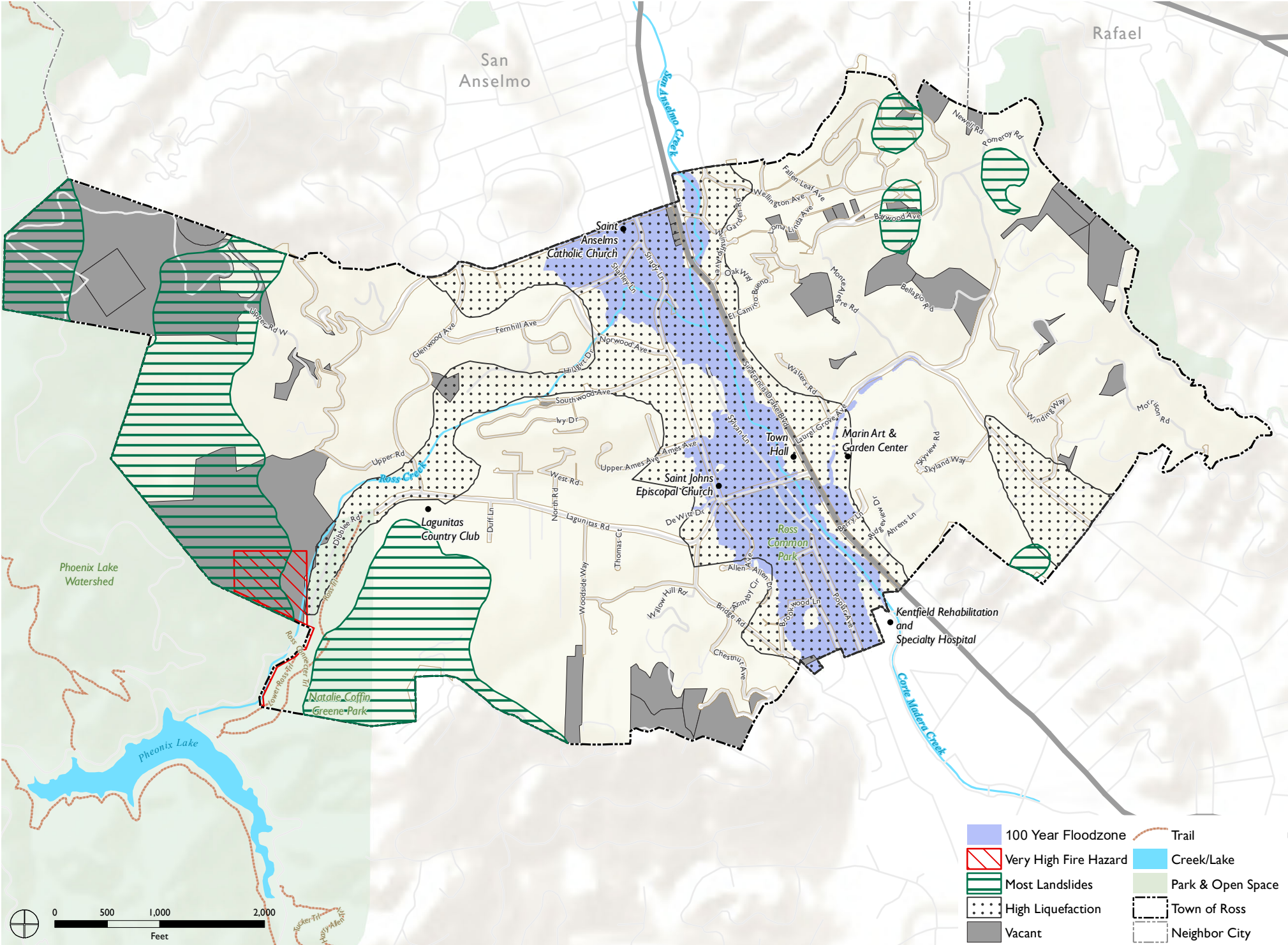
In addition, construction activities must comply with the United States Environmental Protection Agencies' (EPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit which requires standard erosion control measures and best management practices (BMPs) identified in a Stormwater Pollution Prevention Plan (SWPPP) and implemented during construction to reduce sedimentation in waterways and any loss of topsoil. Development associated with the Proposed Project would also be required to comply with the Town's MS4 requirements and prepare a stormwater control plan, which would require construction-site control and erosion control BMPs to reduce impacts related to stormwater runoff. The Town's Urban Runoff Pollution Prevention Ordinance (Chapter 12.28) requires development projects to maintain or reduce the volume of runoff as compared to pre-development stormwater runoff through stormwater management controls and ensuring that these management controls are properly maintained.

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<sup>1</sup> Marin Municipal Water District, 2020 Urban Water Management Plan, May 2021, <https://www.marinwater.org/sites/default/files/2021-06/Draft%20MMWD%20UWMP%202020-1.pdf>, accessed 1/10/23.



Figure 2.1-2: Environmental Hazards and Constraints



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

### ***Natural Gas and Electricity***

Pacific Gas and Electric (PG&E) provides natural gas and electric infrastructure in the town. In addition, the Town's Public Works Department oversees the management, maintenance and construction of public facilities and infrastructure and the public rights-of-way. This includes oversight, management and supervision of private contractors who perform capital projects and maintenance on storm drains.

## **2.2 Planning Context and Process**

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The Proposed Project involves updates to the Town of Ross General Plan Housing Element. In compliance with State law, the Housing Element is being updated to account for changing demographics, market conditions, and projected housing need over an eight-year planning period that runs from 2023 through 2031.

### **HOUSING ELEMENT PLANNING PROCESS**

The Town initiated the Project in March 2022 and conducted a range of community engagement activities to solicit input from Ross residents. These activities included townwide mailers sent to all residents to raise awareness of the process and opportunities for input; focus group discussions with property owners, developers, and architects; presentations to stakeholder groups including the Ross Property Owners' Association, the Age Friendly Task Force, and the Advisory Design Review Group; and presentations before the Town Council. Additionally, two community workshops were held, and the Town conducted an online survey to gather feedback from Ross residents. A page on the Town's website was set up to serve as an information portal for the Project.

## **2.3 Purpose and Objectives of the Proposed Project**

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All California cities and counties are required to have a Housing Element included in their General Plan which establishes housing objectives, policies, and programs in response to community housing conditions and needs. This Housing Element has been prepared to respond to current and near-term future housing needs in the Town of Ross and provide a framework for the community's longer-term approach to addressing its housing needs.

The Housing Element contains goals, updated information and strategic directions (policies and implementing actions) that the Town is committed to undertaking. Housing affordability in Marin County and in the Bay Area as a whole is a critical issue. Over the past thirty years, housing costs have ballooned, driven by rising construction costs and land values, and homeownership in Ross and throughout Marin County has become an ever more distant dream for many people. The typical home value in Ross in June 2022 was more than \$4.7 million, an increase of 25.1 percent over the previous year. The double-edged sword of steep home prices is apparent as subsequent generations are priced out of the local housing market. Similarly, people who work in Ross are often forced to live far away where housing is more affordable and high housing costs have become a significant obstacle to hiring teachers, first responders, and others essential to the community.

The 2023-31 Housing Element touches many aspects of community life. It builds upon the goals, policies and implementing programs contained in the City's 2015-2023 Housing Element and other Town policies and practices to address housing needs in the community. The overall focus of the Housing Element is to preserve and enhance community life, character, and serenity through the provision of adequate housing opportunities for people at all income levels, while being sensitive to the unique and historic character of Ross that residents know and love.

## **PROJECT OBJECTIVES**

The following objectives have been established for the Project:

1. **Maintain Quality of Life.** Maintain the high quality of life, small town charm and historic character of Ross, which make it distinctive and enjoyable to its residents.
2. **Assure Diversity of Population.** Assess housing needs and provide a vision for housing within the Town to satisfy the needs of a diverse population.
3. **Provide a Variety of Housing Opportunities.** Provide a variety of housing opportunities proportionally by income to accommodate the needs of people who currently live in Ross, such as elderly residents and large families.
4. **Address Regional Housing Needs Allocation (RHNA).** Ensure capacity for the development of new housing to meet the Regional Housing Need Allocation at all income levels for the 2023-2031 planning period.
5. **Maintain Existing Housing.** Maintain the existing housing stock to assure high quality maintenance, safety, and habitability of existing housing resources.
6. **Address Affordable Housing Needs.** Continue existing and develop new programs and policies to meet the projected affordable housing need of extremely low, very low, low and moderate-income households.
7. **Address the Housing Needs of Special Need Groups.** Continue existing and develop new programs and policies to meet the projected housing needs of persons living with disabilities, elderly residents, and other special needs households in the community.
8. **Remove Potential Constraints to Housing.** Evaluate potential constraints to housing development and encourage new housing in locations supported by existing or planned infrastructure, while maintaining existing neighborhood character. Develop design directions to help eliminate barriers to the development of housing for all income levels.
9. **Provide for Special Needs Groups.** Provide for emergency shelter, transitional and supportive housing opportunities.
10. **Provide Adequate Housing Sites.** Identify appropriate housing sites, within specified areas proximate to transportation, shopping and schools, and the accompanying zoning required to accommodate housing development.

## **2.4 Proposed Project**

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This section provides a brief overview of key plan components, which integrate the objectives and include housing policies and implementing programs. Proposed Project strategies, policies, and implementing actions are considered throughout this EIR both in terms of their environmental impacts and, where relevant, of how those policies may reduce or avoid potential impacts.

### **ORGANIZATION**

The Housing Element is a legally mandated part of the Ross General Plan, published under separate cover. The Draft 2023-31 Housing Element is an update to the current Housing Element prepared to respond to the requirements for the Sixth Housing Element Cycle, which runs from 2023 through 2031. The organization and content are described below.

- **Chapter 1 - Introduction:** An introduction to the purpose of the document and the legal requirements for a Housing Element, together with an overview of the community and the community involvement process.
- **Chapter 2 – Community Profile:** Documents population characteristics, housing characteristics, and current development trends to inform the current housing state of Ross and to identify community needs.
- **Chapter 3 – Adequate Sites for Housing:** An inventory of adequate sites suitable for construction of new housing sufficient to meet needs at all economic levels.
- **Chapter 4 - Housing Action Plan:** Articulates housing goals, policies, and programs to address the Town’s identified housing needs, including those of special needs groups and the findings of an analysis of fair housing issues in the community. This Housing Element identifies a foundational framework of five overarching goals to comprehensively address the housing needs of Ross residents and workers.
- **Appendix A – Sites Inventory:** Summarizes the Town’s ability to accommodate the RHNA on available land, and the selection of sites in light of Affirmatively Furthering Fair Housing (AFFH) requirements.
- **Appendix B – Housing Needs Assessment:** Presents community demographic information, including both population and household data, to identify Ross’s housing needs.
- **Appendix C – Constraints Analysis:** Includes an analysis of constraints to housing production and maintenance in Ross. Constraints include potential market, governmental, and environmental limitations to meeting the Town’s identified housing needs. In addition, an assessment of impediments to fair housing is included, with a fuller analysis of actions needed to affirmatively further fair housing included in a separate appendix.
- **Appendix D – Accomplishments of the 2015-2023 Ross Housing Element:** Summarizes the Town’s achievements in implementing goals, policies, and actions under the previous Housing Element.
- **Appendix E – Fair Housing Assessment:** Identifies fair housing issues and solutions to meet Ross’s AFFH mandate.

### **SUMMARY OF PROPOSED ACTIONS**

Under State law, each city and county in California must plan to accommodate its share of the regional housing need - called the Regional Housing Needs Allocation (RHNA) - for the coming 8-

year planning period. The State determines the estimated need for new housing in each region of California, based on population projections and other factors including rates of vacancy, overcrowding, and cost-burden. The various regional planning agencies then allocate a target to each city or town within their jurisdiction, considering factors such as access to jobs, good schools, and healthy environmental conditions. RHNA is split into four categories representing different levels of affordability, based on median income level in the county. The affordability categories are as follows:

- Very Low Income - Households making less than 50 percent of the average median income (AMI)
- Low Income - Households making 50-80 percent of AMI
- Moderate Income - Households making 80-120 percent of AMI
- Above Moderate Income - Households making more than 120 percent of AMI

Amid the ongoing housing crisis in California, Ross is required to plan for at least 111 new housing units between 2023 and 2031, including 34 Very Low Income units, 20 Low Income units, 16 Moderate income units, and 41 Above Moderate units.

As required by State law, the 2023-31 Housing Element Update includes a map of sites available for housing and an inventory of realistic capacity. The inventory demonstrates a total capacity of up to 148 new housing units, which is sufficient to meet the Town's RHNA obligations at all income levels with a buffer. This amount of development would result in approximately 355 new residents. The buffer is required to ensure that there is sufficient capacity to meet RHNA obligations at all times during the planning period, in the event that some sites on the inventory develop at lower densities than envisioned. Implementation of the Draft Housing Element would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites.

Of the total capacity on the inventory, 41 units would be accommodated on the 10 sites with current zoning that allows for housing shown on Figure 2.4-1. These are vacant and underutilized sites or sites where the property owner has expressed interest in housing. They include the Ross Civic Center, the Branson School, the Post Office, and vacant several residential properties. Additionally, the inventory projects development of 80 accessory dwelling units (ADUs) on existing single-family lots in established neighborhoods, based on past production trends in Ross and a suite of programs proposed to facilitate and incentivize production over the planning period. Given their small size and lower rents and sales prices, ADUs would offer affordable housing options for seniors, live-in caregivers, teachers, public servants, and other who work in Ross. A further 22 units are projected on existing single-family lots pursuant to Senate Bill 9 (SB9), a California state law that enables homeowners to split their single-family residential lot into two separate lots and/or build additional residential units on their property without the need for discretionary review or public hearing. The law gives qualifying property owners the right to a maximum total of four units across the two lots, whether as single-family dwellings, duplexes, and/or ADUs. As shown on Figure 2.4-2, there are at least 48 of sufficient size, located outside of areas of environmental hazard, and meeting other parameters define in State law that may also be underutilized. The inventory projects up to 22 new units on some combination of the SB9 sites will be developed by 2031.

Table 2-1 shows the inventory of sites available for housing and the capacity projections for the 2023-31 planning period.

## **ACTION PLAN**

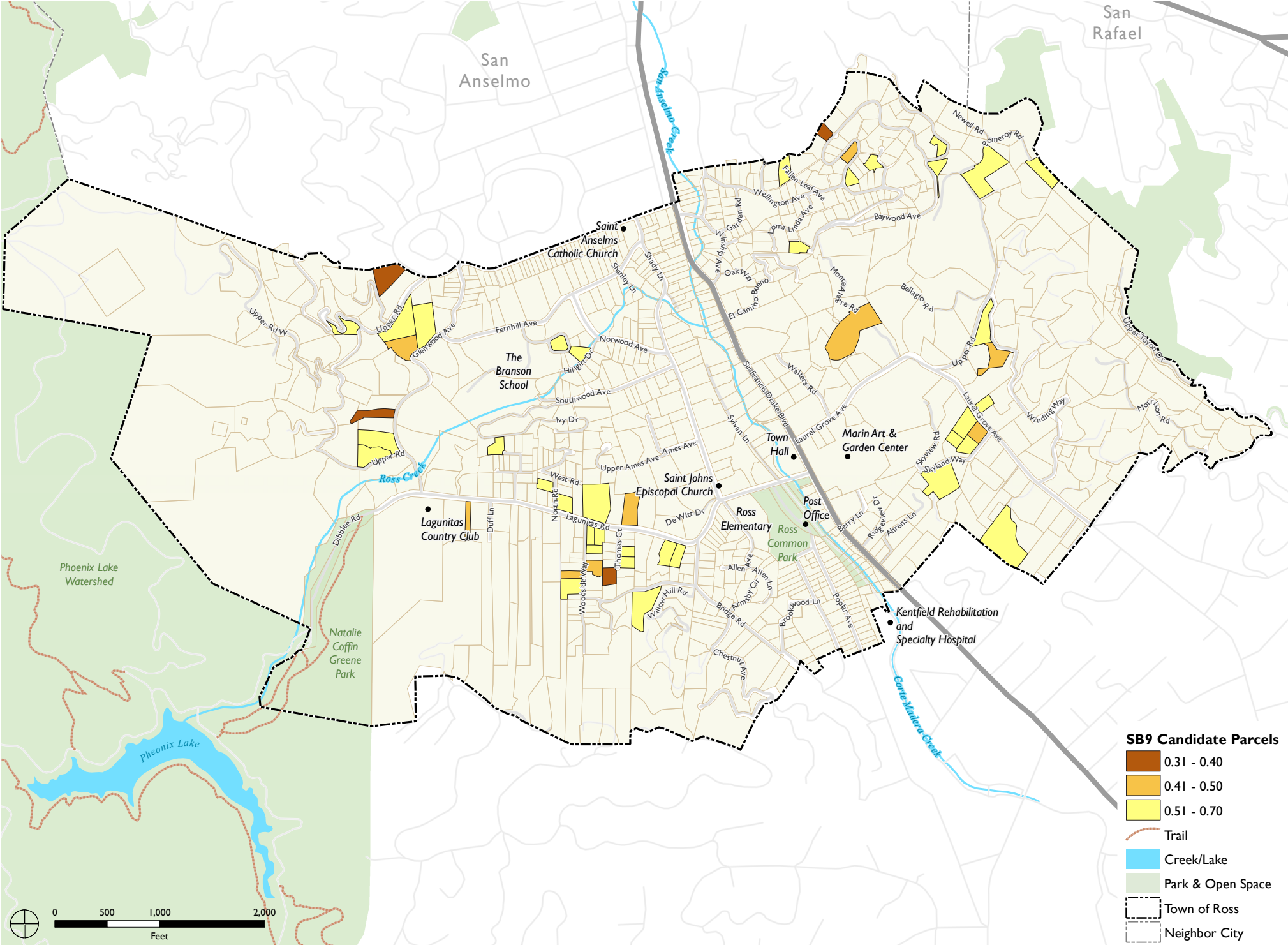
The Draft Housing Element includes an Action Plan, organized around five housing goals. Each goal is supported by policies and implementing programs that describe actions the Town will take to help meet its RHNA obligations. A summary of Action Plan contents is provided below.

**Goal 1, Work together to achieve the Town’s housing goals**, is supported by programs that seek to promote collaboration among public agencies, non-profit groups, and the private sector to meet local housing needs and addressing fair access to housing. Programs involve preparing information and conducting outreach on housing issues, participating in inter-jurisdictional planning for housing, disseminating fair housing information, and responding to fair housing complaints.

**Goal 2, Maintain and enhance existing housing and blend well-designed new housing into existing neighborhoods**, is supported by programs that seek to preserve existing residential units while maintaining the quality of housing and neighborhoods. Through implementation of these programs the Town would explore options for streamlining and expediting design review to minimize time and cost in the development process. For adjacent low density residential lots under common ownership, the Zoning Ordinance would be amended to permit allowable floor area ratio (FAR) to be calculated on the basis of total site area rather than per parcel in order to incentivize the development of lots with market rate, single-family housing. The Town would also further incentivize and promote the creation of SB9 housing, implement rehabilitation loan programs, and work with the Branson School to explore the possibility of deed-restricting five existing multifamily units at the school so that they remain available to members of the local workforce making less than 80 percent of AMI for a period of 55 years.

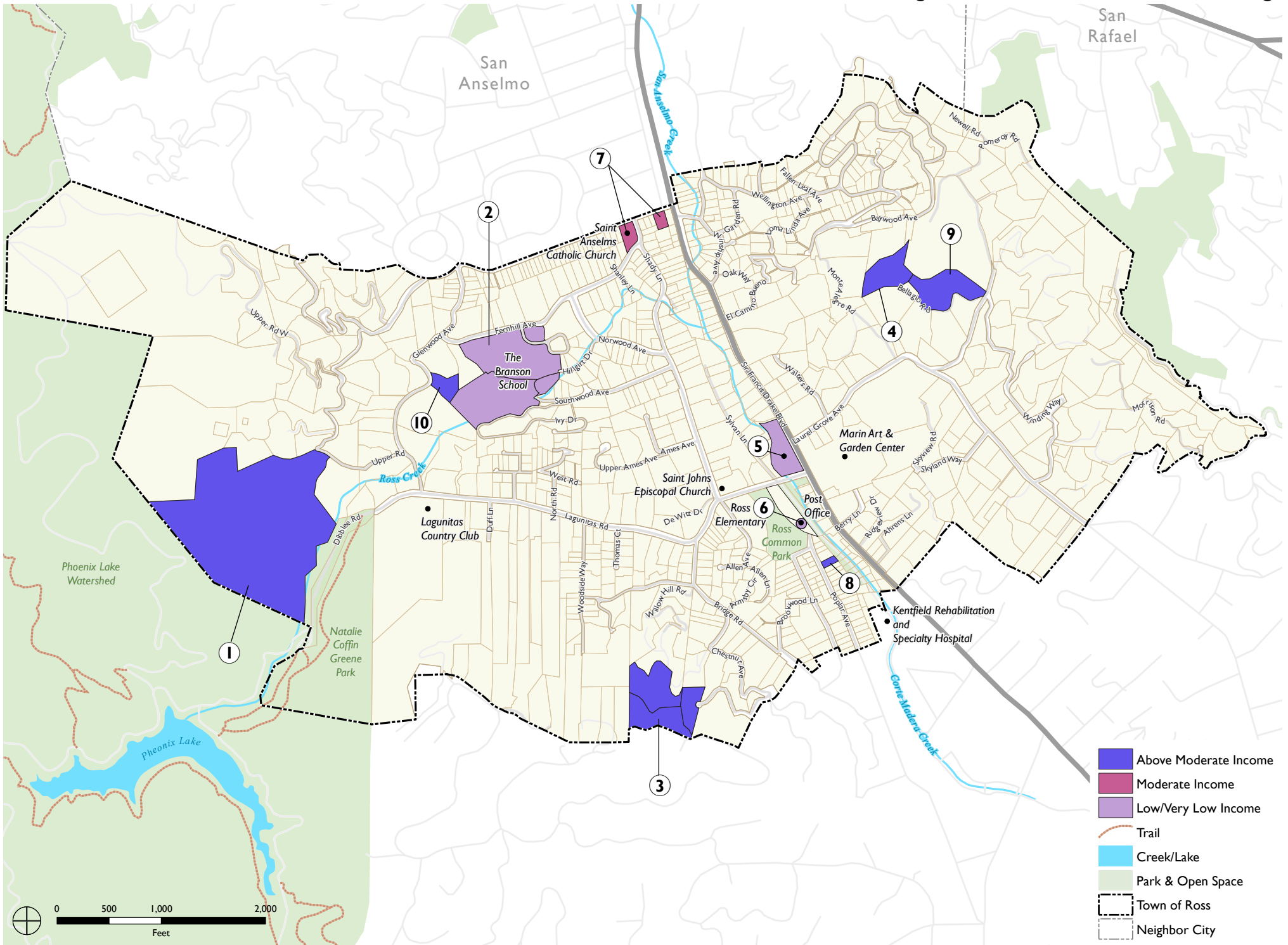


Figure 2.4-1: SB9 Candidate Housing Sites



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

Figure 2.4-2 Sites Available for Housing



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022



**Table 2-1: Sites Available for Housing**

No.	Site Name	Address	APN	Existing Use	Acres	Zoning	Capacity			
							Total Units	Low/ Very Low	Moderate	Above Moderate
1	Berg	Between 7 and 25 Upper Rd	073-011-26	Vacant	53.00	R-I_B-10A	6			6
2	Branson School	39 Fernhill Ave	073-151-05; 073-082-01; 073-082-12; 073-141-03	School	14.72	R-I_B-A	10	10		
3	IIWH	At the end of unnamed road west of Chestnut Ave and Hillside Ave intersection, south of 24 Chesnut Ave	073-291-13; 073-291-14; 073-291-15	Vacant	7.93	R-I_B-5A	2			2
4	Pomeroy	North of 14 Bellagio Rd and South of 78 Baywood Ave	072-031-01	Vacant	2.82	R-I_B-5A	1			1
5	Civic Center	33 Sir Francis Drake Blvd	073-191-16	Public	2.40	C-D	6	6		
6	Post Office	1 Ross Common	073-242-05	Public	1.56	C-D	6	6		
7	Saint Anselms Parking Lot	Southwest corner of Bolinas Ave and Sir Francis Drake Blvd	073-052-25	Parking lot	0.39	R-I_B-6	3		3	
8	Badalamenti	27 Ross Common	073-273-09	Commercial	0.22	C-L	4			4

**Table 2-1: Sites Available for Housing**

No.	Site Name	Address	APN	Existing Use	Acres	Zoning	Capacity			
							Total Units	Low/ Very Low	Moderate	Above Moderate
9	Bellagio	0 Bellagio Road (at the intersection of Bellagio Rd and Canyon Rd)	072-031-04	Vacant	2.63	35.8%	2			2
10	Siebel	Between 36 Glenwood Ave and 81 Fernhill Ave	073-072-07	Vacant	1.07	0.0%	1			1
<b>SUBTOTAL</b>							<b>41</b>	<b>22</b>	<b>3</b>	<b>16</b>
Accessory dwelling units (@ 10/year)							80	48	24	8
Existing units at Branson to deed restrict							5	5		
SB9 Housing <sup>2</sup>							22			22
<b>TOTAL</b>							<b>148</b>	<b>75</b>	<b>27</b>	<b>46</b>
<b>RHNA</b>							<b>111</b>	<b>54</b>	<b>16</b>	<b>41</b>
<b>BUFFER</b>							<b>37</b>	<b>21</b>	<b>11</b>	<b>5</b>

<sup>2</sup> The inventory projects development of 22 SB9 units over the planning period, based on the assumption that 15 percent of the total capacity on SB9 candidate sites is developed.

**Goal 3, Use our land efficiently to increase the range of housing options and to meet the housing needs for all economic segments of the community,** details programs needed to fulfill the Town’s RHNA requirement. As part of the Civic Center redevelopment, the Town would pursue construction of six workforce housing units on the site, to be located on the corporate yard in the northern portion of the property away from the historic Town Hall and Fire House. In addition, a portion of the Ross Post Office site would be made available for redevelopment with workforce housing, in partnership with a non-profit housing developer. The Town would also ease parking requirements for caretaker units and multi-family developments and prepare a Downtown Area Plan to plan holistically for the area to integrate new workforce housing along with street design improvements, pedestrian and bicycle access, parking and design standards. Programs supporting this goal also seek to facilitate and incentivize ADU production, by establishing an amnesty program that allows owners to legalize unpermitted ADUs; by offering pre-approved ADU building plans and technical assistance to interested homeowners; by offering a development fee discount for homeowners who deed-restrict their ADUs and make them available to lower income households; and by updating the ADU ordinance for consistency with current State law and to clarify methods of measurement.

**Goal 4, Provide housing for special needs populations,** is supported by programs to promote affordable housing for all special needs groups, including persons with developmental disabilities, the homeless, single parent families, and large families, consistent with State law. Programs address zoning for transitional and supportive housing and amending the Zoning Ordinance to include objective standards to regulate emergency shelters and to state that residential community care facilities for six or fewer persons are permitted by right in all zones where single-family residential uses are allowed. Programs also address homeless needs, utilize and support available rental assistance programs, and provide information on reasonable accommodation.

**Goal 5, Monitor program effectiveness and respond to housing needs,** is supported by programs that provide a regular monitoring and update process to assess housing needs and achievements. Programs commit the Town to annual reporting on progress toward Housing Element objectives, ensuring adequate sites are available to meet the Town’s share of RHNA at all times throughout the planning period, and monitoring of ADU and JADU trends.

## **2.5 Intended Uses of this EIR**

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This EIR is intended to review potential environmental impacts associated with the adoption and implementation of the Proposed Project and determine corresponding mitigation measures, as necessary. This EIR is a program-level EIR and does not evaluate the project-specific impacts of individual developments or projects that may be allowed under the Proposed Project. Pursuant to CEQA Section 15152, subsequent projects that are consistent with the Proposed Project may “tier” from this EIR, relying on the environmental analysis and mitigation measures it contains in order to streamline environmental review or to focus on project-specific environmental effects not considered in this EIR, if any. Additionally, subsequent projects that satisfy the requirements of CEQA Section 15182 or 15183 may be eligible for streamlined environmental review.

This EIR serves as the environmental document for all discretionary actions associated with development under the Proposed Project. This EIR is intended to be the primary reference

document in the formulation and implementation of a Mitigation Monitoring and Reporting Program (MMRP) for the Proposed Project. This EIR is also intended to assist other responsible agencies in making approvals that may result from the Proposed Project. Federal, State, regional, and local government agencies that may have jurisdiction over development proposals in the Planning Area include:

- U.S. Army Corps of Engineers
- Federal Emergency Management Agency
- U.S. Fish and Wildlife Service
- California Department of Fish and Wildlife
- California Department of Transportation
- Metropolitan Transportation Commission
- Bay Area Air Quality Management District
- San Francisco Bay Regional Water Quality Control Board
- Marin Municipal Water District
- Central Marin Sanitation Agency

The Proposed Project would require the following approvals and discretionary actions by Ross:

- **Town Council**
  - Adoption of the Proposed Project
  - Certification of the EIR pursuant to CEQA
  - Adoption of ordinances, guidelines, programs, and other mechanisms for implementation of the Proposed Project.

## **3.1 Biological Resources**

This section describes the environmental and regulatory setting for biological resources. It also describes impacts related to biological resources that would result from implementation of the Proposed Project and mitigation for significant impacts where feasible and appropriate. The section describes existing biological resources in the Planning Area, including habitats, wetlands and other waters, critical habitat, and special-status species, as well as relevant federal, state, and local regulations and programs.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section. The California Department of Fish and Wildlife (CDFW) submitted comments regarding regulatory requirements applicable to the Proposed Project as well as baseline information and impact analysis requirements. CDFW also submitted a list of special-status species that are known to occur or have the potential to occur in or near the Planning Area. These comments are addressed in the Environmental and Regulatory Setting sections and incorporated into the following analysis.

## **Environmental Setting**

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### **PHYSICAL SETTING**

#### **Habitat Types**

The Town of Ross contains a wide variety of natural and biological resources, including trees, hillsides, ridgelines, and creeks. The Town's location in a valley between wooded hillsides provides a natural habitat for flora and fauna, including some endangered and threatened plant and wildlife species, while the riparian corridors along Ross Creek and Corte Madera Creek provide habitat and movement corridors for wildlife.

A variety of current vegetation mapping sources were reviewed for this EIR, including Marin County's 106-class Fine Scale Vegetation Map and 26-class Forest Lifeform Map, (GGNRA and Tukman Geospatial LLC 2021a). While natural communities and landcover in the Planning Area were not field-verified, a comparison of the broad-scale 26-class Forest Life Form Map with the broad-scale vegetation mapping in the 2007 Marin Countywide Plan (CWP) Update DEIR vegetation map confirmed that natural communities and landcover continue to be accurately represented. While there may have been some changes of those features in the last 15 years, the 2007 CWP Update DEIR map still reflects the overall natural communities and landcovers that are present in the Planning Area. Focused field surveys and review of the vegetation communities mapped at the fine scale will be necessary to accurately map vegetation communities and landcover types for future individual Housing Element projects.

Natural communities in the Town support a wide diversity of plant and animal species, including a high number of special-status species. Consistent with the 2007 Marin Countywide Plan (CWP) Update EIR, there are five natural communities present within Ross (See Exhibit 4.6-1 of the 2007 CWP Update DEIR). These vegetation communities include oak woodland, oak/bay woodland, freshwater marsh, grassland/agriculture, and coastal scrub.

### **Special-Status Species**

Special-status species are defined as:

- Species that are listed as threatened or endangered under the U.S. Fish and Wildlife Service (USFWS) Endangered Species Act or designated as candidates for listing;
- Species that are listed as rare (plants), threatened, or endangered under the California Department of Fish and Wildlife (CDFW) California Endangered Species Act or designated as candidates for listing;
- Wildlife species designated as species of special concern or fully protected by the CDFW;
- Plant species with a California Rare Plant Rank (CRPR), designated as List 1A, List 1B, List 2, and List 3 by the California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, online edition;
- Species that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) (under Section 15380 of CEQA, a species not included on any formal list “shall nevertheless be considered rare or endangered if the species can be shown to meet the criteria” for listing); and/or
- Bat species ranked by the Western Bat Working Group as species with a “moderate” or “high” designation status under CEQA.<sup>1</sup>

Information regarding the occurrences of special-status species in the vicinity of the Planning Area was obtained from a query of the CDFW’s California Natural Diversity Database (CNDDDB). The CNDDDB is regularly updated to track occurrences of previously documented special-status species; however, it contains only those records that have been submitted to CDFW. Therefore, there may be additional occurrences of special-status species within the area that have not yet been surveyed and/or mapped. A lack of information in the CNDDDB about a species or an area does not imply that the species does not occur or that there is a lack of diversity in that area.

Based on the records search, Table 3.1-1 and Table 3.1-2 list 37 special-status plant species and 18 special-status wildlife species that were identified as having the potential to occur within a five-mile radius of the Planning Area. The CNDDDB is regularly updated to track occurrences of previously documented special-status species; however, it contains only those records that have been submitted to CDFW. Therefore, there may be additional occurrences of special-status species within the area that have not yet been surveyed and/or mapped. A lack of information in the CNDDDB about a species or an area does not imply that the species does not occur or that there is a

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<sup>1</sup> Western Bat Working Group. 2017. Species Matrix, Based on the Western Bat Working Group Workshop Held in Reno, Nevada, February 9–13, 1998. Available: <http://wbwg.org/matrices/species-matrix/>. Accessed: May 27, 2021.

lack of diversity in that area. In addition, species shown in Figure 3.1-1 have the potential to occur outside the area delineated in the figure.

**Table 3.1-1: Special-Status Plant Species with the Potential to Occur in the Planning Area**

<i>Scientific Name</i>	<i>Common Name</i>	<i>Status'</i>
<i>Hemizonia congesta</i> ssp. <i>Congesta</i>	Congested-Headed Hayfield Tarplant	CRPR
<i>Pleuropogon hooverianus</i>	North Coast Semaphore Grass	ST, CRPR
<i>Holocarpha macradenia</i>	Santa Cruz Tarplant	FT, SE, CRPR
<i>Amorpha californica</i> var. <i>napensis</i>	Napa False Indigo	CRPR
<i>Pentachaeta bellidiflora</i>	White-Rayed Pentachaeta	FE, SE, CRPR
<i>Trifolium amoenum</i>	Two-Fork Clover	FE, CRPR
<i>Lessingia micradenia</i> var. <i>micradenia</i>	Tamalpais Lessingia	CRPR
<i>Arctostaphylos montana</i> ssp. <i>Montana</i>	Mt. Tamalpais Manzanita	CRPR
<i>Eriogonum luteolum</i> var. <i>caninum</i>	Tiburon Buckwheat	CRPR
<i>Arctostaphylos virgata</i>	Marin Manzanita	CRPR
<i>Arctostaphylos montana</i> ssp. <i>montana</i>	Mt. Tamalpais Thistle	CRPR
<i>Navarretoa rosulata</i>	Marin County Navarretia	CRPR
<i>Horkelia tenuiloba</i>	Thin-Lobed Horkelia	CRPR
<i>Kopsiopsis hookeri</i>	Small Groundcone	CRPR
<i>Ceanothus masonii</i>	Mason's Ceanothus	SR, CRPR
<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	Point Reyes Checkerbloom	CRPR
<i>Hesperolinon congestum</i>	Marin Western Flax	FT, ST, CRPR
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	San Francisco Bay Spineflower	CRPR

<i>Scientific Name</i>	<i>Common Name</i>	<i>Status<sup>1</sup></i>
<i>Helianthella castanea</i>	Diablo Helianthella	CRPR
<i>Polygonum marinense</i>	Marin Knotweed	CRPR
<i>Quercus parvula</i> var. <i>tamalpaisensis</i>	Tamalpais Oak	CRPR
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	Coastal Marsh Milk-Vetch	CRPR
<i>Microseris paludosa</i>	Marsh Microseris	CRPR
<i>Gilia capitata</i> ssp. <i>chamissonis</i>	Blue Coast Gilia	CRPR
<i>Stebbinsoseris decipiens</i>	Santa Cruz Microseris	CRPR
<i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i>	Mt. Tamalpais Bristly Jewelflower	
<i>Streptanthus batrachopus</i>	Tamalpais Jewelflower	CRPR
<i>Gilia millefoliata</i>	Dark-Eyed Gilia	CRPR
<i>Dirca occidentalis</i>	Western Leatherwood	CRPR
<i>Sidalcea hickmanii</i> ssp. <i>Viridis</i>	Marin Checkerbloom	CRPR
<i>Amsinckia lunaris</i>	Bent-Flowered Fiddleneck	CRPR
<i>Castilleja affinis</i> var. <i>neglecta</i>	Tiburon Paintbrush	FE, SE, CRPR
<i>Plagiobothrys glaber</i>	Hairless Popcornflower	CRPR
<i>Carex lyngbyei</i>	Lyngbye's Sedge	CRPR
<i>Fritillaria lanceolata</i> var. <i>tristulis</i>	Marin Checker Lily	CRPR
<i>Calamagrostis crassiglumis</i>	Thurber's Reed Grass	CRPR
<i>Calochortus tiburonensis</i>	Tiburon Mariposa-Lily	FT, ST, CRPR

1. FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; FC = a candidate for listing under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SC = a candidate for listing under CESA; SSC = state Species of Special Concern; CRPR = California Rare Plant; SR = state listed as Rare pursuant to Native Plant Protection Act of 1977; ICP = California Terrestrial and Vernal Pool Invertebrates of Conservation Priority

Source: CNDDDB GIS Data, California Department of Fish and Wildlife, 2022



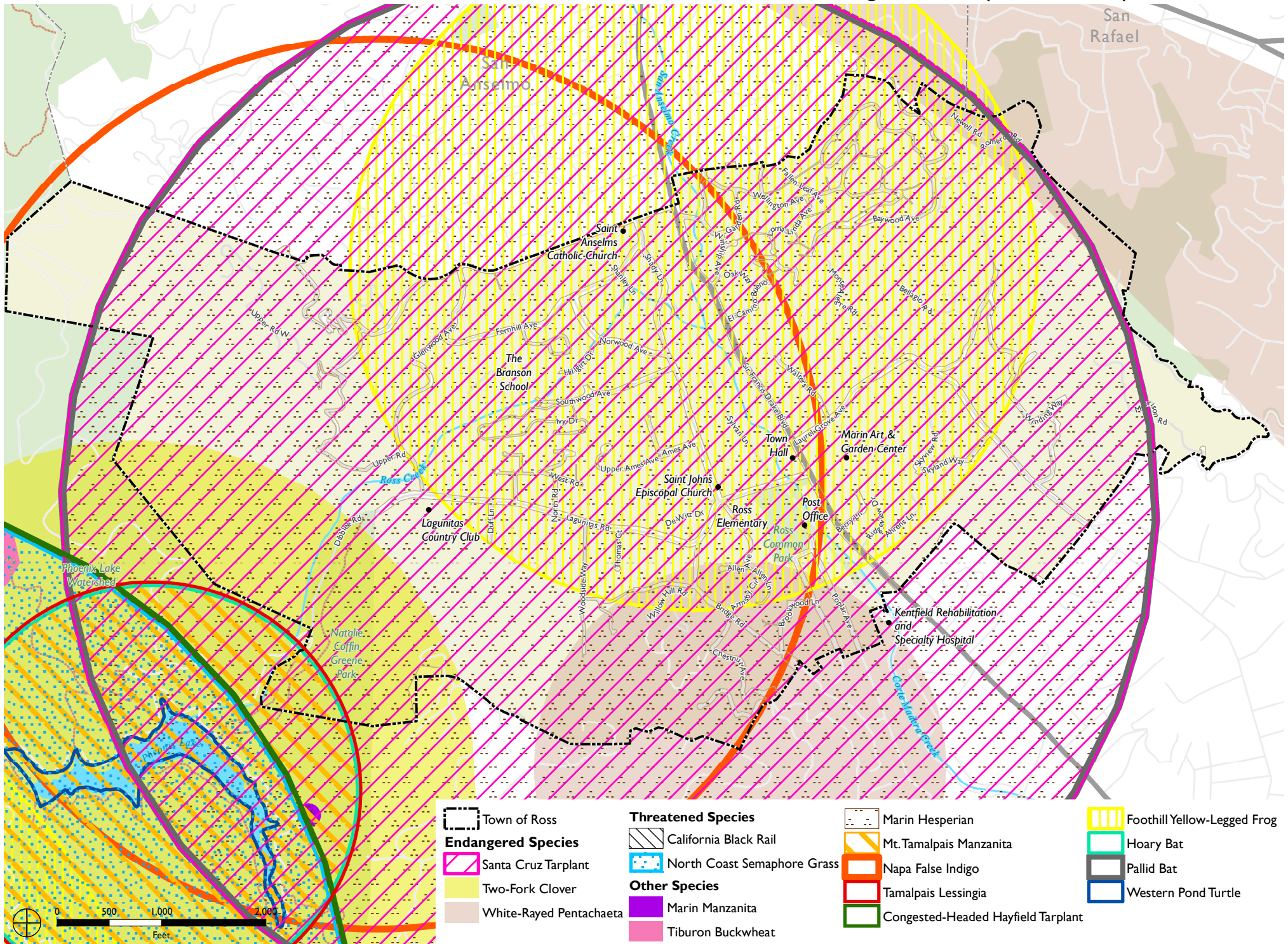
**Table 3.1-2: Special-Status Animal Species with the Potential to Occur in the Planning Area**

<i>Scientific Name</i>	<i>Common Name</i>	<i>Status<sup>1</sup></i>
<i>Rana boylei</i> pop. 1	Foothill Yellow-Legged Frog	SSC
<i>Vespericola marinensis</i>	Marin Hesperian	None
<i>Antrozous pallidus</i>	Pallid Bat	SSC
<i>Lasiurus cinereus</i>	Hoary Bat	None
<i>Emys marmorata</i>	Western Pond Turtle	SSC
<i>Laterallus jamaicensis coturniculus</i>	California Black Rail	ST, FP
<i>Dicamptodon ensatus</i>	California Giant Salamander	SSC
<i>Rana draytonii</i>	California Red-Legged Frog	FT, SSC
<i>Melospiza melodia samuelis</i>	San Pablo Song Sparrow	SSC
<i>Athene cunicularia</i>	Burrowing Owl	SSC
<i>Strix occidentalis caurina</i>	Northern Spotted Owl	FT, ST
<i>Oncorhynchus kisutch</i>	Coho Salmon	FE, SE
<i>Oncorhynchus mykiss irideus</i>	Steelhead	FE
<i>Acipenser medirostris</i>	Green Sturgeon	FT
<i>Bombus caliginosus</i>	Obscure Bumble Bee	SC, ICP
<i>Bombus occidentalis</i>	Western Bumble Bee	SC, ICP
<i>Danaus plexippus plexippus</i>	Monarch	FC, ICP
<i>Corynorhinus townsendii</i>	Townsend's Big-Eared Bat	SSC

*1. FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; FC = a candidate for listing under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SC = a candidate for listing under CESA; SSC = state Species of Special Concern; CRPR = California Rare Plant; SR = state listed as Rare pursuant to Native Plant Protection Act of 1977; ICP = California Terrestrial and Vernal Pool Invertebrates of Conservation Priority*

*Source: CNDDDB GIS Data, California Department of Fish and Wildlife, 2022*

Figure 3.1-1: Special Status Species - CNDDDB



Source: CNDDDB GIS Data, California Department of Fish and Wildlife, 2022; MarinMap, 2022; Dyett & Bhatia, 2022

## **Sensitive Habitats**

### *Critical Habitat*

Critical habitat is defined by the federal Endangered Species Act as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and may require special management and protection. There is no critical habitat, as designated by the USFWS, within the Planning Area. Designated critical habitats for the Northern spotted owl are located just west of the Town limits.

### *Wildlife and Habitat Connectivity*

The California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California was designed to support land use planning and transportation. The report was produced by a multidisciplinary team of representatives from 62 agencies, along with a smaller technical advisory team and steering committee. The report includes a statewide essential habitat connectivity map, data collected to delineate areas shown on the map, recommendations for correcting the fragmentation caused by roads, and guidance for developing and implementing local and regional connectivity plans. Analysis was conducted to determine where mitigation would be most effective and how best to enhance connectivity while lessening vehicle/wildlife collisions.<sup>2</sup>

The Planning Area is set in a valley between wooded hillsides, providing limited wildlife and habitat connectivity opportunities. Thus, the Planning Area is not within any known regional wildlife movement corridor, as indicated by CDFW's Biogeographic Information and Observations System Habitat Connectivity Viewer.<sup>3</sup>

### *Wetlands and Other Waters*

Wetlands and other waters are within the Planning Area. Wetlands are areas where water covers the soil or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. Other waters encompass feature types that contain or convey water, including marine, estuarine, riverine, and lacustrine features. Wetlands and other waters provide a multitude of ecological, economic, and social benefits. They provide habitat for fish, wildlife, and plants; allow for groundwater recharge; reduce flooding; and support cultural and recreational activities. As discussed within the Regulatory Framework section, technical standards for delineating wetlands and other waters have been developed by the U.S.

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<sup>2</sup> Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

<sup>3</sup> California Department of Fish and Wildlife. n.d. Biogeographic Information and Observation System. Version 5.96.99. Available: <https://apps.wildlife.ca.gov/bios/?bookmark=648>. Accessed: May 28, 2021.

Army Corps of Engineers (USACE) and the USFWS. Based on existing information from the USFWS National Wetlands Inventory (2021), there are riverine (other water) features within the Planning Area. These features support (or have the potential to support) seasonal wetland vegetation within their beds and riparian vegetation along their banks; however, this does not preclude future identification of wetlands during site-specific studies.

## **REGULATORY SETTING**

### **Federal Regulations**

#### *Federal Endangered Species Act*

USFWS and the National Marine Fisheries Service (NMFS) administer the federal Endangered Species Act (FESA). FESA requires each agency to maintain lists of imperiled native species and affords substantial protections to these “listed” species. NMFS’ jurisdiction under FESA is limited to the protection of marine mammals, marine fishes, and anadromous fishes; all other species are subject to USFWS jurisdiction.

USFWS and NMFS may “list” a species if it is endangered (at risk of extinction throughout all or a significant portion of its range) or threatened (likely to become endangered within the foreseeable future). Section 9 of FESA prohibits the “take” of any wildlife species listed as endangered and most species listed as threatened. Take, as defined by FESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering” (50 Code of Federal Regulations 17.3).

FESA includes exceptions to general take prohibition that allow an action to be carried out, despite the fact that the action may result in take of listed species where conservation measures are included for the species. Section 7 of FESA provides an exception for actions authorized (e.g., under a Section 404 permit), funded, or carried out by a federal agency, and Section 10 provides an exception for actions that do not involve a federal agency.

#### *Federal Clean Water Act, Section 404*

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation’s waters, including wetlands, lakes, rivers, and coastal areas. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into the waters of the United States, including wetlands. The Clean Water Act holds that all discharges into the nation’s waters are unlawful unless specifically authorized by a permit; issuance of such permits constitutes its principal regulatory tool.

The USACE is authorized to issue Section 404 permits, which allow the placement of dredged or fill materials into jurisdictional waters of the United States under certain circumstances. The USACE issues two types of permits under Section 404: general permits, which are either nationwide permits or regional permits, and standard permits, which are either letters of permission or individual permits. General permits are issued by the USACE to streamline the Section 404 permitting process for nationwide, statewide, or regional activities that have minimal direct or cumulative environmental impacts on the aquatic environment. Standard permits are issued for

activities that do not qualify for a general permit because they may have more than a minimal adverse environmental impact.

***Federal Clean Water Act, Section 401***

Under the Clean Water Act Section 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the State in which the discharge would originate. Therefore, all projects that have a federal component and may affect State water quality, including projects that require federal agency approval, such as issuance of a Section 404 permit, must also comply with Clean Water Act Section 401 and the State's Porter-Cologne Water Quality Control Act. In California, Section 401 certification is handled by the nine Regional Water Quality Control Boards (RWQCBs) and the State Water Resources Control Board (SWRCB). Ross falls under the jurisdiction of the San Francisco Bay RWQCB. The San Francisco Bay RWQCB must certify that the discharge will comply with State water quality standards and other requirements of the Clean Water Act.

***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act of 1918 (MBTA), as amended, implements various treaties and conventions between the United States and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful, as is taking of any parts, nests, or eggs of such birds (16 United States Code 703). Take is defined more narrowly under the MBTA than under FESA and includes only death or injury involving individuals of a migratory bird species or its eggs. As such, take under the MBTA does not include the concepts of harm and harassment, as defined under FESA.

**State Regulations**

***California Endangered Species Act***

Administered by the CDFW, the California Endangered Species Act (CESA) prohibits the take of listed species and also species formally under consideration for listing in California, referred to as *candidate species*. Under CESA, "take" means "hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill." (California Fish and Game Code Section 86.) Under this definition, in contrast to FESA, CESA does not prohibit "harm" to a listed species. Furthermore, take under CESA does not include "the taking of habitat alone or the impacts of the taking." However, the killing of a listed species that is incidental to an otherwise lawful activity and not the primary purpose of the activity constitutes take under CESA. CESA does not protect insects but, with certain exceptions, does prohibit take of plants on private land.

***Natural Community Conservation Planning Act***

The Natural Community Conservation Planning Act was enacted to implement broad-based planning and provide effective protection and conservation of California's wildlife heritage while allowing appropriate development and growth. The Natural Community Conservation Planning Act does not focus on only listed species. It is broader in its orientation and objectives compared with FESA and CESA. The Natural Community Conservation Planning Act encourages local, State, and federal agencies to prepare comprehensive conservation plans that maintain the continued viability of species and biological communities that have been affected by human changes to the

landscape. The Natural Community Conservation Planning Act provides for incidental take authorization such that covered activities resulting in incidental take of listed species may be carried out without violating CESA. Permits issued under the Natural Community Conservation Planning Act can also be broad and may include both listed species and non-listed species.

#### *State Fish and Game Code, Sections 1600–1616*

The CDFW has jurisdictional authority over streams and lakes, as well as wetland resources associated with these aquatic systems, under California Fish and Game Code Section 1600 et seq. The CDFW has the authority to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake or deposit or dispose of debris waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake” (California Fish and Game Code Section 1602.). An entity that proposes to carry out such an activity must first inform the CDFW. Where the CDFW concludes that the activity will “substantially adversely affect an existing (2014) fish or wildlife resource,” the entity proposing the activity must negotiate an agreement with the CDFW that specifies terms under which the activity may be carried out in a way that protects the affected wildlife resource.

CDFW also has authority over actions that may disturb or destroy active nest sites or take birds. Fish and Game Code sections 3503, 3503.5, and 3513 protect birds, their eggs, and nests.

#### *Porter-Cologne Water Quality Control Act*

California Water Code Section 13260 requires “any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the State to file a report of discharge (an application for waste discharge requirements [WDRs]).” Under the Porter-Cologne Water Quality Control Act definition, *waters of the State* are “any surface water or groundwater, including saline waters, within the boundaries of the State.” Although all waters of the United States that are within the borders of California are also waters of the State, the reverse is not true. Accordingly, California retains authority to regulate discharges of waste into any waters of the State, regardless of whether the USACE has concurrent jurisdiction under CWA Section 404. If USACE determines that a wetland is not subject to regulation under Section 404, CWA Section 401 water quality certification is not required. However, the RWQCB may impose WDRs if fill material is placed into waters of the State.

#### *California Native Plant Protection Act*

The California Native Plant Protection Act of 1977 (CNPPA) prohibits importation of rare and endangered plants into California, take of rare and endangered plants, and the sale of rare and endangered plants. CESA defers to the CNPPA, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In that case, plants listed as rare under the CNPPA are not protected under CESA but rather under CEQA.

## **Local Regulations**

### *Town of Ross Municipal Code (Town Code)*

The Town Code Design Review chapter supports the preservation of vegetation and wildlife habitat, creeks, and threatened and endangered species habitat (Chapter 18.41). These design review guidelines state that the high-quality and fragile natural environment should be preserved and maintained through protecting scenic resources, vegetation and wildlife habitat, creeks, drainageways, and threatened and endangered species habitat. Specific requirements include keeping the removal of trees, vegetation, rocks, and soil to a minimum; planting and reseeding disturbed areas to prevent erosion; prioritizing the preservation of environmental sensitive areas, including areas along streams, forested areas, and steep slopes; and establishing a minimum 50-foot creek setback from the top of bank for all new buildings.

In addition, the Town of Ross Tree Protection Ordinance (Chapter 12.24.005) aims to provide reasonable regulations for the maintenance and removal of trees in the town and establish a stable and sustainable urban forest. Further, a tree protection plan may be required on project construction sites where significant or protected trees may be impacted. The tree protection plan shall include a certified arborist's report on existing conditions as well as a plan for tree protection during construction.

### *Town of Ross General Plan 2007-2025 (General Plan)*

The General Plan includes the following goals and policies associated with biological resources:

#### **Goal 1: An Abundance of Green and Healthy Natural Systems**

**Policy 1.1: Protection of Environmental Resources.** Protect environmental resources, such as hillsides, ridgelines, creeks, drainage ways, trees, and tree groves, threatened and endangered species habitat, riparian vegetation, cultural places, and other resources. These resources are unique in the planning area because of their scarcity, scientific value, aesthetic quality and cultural significance.

**Policy 1.2: Tree Canopy Preservation.** Protect and expand the tree canopy of Ross to enhance the beauty of the natural landscape. Recognize that the tree canopy is critical to provide shade, reduce ambient temperatures, improve the uptake of carbon dioxide, prevent erosion and excess stormwater runoff, provide habitat for wildlife and birds, and protect the ecosystem of the under-story vegetation.

**Policy 1.3: Tree Maintenance and Replacement.** Assure proper tree maintenance and replacement.

**Policy 1.4: Natural Areas Retention.** Maximize the amount of land retained in its natural state. Wherever possible, residential development should be designed to preserve, protect and restore native site vegetation and habitat. In addition, where possible and appropriate, invasive vegetation should be removed.

**Policy 1.5: Open Space Plan.** Execute the Open Space Plan (See Figure 3 in Appendix A) for land in public and private ownership, including existing and future parcels. The designation of “Upland Ridge and Greenbelt” on the Open Space Plan is approximate and is intended to identify those properties that would require further analysis of their potential open space value.

**Goal 2:** Sustainable Building and Community Practices

**Policy 2.3: Reduction in the Use of Chemicals and Non-Natural Substances.** Support efforts to use chemical-free and toxic-free building materials, reduce waste and recycle building waste and residential garbage. Encourage landscape designs that minimize pesticide and herbicide use.

## Impact Analysis

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### SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Project would:

- Criterion 1:** 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 Wildlife or U.S. Fish and Wildlife Service;
- Criterion 2:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Criterion 3:** Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.), through direct removal, filling, hydrological interruption, or other means;
- Criterion 4:** 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;
- Criterion 5:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or



**Criterion 6: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.**

## **METHODOLOGY AND ASSUMPTIONS**

The Proposed Project's Planning Area was compared against existing biological conditions to determine potential impacts on biological resources that could result from implementation of the Proposed Project. No field studies or other research were conducted for preparation of this Draft EIR because existing resources contained information on all pertinent aspects of biological resources in the Planning Area at an appropriate level of detail for a program-level environmental assessment. The CDFW submitted comments regarding baseline natural resource information and special-status species that are known to occur or have the potential to occur in or near the Planning Area which informed the analysis. Information regarding the occurrences of these special-status species in the vicinity of the Planning Area was obtained from a query of the CDFW's California Natural Diversity Database (CNDDDB) using a five-mile radius of the Planning Area. Future project-specific detailed biological surveys may be necessary to confirm the presence or absence of sensitive resources on future development sites. Impacts associated with future development as a result of the Proposed Project implementation are analyzed qualitatively at a program level.

## **IMPACTS**

**Impact 3.1-1 Implementation of the Proposed Project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (*Less than Significant with Mitigation Incorporated*)**

A range of special-status species have been documented in and around the Planning Area, as described above in the Environmental Setting. The extent of existing development and human activity within the Town limits and the Planning Area limits the potential for special-status species occurrence. In general, areas that provide habitat for special-status species are located primarily in open space and undeveloped habitat types, including in riparian, woodland, and grassland/agricultural areas.

As shown in Tables 3.1-1 and 3.1-2, there are 37 special-status plants and 18 special-status wildlife species with potential to occur in the Planning Area. Buildout of the Proposed Project would primarily involve construction of small-scale infill housing, typically of not more than three single-family residences or multi-family residential structures designed for not more than six dwelling units. Pursuant to CEQA Section 15303, the State has determined that such projects would not have a significant effect on the environment. The larger scale projects anticipated with buildout of the Proposed Project include the Berg, Branson School, Civic Center, and Post Office sites. The majority of these special-status species have not been documented on or near the Proposed Project's sites identified for housing development.

As shown in Figure 3.1-1, only a select number of special-status species have been documented within or near the town limits, as opposed to species that occur within a five-mile radius of the Planning Area as shown in Tables 3.1-1 and 3.1-2. The Western Pond Turtle has only been documented near Phoenix Lake, which does not overlap with any sites identified for housing development in the Planning Area. In addition, the Hoary Bat, Marin Manzanita, Mt. Tamalpais Manzanita, Congested-Headed Hayfield Tarplant, Tiburon Buckwheat, North Coast Semaphore Grass, and Tamalpais Lessingia have only been documented in the oak woodland habitat outside the western edge of the Planning Area, and do not overlap with any proposed sites for housing development.

However, the Foothill Yellow-Legged Frog is associated with waterways and wetlands in the Planning Area and thus has the greatest potential to occur along the Branson School, Civic Center, and Post Office sites adjacent to riparian areas in the Planning Area. The Two-Fork Clover has the potential to occur on the Berg site in the woodlands along the western portion of the town. Finally, the Pallid Bat, Marin Hesperian, Santa Cruz Tarplant, and Napa False Indigo all have the potential to occur throughout the majority of the Planning Area, and thus face the potential to overlap with all the larger scale housing development sites associated with the Proposed Project.

Development under the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites, limiting the potential for adverse impacts on special-status species and sensitive natural communities. However, given the extent of biological resources throughout the community, future development under the Proposed Project could have a significant direct or indirect impact on special-status species if it would result in the removal or degradation of the species or suitable habitat. Housing sites identified in the Proposed Project do occur along riparian areas and in the western and southern portions of the town; the construction of which could potentially adversely affect several special-status species.

If future development were to degrade or remove suitable habitat for special-status species or result in impacts on special-status individuals, there could be significant impacts on special-status species. This could occur because of construction activities or from ongoing operation and/or maintenance of a project. General Plan Policies 1.1, 1.2, 1.3, 1.4, and 1.5 require the protection of threatened and endangered species and habitat, riparian vegetation, and tree canopies. As stated in Policy 1.4, wherever possible, residential development should be designed to preserve, protect, and restore native site vegetation and habitat. Further, the Town Code Design Review chapter establishes a minimum 50-foot creek setback from the top of bank for all new buildings in order to protect riparian habitat. These policies and regulations would reduce impacts on special-status species and their habitats by limiting development in certain areas.

Impacts would be further reduced through **Mitigation Measure BIO-1**, which would require implementation of a worker environmental awareness training program to train construction staff on the needs of protecting sensitive biological resources and the ramifications for not complying with applicable laws. Further, **Mitigation Measures BIO-2 through BIO-4** outline additional construction requirements to ensure the protection of special-status plant species, bat species, and the Foothill Yellow-Legged Frog. Therefore, with implementation of **Mitigation Measures BIO-1 through BIO-4** and adherence to existing policies and local regulations, as discussed above, the

impacts of future development under the Proposed Project on special-status species would be less than significant.

*Mitigation Measures*

**MM-BIO-1: Worker Environmental Awareness Training Program.** Where a biologist has identified areas supporting or potentially supporting sensitive biological resources, the Town shall require project applicants proposing development projects within the Planning Area to prepare and implement a worker environmental awareness training program prior to equipment staging, ground disturbing activities (e.g., grading, excavation, backfill), or vegetation trimming and removal. The training program should be provided to all construction personnel (contractors and subcontractors) and include the following information:

- The need to avoid effects on sensitive biological resources and the importance of protecting habitat;
- Penalties for not complying with applicable State and federal laws and permit requirements;
- General restrictions and guidelines to be followed by all construction personnel to reduce or avoid effects on sensitive biological resources during construction;
- The life history and habitat requirements of special-status species potentially occurring in or adjacent to the improvements footprint;
- The terms and conditions of the Biological Opinions and other applicable permits; and
- The training program should educate construction supervisors and managers about invasive plant identification and the importance of controlling and preventing the spread of invasive plant infestations.

**MM-BIO-2: Disturbance to Special-Status Plant Species.** A qualified botanist shall conduct a pre-construction focused plant survey within the project site during the blooming or other identifiable season to determine presence/absence of special-status plant species. The surveying botanist shall determine the distribution and population, as well as assess the potential for immediate impact from project activities to special-status plant species. It may be determined that special-status plant species are present within the project site, but impacts to such plants may be generally avoided. These plants shall be clearly demarcated by a qualified botanist, and all construction personnel instructed to avoid these species. Consultation with the USFWS shall occur prior to any impacts to federal listed species (i.e., Santa Cruz Tarplant), as well as consultation with the CDFW for impacts to any of the special-status plant.

If special-status plant species are present and cannot be avoided by project construction, at a minimum the special-status plant species shall be relocated on-site away from further impacts directly relating to the project. All site preparation,

seed/cutting/root collection, grow-out, and plant installation shall be conducted by a qualified landscape company approved by the Town of Ross with experience working on restoration projects and within the habitats present on-site. Following the relocation, the plantings/seedlings shall be monitored annually for three to five years by a qualified biologist to determine the success of the relocation, potential threats, and make necessary recommendations (e.g., removal of invasive species, increase/defense irrigation) for the on-site maintenance to the contracted landscaping company. An annual report shall be drafted and submitted to all responsible agencies (e.g., CDFW, USFWS) for their review.

**MM-BIO-3: Disturbance to Bat Species.** Preconstruction surveys for bats shall take place during the maternity roosting season (defined as: April 1 through August 31) within riparian habitat and any old wooden buildings within a project site. Surveys shall be conducted by a qualified biologist approved by the Town of Ross no less than 14 days prior to removal of trees, snags or buildings within the project area. Ultrasonic acoustic surveys and/or other site appropriate survey method may be performed to determine the presence or absence of bats utilizing the project site as roosting or foraging habitat. Additionally, the following measures shall be implemented to lessen impacts to bats:

- a) If special-status bat species are detected during surveys, species and roost specific mitigation measures shall be developed by the qualified biologist. Such measures may include postponing removal of trees, snags or structures until the end of the maternity roosting season or construction of species appropriate roosting habitat within, or adjacent to the project site.
- b) Trees, snags and buildings may be removed outside of the maternity roosting season without performing preconstruction bat surveys.
- c) Feld trees shall remain on the ground for 24 hours prior to being removed or chipped.
- d) For all buildings to be demolished, internal entrance surveys shall be performed by a qualified bat biologist no less than 14 days prior to demolition to determine if buildings currently or previously support roosting bats. If bats are determined to be present, appropriate methods shall be used to exclude bats from the building. Such methods may include installation of one way “valves” to allow bats to exit, but not allow them to reenter the building.
- e) If an identified maternity roost location is removed, species and roost appropriate mitigation shall be developed in consultation with CDFW. Mitigation shall include at minimum the replacement of a suitable roost structure within or immediately adjacent to the project site, such that similar structure shape and thermal properties are met with the replacement roost.
- f) If no active roosts are identified then work may commence as planned. Survey results are valid for 30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated. No preconstruction bat surveys are required for work conducted between the

hibernation season and maternity season (i.e., September 1 through October 31).

**MM-BIO-4: Disturbance to Foothill Yellow-Legged Frog (FYLF).** To minimize disturbance to dispersing or foraging FYLF, all grading activity within 100 feet of aquatic habitat shall be conducted during the dry season, generally between May 1 and October 15, or before the onset of the rainy season,<sup>4</sup> whichever occurs first, unless exclusion fencing is utilized. Construction that commences in the dry season may continue into the rainy season if exclusion fencing is placed between the construction site and Ross Creek or Corte Madera Creek, and includes drainage features to keep the frog from entering the construction area. Additionally, the following measures shall be implemented to lessen impacts to FYLF:

- a) Prior to building permit issuance the applicant shall submit evidence to the building department to demonstrate that they have retained a qualified biologist to implement each of the following measures.
- b) Prior to the start of construction, pre-construction surveys for FYLF shall be conducted by a qualified biologist and shall cover the project site and aquatic features within 200 feet of the project site. Additionally, for construction activity within 100 feet of Ross Creek or Corte Madera Creek, a survey shall be conducted by a qualified biologist each day prior to the start of construction activities to ensure that no FYLF are present in the construction area. If FYLF are observed in the construction area or access areas, all work in the vicinity of the FYLF shall be stopped and the USFWS shall be consulted immediately. The biologist shall submit a summary of their findings to the town planner by email prior to the start of construction.
- c) Exclusion fencing shall be installed around any work area within 100 feet of a drainage, wetland, or Ross Creek or Corte Madera Creek, unless construction activity will be completed in one day or less at that location. A qualified biologist shall be present to monitor the installation of the exclusion fence.
- d) Because dusk and dawn are often the times when FYLF are most actively foraging, all construction activities shall cease one half hour before sunset and shall not begin prior to one half hour before sunrise. Construction activities shall not occur during rain events, as FYLF are most likely to disperse during periods of precipitation, unless a survey is conducted by a qualified biologist each day prior to the start of construction activities and one half hour before sunset to ensure that no FYLF are observed in the construction area or access areas.
- e) Any open holes or trenches shall be covered at the end of each working day to prevent FYLF from becoming entrapped.
- f) A Spill Prevention and Control Plan shall be created and made part of the plans for the building permit application. The plan and materials necessary to

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<sup>4</sup> The rainy season includes periods when a ½-inch of rain or more is predicted within a 24-hour period and is generally between October and April.

implement it shall be accessible on-site. Heavy equipment shall be checked daily for leaks. Equipment with leaks shall not be used until leaks are fixed. Refueling shall occur at designated sites outside of active stream channels or above the ordinary high water mark.

- g) Any disturbed ground shall receive appropriate erosion control treatment and native seed mix within seven days following completion of construction or within seven days following a seasonal stoppage of construction.
- h) All workers shall ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the construction area are deposited in covered or closed trash containers. The trash containers shall not be left open and unattended overnight.

*Significance after mitigation:* Less than significant

**Impact 3.1-2      Implementation of the Proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. (*Less than Significant*)**

As noted above in the Environmental Setting, the Planning Area includes riparian habitat located along Ross Creek and Corte Madera Creek, which is considered a sensitive natural community and habitat for sensitive wildlife species located throughout the Planning Area. Implementation of the Proposed Project could have a significant impact on riparian habitat or other sensitive natural communities if future development under the Proposed Project results in the removal or degradation of the habitat.

As discussed under Impact 3.1-1, future development under the Proposed Project would take place primarily in previously developed portions of the Planning Area, limiting the potential for disruption to undeveloped habitat areas. However, the Branson School, Civic Center, and Post Office sites are located adjacent to riparian areas in the Planning Area, development of which may result in a substantial adverse impact on riparian habitat. Even so, the Town of Ross General Plan includes several policies that aim to reduce any potentially significant impacts of development that is adjacent to natural areas. General Plan Policies 1.1, 1.2, 1.3, 1.4, and 1.5 require the protection of threatened and endangered species and habitat, riparian vegetation, and tree canopies. As stated in Policy 1.4, wherever possible, residential development should be designed to preserve, protect, and restore native site vegetation and habitat. Any development near natural areas and riparian habitat must maximize the amount of land retained in its natural state. General Plan Policy 2.4 also encourages developments to use smaller footprints to minimize the built area of the site and to allow the maximum amount of landscaped and/or permeable surfaces. Further, the Town Code Design Review chapter establishes a minimum 50-foot creek setback from the top of bank for all new buildings in order to protect riparian habitat. Therefore, implementation of the Proposed Project would not result in the degradation or removal of any riparian habitat identified within the Planning Area.

With implementation of these policies and adherence to local regulations, as discussed above, the impacts of future development under the Proposed Project on riparian habitat or sensitive natural communities would be less than significant.

*Mitigation Measures*

None required.

**Impact 3.1-3      Implementation of the Proposed Project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant*)**

As described in the Environmental Setting, the USFWS National Wetlands Inventory (2021) listed riverine (other water) features within the Planning Area. Further, the 2007 CWP Update EIR identified freshwater marsh habitat in the Planning Area as well. These features have the potential to contain wetlands and are considered federally protected, as defined by Section 404 of the Clean Water Act. Implementation of the Proposed Project could have a significant impact on federally protected wetlands if future development under the Proposed Project results in the direct removal, filling, hydrological interruption, or otherwise degradation of the habitat.

As discussed under Impact 3.1-1, future development under the Proposed Project would take place primarily in previously developed portions of the Planning Area, limiting the potential for disruption to undeveloped habitat areas. In addition, the Proposed Project does not propose any new development in these areas. Therefore, implementation of the Proposed Project would not result in the degradation or removal of any wetland habitat identified within the Planning Area. Future development under the Proposed Project would be subject to the requirements of Clean Water Act Section 404 and 401 permitting requirements, which would limit and/or mitigate impacts from projects that would discharge pollutants or dredged or fill materials into waters of the state, including wetlands. Future development would also be subject to the CDFW Lake and Streambed Alteration Program, which would require any project that could substantially divert or obstruct the flow of, substantially change or use any material from, or deposit debris into a river, stream, or lake to agree to measures that would protect existing fish or wildlife resources.

General Plan Policies 1.1, 1.2, 1.3, 1.4, and 1.5 require the protection of threatened and endangered species and habitat, riparian vegetation, and tree canopies. As stated in Policy 1.4, wherever possible, residential development should be designed to preserve, protect, and restore native site vegetation and habitat. Further, the Town Code Design Review chapter establishes a minimum 50-foot creek setback from the top of bank for all new buildings in order to protect riparian habitat. With implementation of these policies and adherence to regulations, as discussed above, impacts of future development under the Proposed Project would be less than significant in regard to direct removal, filling, hydrological interruption, or other means of degradation of wetland habitat.

### *Mitigation Measures*

None required.

**Impact 3.1-4 Implementation of the Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant with Mitigation Incorporated*)**

As noted above, the Planning Area is not within any known regional wildlife movement corridor, as indicated by CDFW's Biogeographic Information and Observations System Habitat Connectivity Viewer.<sup>5</sup> However, the riparian corridors along Ross Creek and Corte Madera Creek may serve as movement corridors for wildlife species. The Planning Area's riparian habitat may provide movement corridors for aquatic and riparian species, such as Foothill Yellow-Legged Frog. Housing sites identified in the Proposed Project do occur along riparian areas and in the western and southern portions of the town that contain woodlands; the construction of which could potentially adversely affect the movement of fish or wildlife species.

The Town of Ross General Plan includes several policies that reduce any potentially significant impacts of sites that are adjacent to riparian habitat and can potentially impede wildlife movement. General Plan Policies 1.1, 1.2, 1.3, 1.4, and 1.5 require the protection of threatened and endangered species and habitat, riparian vegetation, drainage ways, and tree canopies. As stated in Policy 1.4, wherever possible, residential development should be designed to preserve, protect, and restore native site vegetation and habitat. Any development near natural areas and riparian habitat must maximize the amount of land retained in its natural state. General Plan Policy 2.4 also encourages developments to use smaller footprints to minimize the built area of the site and to allow the maximum amount of landscaped and/or permeable surfaces. Further, the Town Code Design Review chapter establishes a minimum 50-foot creek setback from the top of bank for all new buildings in order to protect riparian habitat and wildlife movement corridors.

However, structures and trees in the Planning Area could provide nesting habitat for native wildlife—specifically, bats, and native resident and migratory birds, thereby potentially affecting native wildlife nurseries. Thus, development anticipated by the Proposed Project would be required to adhere to the existing Town of Ross Tree Protection Ordinance (Chapter 12.24.005). This ordinance aims to provide reasonable regulations for the maintenance and removal of trees in the town and establish a stable and sustainable urban forest. General Plan Policy 1.3 also requires proper tree maintenance and replacement for all development. Compliance with these policies would ensure less-than-significant impacts on trees that could provide nesting habitat for wildlife.

In addition, as discussed under Impact 3.1-3, future development under the Proposed Project would be subject to the requirements of Clean Water Act Section 404 and 401 permitting requirements, which would limit and/or mitigate impacts from projects that would discharge

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<sup>5</sup> California Department of Fish and Wildlife. n.d. Biogeographic Information and Observation System. Version 5.96.99. Available: <https://apps.wildlife.ca.gov/bios/?bookmark=648>. Accessed: May 28, 2021.



pollutants or dredged or fill materials into waters of the state, including wetlands. Future development would also be subject to the CDFW Lake and Streambed Alteration Program, which would require any project that could substantially divert or obstruct the flow of, substantially change or use any material from, or deposit debris into a river, stream, or lake to agree to measures that would protect existing fish or wildlife resources.

Future development within the Planning Area would be subject to the General Plan goals and policies related to biological resources and various policies and regulations for preserving and protecting open space; preserving natural resources, including plant, animal, and fish habitats; protecting wetlands; participating in river restoration efforts; and protecting and enhancing streams and creeks. Compliance with these policies and the following mitigation measures would ensure the preservation of natural resources in the Planning Area and impacts would be less than significant.

*Mitigation Measures*

**MM-BIO-1: Worker Environmental Awareness Training Program.**

**MM-BIO-3: Disturbance to Bat Species.**

**MM-BIO-4: Disturbance to Foothill Yellow-Legged Frog (FYLF).**

*Significance after mitigation:* Less than significant

**Impact 3.1-5 Implementation of the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)**

A significant impact would occur if the Proposed Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The Ross General Plan Part II, Our Relationship with the Natural Environment, includes goals and policies that the Proposed Project would be subject to. These policies include but are not limited to protection of environmental resources, tree canopy preservation, tree maintenance and replacement, natural areas retention, and open space planning. Protection of environmental resources includes hillsides, creeks, drainage ways, trees, and tree groves. Specific requirements include ensuring proper tree maintenance and replacement, executing an Open Space Plan for land in public and private ownership, and establishing creek setbacks. As per General Plan Policy 1.1, all development near riparian areas must be done in a manner that retains and protects creekside vegetation, drainage ways, and includes habitat restoration in its natural state. Further, residential development must maximize the amount of land retained in a natural state wherever possible.

The Town Code Design Review chapter also supports the preservation of vegetation and wildlife habitat, creeks, and threatened and endangered species habitat (Chapter 18.41). These standards stipulate that the high-quality and fragile natural environment should be preserved and maintained through protecting scenic resources, vegetation and wildlife habitat, creeks, drainageways, and threatened and endangered species habitat. Specific requirements include keeping the removal of

trees, vegetation, rocks, and soil to a minimum; planting and reseeded disturbed areas to prevent erosion; prioritizing the preservation of environmental sensitive areas, including areas along streams, forested areas, and steep slopes; and establishing a minimum 50-foot creek setback from the top of bank for all new buildings. Development anticipated by the Proposed Project would also be required to adhere to the existing Town of Ross Tree Protection Ordinance (Chapter 12.24.005). This ordinance aims to provide reasonable regulations for the maintenance and removal of trees in the town and establish a stable and sustainable urban forest. As a result, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, and a less than significant impact would occur.

*Mitigation Measures*

None required.

**Impact 3.1-6      Implementation of the Proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. *(No Impact)***

A significant impact would occur if a project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There are no Habitat Conservation Plans in Marin County.<sup>6</sup> Therefore, development of the Proposed Project would not conflict with any Habitat Conservation Plan. No impact would occur.

*Mitigation Measures*

None required.

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<sup>6</sup> CDFW. 2021. Natural Community Conservation Planning (NCCP). California Regional Conservation Plans Map. <<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>>. Accessed: May 31, 2021.

## 3.2 Cultural and Tribal Cultural Resources

This section describes the environmental and regulatory setting for cultural and tribal cultural resources. It also describes impacts related to historic, archaeological, and tribal cultural resources (including human remains) that would result from implementation of the Proposed Project and mitigation for significant impacts where feasible and appropriate. Cultural resources refer broadly to prehistoric and historic buildings, structures, objects, districts, and sites exhibiting important historical, cultural, scientific, or technological associations. This definition extends to tribal cultural resources which refer to sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe. For the purposes of CEQA, cultural resources are separated into three subcategories: historical resources, archaeological resources, and Native American tribal resources and remains. This section describes the historical setting of the Planning Area as well as the context for cultural resources in the Planning Area. Appendix C includes relevant background materials related to cultural resources and consultation.

There was one response to the Notice of Preparation (NOP) regarding topics covered in this section. The Native American Heritage Commission (NAHC) provided a brief summary of portions of Assembly Bill (AB) 52 and Senate Bill (SB) 18 as well as the NAHC's recommendations for conducting cultural resources assessments. In accordance with the NAHC's comment letter, a summary of AB 52 and SB 18 is included in the Regulatory Settings section of this chapter and the NAHC's recommendations for conducting cultural resources assessments are incorporated into the following analysis.

### Environmental Setting

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#### GEOLOGIC SETTING

The Town of Ross sits at an elevation of approximately 36 feet above sea level.<sup>1</sup> The Town is located within the Coast Ranges Geomorphic Province of Northern California, a relatively geologically young and seismically active region on the western margin of the North American plate. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan

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<sup>1</sup> Town of Ross. March 2019. Planning Application Guide. Available: [https://www.townofross.org/sites/default/files/fileattachments/planning/page/230/planning\\_application\\_guide\\_march\\_2019-expanded.pdf](https://www.townofross.org/sites/default/files/fileattachments/planning/page/230/planning_application_guide_march_2019-expanded.pdf). Accessed: October 31, 2022.

Complex. West of the San Andreas Fault is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands.<sup>2</sup>

The weathering of bedrock and the growth of vegetation have resulted in the formation of relatively shallow (20 to 40 inches typical) soils on hillsides in the town. According to the Soil Survey of Marin County, California, the predominant soil type in the town limits is the Tocaloma-McMullin Urban Land Complex, which is a loam to very gravelly loam.<sup>3</sup> These are well-drained soils derived from sandstone and found in upland areas.

## PRECONTACT SETTING

The precontact cultural chronology for the San Francisco Bay Area was developed through over a century of organized archaeological survey, beginning with N.C. Nelson in 1906 to the present. Since the 1950s, archaeological work in Santa Clara, Alameda, and Contra Costa Counties led to further refinement of the cultural sequence to consist of the Early Holocene (Lower Archaic), Early Period (Middle Archaic), Lower Middle Period (Initial Upper Archaic), Upper Middle Period (Late Upper Archaic), Initial Late Period (Lower Emergent), and Terminal Late Period (Protohistoric Ambiguities).

The Early Holocene (Lower Archaic, calibrated [cal] 8000–3500 B.C.) is characterized by a mobile forager pattern, with the milling slab, handstone, and a variety of large, wide-stemmed and leaf-shaped projectile points, largely composed of local Franciscan chert dominating the assemblage.<sup>4</sup> During the Early Period (Middle Archaic, cal 3500–500 B.C.), several technological and social developments emerged, and new groundstone technology and the first cut shell beads in mortuaries signaled sedentism (living in one place for a period of time), regional symbolic integration, and increased regional trade in the San Francisco Bay Area.<sup>5</sup> The Lower Middle Period (Initial Upper Archaic, cal 500 B.C.–cal A.D. 430) is marked by a “major disruption in symbolic integration systems,”<sup>6</sup> and new bone tools appeared for the first time, including barbless fish spears, elk femur spatula, tubes, and whistles, as did coiled basketry manufacture.<sup>7</sup> The Upper Middle Period (Late

<sup>2</sup> California Geological Survey. 2002. California Geomorphic Provinces. Available: <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed: October 31, 2022.

<sup>3</sup> United States Department of Agriculture. 2019. Web Soil Survey. Available: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed: October 31, 2022.

<sup>4</sup> Hylkema, M. 2002. *Tidal Marsh, Oak Wood*. Accessed: *Cultural Florescence in the Southern San Francisco Bay Region*. Jon M. Erlandson and Terry L. Jones (eds.). Catalysts to Complexity: Late Holocene Societies of the California Coast, page 235. Perspectives in California Archaeology 6, J. E. Arnold, series editor. Institute of Archaeology, University of California, Los Angeles; Milliken, R., R. T. Fitzgerald, M. G. Hylkema, T. Origer, R. Groza, R. Wiberg, A. Leventhal, D. Bieling, A. Gottsfield, D. Gillette, V. Bellefemine, E. Strother, R. Cartier, and D. A. Fredrickson. 2007. *Punctuated Culture Change in the San Francisco Bay Area*. T. L. Jones and K. Klar (eds.), California Prehistory: Colonization, Culture, and Complexity, page 114. Walnut Creek, CA: Altamira Press.

<sup>5</sup> Vellanoweth, R. L. 2001. AMS Radiocarbon Dating and Shell Bead Chronologies: Middle Holocene Trade and Interaction in Western North America. In *Journal of Archaeological Science* 28:941–950.

<sup>6</sup> Milliken, R., et al. 2007. *Punctuated Culture Change in the San Francisco Bay Area*. In *California Prehistory: Colonization, Culture, and Complexity*, page 115. T. L. Jones and K. Klar (eds.). Altamira Press, Walnut Creek, CA.

<sup>7</sup> Bennyhoff, J. 1986. The Emeryville Site, Viewed 93 Years Later, page 70. In *Symposium: A New Look at Some Old Sites*. G. S. Breschini and T. Haversat (eds.). Archives of California Prehistory 6. Coyote Press, Salinas, CA; Bieling, D. G. 1998. *Archaeological Investigations at CA-MRN-254, the Dominican College Site, San Rafael, Marin County*,

Upper Archaic, A.D. cal 430–1050) experienced the abandonment of many sites from the previous period, and single-barbed bone fish spears, ear spools, and large mortars were developed.<sup>8</sup>

Following the Archaic Period, the Initial Late Period (Lower Emergent, A.D. cal 1050–1550) is marked by a new increased level of sedentism, status ascription, and ceremonial integration in lowland central California.<sup>9</sup> Evidence for increased social stratification throughout the San Francisco Bay Area after 1250 A.D. can be found in mortuary practices evidenced by the quality of burial items in high-status burials and cremations.<sup>10</sup> The Terminal Late Period (Protohistoric Ambiguities) is exhibited by changes in artifact types and mortuary objects and toggle harpoons, hopper mortars, plain corner-notched arrow-sized projectile points, clamshell disk beads, magnesite tube beads, and secondary cremation in the North Bay.

## **ETHNOGRAPHIC SETTING**

At the time of European settlement, the Planning Area was included in the territory controlled by the Coast Miwok. The Miwok were hunter-gatherers who lived in rich environments that allowed for dense populations with complex social structures. They settled in large, permanent villages about which were distributed seasonal camps and task-specific sites. Primary village sites were occupied continually throughout the year and other sites were visited in order to procure particular resources that were especially abundant or available only during certain seasons. Sites often were situated near freshwater sources and in areas where plant life and animal life were diverse and abundant. As stated in the Town of Ross General Plan 2007 – 2025:

*For thousands of years prior to 1800, the Coast Miwok Indians lived and were sustained by the land that is now called Ross Valley. The Coast Miwok revered the land, plants, and animals of the Ross Valley through tribal cultural beliefs and practices. European diseases eventually decimated the Indian population. The settlement in 1817 of Mission San Raphael, with its vast land holding, also resulted in further incursions in areas occupied by the Coast Miwok Indians.*

## **HISTORIC SETTING**

The Town of Ross was incorporated in 1908 and, according to the Ross General Plan, the town was originally part of an 8,877-acre Mexican land grant to Juan B.R. Cooper in 1840, known as Ranch Punta de Quentin Canada de San Anselmo. The Town was named in honor of James Ross, who purchased the land in 1857 and lived on Redwood Drive with his wife and three children.

## **Historic Resources**

In order to determine the presence or absence of cultural and historical resources within the Proposed Project site and the surrounding area, a records search and literature review was requested for the Planning Area on March 29, 2022, from the Northwest Information Center

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*California*, page 218. Holman and Associates, San Francisco, CA. Submitted to Dominican College, San Rafael, and Davidon Homes, Walnut Creek, CA.

<sup>8</sup> Milliken, R., et al. 2007. Punctuated Culture Change in the San Francisco Bay Area, page 116. In *California Prehistory: Colonization, Culture, and Complexity*. T. L. Jones and K. Klar (eds.). Altamira Press, Walnut Creek, CA.

<sup>9</sup> Fredrickson, D. A. 1973. *Early Cultures of the North Coast Ranges, California*. Ph.D. dissertation. Department of Anthropology, University of California, Davis.

<sup>10</sup> Fredrickson, D. 1984. The North Coastal Region. In *California Archaeology*, pages 471–528. M. Moratto (ed.). Academic Press, Orlando, FL.

(NWIC), located at Sonoma State University. The purpose of this review was to access existing cultural resource survey reports, archaeological site records and historic maps, and evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other resources exist within or near the town. Appendix C lists and describes all historic, archaeological, and tribal cultural resources NWIC identified in the Planning Area.

A historic resource is a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old. Historic resources are often designated and listed on the national, state, or a local register, making them eligible for certain protections or other benefits. According to the NWIC base maps, there are six recorded historic bridges and three other recorded buildings within the town limits. Historic buildings identified include 14 Brookwood Lane, the Ross Town Hall and Fire House, and the Bosqui Tract which is a historic district located south of downtown Ross. Figure 3.2-1 shows the location of these historic resources throughout the Planning Area.

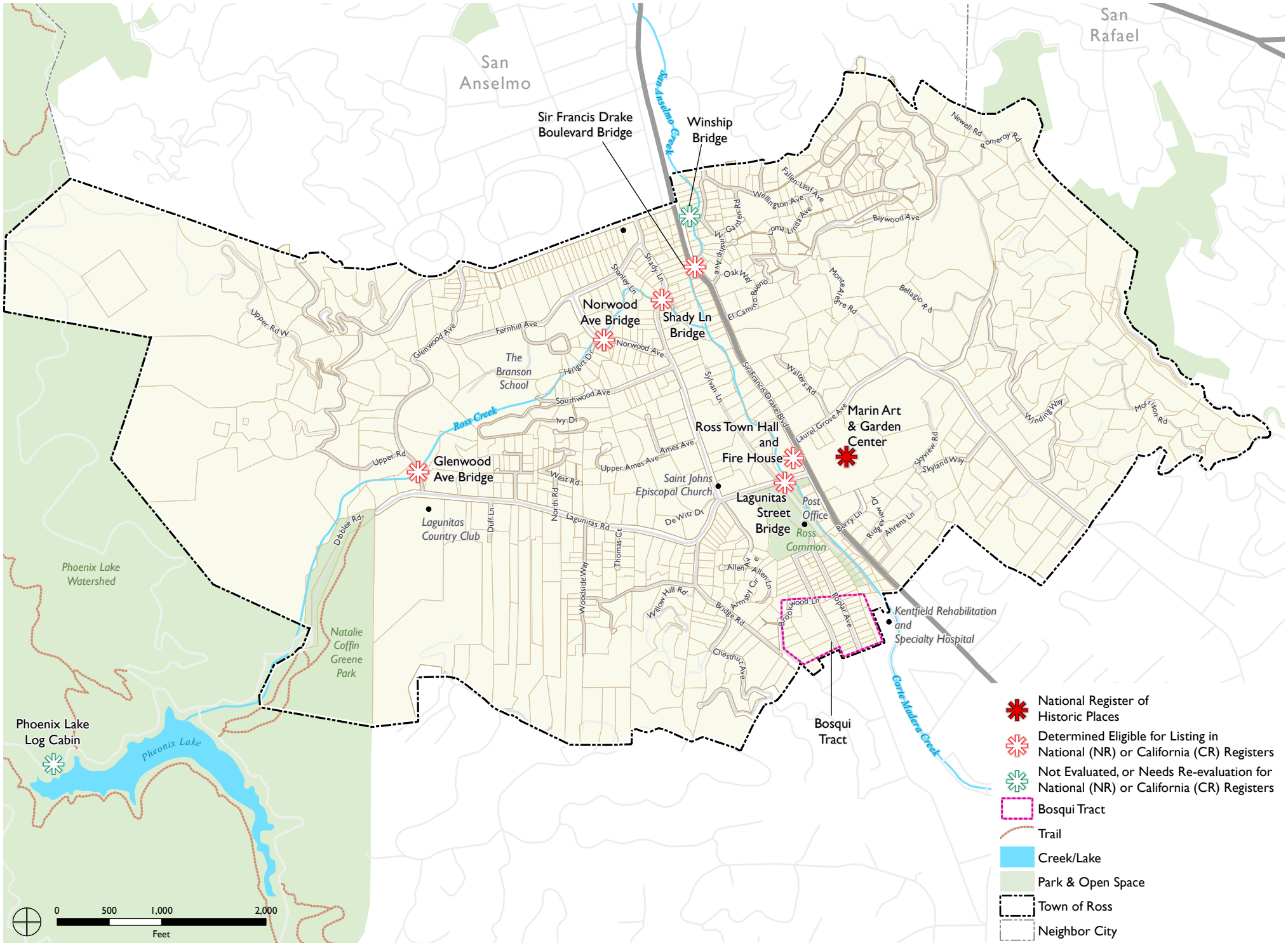
### **Archaeological Resources**

CEQA defines unique archaeological resources as an artifact, object or site that can help answer important scientific questions, is an exemplary illustration of its type, or is associated with an important prehistoric or historic event or person (Public Resources Code [PRC], Section 21083.2[g]). According to the 2022 NWIC records search, a review of historical literature and maps indicated historic-period activity within the Town of Ross. The 1865 Rancho Plat for Punta de Quintin indicates the Planning Area was located within the lands of A.R. Bucksley. The 1897 Mt. Tamalpais USGS 15-minute topographic quadrangle depicts several buildings and structures within the Town of Ross, including a portion of the North Coast Pacific Railroad. With this in mind, there is a high potential for unrecorded historic period archaeological resources to be within the town limits.

### **Tribal Cultural Resources**

A tribal cultural resource is a site, feature, place, cultural landscape, sacred place, or object with cultural value to a tribe that is included or determined to be eligible for inclusion in the CRHR, included in a local register of historical resources, or otherwise determined to be significant by the lead agency of an environmental review process.

### 3.2-1: Historic Resources



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

### ***Potential Resources***

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the San Francisco Bayshore, and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Town of Ross is located between one third mile to one half mile west of the historic San Francisco Bay shore and marshland margins, inland and west of Point San Quentin. The northwestern corner of the town includes a portion of the ridgeline and eastern facing slope of Bald Hill, is adjacent to Phoenix Lake at its southwestern corner, Ross Hill at its southern boundary, and Moore Hill adjacent to its eastern boundary. The Planning Area is bisected by Ross Valley and includes the confluence of Corte Madera Creek and Ross Creek. Current aerial maps indicate a high percentage of densely wooded areas, as well as areas of bare dirt, areas including buildings, roads, landscaped areas, etc. The 2022 NWIC records search revealed that there are four recorded Native American archaeological resources within the town limits. Given the similarity of these environmental factors and the ethnographic and archaeological sensitivity of the Planning Area, there is a high potential for unrecorded Native American resources to be within the proposed Town of Ross Housing Element Update Planning Area.

### **Native American Consultation**

To determine sensitivity for Native American resources within the Planning Area, consultation with NAHC and local Native American groups was conducted. NAHC was contacted on April 29, 2022, with a request for the following information:

- CEQA Tribal Consultation List (AB 52)
- General Plan (SB 18) – per Government Code Section 65352.3
- Identification by NAHC of any Native American resources within the subject lands that are listed in the Sacred Lands File

A response from NAHC was received on June 7, 2022 and stated that a search of the Sacred Lands File to identify sacred lands in the Planning Area was negative.

The response from NAHC also included the following list of individuals and tribal representatives who might have an interest in the Proposed Project:

- Greg Sarris, Federated Indians of Graton Rancheria
- Donald Duncan, Guidiville Indian Rancheria

These individuals and tribal representatives were sent formal notification under SB 18 and AB 52 on June 21, 2022. One response and formal request for tribal consultation has been received by the Federated Indians of Graton Rancheria, and the Town met with tribal representatives in January 2023 for an initial consultation.

The environmental setting in the Planning Area and the sites of known Native American archaeological resources in the Planning Area indicate that there is potential for the Planning Area to contain tribal cultural resources from past Native American activities.



## **REGULATORY SETTING**

### **Federal Regulations**

Although the Proposed Project is not anticipated to require compliance with Section 106 of the National Historic Preservation Act, the NRHP and federal guidelines related to the treatment of cultural resources are relevant for the purposes of determining whether cultural resources, as defined under CEQA, are present and guiding the treatment of such resources. The sections below summarize the relevant federal regulations and guidelines.

#### *National Historic Preservation Act and National Register of Historic Places*

The National Historic Preservation Act (16 United States Code [U.S.C.] 470f) requires federal agencies to consider effects on historic properties when projects involve federal funding or permitting or occur on federal land. The National Historic Preservation Act establishes the NRHP, which provides a framework for resource evaluation and informs the process of determining impacts on historic properties, which can also be considered historical resources under CEQA.

The NRHP is the nation's official comprehensive inventory of historic properties. Administered by the National Park Service, the NRHP includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a historic property that is more than 50 years of age is eligible for listing in the NRHP if it meets any one of the four eligibility criteria and retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. NRHP criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*.

#### *National Native American Graves Protection and Repatriation Act*

The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 to provide for the protection of Native American graves. The act conveys to Native American's of demonstrated lineal descent, the human remains, including the funerary or religious items, that are held by federal agencies and federally supported museums, or that have been recovered from federal lands. NAGPRA makes the sale or purchase of Native American remains illegal, whether or not they were derived from federal or Native American lands.

### **State Regulations**

#### *California Environmental Quality Act*

CEQA, as codified in PRC Section 21000 et seq. and implemented through the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.), is the principal statute governing the environmental review of projects in the state. In order to be considered a historical resource, it generally must be at least 50 years old. Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines define a historical resource for purposes of CEQA. A historical resource includes:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4850 et seq.);
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting

the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant;

- Any object, building, structure, site, area, place, record, or manuscript that 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 may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852).

The fact that a resource is not listed in, or determined to be eligible for listing in, the CRHR; not included in a local register of historical resources, pursuant to PRC Section 5020.1(k); or identified in a historical resources survey meeting the criteria of PRC Section 5024.1(g) does not preclude a lead agency from determining that the resource may be a historical resource, as defined in PRC Sections 5020.1(j) or 5024.1.

#### *California Register of Historical Resources*

The CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and indicating which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). Certain resources are determined by CEQA to be automatically included in the CRHR, including California properties formally eligible for or listed in the NRHP. To be eligible for the CRHR as a historical resource, a resource must be significant at the local, state, and/or federal level under one or more of the following evaluative criteria, as defined in PRC Section 5024.1(c):

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

As with the NRHP, a significant historical resource must possess integrity in addition to meeting the significance criteria to be considered eligible for listing in the CRHR. Consideration of integrity for evaluation of CRHR eligibility follows the definitions and criteria from the National Park Service's *National Register Bulletin 15*.

### ***California Historic Resources***

OHP offers four different registration programs, including the California Historical Landmarks, California Points of Historical Interest, CRHR, and the NRHP. Each registration program is unique in the benefits offered and procedures required. If a resource meets the criteria for registration, it may be nominated by any individual, group, or local government to any program at any time. Resources do not need to be locally designated before being nominated to a state program nor do they need to be registered at the state level before being nominated to the National Register. The California Register includes buildings, the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Resources on the California Register have met criteria for designation or have been included due to their presence on the NRHP, the State Historical Landmark program, or the California Points of Historical Interest program.

#### **State Historical Landmark Program**

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of several criteria. The resource must be the first, last, only, or most significant of its type in the state or within a large geographic region; associated with an individual or group having a profound influence on California history; or be a prototype of, or outstanding example of, a period, style, architectural movement, or construction, or be one of the more notable works or best surviving work in a region of a pioneer, designer, or master builder.

#### **California Points of Historical Interest**

California Points of Historical Interest are sites, buildings, features, or events of local (city or county) significance, having anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Criteria are the same as those for Historical Landmarks but directed to local areas. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the California Register. No historical resource may be designated as both a Landmark and a Point; if a Point is subsequently granted status as a Landmark, the Point designation will be retired.

#### ***California Government Code Section 65040.2(g)***

California Government Code Section 65040.2(g) provides guidelines for consulting with Native American tribes for the following: (1) the preservation of, or the mitigation of impacts on places, features, and objects described in Sections 5097.9 and 5097.993 of the PRC; (2) procedures for identifying through NAHC the appropriate California Native American tribes; (3) procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects; and (4) procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of those places, features, and objects.

#### ***Senate Bill 18***

Signed into law in September 2004, and effective March 1, 2005, SB 18 permits California Native American tribes recognized by the NAHC to hold conservation easements on terms mutually satisfactory to the tribe and the landowner. The term “California Native American tribe” is defined as

“a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC.” The bill also requires that, prior to the adoption or amendment of a city or county’s general plan, the city or county consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city or county’s jurisdiction. SB 18 also applies to the adoption or amendment of specific plans. This bill requires the planning agency to refer to the California Native American tribes specified by the NAHC and to provide them with opportunities for involvement.

### ***Assembly Bill 52***

Tribal cultural resources were originally identified as a distinct CEQA environmental category with the adoption of AB 52 in September 2014. For all projects subject to CEQA that received a notice of preparation, notice of negative declaration, or mitigated negative declaration on or after July 1, 2015, AB 52 requires the lead agency on a proposed project to consult with the geographically affiliated California Native American tribes. The legislation creates a broad new category of environmental resources, “tribal cultural resources,” which must be considered under CEQA. AB 52 requires a lead agency to not only consider the resource’s scientific and historical value but also whether it is culturally important to a California Native American tribe.

AB 52 defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the CRHR; included in a local register of historical resources, as defined in PRC Section 5020.1(k); or determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria of PRC Section 5024.1(c) (CEQA Section 21074).

AB 52 also sets up an expanded consultation process. For projects initiated after July 1, 2015, lead agencies are required to provide notice of the proposed projects to any tribe that is traditionally and culturally affiliated with the geographic area that requested to be informed by the lead agency, following PRC Section 21018.3.1(b). If, within 30 days, a tribe requests consultation, the consultation process must begin before the lead agency can release a draft environmental document. Consultation with the tribe may include discussion of the type of review necessary, the significance of tribal cultural resources, the significance of the project’s impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The consultation process will be deemed concluded when either (1) the parties agree to mitigation measures or (2) any party concludes, after a good-faith effort, that an agreement cannot be reached. Any mitigation measures agreed to by the tribe and lead agency must be recommended for inclusion in the environmental document. If a tribe does not request consultation, or to otherwise assist in identifying mitigation measures during the consultation process, a lead agency may still consider mitigation measures if the agency determines that a project will cause a substantial adverse change to a tribal cultural resource.

### ***Assembly Bill 168***

AB 168, adopted in September 2020, provides additional protection for tribal cultural resources as defined in AB 52. This bill applies in situations where a developer seeks to streamline approval under SB 35 and, in doing so, bypass CEQA requirements. AB 168 rectifies a loophole in SB 35 that allowed developers to apply for fast-tracked approval without notifying Native American tribes affiliated with the project area. Instead, under AB 168 projects would be ineligible for SB 35 and subject to CEQA if (1) the site of the proposed development is a tribal cultural resource that is on a

national, state, tribal, or local historic register list, (2) the local government and the California Native American tribe do not agree that no potential tribal cultural resource would be affected by the proposed development, or (3) the local government and California Native American tribe find that a potential tribal cultural resource could be affected by the proposed development and the parties do not document an enforceable agreement regarding the methods, measures, and conditions for treatment of those tribal cultural resources, as provided.

### *California Public Resources Code*

#### Section 5097.98

The treatment of Native American human remains is regulated by PRC Section 5097.98, as amended by Assembly Bill 2641, which addresses the disposition of Native American burials, protects remains, and appoints the NAHC to resolve disputes. In addition, California Health and Safety Code Section 7050.5 includes specific provisions for the protection of human remains in the event of discovery, and Section 7052 makes the willful mutilation, disinterment, or removal of human remains a felony. The Health and Safety Code is applicable to any project where ground disturbance would occur.

#### Sections 5097–5097.6

Sections 5097–5097.6 of the California PRC outline the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The state agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. This section was amended in 1987 to require consultation with the California NAHC whenever Native American graves are found. Violations for the taking or possessing remains or artifacts are felonies.

#### Sections 5097.9-991

The PRC Section 5097.9-991, regarding Native American heritage, outlines protections for Native American religion from public agencies and private parties using or occupying public property. Also protected by this code are Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property.

### **Local Regulations**

#### *Town of Ross General Plan 2007-2025 (General Plan)*

The Town of Ross General Plan 2007-2025 (General Plan) includes the following goals and policies associated with historic, cultural, and tribal cultural resources:

#### **Goal 1: An Abundance of Green and Healthy Natural Systems**

**Policy 1.1: Protection of Environmental Resources.** Protect environmental resources, such as hillsides, ridgelines, creeks, drainage ways, trees and tree groves, threatened and endangered species habitat, riparian vegetation, cultural places, 7 and other resources.

These resources are unique in the planning area because of their scarcity, scientific value, aesthetic quality and cultural significance.

**Goal 4: Protecting Historic Places and Resources**

**Policy 4.1: Historic Heritage.** Maintain the historic feel of Ross by preserving and maintaining historic buildings, resources and areas with recognized historic or aesthetic value that serve as significant reminders of the past.

**Policy 4.2: Design Compatibility with Historic Resources.** Require new construction to harmonize with existing historic buildings and resources, and ensure a compatibility of landscaping with Ross' historic character.

**Policy 4.3: Town Bridges.** Maintain and protect bridges as an important part of Ross' heritage. If a bridge must be rebuilt or retrofitted, it should be done in a way that is compatible with its historic look.

**Policy 4.4: Preservation of Existing Housing Supply.** Discourage the demolition or combining of existing residential units that will reduce the supply of housing in Ross.

**Policy 4.5: Archaeological Resources.** Implement measures to preserve and protect archaeological resources. Whenever possible, identify archaeological resources and potential impacts on such resources. Provide information and direction to property owners in order to make them aware of these resources. Require archaeological surveys, conducted by an archaeologist who appears on the Northwest Information Center's list of archaeologists qualified to do historic preservation fieldwork in Marin County, in areas of documented archaeological sensitivity. Develop design review standards for projects that may potentially impact cultural resources.

*Town of Ross Municipal Code (Town Code)*

Chapter 15.11 of the Town's Municipal Code (Town Code) adopts the California Historical Building Code (CHBC). The CHBC provides alternative building regulations for permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use, or continued use of a "qualified historical building or structure."

Chapter 18.41, Design Review, of the Town Code outlines regulations for historic and cultural resources in the Planning Area. The chapter aims to preserve and enhance the historical "small town," low-density character and identity that is unique to the Town of Ross, and maintain the serene, quiet character of the town's neighborhoods through maintaining historic design character and scale, preserving natural features, minimizing overbuilding of existing lots and retaining densities consistent with existing development in Ross and in the surrounding area. In addition, the code requires development to preserve buildings and areas with historic or aesthetic value and maintain the historic character and scale. Development must ensure that new construction respects and is compatible with historic character and architecture both within the site and neighborhood.

### *Town of Ross Design Guidelines*

Adopted in 2019, the Town of Ross Design Guidelines provides supplemental material to assist in applying those design criteria and standards set forth in Chapter 18.41 of the Town Code. This document provides guidelines for the treatment of heritage building features. In order to maintain the character of a heritage structure, guidelines require meticulous care and proper treatment of character-defining features. Such features may include the roof, doors, windows, porches, building materials, and fences. Any addition to a historic resource should also be compatible with the primary structure and not detract from one's ability to interpret its heritage character.

## **Impact Analysis**

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### **SIGNIFICANCE CRITERIA**

For the purposes of this EIR, a significant impact would occur if the Proposed Project would:

**Criterion 1:** Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;

**Criterion 2:** Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, or

**Criterion 3:** Disturb any human remains, including those interred outside of formal cemeteries.

**Criterion 4:** Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native Tribe and that is:

**Listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in PRC Section 5020.1(k), or**

**A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

### **IMPACTS**

**Impact 3.2-1** Implementation of the Proposed Project would cause a substantial adverse change in the significance of a historical resource, as defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of

**a historic resource would be materially impaired (Guidelines Section 15064.5). (*Less than Significant with Mitigation Incorporated*)**

Implementation of the Proposed Project could result in substantial adverse changes to historical resources through demolition, alterations, changes in ownership, and accidents caused by construction activities. The goals, policies, and programs of the Proposed Project facilitate the development of 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. The Proposed Project provides a framework for increasing the range of housing options in the community, removing barriers and constraints to housing construction, ensuring the continued maintenance of existing housing, and providing equal access housing opportunities and services for all who live and work in Ross. These goals and policies do not explicitly prohibit projects that could affect cultural resources through the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings.

As shown on Figure 3.2-1 and described in the Environmental Setting, there are several documented historic buildings and structures located throughout the Planning Area. In addition, there are several age-eligible homes older than 45 years in the Planning area that have yet to be evaluated. Most of these documented historic structures are bridges located on Norwood Avenue, Lagunitas Road, Glenwood Avenue, Winship Road, Shady Lane, and Sir Francis Drake Boulevard. In addition, two buildings are identified as historic resources, one on the Bosqui Tract and another on Brookwood Lane. The Civic Center site is located just north of the commercial downtown and is identified as a site for development of six workforce housing units under the Proposed Project. The Civic Center site includes the Ross Town Hall and Fire House, both of which are listed on the California Register of Historical Resources and are eligible for listing on the National Register, thereby qualifying as historic resources under CEQA.

The Proposed Project identifies an inventory of 10 sites available for housing development and 48 properties that are candidates for development with housing pursuant to SB9. With the exception of the Ross Civic Center site, none of these properties contain or are adjacent to historic buildings or structures as identified by NWIC. Development of housing on the Civic Center site as part of the Civic Center Master Plan could potentially result in a substantial adverse change if it would involve the physical demolition, destruction, relocation, or alteration of the Town Hall or Fire Station or their immediate surroundings such that the significance of a historic resource would be materially impaired as defined by CEQA Guidelines Section 15064.5. However, as noted in Chapter 2: Project Description, all housing development at the Ross Civic Center site would be located on the corporate yard in the north of the site in order to avoid potential impacts to the historic Ross Town Hall and Fire House. Further, redevelopment of the Civic Center site would be required to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings.

As noted above, there are several homes and other buildings and structures older than 45 years in the Planning area that may be eligible for listing on local, state, or national registers. The Town of Ross Design Guidelines and Town Code introduce regulations that can reduce impacts on potential historic resources. Such guidelines require development to preserve buildings and areas with historic or aesthetic value and maintain the historic character and scale of heritage resources. Further, **Mitigation Measure CUL-1** requires the evaluation of any structure impacted by



development that is more than 45 years old for historic significance. Proposed development projects shall then be evaluated for potential direct and/or indirect effects on the identified historic resource(s) per CEQA Guidelines Section 15364, and **Mitigation Measure CUL-2** shall be implemented as appropriate.

Therefore, with compliance of existing regulations and proposed mitigation measures, the impact of implementation of the Proposed Project on historical resources would be less than significant.

#### *Mitigation Measures*

**MM-CUL-1: Evaluate Age-Eligible Properties That Have Not Previously Been Evaluated Prior to Development Projects to Identify Historic Resources.** If a development project is proposed on a parcel within the Planning Area that includes a building, structure, or landscape more than 45 years old (typical age threshold applied by the California Office of Historic Preservation) and has not previously been evaluated for potential historic significance, the project sponsor shall retain a professional who meets the Secretary of the Interior's Professional Qualifications Standards for architectural history or history (as appropriate), to conduct an evaluation of historic significance and eligibility for listing on local, state, or national registers.

Evaluation shall include a field survey, archival research, and preparation of a historic resource evaluation report. The report shall include documentation of methodology and the findings of the historic evaluation. Proposed development projects shall then be evaluated for potential direct and/or indirect effects on the identified historic resource(s) per CEQA Guidelines Section 15364, and Mitigation Measure CUL-2 shall be implemented as appropriate.

**MM-CUL-2: Avoidance or Minimization of Effects on Identified Historic Resources.** The project sponsor shall consult with Town staff to determine whether a project can be feasibly redesigned or revised to avoid significant adverse impacts on listed and identified eligible historic resource(s), including historic districts. If a local landmark or preservation district is part of a proposed project, the standard review procedure involving the Town staff and an Advisory Design Review (ADR) Group will be followed. If avoidance of historic resource(s) is not feasible, where feasibility is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors," the project sponsor shall seek to reduce the effect on historic resource(s) to a less-than-significant level pursuant to CEQA Guidelines Section 15364. Projects must conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties to be considered to have a less-than-significant effect on historic architectural resources.

*Significance After Mitigation:* Less than Significant

**Impact 3.2-2 Implementation of the Proposed Project would not cause an adverse change in the significance of an archaeological resource**

**pursuant to CEQA Guidelines Section 15064.5. (*Less than Significant with Mitigation Incorporated*)**

There are known prehistoric and historic archaeological resources in and around the Planning Area. Corte Madera and Ross Creek run through the area, which tends to be associated with precontact archaeological resources. Based on these factors, the Planning Area has a high potential for encountering deposits associated with known resources or as-yet undocumented resources.

Future development projects or public works activities allowed under the Proposed Project may involve grading, excavation, overland vehicle travel, or other ground-disturbing activities, or could facilitate public access to archaeological sites, which could disturb or damage unknown archaeological resources. The impact of such activities would be considered significant if they were to cause a substantial adverse change to the archaeological resources as defined by CEQA Guidelines Section 15064.5.

Although implementation of the Proposed Project may result in actions that could adversely affect archaeological resources, State regulations would minimize or avoid impacts by requiring the protection and preservation of such resources. The PRC Section 21083.2 and CEQA Guidelines Section 15064.5(f) recognize that historical or unique archaeological resources may be accidentally discovered during project construction. According to PRC Section 21083.2, a lead agency may make provisions for archaeological sites accidentally discovered during construction. These provisions may include an immediate evaluation of the find. If the find is determined to be a unique archaeological resource, contingency funding and a time allotment sufficient to allow recovering an archaeological sample or to employ one of the avoidance measures may be required under the provisions set forth in this section. Construction work may continue on other parts of the building site while archaeological mitigation takes place. If the resource does meet the CEQA definition of a historical or unique archaeological resource, then it shall be avoided to the extent feasible by project construction activities.

If avoidance is not feasible, then adverse effects to the deposit shall be mitigated as specified by PRC Section 21083.2 and CEQA Guidelines Sections 21083.2 (c) through 21083.2 (f). This mitigation enforced by the Town may include, but is not limited to, deeding archaeological sites into permanent conservation easements, capping or covering archaeological sites, planning open space to incorporate archaeological sites, or conducting excavation as mitigation. All such recommendations shall also be in accordance with section 5097.98 of the California Public Resources Code, and section 7050.5 of the California Health and Safety Code, as applicable.

In addition, **Mitigation Measure CUL-3** requires construction personnel to receive cultural awareness training on existing regulations and unanticipated discovery protocol for developments that have a high potential for uncovering archaeological deposits. Any such adverse impacts on deposits uncovered following the implementation of Mitigation Measure CUL-3 would be mitigated as specified by PRC Section 21083.2 and CEQA Guidelines Sections 21083.2 (c) through 21083.2 (f). Therefore, at the program level, the impact of implementation of the Proposed Project on archaeological resources would be less than significant, with implementation of existing State regulations and the following mitigation measure.

*Mitigation Measures*

**MM-CUL-3: Conduct Cultural Resources Awareness Training.** Prior to the start of any ground disturbance or construction activities, developers of projects within 50 feet of a creek or within 50 feet of recorded archaeological resources in the Planning Area shall retain a qualified professional archaeologist to conduct cultural resource awareness training for construction personnel. This training shall include an overview of what cultural resource are and why they are important, archaeological terms (such as site, feature, deposit), project site history, types of cultural resources likely to be uncovered during excavation, laws that protect cultural resources, and the unanticipated discovery protocol.

*Significance After Mitigation:* Less than significant

**Impact 3.4-3 Implementation of the Proposed Project would not have the potential to disturb human remains, including those interred outside of formal cemeteries. (*Less than Significant with Mitigation Incorporated*)**

Human remains, particularly those interred outside of formal cemeteries, could be disturbed during grading, excavation, or other ground-disturbing activities associated with future development or redevelopment projects allowed under the Proposed Project. No human remains or cemeteries are known to exist within or near the sites identified under the Proposed Project or the surrounding areas. However, there is always the possibility that subsurface construction activities associated with the Proposed Project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.94 and Section 5097.98 must be followed. Implementation of **Mitigation Measure CUL-3** would also reduce any potential impact on archaeological resources, including human remains, through cultural awareness training for construction personnel on unanticipated discover protocol. At the program level, the impact of implementation of the Proposed Project on human remains would therefore be less than significant with implementation of existing regulations and policies.

*Mitigation Measures*

**MM-CUL-3: Conduct Cultural Resources Awareness Training.**

*Significance After Mitigation:* Less than significant

**Impact 3.4-4 Implementation of the Proposed Project would not cause an adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:**

- (a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or**
- (b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (*Less than Significant with Mitigation Incorporated*)**

Implementation of the Proposed Project would not directly result in physical construction that could impact recorded tribal cultural resources. Implementation of the Proposed Project would primarily involve development of small scale, infill housing on previously developed lots within the town limit and generally not on previously undisturbed sites. SB9 candidate housing sites have been screened to confirm they do not contain known historic or tribal cultural resources based on information available to the Town. Further, all development under the Proposed Project would be required to comply with existing regulations, including CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.94, Section 5097.98, Section 21083.2, and provisions of the Town Code which stipulate protocols that must be followed in the event of discovery of archaeological resources, tribal cultural resources, and human remains.

Nevertheless, NWIC determined that there is a high potential for unrecorded Native American resources to be within the Town limits, especially in the vicinity of Ross Creek and Corte Madera Creek. Therefore, future development or redevelopment projects allowed under the Proposed Project could result in indirect impacts through grading, overland construction vehicle travel, or other ground-disturbing activities, or through facilitation of public access to culturally significant sites. The impact of such activities would be considered significant if they were to cause a substantial adverse change to the resources as defined by PRC Section 21074. As previously discussed, the response from the NAHC stated that a search of the Sacred Lands File to identify sacred lands in the Planning Area was negative. However, according to the NWIC records search, the Town of Ross contains four recorded Native American archaeological resources. While the exact location of these resources is not public information, consultation with the tribes per SB 18 and AB 52 provides the opportunity for Native American tribes to identify if known resources could be compromised by implementation of the Proposed Project. Such consultation is also intended to arrive at consensus regarding mitigation measures or ways to avoid a significant effect on tribal cultural resources. One response and formal request for tribal consultation has been received by the Federated Indians of Graton Rancheria. Consultation is ongoing.

In addition to consultation with tribes required by State law, and in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15064.5(f), which recognize that historical or unique archaeological resources may be accidentally discovered during project construction, the Town may make provisions for archaeological sites accidentally discovered during construction. These provisions may include an immediate evaluation of the find. If the find is determined to be a unique archaeological resource, contingency funding and a time allotment sufficient to allow recovering an archaeological sample or to employ one of the avoidance or mitigation measures may be required under the provisions set forth Section 21083.2. In addition, **Mitigation Measure CUL-3**

requires developers to conduct cultural resource awareness training prior to project-related ground disturbance for developments that have a high potential to uncover archaeological or tribal cultural resources. Further, **Mitigation Measure CUL-4** requires continued consultation with the Federated Indians of Graton Rancheria to ensure that project-specific impacts on tribal cultural resources are reduced to a less-than-significant level.

At the program level, the impact of implementation of the Proposed Project on tribal cultural resources would therefore be less than significant with implementation of existing State regulations as well as mitigation actions within the Proposed Project.

*Mitigation Measures*

**MM-CUL-3: Conduct Cultural Resources Awareness Training.**

**MM-CUL-4: Tribal Consultation.** Prior to approval of housing projects on sites adjacent to creeks and in areas of high sensitivity for tribal cultural resources pursuant to the 6th Cycle Housing Element, the Town of Ross will continue to offer consultation to the Federated Indians of Graton Rancheria. Consultation may result in site and project-specific mitigation measures beyond those identified herein. In such cases, Town staff will ensure that all acceptable project-level mitigation measures are implemented prior to issuance of a grading permit.

*Significance After Mitigation:* Less than significant

## 3.3 Geology, Soils, and Seismicity

This section describes the environmental and regulatory setting for geology, soils, and seismicity, including those related to geologic and seismic hazards and soil stability. It also describes impacts related to geology, soils, and seismicity that would result from implementation of the Proposed Project and mitigation for significant impacts where feasible and appropriate.

There were no responses to the Notice of Preparation (NOP) regarding topics covered in this section.

### Environmental Setting

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#### PHYSICAL SETTING

##### Geology and Soils

###### *Regional Geology*

The Town of Ross is located within the Coast Ranges Geomorphic Province, a relatively geologically young and seismically active region on the western margin of the North American plate.<sup>1</sup> The ranges and valley trend northwest, sub-parallel to the San Andreas fault. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay.

###### *Planning Area Geology*

The Planning Area is located in the seismically active San Francisco Bay Area.<sup>2</sup> The seismic setting in the region is dominated by stress associated with the oblique collision of the Pacific tectonic plate with the North American tectonic plate. The San Andreas Fault system is the boundary between the two tectonic plates, which extends nearly 700 miles along a northwest trend from Mexico to offshore northern California.

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<sup>1</sup> California Geological Survey (CGS). 2002. California Geomorphic Provinces. (Note 36.)

Available; <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed: January 5, 2023.

<sup>2</sup> Town of Ross. April, 2014. Upper Road Land Division Draft Environmental Impact Report.

Available: [https://www.townofross.org/sites/default/files/fileattachments/planning/page/256/iv.\\_e\\_geology\\_and\\_soils\\_deir.pdf](https://www.townofross.org/sites/default/files/fileattachments/planning/page/256/iv._e_geology_and_soils_deir.pdf). Accessed: January 5, 2023.

### *Topography*

The Planning Area is characterized by a steep, east-facing hillslope, with gradients between 40 and 80 percent, and intervening ravines and gullies.<sup>3</sup> The central part of the Planning Area has an elevation just slightly above sea level, while the eastern and western areas generally range in elevations between 100 and 550 feet. The easternmost areas reach up to approximately 675 feet, and the westernmost boundaries extend between 700 and 1050 feet.<sup>4</sup> The crest of Bald Hill lies just west of the Planning Area at approximately 1100 feet. The eastern boundary is located immediately upslope of Ross Creek. The southern property boundary roughly follows the crest of a spur ridge with a moderate slope gradient between 15 and 25 percent. The northern boundary is crossed by another moderately sloping spur ridge.

### *Soil Properties*

Soil is generally defined as the unconsolidated mixture of mineral grains and organic material that mantles the land surfaces of the earth. The characteristics of soil reflect the five major influences on their development: topography, climate, biological activity, parent (source) material, and time.

Table 3.3-1 and Figure 3.3-1 show the surface soil types in the Planning Area that have been mapped by the Natural Resources Conservation Service (NRCS). As shown in Table 3.3-1, Tocaloma-McMullin complex and Xerorthents-Urban land complex are the predominant soil units within the Planning Area. In addition, all soils in the Planning Area are slightly to moderately expansive. Expansive soils can shrink and swell in response to the presence of water, causing foundation and wall cracks, heaving sidewalks, and flaws in paved areas. In addition, proximity to water features, such as the rivers in the central and western Planning Area, increases the potential for expansion. The most expansive soils underly most of the northwestern portion of the Planning Area in the higher elevation areas. Generally, projects in areas with expansive soil may require special building foundations or grade preparation, such as the removal of expansive soils and replacement with engineered soils.

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<sup>3</sup> Town of Ross. April 2014.

<sup>4</sup> USGS, 2023. US Topo Maps. Available: <https://apps.nationalmap.gov/downloader/#/maps>. Accessed: January 5, 2023.

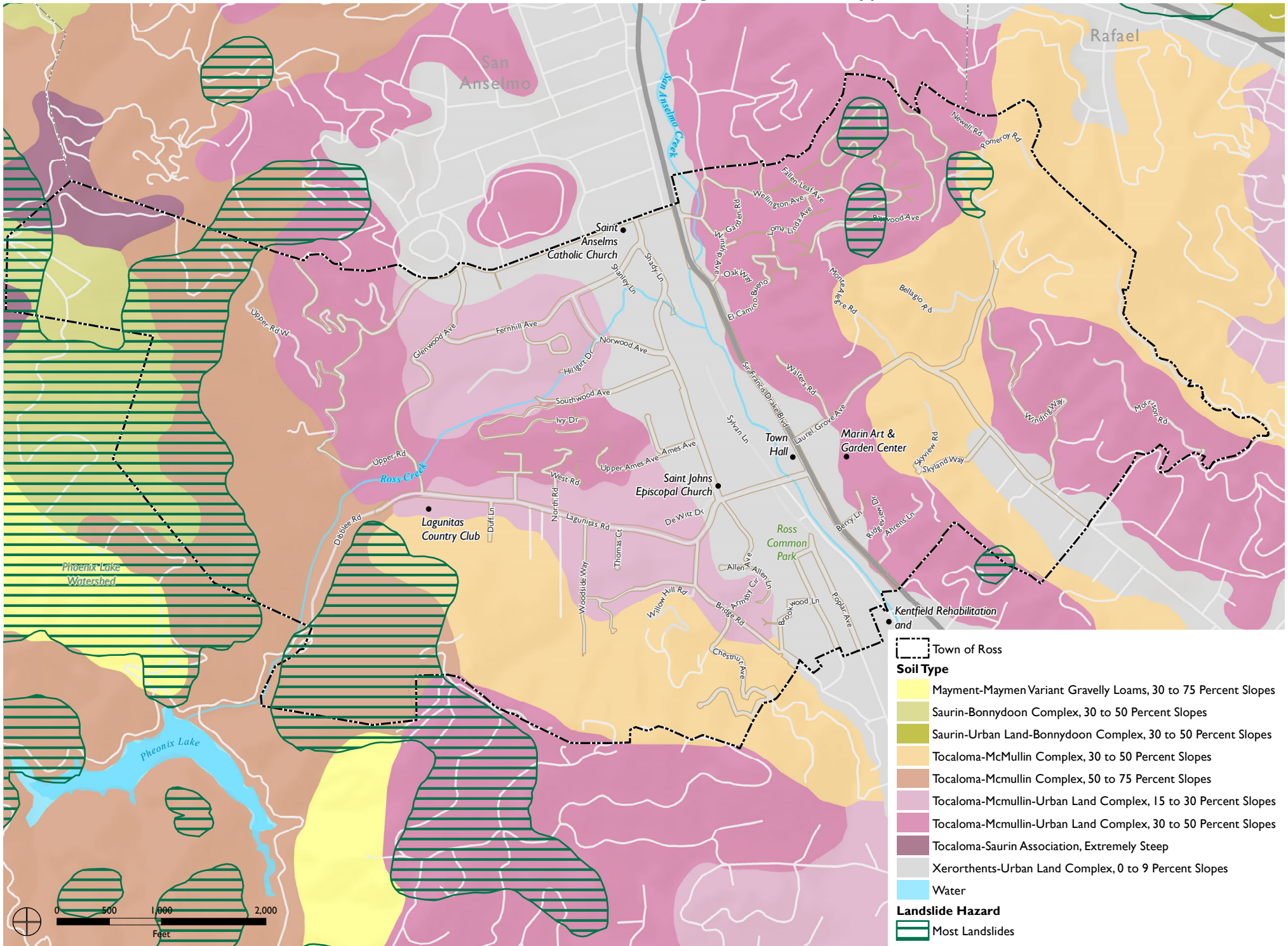
**Table 3.3-1: Soil Types in the Planning Area**

<i>Soil Unit</i>	<i>Slope Percentage</i>	<i>Approximate Percentage of the Planning Area</i>	<i>Portions of Planning Area</i>
Saurin-Bonnydoon complex	30-50%	3.9%	Northwestern portion
Tocaloma-McMullin complex	30-50%	23.0%	Central southern and eastern portion
Tocaloma-McMullin complex	50-75%	15.6%	Western portion
Tocaloma-McMullin-Urban land complex	15-30%	11.6%	Central portion
Tocaloma-McMullin-Urban land complex	30-50%	28.6%	Southern and eastern portion
Tocaloma-Saurin association	Extremely steep	1.3%	Northwestern portion
Xerorthents-Urban land complex	0-9%	16.0%	Central portion

Sources: USDA Natural Resources Conservation Service, 2023.



Figure 3.3-I: Soil Types and Erosion Induced Landslide Hazards



Source: Marin County GeoHub, 2022; MarinMap, 2022; United States Geological Survey, 1997; Soil Classification, USDA, 1999; Dyett & Bhatia, 2022

## **Seismicity**

### *Regional Faults*

Generally, earthquakes occur when tectonic plates of the Earth's crust collide or slide past one another along their boundaries or faults, and accumulated stress is released, resulting in seismic slippage. California is particularly susceptible to such plate movements, notably, the largely horizontal or "strike-slip" movement of the Pacific Plate as it impinges on and slides past the west margin of the North American Plate. The performance of man-made structures during a major seismic event varies widely due to a number of factors: location with respect to active fault traces or areas prone to liquefaction or seismic-induced landslides; the type of building construction (i.e., wood frame, unreinforced masonry, non-ductile concrete frame); the proximity and magnitude of the seismic event; and many other factors. In general, evidence from past earthquakes shows that wood frame structures tend to perform well, especially when their foundations are properly designed and anchored. Older, unreinforced masonry structures, on the other hand, do not perform as well, especially if they have not undergone appropriate seismic retrofitting. Applicable building code requirements include seismic requirements that are designed to ensure the satisfactory performance of building materials under seismic conditions.

The entire San Francisco Bay Area is located within the San Andreas fault system, a complex of active faults forming the boundary between the North American and Pacific lithospheric plates. Movement of the plates relative to one another results in the accumulation of strain along the faults, which is released during earthquakes. Numerous moderate to strong historic earthquakes have been generated in northern California by the San Andreas fault system. This level of active seismicity results in a relatively high seismic risk in the San Francisco Bay Area.

The San Andreas fault system includes numerous faults found by the California Geological Survey (CGS) in the Bay Area considered under the Alquist-Priolo Earthquake Fault Zoning Act to be active (i.e., to have evidence of fault rupture in the past 11,000 years). Active regional faults include the San Andreas, Hayward, Calaveras, Concord-Green Valley, and Greenville faults. In addition to the known active faults, recent research on the structural geology and tectonics of the region indicates that there is another potential source of large-magnitude earthquakes in the region. A structural trend of folds and thrust faults has been mapped in the hills north of the Livermore Valley. The largest of these features is the Mount Diablo anticline. Recent research has interpreted this feature to be a large fold developed above a blind (i.e., buried) thrust fault. The accumulation of strain on the blind Mount Diablo Thrust fault presents the potential for an earthquake along this fault.

The U.S. Geological Survey's (USGS) Working Group on California Earthquake Probabilities estimates that there is a 72 percent chance that a 6.7 or greater magnitude earthquake will occur in the San Francisco Bay Area between 2014 and 2043.<sup>5</sup> The probability of a 6.7 magnitude or greater

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<sup>5</sup> Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R. Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C. Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J. II, and Zeng, Y. 2015. Long-term, time-dependent probabilities for the third uniform California earthquake rupture forecast (UCERF3). Bulletin of the Seismological Society of America. Available: <https://pubs.er.usgs.gov/publication/70147094>. Accessed: May 3, 2021.

earthquake occurring along individual faults was estimated to be 6 percent along the San Andreas Fault, 14 percent along the Hayward-Rodgers Creek Fault,<sup>6</sup> and 7 percent along the Calaveras Fault.

### *Planning Area-Specific Seismicity*

A complex interaction of tectonic forces, geologic materials, soils, topography, and groundwater conditions affect the nature of seismic hazards at any site. There are no designated Alquist-Priolo fault zones in Ross. However, active faults have been identified within 25 miles of the Planning Area, including the San Andreas, Rodgers Creek, Hayward, Concord/Green Valley, and West Napa faults.<sup>7, 8</sup>

Figure 3.3-2 shows the seismic hazards within the Planning Area. The San Andreas fault zone, the Alquist-Priolo designated zone which surrounds the fault trace, is located approximately seven miles northeast of the Planning Area and has been responsible for several historic earthquakes in northern California. The two largest recorded earthquakes on the San Andreas fault occurred in 1857 and 1906.<sup>9</sup> The San Francisco earthquake had an estimated moment magnitude of 7.7 and was felt as far away as Oregon and central Nevada. Surface offsets occurred across approximately 250 miles, with the epicenter estimated to be offshore of the San Francisco coastline near the Golden Gate bridge. Extensive damage in San Francisco and the East Bay and over 700 deaths resulted from the 1906 quake. The largest surface displacement on the fault line occurred in 1940, where an earthquake caused 17 feet of right-lateral strike-slip. The Loma Prieta earthquake was the most recent larger earthquake to occur on or near the San Andreas Fault, approximately 70 miles from the Planning Area with a 6.9 magnitude.<sup>10</sup> Extensive damage occurred on the Bay Bridge as well as in downtown Santa Cruz and the Marina District of San Francisco.

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<sup>6</sup> The Hayward and Rodgers Creek faults are connected at the surface beneath San Pablo Bay, and the connection has significant implications for earthquake dynamics; therefore, modeling refers to the connected faults as the “Hayward-Rodgers Creek Fault.”

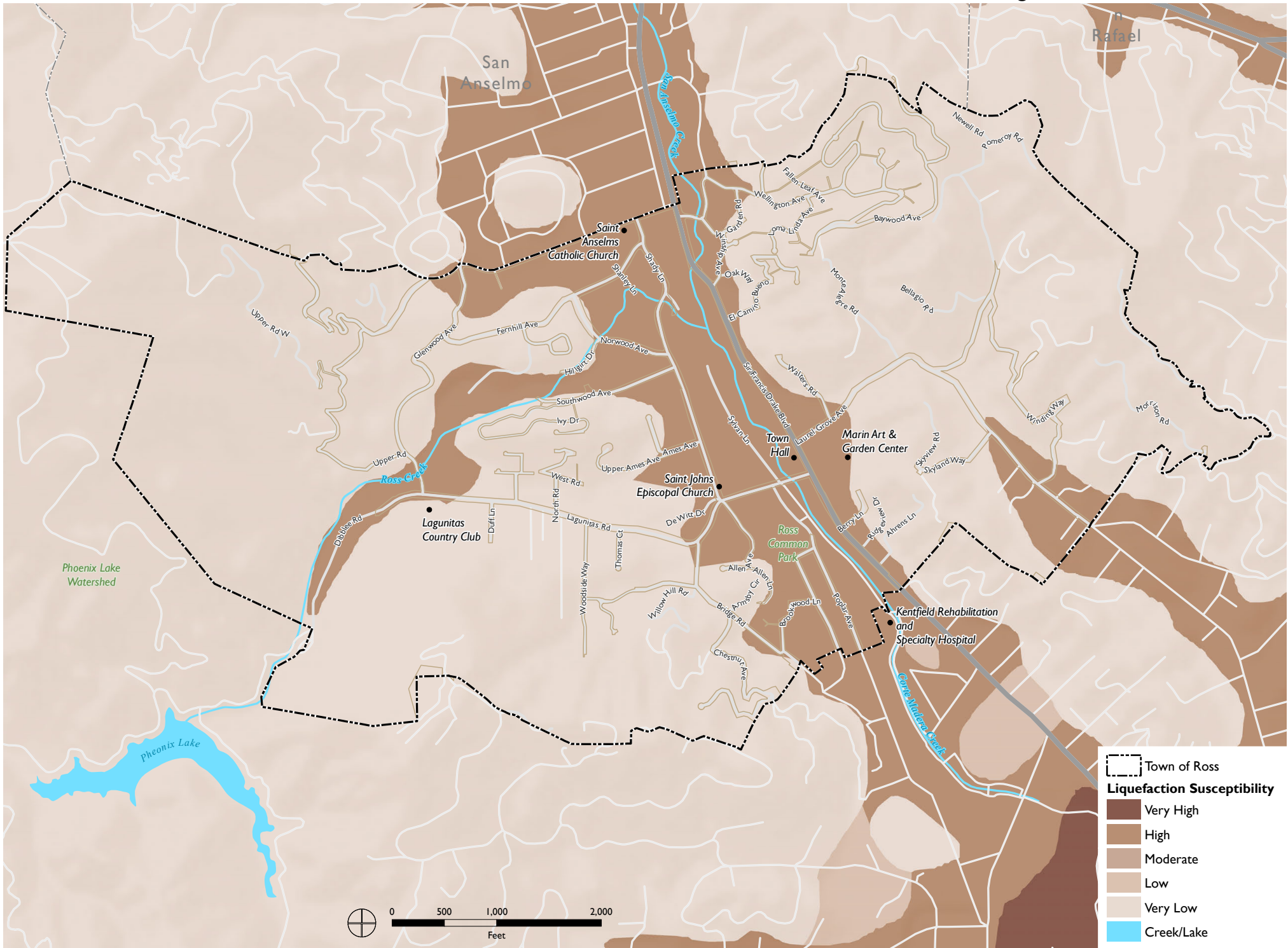
<sup>7</sup> California Geological Survey (CGS). 2021. Earthquake Zones of Required Investigation (website). Available online at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed: January 5, 2023.

<sup>8</sup> U.S. Geological Survey (USGS). 2022. Quaternary fault and fold database for the United States. Available: [https://www.usgs.gov/natural-hazards/earthquake-hazards/faults?qt-science\\_support\\_page\\_related\\_con=4#qt-science\\_support\\_page\\_related\\_con](https://www.usgs.gov/natural-hazards/earthquake-hazards/faults?qt-science_support_page_related_con=4#qt-science_support_page_related_con). Accessed: May 4, 2021.

<sup>9</sup> U.S. Geological Survey (USGS). 2016. The San Andreas Fault. Available: <https://pubs.usgs.gov/gip/earthq3/safaultgip.html>. Accessed: January 5, 2023.

<sup>10</sup> California Department of Conservation. n.d. Available: <https://www.conservation.ca.gov/cgs/earthquakes/loma-prieta>. Accessed: January 5, 2023.

Figure 3.3-2: Seismic Hazards



Source: Marin County GeoHub, 2022; MarinMap, 2022; California Geological Survey, USGS, 2006; Dyett & Bhatia, 2022

After the San Andreas fault, the next nearest Alquist-Priolo hazard zones are associated with the Rodgers Creek and Hayward faults, approximately 11 miles from the Planning Area, and capable of magnitude 7.0 to 7.3 earthquakes. The largest earthquake on the Hayward fault occurred in 1868 with an epicenter south of San José, California.<sup>11</sup> Two earthquakes occurred on the Rodgers Creek Fault near Santa Rosa in 1969, causing minor damage and localized structural damage in Sonoma County.<sup>12</sup>

## **Seismic and Geological Hazards**

### *Seismic Shaking*

Seismic ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake. Ground shaking is normally the major cause of damage in seismic events. The extent of ground shaking is determined by the magnitude and intensity of the earthquake, distance from the rupture, and local geologic conditions. Intensity is a subjective measure of the perceptible effects of seismic energy at a given point and varies with distance from the epicenter and local geologic conditions. The Modified Mercalli Intensity Scale (MMI) is the most used scale for measurement of the subjective effects of earthquake intensity. Earthquake size is generally quantitatively measured in terms of magnitude on the Richter scale or by moment magnitude. In 2018, the Association of Bay Area Governments (ABAG) Resilience Program projects a 52 percent probability of a magnitude 6.7 or greater earthquake before 2036 on either the San Andreas or Hayward-Rodgers Creek faults, with 21% and 31% respectively.<sup>13,14</sup>

### *Surface Fault Rupture*

Surface fault rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface fault rupture can be assumed to be along an active or potentially active fault trace. Because the San Andreas fault zone is only seven miles outside of the Planning Area and the San Andreas fault has a history of both surface fault rupture in the 1857, 1906, and 1989 earthquake, there is a risk of surface fault rupture.<sup>15</sup> However, because the Planning Area is outside the fault zone, the risk is not significant.

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<sup>11</sup> U.S. Geological Survey (USGS). 2018. The Hayward Fault—Is It Due for a Repeat of the Powerful 1868 Earthquake? August. (FS 2008-3019.) Available: <https://pubs.usgs.gov/fs/2018/3052/fs20183052.pdf>. Accessed: May 4, 2021.

<sup>12</sup> U.S. Geological Survey (USGS). 2019. Santa Rosa's Past and Future Earthquakes. Available: <https://pubs.usgs.gov/fs/2019/3035/fs20193035.pdf>. Accessed: January 5, 2023.

<sup>13</sup> U.S. Geological Survey (USGS). August, 2016. Earthquake Outlook for the San Francisco Bay Region 2014-2043. Available: <https://pubs.usgs.gov/fs/2016/3020/fs20163020.pdf>. Accessed: January 5, 2023.

<sup>14</sup> County of Marin. 2018. Multi-Jurisdiction Local Hazard Mitigation Plan (MCM LHMP). Available: <https://marinflooddistrict.org/documents/marin-county-multi-jurisdiction-local-hazard-mitigation-plan-2018/>. Accessed: January 5, 2023.

<sup>15</sup> Ibid.



### *Liquefaction*

Liquefaction is the temporary transformation of loose, saturated, granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes a temporary loss of strength, which can cause ground displacement or ground failure. Since saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Figure 3.3-2 indicates that the Planning Area includes large areas of high liquefaction susceptibility mainly encircling the pathways of two creeks. The central area surrounding the Corte Madera River and the western portion of the Planning Area surrounding the Rose Creek River are high liquefaction zones. Another smaller high liquefaction zone is in the southwestern corner of the Planning Area.

### *Lateral Spreading*

Lateral spreading refers to a type of landslide that forms on gentle slopes and has rapid fluid-like movement. Factors determining the potential for liquefaction and lateral spreading are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Locations within the Planning Area that have high liquefaction susceptibility, as shown on Figure 3.3-2, have the highest risk of lateral spreading if they occur adjacent to an open face or slope.

### *Landslides*

The strong ground motions that occur during earthquakes are capable of inducing landslides, generally where unstable slope conditions already exist. A landslide is the downhill movement of masses of earth material under the force of gravity. The primary factors influencing the stability of a slope include the nature of the underlying soil or bedrock, the geometry of the slope (height and steepness), rainfall, and the presence of previous landslide deposits. Two types of landslides are near the Planning Area: seismically induced landslide and precipitation- or water-induced landslide (see Figure 3.3-1). Landslide risk occurs mainly in the steep hills at the western edge of the Planning Area boundary, with small pockets of landslide risk also evident in the northeastern hills and southern boundary.

### *Soil Erosion*

Soil erosion is the process by which soil materials are worn away and transported to another area, either by wind or water. Not accounting for slope and groundcover factors, soils high in clay have low susceptibility to erosion because they are resistant to detachment. Coarse textured soils, such as sandy soils, also have low erosion potential despite their easy detachment, because of low runoff. Medium textured soils, such as the silt loam soils, are moderately susceptible to erosion, while soils with a high silt content are the most susceptible.<sup>16</sup>

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<sup>16</sup> Institute of Water Research (IWR). 2002. K Factor. Available: <http://www.iwr.msu.edu/rusle/kfactor.htm> Accessed: May 25, 2021.

The soils in the Planning Area with the highest susceptibility to water erosion are the Tocaloma-McMullin complex soil types that exist primarily in the western and eastern portions of the town. Tocaloma-McMullin complex soils contain well-drained loam to very gravelly loam. These soil types within the Planning Area also are located on steep hillsides, compounding erosion risk.

### *Expansive Soils*

Expansive soils have shrink-swell capacity, meaning they may swell when wetted and shrink when dried. Expansive soils can be hazardous to built structures, and may cause cracks in building foundations, distortion of structural elements, and warping of doors and windows. The higher the clay content of a soil, the higher its shrink-swell potential.

The U.S. Department of Agriculture National Resource Conservation Service (NRCS) analyzes the shrink-swell potential of each soil type based on its linear extensibility and clay content and categorizes it as “low,” “moderate,” “high,” or “very high.” Where the shrink-swell classification is moderate to very high, shrinking and swelling can cause damage to buildings, utilities, roads, and other structures and the gradual cracking, settling, and weakening of older buildings could create potential safety concerns and financial loss. As shown in Figure 3.3-1 and described in Table 3.3-1, higher elevation areas of the Planning Area are underlain with the Saurin-Bonnydoon complex which is a clay loam that is moderately expansive.<sup>17</sup>

### *Subsidence*

Subsidence occurs when a large portion of land is displaced vertically. This typically is due to the withdrawal of groundwater, oil, or natural gas. While subsidence is a significant concern in other parts of the state, particularly the San Joaquin Valley and Central Valley, Marin County experiences slight risk of subsidence but only near the shoreline in combination with risk from sea level rise.<sup>18</sup> The USGS California Water Science Center maps of historical and current recorded subsidence does not identify the Town of Ross as an area that has experienced subsidence.<sup>19</sup> Because of its inland location between hilly areas, land subsidence is not likely to increase the impact of sea level rise in the Town of Ross.<sup>20</sup>

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<sup>17</sup> United States Department of Agriculture. July, 2019. Natural Resources Conservation Service Web Soil Survey. Available: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed: January 6, 2023.

<sup>18</sup> County of Marin. October, 2022. Housing & Safety Element Update to the Marin Countywide Plan. Available: <https://www.marincounty.org/-/media/files/departments/cd/planning/environmental-impact/housing-and-safety-elements-eir-docs/marin-co-hese-public-draft-eirwith-appendicesoct-2022reduced-size.pdf?la=en>. Accessed: January 6, 2023.

<sup>19</sup> U.S. Geological Survey (USGS). N.d. Areas of Land Subsidence in California. Available: [https://ca.water.usgs.gov/land\\_subsidence/california-subsidence-areas.html](https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html). Accessed: January 6, 2023.

<sup>20</sup> KQED. April 22, 2021. Maps: See Which Bay Area Locations are at Risk from Rising Seas. Available: <https://www.kqed.org/science/1973624/maps-see-which-bay-area-locations-are-at-risk-from-rising-seas>. Accessed: January 6, 2023.

## Paleontological Resources

Paleontological resources are the fossil remains or traces of past life forms, including vertebrate and invertebrate species as well as plants. Paleontological resources are considered *significant* if they are identifiable vertebrate fossils; uncommon invertebrate, plant, and trace fossils; or other data that provide information important to the scientific record. Paleontological resources are older than the middle Holocene (i.e., older than approximately 5,000 years).

The Town is located in Marin County just north of the City of San Francisco, which forms part of the northern portion of the Coast Ranges Geomorphic Province of California.<sup>21</sup> The Planning Area is bounded by the Pacific Ocean to the west and the Great Valley Geomorphic Province to the east. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. West of the San Andreas Fault is the Salinian Block, a granitic core extending from the southern extremity of the Coast Ranges to the north of the Farallon Islands.<sup>22</sup>

According to a records search of the University of California Museum of Paleontology specimen search, Pleistocene-age deposits in Alameda County have yielded numerous fossils, including *Mammuthus* (extinct genus of mammoth, a trunked mammal), *Bison* (genus of bison), *Camelops* (extinct genus of camel), and *Glossotherium* (extinct genus of ground sloth) from the Pleistocene-age Quaternary alluvium in San Antonio Creek, which is about 20 miles north of the Planning Area. However, following a search of the fossil database maintained by the University of California Museum of Paleontology at the University of California, Berkeley did not identify any fossils within Ross.<sup>23</sup>

## REGULATORY SETTING

### Federal Regulations

#### *Earthquake Hazards Reduction Act of 1977*

Federal laws codified in United States Code Title 42, Chapter 86, were enacted to reduce risks to life and property from earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. Implementation of these requirements are regulated, monitored, and enforced at the State and local levels. Key regulations and standards applicable to the Proposed Project are summarized below.

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<sup>21</sup> CGS. 2002.

<sup>22</sup> California Geological Survey. 2002. California Geomorphic Provinces. Available: <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed: October 31, 2022.

<sup>23</sup> University of California Museum of Paleontology. 2020. *Advanced Specimen Search, Alameda County*. Available: [https://ucmpdb.berkeley.edu/cgi/ucmp\\_query2](https://ucmpdb.berkeley.edu/cgi/ucmp_query2). Accessed: January 6, 2023.



### *U.S. Geological Survey Landslide Hazard Program*

The USGS created the Landslide Hazard Program in the mid-1970s; the primary objective of the program is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a state and local responsibility.

### *Disaster Mitigation Act of 2000*

The Disaster Mitigation Act of 2000 (DMA2K) (Public Law 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 to establish a Pre-Disaster Mitigation (PDM) program and new requirements for the federal post-disaster Hazard Mitigation Grant Program (HMGP). DMA2K encourages and rewards local and state pre-disaster planning. It promotes sustainability and seeks to integrate state and local planning with an overall goal of strengthening statewide hazard mitigation. This enhanced planning approach enables local, tribal, and state governments to identify specific strategies for reducing probable impacts of natural hazards such as floods, fire, and earthquakes. In order to be eligible for hazard mitigation funding after November 1, 2004, local governments are required to develop a Hazard Mitigation Plan (HMP) that incorporates specific program elements of the DMA2K law. The Town of Ross participated in the Marin Multi-Jurisdiction Local Hazard Mitigation Plan (LHMP), as described under Local Regulations, below.

## **State Regulations**

### *California Multi-Hazard Mitigation Plan*

The State of California Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2013. The SHMP outlines present and planned activities to address natural hazards. The adoption of the SHMP qualifies the State of California for federal funds in the event of a disaster. The State is required under the Disaster Mitigation Act of 2000, described above, to review and update its SHMP and resubmit for FEMA approval at least once every 5 years to ensure the continued eligibility for federal funding. The SHMP provides goals and strategies which address minimization of risks associated with natural hazards and response to disaster situations. The SHMP notes that the primary sources of losses in the state of California are fire and flooding.

### *California Building Standards Code*

The California Building Code (CBC) is Part 2 of Title 24 of the California Code of Regulations. The CBC incorporates the International Building Code, a model building code adopted across the United States. The CBC is updated every three years, and the current 2022 version took effect July 1, 2022. Except for certain additions, deletions, and amendments, the Town adopted the 2022 CBC by reference pursuant to Title 15, Section 15.05.010 of the Town of Ross Municipal Code. Through the CBC, the State provides a minimum standard for building design and construction. Of particular relevance, Chapter 16 of the CBC contains specific requirements for structural (building)

design, including seismic loads. Chapter 18 of the CBC includes requirements for soil testing, excavation and grading, and foundation design.

The 2022 CBC (based on the 2018 International Building Code) has been amended and adopted as the Building Code of the Town of Ross, regulating the erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of buildings within the Town.

#### *California Alquist–Priolo Earthquake Fault Zoning Act*

The Alquist–Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on top of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as ground shaking or landslides.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist–Priolo Zones) around the surface traces of active faults, and to issue appropriate maps. The maps are then distributed to all affected cities, counties and state agencies for their use in planning and controlling new or renewed construction. Generally, construction within 50 feet of an active fault zone is prohibited. However, the San Andreas Fault, zoned under the Alquist–Priolo Earthquake Fault Zoning Act, is approximately 7 miles north of the Planning Area.

#### *Seismic Hazards Mapping Act, California Public Resources Code Sections 2690–2699.6*

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted, and appropriate mitigation measures incorporated into the project design. Geotechnical investigations conducted within Seismic Hazard Zones must incorporate standards specified by the CGS Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards. There are no Seismic Hazard Zones within the Planning Area.

#### *California Department of Transportation (Caltrans)*

Jurisdiction of the California Department of Transportation (Caltrans) includes State and interstate routes within California. Any work within the right-of-way of a federal or State transportation corridor is subject to Caltrans regulations governing allowable actions and modifications to the right-of-way. Caltrans standards incorporate the CBC, and contain numerous rules and regulations to protect the public from seismic hazards such as surface fault rupture and ground shaking. In addition, Caltrans standards require that projects be constructed to minimize potential hazards associated with cut and fill operations, grading, slope instability, and expansive or corrosive soils, as described in the Caltrans Highway Design Manual (HDM).

Caltrans and local project sponsors, as part of the project development and delivery process, are obligated to conduct paleontological studies in response to federal, state, and local laws, regulations, and ordinances. For example, Section 305 of the Federal Aid Highway Act of 1956 (20 USC 78, 78a) gives authority to use federal funds to salvage archaeological and paleontological sites affected by highway projects.

#### *National Pollution Discharge Elimination System Permits*

In California, the State Water Resources Control Board (SWRCB) and its Regional Water Quality Control Board (RWQCB) administer the National Pollution Discharge Elimination System (NPDES) program. The NPDES permit system was established as part of the Federal Clean Water Act to regulate both point source discharges and non-point source discharges to surface water of the United States, including the discharge of soils eroded from construction sites.

The NPDES program consists of characterizing receiving water quality, identifying harmful constituents (including siltation), targeting potential sources of pollutants (including excavation and grading operations), and implementing a comprehensive stormwater management program. Construction and industrial activities typically are regulated under statewide general permits that are issued by the SWRCB. Additionally, the SWRCB issues Water Discharge Requirements that also serve as NPDES permits under the authority delegated to the RWQCBs, under the Clean Water Act.

#### *California Public Resources Code*

Sections 5097–5097.6 of the California Public Resources Code outline the requirements for cultural resource analysis prior to the commencement of any construction project on state lands. The state agency proposing the project may conduct the cultural resource analysis or they may contract with the State Department of Parks and Recreation. In addition, this section stipulates that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands and provides for criminal sanctions. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

### **Local Regulations**

#### *Town of Ross General Plan 2007-2025 (General Plan)*

The Town of Ross General Plan 2007-2025 (General Plan) includes the following goals and policies associated with geology, soils, and seismicity:

**Policy 1.1: Protection of Environmental Resources.** Protect environmental resources, such as hillsides, ridgelines, creeks, drainage ways, trees and tree groves, threatened and endangered species habitat, riparian vegetation, cultural places,<sup>7</sup> and other resources. These resources are unique in the planning area because of their scarcity, scientific value, aesthetic quality and cultural significance.

**Policy 3.1: Building and Site Design.** Design all structures and improvements to respect existing natural topographic contours. Open areas and buildings shall be located to protect land forms and natural site features, including cultural places and resources, wherever possible. Where feasible, site development must avoid intact or previously disturbed cultural resources during excavation and grading.

**Policy 3.3: Buildings on Sloping Land.** New buildings and additions to existing residential buildings constructed on sloping land should be designed to relate to the current landforms with the goal of integrating the building with the site (e.g., step with the slope). Low retaining walls are encouraged where their use would minimize uphill cutting, and large singleplane retaining walls should be avoided. Cut and fill areas and on/off-hauling should be minimized, especially in locations of limited or difficult access. Special care should be taken to final grade all disturbed areas to a natural appearing configuration and to direct stormwater runoff to areas where water can naturally infiltrate the soil.

**Policy 4.5: Archaeological Resources.** Implement measures to preserve and protect archaeological resources. Whenever possible, identify archaeological resources and potential impacts on such resources. Provide information and direction to property owners in order to make them aware of these resources. Require archaeological surveys, conducted by an archaeologist who appears on the Northwest Information Center’s list of archaeologists qualified to do historic preservation fieldwork in Marin County, in areas of documented archaeological sensitivity. Develop design review standards for projects that may potentially impact cultural resources.

**Policy 5.2: Geologic Review Procedures.** At the time a development is proposed, Ross geologic and slope stability maps should be reviewed to assess potential geologic hazards. In addition, suitability for development must be based on site-specific geotechnical investigations.

**Policy 6.5: Permeable Surfaces.** To the greatest extent possible, development should use permeable surfaces and other techniques to minimize runoff into underground drain systems and to allow water to percolate into the ground. Landscaped areas should be designed to provide potential runoff absorption and infiltration.

### *Marin County Multi-Jurisdictional Local Hazard Mitigation Plan (MCM LHMP)*

In 2018, the Town took part in an updated multi-jurisdiction hazard mitigation plan to suit the local needs and capabilities of the County’s partners and participating jurisdictions: The *Marin County Multi-Jurisdictional Local Hazard Mitigation Plan (MCM LHMP)*.<sup>24</sup> The Hazard Mitigation Plan identified earthquake and landslides as hazards of concern identifies resources, information, and strategies for mitigating risks associated with these hazards.

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<sup>24</sup> County of Marin. 2018.

*Town of Ross Municipal Code (Town Code)*

Chapter 12.28 of the Town Code details regulations, requirements, inspection, and enforcement related to preventing urban runoff pollution and protecting watercourses, fish and wildlife habitat. This includes erosion and sediment controls for construction sites, and erosion and sediment control plans for certain projects.

Chapter 13.04 requires that every building be connected to the public sewer system maintained by the sanitary district, unless an exception is authorized by the Town Council.

Title 15 of the Town Code adopts the 2019 CBC in its entirety excepting certain additions, deletions, and amendments. As discussed above, the CBC regulates seismic design, the excavation of foundations and retaining walls, analysis of slope instability, requirements for drainage and grading, and other aspects of building design and construction that relate to geology, soils, and seismicity.

Chapter 15.24 establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for performing any grading, excavation, or fill within the town. Procedures require a description of the type and classification of the soil along with an Erosion and Sediment Control Plan, a Stormwater Control Plan, and a Stormwater Facilities Operation and Maintenance Plan.

Chapter 18.39 of the Town Code is the Hillside Regulation Ordinance. The purpose of the chapter is to protect the public health, safety, and general welfare and the property of people in the vicinity of steep hillside building sites. The ordinance outlines specifications in project-specific geotechnical investigations which are required for development in hillside areas. The Town engineer will review all applications to determine the appropriate level of geotechnical report necessary to evaluate the safety of the proposed improvement.

## **Impact Analysis**

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### **SIGNIFICANCE CRITERIA**

For the purposes of this EIR, a significant impact would occur if the Proposed Project would:

- Criterion 1:** Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i.** Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42),
  - ii.** Strong seismic ground shaking,
  - iii.** Seismically related ground failure, including liquefaction, or
  - iv.** Landslides;
- Criterion 2:** Result in substantial soil erosion or the loss of topsoil;
- Criterion 3:** 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;
- Criterion 4:** Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;
- Criterion 5:** 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; or
- Criterion 6:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### **METHODOLOGY AND ASSUMPTIONS**

#### **Geology, Soils, and Seismicity**

This evaluation of geologic, soils, and seismic hazard conditions was completed using published geologic, soils, and seismic maps and studies from USGS, CGS, and ABAG. In order to reduce or mitigate potential hazards from earthquakes or other local geologic hazards, implementation of the Proposed Project would be governed by existing regulations at the federal, state, and local levels, including existing Town of Ross General Plan 2007-2025 (General Plan) policies and provisions. These regulations require that a proposed project design reduce potential adverse soils, geological, and seismicity effects to the extent feasible. Compliance with these regulations is required, not optional. These provisions ensure that development will continue to be completed in compliance with local and State regulations.

## Paleontological Resources

The evaluation of impacts on paleontological resources was completed using published geologic maps from CGS (Wagner, Bortugno, & McJunkin, 1991) and database query at the University of California Museum of Paleontology (University of California Museum of Paleontology, 2020), following procedures outlined in the Standard Guidelines provided by the Impact Mitigation Guidelines Revisions Committee of the Society of Vertebrate Paleontology (SVP) (Society of Vertebrate Paleontology, 2010).<sup>25, 26, 27</sup>

The Standard Guidelines include procedures for the investigation, collection, preservation, and cataloguing of fossil-bearing sites, including the designation of paleontological sensitivity. The Standard Guidelines are widely accepted among paleontologists and are followed by most investigators. The Standard Guidelines identify the two key phases of paleontological resource protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects.

For the assessment phase, the Standard Guidelines prescribe the following steps:<sup>28</sup>

- Identify the geologic units that would be affected by the project, based on the project's depth of excavation—either at ground surface or below ground surface, defined as at least 5 feet below ground surface.
- Evaluate the potential of the identified geologic units to contain significant fossils (paleontological sensitivity).
- Identify impacts on paleontologically sensitive geologic units as a result of near-term and longer-term construction and operation that involve ground disturbance.
- Evaluate impact significance.

The paleontological sensitivity of the geologic units identified in the study area is classified according to four categories: SVP defines the level of potential as one of four sensitivity categories for sedimentary rocks: High, Undetermined, Low, and No Potential.<sup>29</sup>

- **High Potential.** Assigned to geologic units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered; and sedimentary rock units suitable for the preservation of fossils (“middle Holocene and older, fine-grained fluvial sandstones...fine-grained marine sandstones, etc.”). Paleontological potential consists of the potential for yielding abundant fossils, a few significant fossils, or “recovered evidence

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<sup>25</sup> Wagner, Bortugno, & McJunkin, 1991.

<sup>26</sup> University of California Museum of Paleontology, 2021.

<sup>27</sup> Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available: [https://vertpaleo.org/wp-content/uploads/2021/01/SVP\\_Impact\\_Mitigation\\_Guidelines.pdf](https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf). Accessed: June 4, 2021.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data.”

- **Undetermined Potential.** Assigned to geologic units “for which little information is available concerning their paleontological content, geologic age, and depositional environment.” In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.
- **Low Potential.** Field surveys or paleontological research may allow determination that a geologic unit has low potential for yielding significant fossils (e.g., basalt flows). Mitigation is generally not required to protect fossils.
- **No Potential.** Some geologic units have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Mitigation is not required.

Geologic units at the project site were identified through California Geological Survey regional maps.<sup>30</sup> Determination of presence of paleontological resources in the units was based on the fossil record as documented by the University of California Museum of Paleontology.<sup>31</sup>

For the implementation phase, the Standard Guidelines states that evaluation must identify impacts on significant paleontological resources and formulate and implement measures to mitigate potential impacts relative to the paleontological sensitivity of the geologic units that would be disturbed.<sup>32</sup>

For the purposes of this analysis, an impact on paleontological resources was considered significant and to require mitigation if it would result in any of the following:

- Damage to or destruction of vertebrate paleontological resources.
- Damage to or destruction of any paleontological resource that:
  - Provides important information about evolutionary trends, including the development of biological communities;
  - Demonstrates unusual circumstances in the history of life;
  - Represents a rare taxon or a rare or unique occurrence;
  - Is in short supply and in danger of being destroyed or depleted;
  - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
  - Provides information used to correlate strata for which it may be difficult to obtain other types of age dates.

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<sup>30</sup> Wagner, Bortugno, & McJunkin, 1991.

<sup>31</sup> University of California Museum of Paleontology, 2021.

<sup>32</sup> Society of Vertebrate Paleontology, 2010.



## IMPACTS

**Impact 3.3-1 Implementation of the Proposed Project would not expose residents, visitors and employees, as well as public and private structures, to substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault; strong seismic ground shaking; seismically related ground failure, including liquefaction; or landslides. (*Less than Significant with Mitigation Incorporated*)**

### *Fault Rupture and Ground Shaking*

For the Proposed Project, a significant impact due to fault rupture could occur if new structures were constructed within a designated Alquist-Priolo Earthquake Fault Zone, or within an active or potentially active known fault. A significant impact due to ground shaking could occur if implementation of the Proposed Project led to construction in an area that would experience ground shaking, potentially causing damage or harm to buildings or people.

As noted above, there are no designated Alquist-Priolo Earthquake Fault Zones in Ross, however, the area is subject to ground shaking in the event of an earthquake due to its proximity to the San Andreas Fault System. All future development under the Proposed Project would be required to comply with the provisions of Ross Town Code, including Chapter 15.24 – Grading, Excavations and Fill, the current California Building Codes, and the specifications outlined in project-specific geotechnical investigations which are required for development in hillside areas per Chapter 18.39 of the Town Code. Compliance with existing regulations would ensure that risks are minimized to the extent practicable, and impacts related to fault rupture and ground shaking would be less than significant.

### *Liquefaction*

A significant impact due to liquefaction could occur if implementation of the Proposed Project would result in construction in areas of elevated liquefaction risk. As shown in Figure 3.3-2, areas adjacent to the creeks and most of the valley floor west of Sir Francis Drake Boulevard are subject to high liquefaction risk. Housing development within these areas pursuant to the Proposed Project would be required to comply with the provisions of the California Building Code related to soils and foundations and with the following mitigation strategies contained in the Town of Ross Local Hazard Mitigation Plan:

- EQ-3 Requires preparation of site-specific geologic or geotechnical reports for development and redevelopment proposals in areas subject to earthquake-induced landslides or liquefaction and condition project approval on the incorporation of necessary mitigation measures related to site remediation, structure and foundation design, and/or avoidance.
- EQ-11 Require geologic reports in areas mapped by others as having significant liquefaction or landslide hazards.

- AH-26 Comply with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling Town-owned facilities.

While the precise details of projects pursuant to the Housing Element, including building footprints, placement on the site, and related site-specific conditions, cannot be known at this time, compliance with existing regulations and mitigation strategies would reduce potential impacts related to liquefaction to the maximum extent practicable. Therefore, impacts are considered less than significant.

### *Landslides*

Implementation of the Proposed Project could have a significant impact due to landslides if new developments were to be located in areas with high landslide risk. Landslides may occur on slopes of 15 percent or less; however, the probability is greater on steeper slopes that exhibit old landslide features such as steep slopes or banks, slanted vegetation, and transverse ridges. Landslide-susceptible areas are characterized by steep slopes and downslope creep of surface materials.

As discussed above under the Environmental Setting, seismically induced landslides and precipitation-induced landslides can occur on much of the steep terrain in much of Ross, particularly in wet weather months. As shown in Figure 3.3-1, hillside areas in the west, northeast, and southeast of Ross have experienced landslides in the past. Housing sites identified in the Proposed Project are in proximity to mapped landslides hazards. Development on these sites and in areas with slope stability hazards would be subject to the provisions of Chapter 18.39 of the Town Code, which contains hillside lot regulations and standards. The ordinance outlines specifications in project-specific geotechnical investigations which are required for development in hillside areas, such as avoiding development in unstable areas and protecting newly created slopes from storm runoff and erosion.

Compliance with these standards would reduce impacts related to landslides. Buildout of the Proposed Project would primarily involve construction of small-scale infill housing, typically of not more than three single-family residences or multi-family residential structures designed for not more than six dwelling units. Pursuant to CEQA Section 15303, the State has determined that such projects would not have a significant effect on the environment. Of the larger scale projects anticipated with buildout of the Proposed Plan, the Berg site is the only one that is susceptible to landslide hazards. In order to reduce potential landslide impacts at a programmatic level, erosion and stormwater control measures shall be required for all development. Erosion control plans shall comply with the County of Marin stormwater regulations and shall meet the National Pollutant Discharge Elimination System (NPDES) permit requirements for Marin County and Chapter 12.28 of the Town Code which prevents urban runoff pollution.

Nevertheless, the potential for loss or damage due to landslides remains for project-specific larger developments, such as at the Berg site. As such, impacts are considered potentially significant and require further mitigation.

A project applicant pursuing construction of more than three single-family residences or multi-family residential structures with more than six dwelling units in affected areas would thus be required to adhere to the following mitigation measures. **Mitigation Measure GEO-1** requires the utilization of protection measures during and after construction to reduce the risk of induced instability. **Mitigation Measure GEO-2** requires the establishment of minimum building setbacks to reduce the potential for seismic slope deformation, lateral fill extension, and/or slope creep from impacting the structures.

Therefore, through conformance with requirements in the Town Code and adherence to **Mitigation Measures GEO-1 and GEO-2**, the impact would be less than significant.

#### *Mitigation Measures*

**MM GEO-1: Landslides and Slope Stability.** Construction and grading will expose areas of weak soil/rock which may be sensitive to erosion and/or sloughing. Project applicants pursuing construction of more than three single-family residences or multi-family residential structures with more than six dwelling units in affected areas shall utilize erosion protection measures during and after construction to reduce the risk of induced instability. Erosion protection measures shall include the use of seeding or hydromulch and the installation of hay bales and/or silt fences to hinder sedimentation. Detailed erosion protection recommendations shall be developed when grading plans are finalized and shall be implemented immediately after construction has been performed.

**MM GEO-2: Setbacks.** Project applicants pursuing construction of more than three single-family residences or multi-family residential structures with more than six dwelling units in affected areas shall establish minimum building setbacks adjacent to the top or toe of new slopes in accordance with the current CBC to reduce the potential for seismic slope deformation, lateral fill extension, and/or slope creep from impacting the structures.

*Significance After Mitigation:* Less than significant

#### **Impact 3.3-2 Implementation of the Proposed Project would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)**

Topsoil refers to the uppermost layer of soil, which have the highest concentration of organic matter, and where most biological soil activity occurs. Implementation of the Proposed Project could have a significant impact due to soil erosion or loss of topsoil if associated construction and development activities could expose soils to the effects of erosion, which could hinder proper drainage and stormwater management. Erosion control, particularly during grading, is necessary to avoid downstream sedimentation and flooding. Once disturbed, through the removal of vegetation, asphalt, or an entire structure, exposed and stockpiled soils could be affected by wind and water.

As discussed above under the Environmental Setting, the soil types in the Planning Area with the highest susceptibility to erosion are the Tocaloma-McMullin complex soils that exist primarily in the western and eastern portions of the town. Tocaloma-McMullin complex soils contain well-drained loam to very gravelly loam. These soil types within the Planning Area also are located on the hillsides of Ross, compounding erosion risk.

Stormwater can cause erosion of soils on hillsides and creek banks in Ross. Future development under the Proposed Project would be required to comply with the provisions of the Town Code pertaining to grading and to stormwater controls. Specifically, Chapter 15.24 of the Town Code requires that any project involving grading prepare an Erosion and Sediment Control Plan, a Stormwater Control Plan, and a Stormwater Facilities Operation and Maintenance Plan.

In addition, construction that disturbs more than one acre would be subject to compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit requires an erosion and sediment control plan, which includes sufficient engineering analysis to show that the proposed erosion and sediment control measures during the period when preconstruction and construction related grading activities are to occur are capable of controlling surface runoff and erosion and retaining sediment on the project site. Construction activity subject to NPDES permitting requirements also must include a post-construction erosion and sediment control plan. Once construction is complete and exposed areas are re-vegetated or covered by buildings, asphalt, or concrete, the erosion hazard is substantially eliminated or reduced.

As such, compliance with existing regulations would reduce impacts to the extent practicable and impacts related to erosion would be less than significant.

#### *Mitigation Measures*

None required.

**Impact 3.3-3      Implementation of the Proposed Project would not locate structures on expansive soils or on a geologic unit or soil that is unstable, or that would become unstable as a result of new development under the Proposed Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or create substantial risks to life or property. (*Less than Significant with Mitigation Incorporated*)**

The Proposed Project would have a significant impact if related development were located on an unstable geologic unit or soil, or a geologic unit or soil that would become unstable as a result of such development, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Liquefaction and landslide hazards associated with implementation of the Proposed Project are examined under Impact 3.3-1.

Overall, soils underlying Ross are considered to have moderately expansive characteristics and the potential for lateral spreading and subsidence is considered low. As discussed under the Environmental Setting, areas within Ross are underlain by slightly to moderately expansive soils, which swell and shrink as they gain and lose moisture and can result in damage to overlying

structures. In particular, the northwest portion of the Planning Area is underlain with the Saurin-Bonnydoon complex which is a clay loam that is moderately expansive. If these underlying soils are exposed to varying moisture content over time, the result could be damage to foundations, walls, or other improvements.

Development associated with the implementation of the Proposed Project could be located on a geologic unit or soils that are susceptible to lateral spreading. As discussed above under the Environmental Setting, the factors determining the potential for lateral spreading are liquefiable soils and the proximity to an open face or slope. As shown in Figure 3.3-2, areas adjacent to the creeks and most of the Valley floor west of Sir Francis Drake Boulevard are subject to high liquefaction risk. Ross Creek and Corte Madera Creek provide an open face which poses some risk of lateral spreading, though it is not expected to be a great risk.

Development associated with the implementation of the Proposed Project could be located on soils that pose a low risk of subsidence. As discussed above under the Environmental Setting, the withdrawal of groundwater, oil, or natural gas can cause land to be displaced vertically. However, the USGS California Water Science Center maps of historical and current recorded subsidence does not identify the Town of Ross as an area that has experienced subsidence.<sup>33</sup> Marin County experiences slight risk of subsidence but only near the shoreline in combination with risk from sea level rise.<sup>34</sup> Therefore, subsidence is unlikely to result from construction created under the Proposed Project.

The potential risks related to construction on expansive or unstable soils from Proposed Project would be addressed through required compliance with the provisions of the California Building Code related to soils and foundations and related mitigation strategies contained in the Town of Ross Local Hazard Mitigation Plan. For example, mitigation action EQ-3 requires preparation of site-specific geologic or geotechnical reports for development and redevelopment proposals in areas subject to earthquake-induced landslides or liquefaction and condition project approval on the incorporation of necessary mitigation measures related to site remediation, structure and foundation design, and/or avoidance. Mitigation action EQ-11 requires geologic reports in areas mapped by others as having significant liquefaction or landslide hazards. Further, mitigation action AH-26 requires compliance with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling Town-owned facilities.

Development in areas with expansive soils would require compliance with State and local building codes. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls. This chapter regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to groundwater table. Appendix Chapter J of

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<sup>33</sup> U.S. Geological Survey (USGS). N.d. Areas of Land Subsidence in California. Available:

[https://ca.water.usgs.gov/land\\_subsidence/california-subsidence-areas.html](https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html). Accessed: January 6, 2023.

<sup>34</sup> County of Marin. October, 2022. Housing & Safety Element Update to the Marin Countywide Plan. Available:

<https://www.marincounty.org/-/media/files/departments/cd/planning/environmental-impact/housing-and-safety-elements-eir-docs/marin-co-hese-public-draft-eirwith-appendicesoct-2022reduced-size.pdf?la=en>. Accessed: January 6, 2023.

the CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction. Chapter 15.24 of the Town Code establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for ensuring stable soil conditions.

Compliance with existing regulations and **Mitigation Measures GEO-1 and GEO-2** detailed above would ensure that any impact is reduced to a less than significant level.

*Mitigation Measures*

**MM GEO-1: Landslides and Slope Stability.**

**MM GEO-2: Setbacks.**

*Significance After Mitigation:* Less than significant

**Impact 3.3-4 Implementation of the Proposed Project would not be located on expansive soil, as defined in Table 18-I-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. (Less than Significant)**

A significant impact could occur if new development under the Proposed Project would locate structures in areas on top of expansive soil that would create substantial risk to life or property. As stated under Impact 3.3-3, areas within Ross are underlain by slightly to moderately expansive soils, which swell and shrink as they gain and lose moisture and can result in damage to overlying structures. Compliance with the provisions of the California Building Code, adopted by the Town as Chapter 15.05 of the Town Code require soil investigations by a civil engineer to identify corrective action needed to prevent structural damage to each dwelling proposed to be constructed on the expansive soil. Therefore, compliance with existing regulations would reduce expansive soil-related impacts to a less than significant level.

*Mitigation Measures*

None required.

**Impact 3.3-5 Implementation of the Proposed Project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. (Less than Significant)**

A significant impact could occur if new development under the Proposed Project would locate structures in areas without connection to the Town's sanitary sewer system and on soils incapable of adequately supporting the use of septic tanks. The Town Code (Chapter 13.04) requires that every building be connected to the public sewer system maintained by the sanitary district, unless an exception is authorized by the Town Council. Given that implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established

neighborhoods on existing lots and infill sites, future development under the Proposed Project would generally connect to existing sewer trunk lines or require future expansion of existing sewer trunk lines. In the event that the use of septic tanks is permitted during development under the Proposed Project, compliance with all requirements outlined in Chapter 13.04 of the Town Code would be required. As a result, the impact would be less than significant.

*Mitigation Measures*

None required.

**Impact 3.3-6 Implementation of the Proposed Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant*)**

Paleontological resources are mineralized or fossilized remains of prehistoric plants and animals, as well as mineralized impressions or trace fossils that provide indirect evidence of the form and activity of ancient organisms. As discussed under the Environmental Setting, following a search of the fossil database maintained by the University of California Museum of Paleontology at the University of California, Berkeley did not identify any fossils within Ross, but did identify fossils in the greater county. Although not anticipated, sub-surface construction activities associated with the Project implementation, such as grading or trenching, could result in a significant impact to paleontological resources, if encountered.

However, Public Resources Code Section 5097.5 specifies the procedures to be followed in the event of the unexpected discovery of paleontological resources. Compliance with existing regulations would result in less than significant impacts related to paleontological resources.

*Mitigation Measures*

None required.

## 3.4 Greenhouse Gas Emissions

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions. It also describes impacts related to GHG emissions that would result from implementation of the Proposed Project and mitigation for significant impacts where feasible and appropriate.

There were no responses to the Notice of Preparation (NOP) regarding topics covered in this section.

### Environmental Setting

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#### THE GREENHOUSE EFFECT AND GREENHOUSE GASES

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution.<sup>1</sup> Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events.<sup>2</sup> Large-scale changes to Earth's system are collectively referred to as *climate change*.

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<sup>1</sup> Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: [https://www.ipcc.ch/site/assets/uploads/2018/05/ar4\\_wg1\\_full\\_report-1.pdf](https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf). Accessed: August 16, 2021.

<sup>2</sup> Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III (Summary for Policy Makers)*. Available: [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf). Accessed: August 16, 2021.



The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterward.<sup>3</sup> Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

## **Greenhouse Gases**

The principle anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds, including sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources.

The primary GHGs of concern associated with the project are CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. Principal characteristics of these pollutants are discussed below.

- **Carbon dioxide** enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO<sub>2</sub> is also removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO<sub>2</sub>e), which compares the gas in question to that of the same mass of CO<sub>2</sub> (CO<sub>2</sub> has a global warming potential of 1 by definition).

Table 3.4-1 lists the global warming potential of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O and their lifetimes in the atmosphere.

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<sup>3</sup> Ibid.

**Table 3.4-1: Lifetimes and Global Warming Potentials of Key Greenhouse Gases**

<i>Greenhouse Gas</i>	<i>Global Warming Potential (100 years)</i>	<i>Lifetime (years)</i>
Carbon Dioxide (CO <sub>2</sub> )	1	— <sup>a</sup>
Methane (CH <sub>4</sub> )	25	12
Nitrous Oxide (N <sub>2</sub> O)	298	114

<sup>a</sup> No lifetime (years) for carbon dioxide was presented by CARB.

Source: California Air Resources Board. 2021. *GHG Global Warming Potentials*. Available: <https://ww2.arb.ca.gov/ghg-gwps>. Accessed: July 1, 2021.

The California Air Resources Board (CARB) recognizes the importance of short-lived climate pollutants (SLCP) (described in *Regulatory Setting*) and reducing these emissions to achieve the State’s overall climate change goals. SLCP’s have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO<sub>2</sub>.<sup>4</sup> Given their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO<sub>2</sub>e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of the short-lived climate pollutants and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO<sub>2</sub> emission controls. The Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), as discussed in the *Regulatory Setting*, addresses CH<sub>4</sub>, HFC gases, and anthropogenic black carbon. CH<sub>4</sub> has a lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200. The Proposed Project’s emission sources are not major contributors of HFC and black carbon; thus, they are not discussed herein.

### **Greenhouse Gas Reporting**

A GHG inventory is a quantification of all GHG emissions and sinks<sup>5</sup> within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources. Table 3.4-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential project-related emissions.

<sup>4</sup> California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. March. Available: [https://ww2.arb.ca.gov/sites/default/files/2018-12/final\\_slcp\\_report%20Final%202017.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf). Accessed: August 16, 2021.

<sup>5</sup> A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

**Table 3.4-2: Global, National, State, and Regional Greenhouse Gas Emission Inventories**

<i>Emissions Inventory</i>	<i>Carbon Dioxide Equivalent (MTCO<sub>2e</sub>)</i>
2020 United Nations Global Inventory <sup>a</sup>	54,000,000,000
2019 USEPA National Inventory <sup>b</sup>	5,981,400,000
2018 CARB State Inventory <sup>c</sup>	369,200,000
2015 BAAQMD GHG Emissions Inventory <sup>d</sup>	85,000,000
2020 Town of Ross Greenhouse Gas Emissions Inventory <sup>e</sup>	11,137

MTCO<sub>2e</sub> = metric tons of carbon dioxide equivalents

*Sources:*

a. United Nations. 2022. *Emissions Gap Report 2022*. Available: <https://www.unep.org/resources/emissions-gap-report-2022>. Accessed: January 5, 2023.

b. U.S. Environmental Protection Agency. 2022. *Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2020*. April. Available: <https://www.epa.gov/system/files/documents/2022-04/us-ghg-inventory-2022-main-text.pdf>. Accessed: January 5, 2023.

c. California Air Resources Board. 2022. *California Greenhouse Gas Emissions for 2000 to 2020, Trends of Emissions and Other Indicators*. October 26. Available: [https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020\\_ghg\\_inventory\\_trends.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf). Accessed: January 5, 2023.

d. Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan, Spare the Air, Cool the Climate*. Adopted: April 19. Available: [https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a\\_-\\_proposed-final-cap-vol-1-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-_proposed-final-cap-vol-1-pdf.pdf?la=en). Accessed: January 5, 2023.

e. Marin Climate & Energy Partnership. 2022. *Town of Ross Greenhouse Gas Inventory for Community Emissions for the Year 2020*. September. Available: <https://marinclimate.org/wp-content/uploads/2022/12/Ross-2020-GHG-Inventory-Report.pdf>. Accessed: January 5, 2023.

### Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea level rise (both globally and regionally) as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define. Specifically, significant impacts from global climate change worldwide and in California include the following.

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor, due to the atmosphere’s ability to hold more water vapor at higher temperatures.<sup>6</sup>

<sup>6</sup> California Natural Resources Agency. 2018. *California’s Fourth Climate Change Assessment Statewide Summary Report*. Available: [https://www.energy.ca.gov/sites/default/files/2019-11/Statewide\\_Reports-SUM-CCCA4-2018-013\\_Statewide\\_Summary\\_Report\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf). Accessed: August 16, 2021.

- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.<sup>7</sup>
- Changing weather patterns, including changes to precipitation and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones.<sup>8</sup>
- Declining Sierra Nevada snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years.<sup>9</sup>
- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 percent to 85 percent (depending on the future temperature scenario) by the end of the 21st century in high ozone areas.<sup>10</sup>
- Increasing the potential for erosion of California’s coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.<sup>11</sup>
- Exacerbating the severity of drought conditions in California such that durations and intensities are amplified, ultimately increasing the risk of wildfires and consequential damage incurred.<sup>12</sup>
- Under changing climate conditions, agriculture is projected to experience lower crop yields due to extreme heat waves, heat stress and increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.<sup>13</sup>
- The impacts of climate change, such as increased heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Indirect impacts on public health include increased vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.<sup>14</sup>

## **REGULATORY SETTING**

### **Federal**

There is currently no federal overarching law specifically related to climate change or the reduction of GHG emissions. However, fuel standards have been adopted to reduce GHG emissions from cars and light duty trucks and recent amendments have been proposed.

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<sup>7</sup> Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III (Summary for Policy Makers)*. Available: [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15\\_SPM\\_version\\_report\\_LR.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf). Accessed: August 16, 2021.

<sup>8</sup> Ibid.

<sup>9</sup> California Natural Resources Agency. 2018. *California’s Fourth Climate Change Assessment Statewide Summary Report*. Available: [https://www.energy.ca.gov/sites/default/files/2019-11/Statewide\\_Reports-SUM-CCCA4-2018-013\\_Statewide\\_Summary\\_Report\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf). Accessed: August 16, 2021.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

### *Corporate Average Fuel Economy Standards*

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light trucks (collectively, light-duty vehicles) sold in the U.S. Medium- and heavy-duty trucks and engines are also regulated separately. In March 2020, NHTSA and EPA published CAFE and carbon dioxide emissions standards for model years 2021-2026 under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that increased standards by 1.5 percent each year for light-duty vehicle model years 2021 through 2026. Originally, the SAFE Vehicles Rule Part One (SAFE I Rule) codified and pronounced that federal fuel economy standards preempted state and local laws. After a series of petitions, a filed lawsuit, extensive public comment, and a presidential executive order, NHTSA repealed the SAFE Vehicles Rule in December 2021. This decision allows California to continue to set state standards to address local communities' environmental and public health challenges including tailpipe emissions. In March 2022, NHTSA finalized revised CAFE Standards for model years 2024-2026, which require an industry-wide fleet average of approximately 49 miles per gallon (mpg) for light-duty vehicles in model year 2026 (increases 8 percent annually for model years 2024-2025 and 10 annually for model year 2026). NHTSA estimates that the final standards will avoid consumption of about 234 billion gallons of gas between model years 2030 to 2050 and reduce GHG emissions, air pollution, and the country's dependence on oil.

### *Energy Star Program*

Energy Star is a joint program of the EPA and the U.S. Department of Energy (DOE). The program establishes criteria for energy efficiency for household products and labels energy efficient products with the Energy Star seal. For example, homes can earn the Energy Star certification if they are verified to meet the EPA's guidelines for energy efficiency. To earn the Energy Star certification in California, site-built or modular homes must meet energy efficiency the performance target as determined by energy modeling through a California Energy Commission- (CEC-) approved software program, construct the home using the preferred set of efficiency measures, and verify that the home meets every item on the National Rater Checklist through a Rater. Energy Star certified homes typically feature more efficient walls; windows; air ducts; heating, ventilation, and air conditioning (HVAC) system; and lighting and appliances that allow homeowners to operate their homes using less power and resources.

## **State**

### *Statewide GHG Emission Targets*

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and then reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016), consistent with the target in Executive Order (EO) 30-15. EO S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. These targets are in line with the scientifically established levels needed to limit the rise in global temperature from pre-industrial levels to no more than two degrees Celsius (°C), the warming threshold at which major climate disruptions,

such as super droughts and rising sea levels, are projected.<sup>15</sup> Based on worldwide scientific agreement that carbon neutrality must be achieved by midcentury (established by the Paris Agreement in 2015), EO B-55-18 sets a State goal to achieve carbon neutrality no later than 2045 and achieve and maintain net negative emissions thereafter. EO B-55-18 charges CARB with developing a framework for implementing and tracking progress toward these goals. This executive order extends EO S-3-05 and acknowledges the role of increased carbon sequestration on natural and working lands for the State to achieve carbon neutrality and become net carbon negative.

### *Climate Change Scoping Plan*

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."<sup>16</sup> It also identifies the reductions needed by each GHG emission sector (e.g., industry, transportation, electricity generation). The State has also passed more detailed legislation to address GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

In November 2022, CARB released its 2022 Scoping Plan that continues the path set by the 2017 Scoping Plan for achieving statewide reduction targets for 2030 (40 percent below 1990 levels) and carbon neutrality by 2045 or earlier. The Plan scientifically reinforces the importance of comprehensive GHG reduction strategies and introduces new emphasis on the role of Natural and Working Lands (NWL) such as forests, shrublands/chaparral, croplands, wetlands, and other lands that will help sequester carbon from the atmosphere. The 2022 Scoping Plan draws on four modeled scenarios that reduce petroleum use from 81 to 99 percent below 2022 levels, and the proposed scenario reduces petroleum use by 91 percent in 2045 from 2022 levels.

### *California Climate Adaptation Strategy*

The California Climate Adaptation Strategy (AB 1482, 2015) links together the State's existing and planned climate adaptation efforts, showing how they fit together to achieve California's six climate resilience priorities:

- Strengthen protections for climate vulnerable communities,
- Bolster public health and safety to protect against increasing climate risks,
- Build a climate resilient economy,
- Accelerate nature-based climate solutions and strengthen climate resilience of natural systems,

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<sup>15</sup> United Nations, Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius, December 13, 2015, <https://unfccc.int/news/finale-cop21>, accessed August 16, 2021.

<sup>16</sup> California Air Resources Board, California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, November 2017, [https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf), accessed August 16, 2021.

- Make decisions based on the best available climate science, and
- Partner and collaborate to leverage resources.

The strategy is required to be updated every three years, most recently in 2021. The 2021 strategy builds on successful elements of previous strategies and reflects concentrated efforts to protect communities, the economy, and nature from climate change impacts. The Climate Adaptation Strategy seeks to draw connections between sectors by bringing together numerous state plans and strategies including statewide climate action plans (like the Natural and Working Lands Climate Smart Strategy, discussed below), sector-based strategies, regionally-focused strategies, and State stewardship plans.

### *Nature-Based Climate Solutions (Executive Order N-82-20)*

In October 2020, the Nature Based Solutions EO N-82-20 elevated the role of natural working lands in the fight against climate change and advanced biodiversity conservation as an administration priority. As part of this order, the State committed to the goal of conserving 30 percent of California's lands and coastal waters by 2030 (referred to as the "30x30" strategy), overseen by the California Natural Resources Agency (CRNA). The Pathways to 30x30<sup>17</sup> strategy identifies key objectives and strategic actions toward this target.

Critical to this effort is the recognition of the role of NWL in offsetting atmospheric carbon. The Natural and Working Lands Climate Smart Strategy<sup>18</sup> defines the eight types of NWL in California (forests, shrublands/chaparral, developed lands, wetlands, seagrasses and seaweeds, croplands, grasslands, and sparsely vegetated lands), highlights priority nature-based climate solutions to address the climate crisis, and explores opportunities for regional climate smart land management, among other objectives. Nature-based solutions focus on enhancing the co-benefits of ecosystem services of resources like natural vegetation (e.g., trees, parks, and urban forestry), wetlands and riparian areas, agricultural practices, and forest management.

### *Transportation-Related Standards and Regulations*

In 2007, CARB adopted the Low-Carbon Fuel Standard to reduce the carbon intensity of California's transportation fuels. The Low-Carbon Fuel Standard applies to fuels used by on-road motor vehicles as well as off-road vehicles, including construction equipment. In addition to regulations to address issues related to tailpipe emissions and transportation fuels, the State legislature has passed regulations to address issues related to the number of miles driven in on-road vehicles.

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<sup>17</sup> California Natural Resources Agency, Pathways to 30x30 California: Accelerating Conservation of California's Nature, April 22, 2022, <https://canature.maps.arcgis.com/sharing/rest/content/items/8da9faef231c4e31b651ae6dff95254e/data>, accessed May 19, 2022.

<sup>18</sup> Natural and Working Lands Climate Smart Strategy Draft for Public Comment, October 11, 2021, [https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Expanding-Nature-Based-Solutions/FINAL\\_DesignDraft\\_NWL\\_100821\\_508-opt.pdf](https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Expanding-Nature-Based-Solutions/FINAL_DesignDraft_NWL_100821_508-opt.pdf), accessed May 19, 2022.

EO B-16-12 orders CARB, the CEC, and the California Public Utilities Commission (CPUC), to support the rapid commercialization of zero-emission vehicles (ZEVs) and achieve various benchmarks related to ZEVs. In response, CARB established the Advanced Clean Cars program (now referred to as Advanced Clean Cars 1) that set more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles. These regulations are projected to reduce GHG emissions from new vehicles by approximately 40 percent in 2025 relative to 2012 model-year vehicles.<sup>19</sup> In addition, the program's ZEV regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to make up a growing percentage of California's new vehicle sales. By 2025, when the rules are fully implemented, the statewide fleet of new cars and light-duty trucks will emit 75 percent less smog-forming pollution than the statewide fleet in 2012.<sup>20</sup> The proposed Advanced Clean Cars 2 program lays out California's legally binding path (Executive Order N-79-20) to achieving 100 percent ZEV sales in 2035. Additionally, Executive Order B-48-18, signed into law in January 2018, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, 200 hydrogen fueling stations available, and 250,000 EV charging stations installed by 2025. Furthermore, it specifies that 10,000 of these charging stations must be direct-current fast chargers.

Since passage of the Sustainable Communities and Climate Protection Act (SB 375) in 2008, CARB has required metropolitan planning organizations (MPOs) to adopt plans that show reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035.<sup>21</sup> These plans, known as Sustainable Communities Strategies (SCS) link land use and housing allocations to transportation planning and related mobile-source emissions. The Metropolitan Transportation Commission (MTC) serves as the MPO for the nine counties in the Bay Area region, including Marin County, which is where the Planning Area site is located.

Under SB 743, in 2013, the Governor's Office of Planning and Research (OPR) implemented changes to the California Environmental Quality Act (CEQA) Guidelines, including the addition of Section 15064.3, which requires CEQA transportation analyses to move away from a focus on vehicle delay and level of service (LOS).<sup>22</sup> In support of these changes, OPR published its Technical Advisory on Evaluating Transportation Impacts in CEQA, which recommends that the determination of the transportation impact of a project be based on whether project-related vehicle miles traveled (VMT) per capita (or VMT per employee) would be 15 percent lower than that of existing development in the region.<sup>23</sup> OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria

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<sup>19</sup> California Air Resources Board, Advanced Clean Cars Program, 2021, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about>, accessed August 16, 2021.

<sup>20</sup> Ibid.

<sup>21</sup> California Air Resources Board, SB 375 Regional Greenhouse Gas Emissions Reduction Targets, Approved by the California Air Resources Board on March 22, 2018, <https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>, accessed August 16, 2021.

<sup>22</sup> Governor's Office of Planning and Research, Proposed Updates to the CEQA Guidelines, November 2017, [http://opr.ca.gov/docs/20171127\\_Comprehensive\\_CEQA\\_Guidelines\\_Package\\_Nov\\_2017.pdf](http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf), accessed August 16, 2021.

<sup>23</sup> Governor's Office of Planning and Research, Technical Advisory on Evaluating Transportation Impacts in CEQA, November 2017, [http://www.opr.ca.gov/docs/20171127\\_Transportation\\_Analysis\\_TA\\_Nov\\_2017.pdf](http://www.opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf), accessed August 16, 2021.



for determining significance must “promote the reduction in greenhouse gas emissions.”<sup>24</sup> This metric is intended to replace the use of vehicle delay and LOS to measure transportation-related impacts.

In response to executive orders N-19-19 and N-79-20, the California State Transportation Agency (CalSTA) adopted the Climate Action Plan for Transportation Infrastructure (CAPTI) in July 2021 to support state goals for reducing GHG emissions in transportation, which account for more than 40 percent of all polluting emissions. CAPTI outlines strategies and actions that will advance more sustainable, equitable, and healthy modes of transportation and accelerate the transition to ZEV technology. CAPTI also helps California plan for how to best administer potential new sources of federal climate-related transportation funding.

#### *Legislation Associated with Electricity Generation*

In 2002, the State passed legislation (SB 1078) that required 20 percent of electricity retail sales to be served by renewable resources by 2017, known as the Renewables Portfolio Standard (RPS) program. In 2015, this requirement was increased to 50 percent by 2030 (SB 350), and under SB 100 (2018), California utilities are now required to achieve 52 percent of their electric retail sales to end-use customers from renewable and zero-carbon resources by 2027, 60 percent by 2030, and 100 percent by 2045. SB 100 also requires the CEC, CPUC, and CARB to issue a joint policy report by 2021 and every four years thereafter; the 2021 SB 1000 Joint Agency Report assesses the costs and benefits of additional energy resources and resource building rates needed to achieve 100-percent clean electricity, which modeling results have shown is technically achievable through multiple pathways.<sup>25</sup>

#### *Building Energy Efficiency Standards (Title 24, Part 6)*

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Code of Regulations (CCR), Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The CEC updates the California Energy Code every 3 years with more stringent design requirements to reduce energy consumption, resulting in lower GHG emissions. The 2019 California Energy Code, which took effect on January 1, 2020, requires builders to use more energy-efficient building technologies to comply with requirements regarding energy use. New residential units are required to include solar panels to offset the estimated electrical demands of each unit (California Solar Mandate, CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the 2019 California Energy Code’s combination of required energy-efficient features and mandatory solar panels will result in new residential units that use 53 percent less energy than those that were designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than

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<sup>24</sup> Ibid.

<sup>25</sup> California Energy Commission, “SB 100 Joint Agency Report,” September 2021, <https://www.energy.ca.gov/sb100>, accessed May 13, 2022.

those that were designed to meet the 2016 California Energy Code, primarily through the transition to high-efficacy lighting.<sup>26</sup>

The 2022 Energy Code has been adopted by CEC and will take effect starting January 1, 2023. This update focuses on four key areas in new construction of homes and businesses that support the State’s mission to achieve a 100-percent clean energy future: encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar photovoltaic (PV) system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. This means that all new homes are required to be electric-ready, with dedicated 240-volt outlets and space for electric appliances that will eventually replace installed gas appliances. Additionally, select businesses will have systems maximized for onsite solar energy to avoid peak energy demand times and improved efficiency standards for building design and grid integration.<sup>27</sup>

### *Green Building Standards Code (Title 24, Part 11)*

The California Green Building Standards Code—Title 24, Part 11, California Code of Regulations—known as CALGreen, is the nation’s first mandatory green building standards code. In 2007, the California Building Standards Commission (CBSC) developed green building standards in an effort to meet the GHG reduction goals of AB 32. CBSC has the authority to propose CALGreen standards for nonresidential structures that include new buildings or portions of new buildings, additions and alterations, and all occupancies where no other State agency has the authority to adopt green building standards applicable to those occupancies. Voluntary green building measures can also be used to achieve CALGreen Tier 1 or Tier 2 levels, which comply with or exceed by at least 15 percent (respectively) the latest edition of “Savings By Design, Healthcare Modeling Procedures.”<sup>28</sup> The 2019 CALGreen Code is the current version that took effect January 1, 2020. The 2021 Triennial Code Adoption Cycle is currently underway, and once approved, the 2022 CALGreen Code will take effect January 1, 2023. Changes under the 2022 CALGreen Code include increased requirements for EV charging spaces and facilities for multifamily developments.

### *Clean Energy and Pollution Reduction Act of 2015*

SB 350 was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: 1) a renewables portfolio standard of 50 percent and 2) a doubling of energy efficiency by 2030, including improvements to

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<sup>26</sup> California Energy Commission, 2019 Building Energy Efficiency Standards: Frequently Asked Questions, March 2018, [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf), accessed August 16, 2021.

<sup>27</sup> California Energy Commission, 2022 Building Energy Efficiency Standards Summary, August 2021, [https://www.energy.ca.gov/sites/default/files/2021-08/CEC\\_2022\\_EnergyCodeUpdateSummary\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf), accessed May 19, 2022.

<sup>28</sup> Pacific Gas and Electric Company, 2016 Savings By Design Healthcare Baseline Procedures, April 2016, [https://www.calmac.org/publications/2016\\_Savings\\_by\\_Design\\_Healthcare\\_Baseline\\_Study\\_Final.pdf](https://www.calmac.org/publications/2016_Savings_by_Design_Healthcare_Baseline_Study_Final.pdf), accessed June 16, 2022.

the efficiency of existing buildings. These provisions will be implemented by future actions of the CPUC and CEC.

### *Solid Waste Diversion Regulations*

To minimize the amount of solid waste that must be disposed of in landfills, the State legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 50 percent of all solid waste from landfill facilities by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. AB 341 also established the goal that no less than 75 percent of solid waste generated by source-reduced, recycled, or composted by 2020.

In 2014, AB 1826 required businesses, including State agencies, to recycle organic waste and required local jurisdictions to implement an organic waste recycling program (as of January 2016). From January 2017, AB 2396 further required state agencies to include information on their compliance with mandatory commercial recycling (AB 341) and commercial organics recycling (AB 1826) requirements in their annual report to CalRecycle. This information is collected in the State Agency Reporting Center (SARC) database.

### *Cap-and-Trade Program*

CARB administers the State's cap-and-trade program, which covers GHG sources that emit more than 25,000 metric tons of carbon dioxide equivalents per year (MTCO<sub>2</sub>e/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

### *Short-Lived Climate Pollutant Reduction Strategy*

In 2014, SB 605 directed CARB, in coordination with other State agencies and local air districts, to develop a comprehensive Short-Lived Climate Pollutant (SLCP) Reduction Strategy. In 2016, SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs, which account for about one-third of the cumulative GHG emissions reduction the State is relying on to achieve the statewide 2030 GHG emissions target established under SB 32:

- 40 percent reduction in CH<sub>4</sub> relative to 2013 levels by 2030,
- 40 percent reduction in HFC gases relative to 2013 levels by 2030, and
- 50 percent reduction in anthropogenic black carbon relative to 2013 levels by 2030.

SB 1383 also establishes the following targets for reducing organic waste in landfills as well as CH<sub>4</sub> emissions from dairy and livestock operations, as follows:

- 50 percent reduction in organic waste disposal relative to 2014 levels by 2020,
- 75 percent reduction in organic waste disposal relative to 2014 levels by 2025, and
- 40 percent reduction in CH<sub>4</sub> emissions from livestock and dairy manure management operations relative to the livestock and dairy sectors' 2013 levels by 2030.

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH<sub>4</sub>, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the state. In November 2020, CalRecycle finalized new and amended regulations to CCR Title 14 and Title 27 to achieve the organic waste reduction goals under SB 1383. Among other things, the regulations set forth minimum standards for organic waste collection, hauling, and composting, which took effect on January 1, 2022.

#### *Water Conservation Act of 2009*

Reductions in water consumption reduce the amount of energy, as well as the emissions, associated with conveying, treating, and distributing the water; emissions from wastewater treatment are also reduced. The overall goal of SB X7-7, the Water Conservation Act of 2009, was to reduce per capita urban water use by 20 percent by 2020, with an incremental progress benchmark of at least 10 percent by 2015. Urban Water Management Plans (UWMPs) are prepared by urban water suppliers every five years (starting in 2010) and support long-term resource planning to ensure that adequate water supplies are available to meet existing and future water needs while also reporting progress toward meeting the 20 percent reduction per capita goal for 2020. UWMPs for 2020 were due July 2021.

#### *Water Conservation Legislation (AB 1668 and SB 606)*

The 2018 Water Conservation Legislation (AB 1668 and SB 606) builds on the Water Conservation Act of 2009 and the long-term framework (“Making Water Conservation a California Way of Life”) developed in 2017 in response to EO B-37-16. The 2018 legislation establishes a new foundation for long-term improvements in water conservation and drought planning to adapt to climate change and the resulting longer and more intense droughts in California by amending existing law to provide expanded and new authorities and requirements to enable permanent changes and actions. This legislation applies to the actions of the Department of Water Resources (DWR), the State Water Resources Control Board (SWRCB), and water suppliers; it does not directly set any standards or rules for individual use. As a first step in implementation, DWR and SWRCB published a “primer” handbook that outlines the key authorities, requirements, timeline, roles, and responsibilities of State agencies, water suppliers, and other entities during implementation of actions described in the 2018 legislation. The handbook organized by the four goals of EO B-37-16—use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning—which guide the major areas of coverage such as regulating urban retail water use, expanding water loss reporting requirements, requiring

countywide drought planning for small water suppliers and rural communities, and increasing requirements for agricultural water use.<sup>29</sup> The handbook anticipated that the State Legislature and SWR will adopt new standards affecting water use as soon as 2020; the first of these rulemakings, the Water Loss Control performance standards (California Water Code Section 10608.34) is currently underway.

## **Regional**

### *Metropolitan Transportation Commission*

The MTC is the Metropolitan Planning Organization for the nine counties that comprise the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), which includes Marin County and the Town of Ross. The first per-capita GHG emissions reduction targets for the SFBAAB were seven percent by 2020 and 15 percent by 2035 from 2005 levels. MTC adopted an SCS as part of their RTP for the SFBAAB in 2013 known as Plan Bay Area.<sup>30</sup> On July 26, 2017, the strategic update to this plan, known as Plan Bay Area 2040, was adopted by the Association of Bay Area Governments (ABAG) and the MTC. As a limited and focused update, Plan Bay Area 2040 builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning assumptions that incorporate key economic, demographic, and financial trends since 2013.<sup>31</sup> The next update to Plan Bay Area, Plan Bay Area 2050, was adopted in October 2021. Plan Bay Area 2050 serves as a roadmap for the San Francisco Bay Area's future through 2050.<sup>32</sup> For the San Francisco Bay Area, the per capita GHG emissions reduction target applicable to Plan Bay Area 2050 is 19 percent by 2035 (i.e., emissions from vehicles and light-duty trucks compared with 2005 levels).

### *Bay Area Air Quality Management District*

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including Marin County. BAAQMD has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's GHG emissions, including long range plans (e.g., general plans, specific plans), which are outlined in *its California Environmental Quality Act: Air Quality Guidelines*

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<sup>29</sup> California Department of Water Resources and State Water Resources Control Board, Making Water conservation a California Way of Life – Primer of 2018 Legislation on Water conservation and Drought Planning, Senate Bill 606 (Hertzberg) and Assembly Bill 1668 (Friedman), November 2018, <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Make-Water-Conservation-A-California-Way-of-Life/Files/PDFs/Final-WCL-Primer.pdf?la=en&hash=B442FD7A34349FA91DA5CDEFC47134EA38ABF209>, accessed August 1, 2022.

<sup>31</sup> Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040*. Adopted July 26. Available: <http://files.mtc.ca.gov/library/pub/30060.pdf>. Accessed: August 16, 2021.

<sup>32</sup> Association of Bay Area Governments and Metropolitan Transportation Commission. 2021. *Plan Bay Area 2050: A Vision for the Future*, [https://www.planbayarea.org/sites/default/files/documents/Plan\\_Bay\\_Area\\_2050\\_October\\_2021.pdf](https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf), accessed January 3, 2022.

(CEQA Guidelines).<sup>33</sup> The CEQA Guidelines also outline methods for quantifying GHG emissions, as well as potential mitigation measures.

## **Local**

### *Town of Ross Climate Action Plan (CAP)*

The Town of Ross Climate Action Plan (CAP) was adopted in 2010 and provides natural system, energy use, transportation, land use, green purchasing, waste and water use strategies necessary to minimize Ross' impacts on climate change and meet the established greenhouse gas emission reduction target. The CAP provides natural system, energy use, transportation, land use, green purchasing, waste and water use strategies necessary to minimize Ross' impacts on climate change and meet the established greenhouse gas emission reduction target. Strategies include encouraging affordable workforce housing and a development pattern that encourages people to walk, encouraging transportation alternatives to the private automobile, increasing the use of renewable energy sources, increasing building energy efficiency, and reducing building footprints.

### *Marin Climate and Energy Partnership*

Created in 2007, the Marin Climate and Energy Partnership works to reduce greenhouse gas emissions in the eleven Marin towns and cities, the County of Marin, and three public agencies that serve Marin. The partnership helps partner members secure funding to discuss, study and implement overarching policies and programs. Programs and policies range from emission reduction strategies to adaptation strategies, which are outlined in each agency's Climate Action Plan. Partner Members also collect data and report on progress meeting local and state greenhouse gas emission targets.

### Town of Ross 2020 Greenhouse Gas Emissions Inventory

Published through the Marin Climate & Energy Partnership (MCEP), the annual community greenhouse gas (GHG) emissions inventory is a tool to monitor the Town's progress in meeting its GHG emission reduction goals.<sup>34</sup> The Town of Ross has established a local goal to reduce community emissions 15 percent below baseline (2005) emissions by 2020 and to meet the statewide goal to reduce emissions 40 percent below 1990 levels by 2030. This report reviews emissions generated from the community from 2005 through 2020, the most recent year data is available. The inventory shows that the Ross community has reduced emissions 29 percent since 2005, which is equivalent to 16 percent below 1990 levels. Emissions dropped from about 15,690 metric tons carbon dioxide equivalents (MTCO<sub>2e</sub>) in 2005 to 11,137 MTCO<sub>2e</sub> in 2020. The community emissions trend and targets are shown below. Ross needs to reduce emissions another

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<sup>33</sup> Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines*. May. Available: [https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed: August 16, 2021.

<sup>34</sup> Marin Climate & Energy Partnership. 2022. *Town of Ross Greenhouse Gas Inventory for Community Emissions for the Year 2020*. September. Available: <https://marinclimate.org/wp-content/uploads/2022/12/Ross-2020-GHG-Inventory-Report.pdf>. Accessed: January 5, 2023.

3,135 MTCO<sub>2</sub>e to meet the State target for 2030 and another 8,470 MTCO<sub>2</sub>e to meet the State mitigation target for 2050, which is 80 percent below 1990 levels.

*Town of Ross General Plan 2007-2025 (General Plan)*

The General Plan includes the following goals and policies associated with GHGs emissions reduction and energy:

**Goal 1: An Abundance of Green and Healthy Natural Systems**

**Policy 1.2: Tree Canopy Preservation.** Protect and expand the tree canopy of Ross to enhance the beauty of the natural landscape. Recognize that the tree canopy is critical to provide shade, reduce ambient temperatures, improve the uptake of carbon dioxide, prevent erosion and excess stormwater runoff, provide habitat for wildlife and birds, and protect the ecosystem of the under-story vegetation.

**Policy 1.3: Tree Maintenance and Replacement.** Assure proper tree maintenance and replacement.

**Policy 1.4: Natural Areas Retention.** Maximize the amount of land retained in its natural state. Wherever possible, residential development should be designed to preserve, protect and restore native site vegetation and habitat. In addition, where possible and appropriate, invasive vegetation should be removed.

**Goal 2: Sustainable Building and Community Practices**

**Policy 2.1: Sustainable Practices.** Support measures to reduce resource consumption and improve energy efficiency through all elements of the Ross General Plan and Town regulations and practices, including:

- a. Require large houses to limit the energy usage to that of a more moderately sized house as established in design guidelines.
- b. Encourage affordable workforce housing (see Housing Element) and a development pattern that encourages people to walk.
- c. Preserve uses in the commercial area of the town that serve local residents and reduce the need to drive to other areas.
- d. Choose the most sustainable portion of a site for development and leaving more of a site in its natural condition to reduce land impacts on the natural environment.
- e. Use green materials and resources.
- f. Conserve water, especially in landscaping.
- g. Encourage transportation alternatives to the private automobile.

**Policy 2.2: Incorporation of Resource Conservation Measures.** To the extent consistent with other design considerations, public and private projects should be designed to be efficient and innovative in their use of materials, site construction, and water irrigation

standards for new landscaping to minimize resource consumption, including energy and water.

**Goal 7: Safe, Connected and Well-Maintained Streets, Pedestrian and Bicycle Routes**

**Policy 7.7: Transit and Carpools.** Encourage carpooling and transit use, including handicapped-accessible transit service, commuter service and local service.

**Policy 7.8 Bicycle and Pedestrian Travel.** Encourage travel via bicycle and walking by providing and maintaining safe pedestrian and bicycle routes along main arteries in Ross. Consider links with Town destinations, surrounding area destinations and regional trails and bicycle systems. Participate in the Safe Routes to Schools Program.

*Town of Ross Municipal Code (Town Code)*

Section 10.56.050 of the Town Code establishes trip reduction requirements for employers within the Town of Ross with one hundred or more employees at an individual work site. Intended to reduce roadway congestion, these requirements can also assist with GHG emissions reductions targets, and stipulate that qualifying employers shall appoint a designated employee to “disseminate trip reduction information regarding transportation alternatives including carpools, vanpools, transit and bicycling, and other methods of reducing trips such as telecommuting, compressed workweek and flexible work hours” to employees.



## **Impact Analysis**

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For the purposes of this EIR, a significant impact would occur if the Proposed Project would:

**Criterion 1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or**

**Criterion 2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.**

### **APPLICABILITY OF AVAILABLE THRESHOLDS**

CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of environmental impacts pertaining to GHG emissions. CEQA Guidelines Section 15064.4(a) states that a lead agency should make a good-faith effort that is based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions that would result from implementation of a project. CEQA Guidelines Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider 1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, 2) whether the project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and 3) the extent to which the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The California Supreme Court's decision in *Center for Biological Diversity v. Department of Fish and Wildlife* (62 Cal.4th 204) confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA. Several air quality management agencies throughout the state have also drafted or adopted varying threshold approaches and guidelines for analyzing GHG emissions in CEQA documents. Common threshold approaches include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs.

The following sections discuss the threshold approaches recommended by the Courts and supported by CEQA and analyze their applicability to the Proposed Project.

#### *Compliance with a Qualified GHG Reduction Strategy*

OPR acknowledges that the State legislature encourages lead agencies to tier or streamline their environmental documents whenever feasible, and that GHG emissions may be best analyzed and mitigated at the programmatic level. A qualified plan may be used in the cumulative impact analysis for later projects when the analysis "identifies those requirements specified in the plan that apply to the project." For a GHG reduction plan to be considered a qualified plan, it must meet certain criteria established under CEQA Guidelines Sections 15183.5 (b) and 15064.4, also specified above. Consequently, if a project is consistent with a local CAP that was created to meet that area's fair share reductions towards the AB 32 GHG target for 2020, then the project would be considered consistent with statewide GHG reduction goals for 2020. In addition, if a CAP was adopted that was consistent with the State's overall goals for post-2020, including the downward trajectory as

clarified in SB 32 and EO S-03-05, and a project is consistent with that CAP, it would be considered consistent with the State's post-2020 GHG emission strategy. Section 15183.5 also specifies that the project's CEQA analysis "must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project."

As discussed under the Regulatory Setting, the Town of Ross adopted a CAP in 2010 to meet 2020 targets. It has not been updated to address emissions beyond 2020; therefore, tiering per CEQA Guidelines Section 15183.5 is not an applicable option to assess the Proposed Project's GHG impacts.

### *Performance-Based Reductions*

Performance-based thresholds are based on a percentage reduction from a projected future condition; for example, reducing future business-as-usual (BAU) emissions by the AB 32 target of 29 percent (below 2020 BAU levels) through a combination of State measures, project design features (e.g., renewable energy), or mitigation. The BAAQMD recommends a 26 percent reduction from 2020 BAU levels to meet the AB 32 target.

Based on the court's reasoning in the Newhall Ranch decision, relating a given project to the achievement of State reduction targets may require adjustments to CARB's statewide BAU model to not only isolate new development emissions, but also to consider unique geographic conditions and operational characteristics that may affect the performance of reduction measures in certain locations. To date, this type of adjustment to the statewide BAU target has not been performed and, therefore, is not appropriate for the Proposed Project's analysis. The primary value of a performance-based target, as indicated in the Newhall Ranch decision, is that it can provide a scenario by which to evaluate the effectiveness of a project's reduction efficiency relative to an unmitigated condition. As such, future year targets can be used to benchmark performance, using either statewide or regional emission targets, to determine a project's fair share of mitigation.

### *Numeric Bright-Line Thresholds*

Numerical bright-line thresholds identify the point at which additional analysis and mitigation of project-related GHG emission impacts is necessary. BAAQMD has not developed bright-line thresholds for construction but has for the operation of land use development projects (1,100 MTCO<sub>2</sub>e/year) and stationary-source (10,000 MTCO<sub>2</sub>e/year) projects.

The land use development threshold is based on a gap analysis, and ties back to the State's AB 32 reduction target (1990 levels by 2020). Given that the Proposed Project is a programmatic plan rather than a development project and because the buildout year for the Proposed Project is 2031, use of BAAQMD's numeric-bright line land use development threshold tailored to 2020 reduction targets would not be appropriate for the Proposed Project's analysis. Moreover, information about specific emissions levels for the Planning Area is not available and cannot be feasibly determined.

The stationary-source threshold is derived from the California Air Pollution Control Officers Association's (CAPCOA's) capture rate analysis of required reductions needed to meet EO S-3-05, which indicates that in order to reach the 2050 milestone, future BAU emissions will need to be

reduced by 90 percent. The Proposed Project does not propose stationary sources, and specific information for individual development projects that would be allowed by the Proposed Project is not available at this time. As such, the stationary-source project threshold is not appropriate, and potential impacts related to stationary sources are discussed qualitatively.

BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the emission reduction goals. BAAQMD further recommends incorporation of BMPs to reduce GHG emissions during construction, as feasible and applicable. However, because the Proposed Project is a programmatic land use plan and does not propose individual developments for which the specific location and timing of construction is known, construction emissions resulting from the Proposed Project cannot be reliably quantified. As such, emissions due to construction are evaluated qualitatively.

#### *Efficiency-Based Thresholds*

Another type of quantitative threshold is an efficiency-based threshold. Efficiency-based thresholds represent the GHG efficiency needed for development to achieve California's GHG emissions targets. Although the Newhall Ranch decision did not specifically recommend the efficiency-based approach, the ruling did note that numerical threshold approaches may be appropriate for determining significance of GHG emissions and to emphasize the consideration of GHG efficiency. Efficiency-based thresholds allow lead agencies to compare projects of various types, sizes, and locations equally, and determine whether a project is consistent with the State's reduction goals. Efficiency-based thresholds for a residential project can be expressed on a per-capita basis (such as the Proposed Project), for an office project on a per-employee basis, or for a mixed-use project on a per service population (the sum of jobs and residents) basis.

As indicated by the 2017 Scoping Plan, CARB recommends statewide efficiency targets of no more than 6.0 MTCO<sub>2</sub>e per capita by 2030 and no more than 2.0 MTCO<sub>2</sub>e per capita by 2050. These targets were derived based on total statewide emissions from all emission categories (including emissions from stationary and industrial sources) and the reductions needed to achieve California's 2030 statewide target under SB 32 and the longer-term EO S-3-05 reduction goal of 80 percent below 1990 levels by 2050.

Because CARB's per capita efficiency targets are based on statewide emissions, they represent an average efficiency that does not specifically consider the unique geographic and project-specific features that could influence emissions reductions achieved by the Proposed Project. The targets are also based on an inventory of GHG emissions from existing and future development through 2050, and therefore do not isolate the required emissions reductions from new development that are needed to meet State goals. Tailoring CARB's per capita targets to local project conditions is not possible with the available data published in either the 2017 Scoping Plan or Draft 2022 Scoping Plan. However, given the absence of another viable means (i.e., percent reductions from 1990 levels) to quantitatively evaluate the Proposed Project's contribution to statewide GHG emissions reductions goals, the statewide efficiency metric is used in this analysis as a comparative threshold of significance.

### *Compliance with Regulatory Programs*

A lead agency could rely on regulatory compliance to show a less-than-significant GHG impact if a project complies with or exceeds those programs adopted by CARB or other State agencies. However, such analysis is only applicable within the area governed by the regulations. For example, consistency with regulations addressing building efficiency would not suffice to determine that a project would not have significant GHG emissions from transportation.

The Newhall Ranch decision specifically mentions consistency with both the SCS (per SB 375) and AB 32 as potential mechanisms for evaluating significance. A lead agency could assess project-level consistency with AB 32 in whole or part by evaluating whether a project complies with applicable policies in the AB 32 Scoping Plan. The AB 32 Scoping Plan does not consider deeper reductions needed to meet the State's 2030 target under SB 32. Accordingly, exclusively relying on consistency with the AB 32 Scoping Plan and related programs to evaluate emissions generated by land use development projects constructed after 2020 would not fully consider a project's potential GHG impacts to the State's long-term reduction trajectory.

More recent guidance on GHG reduction strategies and thresholds for operational emissions has been provided at the state level through the 2017 and 2022 Scoping Plans, OPR, and CARB. The 2017 Scoping Plan outlines GHG reduction strategies by emission sector (water, transportation, and energy) required to meet the State's 2030 target under SB 32. OPR guidance specifies that a "land use development project that produces low VMT, achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." Further, CARB guidance specifies per capita VMT reduction targets that would be needed statewide to meet long-term (2050) mobile-source GHG reduction targets, considering increased vehicle efficiency and reduced carbon content in vehicle fuels. The 2022 Scoping Plan affirms the State's intentions to achieve carbon neutrality by 2045, as outlined by EO B-55-18, representing a more aggressive target than the 80 percent reductions below 1990 levels by 2050 used in the 2017 Scoping Plan.

To the extent the Proposed Project's policies are applicable to GHGs and comply with or exceed the regulations outlined in the 2017 and 2022 Scoping Plans and adopted by CARB or other State agencies, the Proposed Project could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill the statewide goal for reducing GHG emissions. The Proposed Project's compliance with regulatory programs adopted by CARB and other State agencies is therefore used to evaluate the significance of the Proposed Project's GHG emissions. While the regulatory framework to achieve long-term (post-2030) emissions reductions is in its infancy, many of the programs outlined in the 2017 and 2022 Scoping Plans are likely to be carried forward or have already been adopted with post-2030 requirements (e.g., RPS). Accordingly, evaluating consistency with these programs and relevant guidance published by OPR and CARB for the reduction of long-term emissions is therefore also considered in the analysis of the Proposed Project's emissions.

## **QUANTIFICATION OF EMISSIONS AND ENERGY USE**

GHG and energy impacts associated with construction and operation of the Proposed Project were assessed and quantified (where applicable) using standard and accepted software tools, methodologies, and emission factors. A full list of assumptions can be found in Appendix D: GHG Data.

As discussed in Chapter 2: Project Description, the Proposed Project would facilitate development of up to 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. This amount of development would result in approximately 355 new residents.

### *Construction*

Housing units that would be developed under the Proposed Project would require energy and generate construction-related GHG emissions from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Construction activities may also require additional electricity consumption or result in tree removal, which would correspond with a loss of pollutant and GHG sequestration potential as well as other long-term ecological benefits. With an anticipated buildout year of 2031, development of the various land uses associated with the Proposed Plan would occur over an extended period and would depend on factors such as local economic conditions, market demand, and other financing considerations. However, the specific size, location, and construction techniques and scheduling that would be utilized for each individual development project occurring within the Planning Area from implementation of the Proposed Project is not currently known. Without specific project-level details (e.g., size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities), it is not possible to develop a refined construction inventory, and the determination of construction emission and energy use impacts associated with GHGs and energy resources for each individual development project, or a combination of these projects, would be speculative regarding such potential future project-level environmental impacts. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Proposed Project is conducted qualitatively in this Draft EIR and assessed against applicable BAAQMD criteria.

### *Operations*

Operation of the land uses introduced by the Proposed Project would require energy (electricity and natural gas) consumption and generate long-term emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. GHG emissions are expected during operation of the land uses associated with the Project from area, energy, mobile, waste, and water sources. Area sources include landscaping activities. Energy sources include electricity consumption and natural gas combustion for lighting and heating requirements. Mobile sources are vehicle trips that are generated by the service population associated with the Proposed Project. Waste sources refer to CH<sub>4</sub> and N<sub>2</sub>O from the decomposition of waste generated from the new land use developments in the Planning Area. Water sources include electricity consumption for the supply, treatment, and distribution of water for the new land uses.

Long-term (i.e., operational) GHG emissions were quantified for the Proposed Project using California Emissions Estimator Model (CalEEMod), version 2020.4.0. Although CAPCOA has released a newer version of CalEEMod in May 2022, this “Beta” version is still under development and is not currently capable of producing reliable results for the Proposed Project.

Like area sources, energy, waste, and water emissions were modeled according to the amount (i.e., commercial/industrial square footage or number of dwelling units) and type of land uses proposed. Energy sources account for emissions associated with the combustion of natural gas for building heating and hot water, apart from natural gas and wood hearths, which are prohibited in the air basin per BAAQMD Regulation 6, Rule 3. Quantification of energy use (i.e., gasoline and diesel fuel) additionally accounts for the daily vehicle trips generated by the Proposed Project. Waste and water directly relate to the scale of the land use inputs.

Stationary sources such as emergency generators and boilers that would be developed for each individual development project, or a combination of these projects, would be subject to the permitting requirements by the BAAQMD. These are not included in modeled emissions because details of future projects and their stationary sources cannot be known at this time.

In accordance with the traffic data analysis provided by the Proposed Project’s traffic engineers, Fehr and Peers, emissions were quantified for existing 2019 conditions based on land uses and traffic data. Full detail about modeling inputs is provided in Appendix D. Future-year 2040 conditions were quantified for the Proposed Project based on anticipated land uses and modeled in conjunction with traffic data. As noted above, construction and stationary sources are not modeled. The effect of vegetated open space in the Planning Area is also excluded from quantified emissions but is noted in qualitative discussion.

## **RELEVANT PROPOSED GOALS AND POLICIES**

The following goals and policies of the Proposed Project are relevant to potential GHG impacts.

Policy 3.2 **High Potential Housing Opportunity Areas and Programs.** Given the diminishing availability of developable land, the Town will continue to identify housing opportunity sites and specific program actions to provide affordable workforce and special needs housing. The Town will use the following criteria in selecting Housing Opportunity areas, sites or locations for program actions:

- a) Adequate vehicular and pedestrian access.
- b) Convenient access to public transportation as needed by the prospective residents.
- c) Convenient access to neighborhood services and facilities as needed by the prospective residents.
- d) Convenient access to neighborhood recreation facilities, or designed to provide adequate recreation facilities on site.
- e) Cost effective mitigation of physical site constraints (including geologic hazards, flooding, drainage, soils constraints, etc.).
- f) Cost effective provision of adequate services and utilities to the site.
- g) Ability to meet applicable noise requirements.

- h) Appropriate site size to provide adequate parking; parking requirements should be flexible and based on the needs of the project's prospective residents.
- i) Finding that development of a specific project on the site will not result in significant adverse cumulative effects, unless the Town adopts a statement of overriding considerations.

Policy 3.3 **Housing Opportunities in the Commercial District.** Well-designed mixed-use residential/non-residential developments in the Commercial District are highly encouraged by the Town. The Town will encourage and facilitate a variety of housing types in the Commercial District, including mixed-use development and single-room occupancy units.

## IMPACTS

**Impact 3.4-1            Development under the Proposed Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (*Less than Significant with Mitigation*)**

### *Construction*

Construction associated with new land use developments under the Proposed Project would result in the temporary generation of GHG emissions within the Planning Area. Emissions would originate from mobile and stationary construction equipment, worker and haul truck trips traveling to and from project sites, and electricity consumption. Construction-related GHG emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

By its nature as a specific plan, the Proposed Project does not propose any specific development except those projects currently under environmental review or approved, but not yet constructed. Construction of land use developments allowable under the Proposed Project would occur intermittently within the Planning Area throughout the course of the eight-year buildout period. As the timing and intensity of future development projects is not known at this time, the precise effects of construction activities associated with buildout of the Proposed Project cannot be quantified at this time. Project-specific details of future development within the Planning Area are currently unknown because development would be driven by market conditions, site constraints, land availability, and property owner interest. It is assumed that implementation of the Proposed Project ultimately could result in the development of up to 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. As such, it is anticipated that in any given year, multiple land use development projects will be constructed within the Planning Area.

As noted previously, BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, the air district recommends evaluating whether construction activities would conflict with statewide emission reduction goals and implement feasible BMPs. Therefore, construction-related GHG emissions from the Proposed Project would

be required to comply with **Mitigation Measure GHG-1** which would reduce construction emissions consistent with BAAQMD guidance and statewide emission reduction goals. In accordance with California's Green Building Standards Code (CALGreen), the Town of Ross currently requires construction and demolition projects to recycle at least 65 percent of the local construction and demolition debris generated by a project. Project applicants must submit a Waste Management Plan to the Town and update the Town with all recycling and disposal receipts at least every 30 days. **Mitigation Measure GHG-1** would build on this policy to require compliance with other BAAQMD best management practices for building with local material and using alternative-fueled construction vehicles. Accordingly, this impact would be less than significant with the incorporation of mitigation.

### *Operation*

Operation of land uses supported by the Proposed Project would generate direct and indirect GHG emissions. Sources of direct emissions include mobile vehicle trips, natural gas combustion, and landscaping activities. Indirect emissions would be generated by electricity generation and consumption, waste and wastewater generation, solid waste, and water use. Operational emissions for existing baseline and 2040 future conditions are summarized in Table 3.4-3. The modeled emissions for the Proposed Project are a conservative estimate of the Proposed Project's impact on GHGs. While the Proposed Project would achieve additional GHG reductions through voluntary sustainability features, such as VMT reduction measures, the quantified reductions in GHGs from these strategies are currently unknown.

As shown in Table 3.4-3, operational emissions generated by the Project would still result in a net increase in annual emissions of 647 MTCO<sub>2</sub>e compared to existing conditions. As seen in Table 3.4-3, there is a substantial increase in emissions from energy sources due to greater natural gas and electricity consumption, and a slight increase in emissions from area, mobile, waste, and water sources. These increases reflect the increase from existing conditions in population and number of housing units enabled by the Proposed Project.



**Table 3.4-3: Estimated Proposed Project Operational GHG Emissions**

<i>Condition</i>	<i>Source</i>	<i>Annual GHG Emissions (MTCO<sub>2</sub>e/year)<sup>a</sup></i>
<b>Existing</b>	Area	257
	Energy	8,289
	Mobile	1,050
	Waste	2,699
	Water	564
	<b>Total</b>	<b>12,859</b>
<b>Proposed Project</b>	Area	275
	Energy	8,698
	Mobile	1,162
	Waste	2,787
	Water	584
	<b>Total</b>	<b>13,506</b>
	<b>Net Change from Existing</b>	<b>+647</b>

Notes:

MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalents

SF = square feet

<sup>a</sup> Values may not add up to the totals shown due to rounding.

Source: See Appendix D for modeling files.

Table 3.4-4 compares the annual GHG emissions efficiency metrics achieved under the Proposed Project in comparison to the GHG emissions efficiency metrics established by CARB. In line with SB 32, CARB recommends an efficiency metric of no more than 6.0 MTCO<sub>2</sub>e per capita by 2030 and 2.0 MTCO<sub>2</sub>e per capita by 2050. As seen in Table 3.4-4, future conditions under the Proposed Project in 2040 would result in 4.7 MTCO<sub>2</sub>e per capita per year, which is below the 2030 threshold but still exceeds the 2050 threshold.

**Table 3.4-4: Comparison of GHG Emissions Efficiency Metrics**

<i>Source</i>	<i>Efficiency Metric (MTCO<sub>2e</sub>) per capita</i>
State Target 2030 <sup>1</sup>	6.0
State Target 2050 <sup>2</sup>	2.0
Existing <sup>3</sup>	5.0
Proposed Project <sup>4</sup>	4.7
<b>Less than target/threshold?</b>	<b>Yes, but only for 2030</b>

Notes:

MTCO<sub>2e</sub> = metric tons of carbon dioxide equivalents

<sup>1</sup> Based on the 2030 target established in the 2017 Scoping Plan.

<sup>2</sup> Based on the 2050 target established in the 2022 Scoping Plan.

<sup>3</sup> Value calculated from dividing total GHG emissions of the existing conditions by the existing 2019 population of 2,549 residents.

<sup>4</sup> Value calculated from dividing total GHG emissions of the Proposed Project by the population after buildout of the Proposed Project (existing 2019 population plus an anticipated 355 residents).

Source: California Air Resources Board, 2022; Dyett & Bhatia, 2023.

It is noted that the Proposed Project has a horizon year of 2031, which is well before the 2050 target used to determine the State-recommended efficiency metric of 2.0 MTCO<sub>2e</sub> per capita. Considering the State’s goal to achieve carbon neutrality by 2045, reducing GHG emissions to achieve the 2050 threshold will be a coordinated statewide effort involving multiple sectors and factors outside of the Proposed Project’s scope and buildout timeframe. However, the Proposed Project would achieve a net per capita reduction in GHG emissions over existing conditions and the State’s 2030 efficiency metric of 6.0 MTCO<sub>2e</sub> per capita, which shows a decline consistent with the State’s GHG reduction objectives.

Thus, given that the Proposed Project would achieve a net reduction in per capita emissions and meet the 2030 CARB-recommended threshold for reducing GHG emissions, this impact is considered less than significant.

### *Mitigation Measures*

**MM-GHG-1: Require Implementation of BAAQMD-recommended BMPs.** All applicants within the Planning Area shall require their contractors, as a condition of contract, to reduce construction-related GHG emissions by implementing BAAQMD’s recommended best management practices, including (but not limited to) the following measures (based on BAAQMD’s CEQA Guidelines):

- Ensure alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment make up at least 15 percent of the fleet.
- Use local building materials of at least 10 percent (sourced from within 100 miles of the Planning Area).

*Significance After Mitigation: Less than Significant*

**Impact 3.4-2            Development under the Proposed Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (Construction: Less than Significant with Mitigation Incorporated; Operations: Significant and Unavoidable)**

*AB 32, SB 32, EO-S-3-05, and EO B-55-18*

AB 32 and SB 32 outline the State’s GHG emissions reduction targets for 2020 and 2030, respectively. While not legislatively adopted, EO S-03-05 establishes the State’s long-term goal to reduce GHG emissions 80 percent from 1990 levels by 2050. EO B-55-18 sets a more ambitious State goal of net zero GHG emissions by 2045.

In 2008 and 2014, CARB adopted the Scoping Plan and First Update, respectively, as a framework for achieving AB 32. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. CARB adopted the Climate Change Scoping Plan in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. In addition, CARB’s 2022 Scoping Plan for Achieving Carbon Neutrality was adopted in November and extends and expands upon these earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045.

CARB’s 2022 Scoping Plan identifies a technologically feasible and cost-effective path to achieve carbon neutrality by 2045 while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan. The 2022 Scoping Plan reinforces that meeting these targets will require effective State regulations, including Cap-and-Trade, the requirement for increased renewable energy sources in California’s energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The 2022 Scoping Plan indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes pertaining to sources of electricity and increased energy efficiency at existing facilities, and State and local plans, policies, or regulations that will lower GHG emissions relative to business-as-usual conditions. The 2022 Scoping Plan carries forward GHG reduction measures from previous plans, as well as new potential measures to help achieve the State’s 2030 and 2045 targets across all sectors of the California economy, including transportation, energy, and industry.

*Construction*

Construction activities for future development within the Planning Area would result in the temporary generation of GHG emissions. Emissions would originate from the exhaust of both mobile and stationary construction equipment as well as exhaust from employees’ vehicles and haul trucks, and electricity. Construction-related GHG emissions from each specific source would vary substantially, depending on the level of activity, length of the construction period for each development, specific construction operations, types of equipment, and number of personnel.

GHG emissions generated by the construction activities would be short term and would cease once construction is complete.

As described above, BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals, based on whether feasible BMPs for reducing GHG emissions would be implemented. If a project fails to implement feasible BMPs identified by BAAQMD, its GHG emissions could conflict with statewide emission goals and represent a cumulatively considerable contribution to climate change, which would be a potentially significant impact. Construction-related GHG emissions from the Proposed Project would be required to comply with **Mitigation Measure GHG-1**, which would reduce construction emissions consistent with BAAQMD guidance and statewide emission reduction goals. Implementation of **Mitigation Measure GHG-1** would require future development projects to implement BAAQMD-recommended BMPs which would reduce the level of GHGs associated with construction of the future projects and avoid any conflict with statewide GHG reduction goals, thereby reducing this impact to less than significant with mitigation.

### *Operations*

As discussed in Impact 3.4-1, emissions from area and energy sources would conflict with the 2017 Scoping Plan, since the Proposed Project does not include prohibition on all sources of natural gas use in new residential development. Thus, future development associated with the Proposed Project's would continue to use natural gas for building heating and cooking, appliances, and fireplaces, and gasoline or other fossil fuels in landscaping equipment prior to and beyond 2030. However, development associated with the Proposed Project would be required to comply with **Mitigation Measure GHG-2**, which would reduce operational emissions from area and energy sources through prohibiting permanent natural gas infrastructure, thereby reducing this impact to less than significant with mitigation.

Additionally, as discussed in Chapter 3.6, Transportation, the Proposed Project would not achieve the 15 percent VMT per capita reduction target under buildout conditions. Based on information in Chapter 3.6, Transportation, implementation of VMT reduction strategies would not be adequate to reduce the impact to a less-than-significant level. Therefore, the Proposed Project's mobile-source GHG emissions would conflict with SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2022 Scoping Plan, operation of the Proposed Project would conflict with the statewide GHG target for 2030 mandated by SB 32. Overall, the Proposed Project would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, however, GHG emissions from mobile sources would conflict with goals of SB 743, therefore, the Proposed Project would have a significant and unavoidable impact.

### *SB 375 and Plan Bay Area*

Environment and transportation are two of four elements that are the focus of MTC's Plan Bay Area 2050. Plan Bay Area 2050 is the MTC's regional transportation plan and provides a long-range framework to minimize transportation impacts on the environment, improve regional air quality, protect natural resources, and reduce GHG emissions. The plan promotes infill development, and

proactively links land use, air quality, and transportation needs in the region. Plan Bay Area is consistent with SB 375, which requires MTC to adopt an SCS that outlines policies to reduce per service population GHG emissions from automobiles and light trucks. As noted in the Regulatory Setting, for the San Francisco Bay Area, the per capita GHG emissions reduction target for automobiles and light trucks is 19 percent by 2035, relative to 2005 emissions. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use design, alternative transportation, transit, mobility and access, network expansion, and transportation investment.

Implementation of the SCS is intended to improve the efficiency of the transportation system and achieve a variety of land use types throughout the Bay Area that meet market demands in a balanced and sustainable manner. The Proposed Project's guiding principles are built around the concept of creating a community that promotes sustainability and self-sufficiency for residents, workers, and visitors. Implementation of the Proposed Project would result in the development of 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. Thus, mixed-use development would be promoted through the location of the proposed housing sites.

The Proposed Project would allow development that helps accommodate forecasted growth within the Planning Area. Consistent with MTC goals, the Proposed Project encourages higher-density and infill developments where appropriate, connectivity between neighborhoods, and walkable design that compliments the existing natural and built environment to reduce VMT. The Proposed Project further provides the policy framework to guide future development toward land uses that support walking, and biking (policies 3.2 and 3.3).

These policies would support alternative modes of travel within the Planning Area, which could help reduce per service population GHG emissions from passenger vehicles consistent with Plan Bay Area. Thus, the Proposed Project would be consistent with the goals of SB 375 and Plan Bay Area, and this impact would be less than significant.

#### *Consistency with Other State Regulations*

As discussed above, systemic changes will be required at the state level to achieve California's future GHG reduction goals. Regulations, such as future amendments to the Low Carbon Fuel Standard (LCFS) and future updates to the State's Title 24 standards and implementation of the State's SLCP Reduction Strategy, including forthcoming regulations for composting and organics diversion, will be necessary to attain the magnitude of reductions required for the State's goals. The Proposed Project would be required to comply with these regulations in new construction (in the case of updated Title 24 standards) or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent RPS). Thus, for the foreseeable future, the Proposed Project would not conflict with any other State-level regulations pertaining to GHGs in the post-2020 era and this impact would be less than significant.

#### *Mitigation Measures*

Implementation of **Mitigation Measure GHG-1** would require future development projects to implement BAAQMD-recommended BMPs which would reduce the level of GHGs associated with

construction of the future projects and avoid any conflict with statewide GHG reduction goals, thereby reducing this impact to less than significant with mitigation. Further, implementation of **Mitigation Measure GHG-2** would prohibit new development projects from building permanent natural gas infrastructure, thereby reducing conflicts with the 2017 Scoping Plan to a less-than-significant level. However, GHG emissions from mobile sources would conflict with the goals of SB 743. Overall, the Proposed Project would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, but emissions from mobile sources could result in plan conflicts. Therefore, the Proposed Project would result in a significant and unavoidable impact related to GHG plan/policy consistency.

**MM-GHG-1: Require Implementation of BAAQMD-recommended BMPs.**

**MM-GHG-2: Prohibit Natural Gas Plumbing and Appliances in New Housing Sites.** All applicants within the Planning Area shall require their contractors, as a condition of contract, to reduce operation-related natural gas emissions. Development shall include provision(s) that prohibit natural gas plumbing and the use of natural gas appliances such as cook tops, water heaters, and space heaters in all new housing site developments unless the applicant can show an all-electric building design is not feasible due to specific economic, technical, logistical, or other factors associated with the development site.

*Significance After Mitigation:* Significant and Unavoidable

## 3.5 Noise

This section assesses potential environmental impacts related to noise from future development under the Proposed Project, including those associated with noise standards, groundborne vibration, ambient noise levels, and airport noise. The section describes the characteristics, measurement, and physiological effects of noise and existing sources of noise in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were no responses to the Notice of Preparation (NOP) regarding topics covered in this section.

## Environmental Setting

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### PHYSICAL SETTING

#### Noise

##### *Noise Characteristics and Measurement*

Because of the technical nature of noise and vibration impacts, a brief overview of basic noise principles and descriptors is provided below.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A weighted decibels (dBA), which is typically applied to community noise measurements. Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in Table 3.5-1.

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which together constitute a relatively stable background noise exposure, with many of the individual contributors being unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding to the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.



**Table 3.5-1: Typical Noise Levels in the Environment**

<i>Source of Noise</i>	<i>A-Weighted Sound Pressure Level in Decibels</i>
Civil Defense Siren (100 feet in distance between source and listener)	130
Jet Takeoff (200 feet in distance between source and listener)	129
Riveting Machine	115
Rock Music Band	110
Piledriver (50 feet in distance between source and listener)	105
Ambulance Siren (100 feet in distance between source and listener)	100
Boiler Room	90
Printing Press Plant	89
Freight Cars (50 feet in distance between source and listener)	88
Garbage Disposal in the Home	85
Pneumatic Drill (50 feet in distance between source and listener)	80
Inside Sports Car: 50 mph	79
Vacuum Cleaner (10 feet in distance between source and listener)	69
Data Processing Center	65
Department Store	61
Speech (1 foot in distance between source and listener)	60
Auto Traffic near Freeway	58
Typical Minimum Daytime Levels – Residential Areas	55
Private Business Office	52
Large Transformer (200 feet in distance between source and listener)	49
Light Traffic (100 feet in distance between source and listener)	48
Average Residence	42
Typical Minimum Nighttime Levels – Residential Areas	41
Soft Whisper	30
Rustling Leaves	21
Recording Studio	20
Mosquito	10

Notes:

1. 10 decibels is the Threshold of Hearing
2. 120 decibels is the Threshold of Pain

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize an existing community noise environment. The following noise

descriptors are used to characterize environmental noise levels over time, which are applicable to the Project.

- $L_{eq}$ : The equivalent sound level over a specified period of time, typically, one hour ( $L_{eq}$ ). The  $L_{eq}$  may also be referred to as the average sound level.
- $L_{max}$ : The maximum, instantaneous noise level experienced during a given period of time.
- $L_{min}$ : The minimum, instantaneous noise level experienced during a given period of time.
- $L_x$ : The noise level exceeded a percentage of a specified time period. For instance,  $L_{50}$  and  $L_{90}$  represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- $L_{dn}$ : The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for nighttime noise sensitivity. The  $L_{dn}$  is also termed the day-night average noise level (DNL).
- CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

### *Physiological Effects of Noise*

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

1. Subjective effects (e.g., dissatisfaction, annoyance)
2. Interference effects (e.g., communication, sleep, and learning interference)
3. Physiological effects (e.g., startle response)
4. Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep (Caltrans, 2013a).

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of

annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans, 2013a):

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as a doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source (Caltrans, 2013a).

### *Noise Attenuation*

When noise propagates over a distance, the noise level reduces with distance at a rate that depends on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as "spherical spreading." Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between six dBA for acoustically "hard" sites and 7.5 dBA for "soft" sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, increase the ground attenuation value by 1.5 dBA (per doubling distance) (Caltrans, 2013a).

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as “line” sources, which approximate the effect of several point sources. Noise from a line source propagates over a cylindrical surface, often referred to as “cylindrical spreading.” Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 2013a). Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels (Caltrans, 2013a).

### *Noise-Sensitive Receptors*

Many land uses are considered sensitive to noise. Noise-sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise, such as residential dwellings, transient lodging, dormitories, hospitals, educational facilities, and libraries. Industrial and commercial land uses are generally not considered sensitive to noise. Special Status species and their habitat may also be considered noise sensitive. Existing noise-sensitive receptors within the Planning Area include single- and multi-family residential housing, schools, and parks, and the Jose Moya del Pino Library.

### *Existing Noise Conditions and Sources*

The predominant source of noise in the Planning Area, as in most communities, is motor vehicles on roadways. Motor vehicle noise is of concern because it is characterized by a high number of individual events, which often create a sustained noise level, and because of its proximity to noise-sensitive uses. Roadways with the highest traffic volumes and speeds produce the highest noise levels. Sir Francis Drake Boulevard, which bisects the Town of Ross, is the major east-west arterial from West Marin to Highway 101 and is the predominant source of motor vehicle noise in the Planning Area.

The Planning Area does not have major stationary sources of noise, such as large factories. While there are no industrial plants or factories that significantly affect noise levels in the Planning Area, construction, heating and cooling equipment, truck loading, and recreational activities contribute to the Planning Area’s overall noise environment.

## **Ground Vibration**

### *Characterization and Measurement*

While sound is the transmission of energy through the air, groundborne vibration is the transmission of energy through the ground or other solid medium and is perceived by humans as motion (of the ground, floor, or building). Vibrations can also generate noise by transmitting energy through the air.

Groundborne vibration can be quantified in two main ways. One commonly used descriptor is PPV, or Peak Particle Velocity. As seismic waves travel outward from a vibration source, they cause rock and soil particles to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV). This type of vibration will be discussed in more detail below under Construction Vibration.

Groundborne vibration can also be quantified by the root-mean-square (RMS) velocity amplitudes, which can be useful for assessing human annoyance. The RMS amplitude is expressed in terms of the velocity level in decibel units (VdB). The background vibration velocity level in residential areas is usually around 50 VdB or lower. The vibration velocity level threshold of perception for humans is approximately 65 VdB. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

Table 3.5-2 summarizes the typical groundborne vibration velocity levels and average human response to vibration that may be anticipated when a person is at rest in quiet surroundings. If the person is engaged in any type of physical activity, vibration tolerance increases considerably. The duration of the event has an effect on human response, as does its daily frequency of occurrence. Generally, as the duration and frequency of occurrence increase, the potential for adverse human response increases.

Groundborne noise is a secondary component of groundborne vibration. When a building structure vibrates, noise is radiated into the interior of the building. Typically, this is a low-frequency sound that can be perceived as a low rumble. The magnitude of the sound depends on the frequency characteristic of the vibration and the manner in which the room surfaces in the building radiate sound. Groundborne noise is quantified by the A-weighted sound level inside the building. The sound level accompanying vibration is generally 25 to 40 dBA lower than the vibration velocity level in VdB. Groundborne vibration levels of 65 VdB can result in groundborne noise levels of up to 40 dBA, which can disturb sleep. Groundborne vibration levels of 85 VdB can result in groundborne noise levels of up to 60 dBA, which can be annoying to daytime noise-sensitive land uses such as schools (Federal Transit Administration, 2006).

### *Construction Vibration*

As described above, vibration resulting from the operation of heavy construction equipment is often reported in PPV, which is the rate or velocity, in inches per second, at which rock and soil particles oscillate as seismic waves travel outward from a vibration source.

The operation of heavy construction equipment, particularly pile driving equipment and other impact devices (e.g., pavement breakers), creates seismic waves that radiate along the surface of and downward into the ground. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Variations in geology and distance result in different vibration levels containing

different frequencies and displacements. In all cases, vibration amplitudes decrease with increasing distance.

**Table 3.5-2: Typical Levels of Groundborne Vibration**

<i>Human or Structural Response</i>	<i>Vibration Velocity Level (VdB)</i>	<i>Typical Sources (50 feet from source)</i>
Threshold for minor cosmetic damage to fragile buildings	—100—	Blasting from construction project  Bulldozer or heavy-tracked construction equipment
Difficulty in reading computer screen	—90—	Upper range of commuter rail
Threshold for residential annoyance for occasional events (e.g., commuter rail)	—80—	Upper range of rapid transit
Threshold for residential annoyance for frequent events (e.g., rapid transit)	—70—	Typical commuter rail Bus or truck over bump
Approximate threshold for human perception of vibration; limit for vibration-sensitive equipment	—60—	Typical rapid transit Typical bus or truck on public road
	—50—	Typical background vibration

Source: Federal Transit Administration, 2006.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil or rock conditions through which the vibration is traveling. The following equation is used to estimate the vibration level at a given distance for typical soil conditions (Federal Transit Administration, 2006). PPV<sub>ref</sub> is the reference PPV at 25 feet.

$$PPV = PPV_{ref} \times (25/Distance)^{1.5}$$

Table 3.5-3 summarizes typical vibration levels generated by construction equipment (Federal Transit Administration, 2006) at the reference distance of 25 feet and other distances as determined using the attenuation equation above.

Tables 3.5-4 and 3.5-5 summarize guidelines developed by the California Department of Transportation (Caltrans) for damage and annoyance potential from transient and continuous vibration that is usually associated with construction activity. Equipment or activities typical of continuous vibration include: excavation equipment, static compaction equipment, tracked vehicles, traffic on a highway, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. Equipment or activities typical of single-impact (transient) or low-rate repeated impact vibration include: impact pile drivers, blasting, drop balls, “pogo stick” compactors, and crack-and-seat equipment. Table 3.5-6 summarizes groundborne vibration criteria permissible for different land use categories provided by Caltrans.

**Table 3.5-3: Vibration Source Levels for Construction Equipment**

<i>Equipment</i>	<i>PPV at 25 Feet</i>	<i>PPV at 50 Feet</i>	<i>PPV at 75 Feet</i>	<i>PPV at 100 Feet</i>	<i>PPV at 175 Feet</i>
Pile driver (impact) <sup>a</sup>	0.65	0.230	0.125	0.081	0.035
Pile driver (sonic/vibratory) <sup>a</sup>	0.65	0.230	0.125	0.081	0.035
Hoe ram or large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Loaded trucks	0.076	0.0269	0.0146	0.0095	0.0041
Jackhammer	0.035	0.0124	0.0067	0.0044	0.0019
Small bulldozer	0.003	0.0011	0.0006	0.0004	0.0002

Note:

a. The Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2013b) is used as the source for vibration from a vibratory pile driver.

*Source: Federal Transit Administration, 2006.*

**Table 3.5-4: Vibration Damage Potential Threshold Criteria Guidelines**

<i>Structure and Condition</i>	<i>Maximum PPV (inches/second)</i>	
	<i>Transient Sources</i>	<i>Continuous/Frequent Intermittent Sources</i>
Extremely fragile historic buildings, ruins, ancient monuments	0.1	0.1
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.3
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity.

Source: California Department of Transportation 2013b.

**Table 3.5-5: Vibration Annoyance Potential Criteria Guidelines**

<i>Human Response</i>	<i>Maximum PPV (inches/second)</i>	
	<i>Transient Sources</i>	<i>Continuous/Frequent Intermittent Sources</i>
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Notes:

Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

PPV = peak particle velocity.

Source: California Department of Transportation 2013b.

**Table 3.5-6: Groundborne Vibration Impact Criteria**

<i>Land Use Category</i>	<i>Groundborne Vibration Impact Level (VdB)</i>		
	<i>Frequent Events<sup>a</sup></i>	<i>Occasional Events<sup>b</sup></i>	<i>Infrequent Events<sup>c</sup></i>
Category 1: Buildings where vibration would interfere with interior operations (research facilities, hospitals with vibration sensitive equipment)	65 <sup>d</sup>	65 <sup>d</sup>	65 <sup>d</sup>
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses (schools, churches)	75	78	83

Notes:

a. *Frequent Events* is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.

b. *Occasional Events* is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this number of operations.



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- c. *Infrequent Events* is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
  - d. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research may require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air-conditioning systems and stiffened floors.

N/A = not applicable

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*Source: California Department of Transportation 2013b.*

## **REGULATORY SETTING**

### **Federal Regulations**

#### *Environmental Protection Agency*

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (U.S. EPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor  $L_{dn}$  of 55 dBA and an indoor  $L_{dn}$  of 45 dBA. These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility.

#### *Occupational Safety and Health Administration*

Under the Occupational Safety and Health Act of 1970 (29 United States Code [U.S.C.] Section 1919 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

#### *Department of Housing and Urban Development*

The U.S. Department of Housing and Urban Development's environmental criteria and standards are presented in 24 Code of Federal Regulations (CFR) Part 51. New construction proposed in high noise areas (exceeding 65 dBA DNL) must incorporate noise attenuation features to maintain acceptable interior noise levels. A goal of 45 dBA DNL is set forth for interior noise levels and attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction, any building will provide sufficient attenuation to achieve an interior level of 45 dBA DNL or less if the exterior level is 65 dBA DNL or less. Approvals in a "normally unacceptable noise zone" (exceeding 65 dB, but not exceeding 75 dB) require a minimum of 5dB of additional noise attenuation for buildings having noise sensitive uses if the DNL is greater than 65 dB, but does not

exceed 70 dB, or a minimum of 10 dB of additional noise attenuation, if the day-night average is greater than 70 dB, but does not exceed 75 dB.

#### ***Federal Highway Administration***

An assessment of noise and consideration of noise abatement per Title 23 of the CFR, Part 772, “Procedures for Abatement of Highway Traffic Noise and Construction Noise,” is required for proposed federal or federal-aid highway construction projects on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. The FHWA considers noise abatement for sensitive receivers, such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, places of worship, libraries, and hospitals when “worst-hour” noise levels approach or exceed 67 dBA Leq. The California Department of Transportation (Caltrans) has further defined “approach” as meaning to be within 1 dB of the Noise Abatement Criteria (NAC).

### **State Regulations**

#### ***State of California Noise Standards***

The State of California does not have statewide standards for environmental noise, but the Governor’s Office of Planning and Research (OPR) has established general plan guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be “normally acceptable” for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be “clearly unacceptable.”

In addition, California Government Code Section 65302 requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(f) specifically requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community and analyze and quantify current and projected noise levels; (2) show noise contours for noise sources stated in CNEL; (3) use noise contours as a guide for establishing a pattern of land uses; and (4) implement measures and possible solutions that address existing and foreseeable noise problems.

The State of California has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are enforced by local jurisdictions through the building permit application process.

## **Local Regulations**

### *Town of Ross Municipal Code (Town Code)*

The Town of Ross Unnecessary Noise Ordinance (Chapter 9.20 of the Town Code) establishes standards for acceptable exterior and interior noise levels and describes how noise shall be measured. The ordinance specifies that it is unlawful for any person or construction company within the town limits to perform any construction operation before eight a.m. or after five p.m., Monday through Friday of each week and not at any time on Saturday, Sunday, or the other holidays listed in Section 9.20.060. Exceptions are permitted for work done solely in the interior of the building or work physically performed solely by the owner of the property.

### *Town of Ross General Plan 2007-2025 (General Plan)*

The Noise/Land Use Compatibility Standards contained in Part IV, Section 5.7 of the Town of Ross' General Plan Noise Element contains noise performance standards for outdoor use areas (i.e., backyards and patios) in residential areas of 55 dBA Ldn. Part IV, Section 5.8 of the General Plan limits interior noise levels due to exterior sources to an Ldn of 45 dBA and recommends that an interior noise level due to exterior sources of 40 dBA Ldn be maintained in bedrooms of new residences. Part IV, Section 5.10 of the General Plan requires mitigation of construction and traffic noise impacts on the ambient noise level in the Town limits. The General Plan includes the following goals and policies associated with noise and vibration:

#### **Goal 5: Protecting Community Health and Safety, and Preparing for Emergencies**

**Policy 5.6: Noise/Land Use Compatibility Standards.** The Land Use/Noise Compatibility Standards (see Figure 8) apply to the siting and design of new structures and substantial remodels. Any project that is located in a “conditionally acceptable” or “normally unacceptable” noise exposure area will be required to prepare an acoustical analysis. Noise mitigation features may be required by the Town.

**Policy 5.7: Noise Standards for Exterior Residential Use Areas.** The noise standard for exterior use areas (such as backyards) in residential areas is 55dB (decibels) Ldn (a day-night weighted 24-hour average noise level). All areas of Ross meet this standard except for those properties located along Sir Francis Drake Boulevard. General Plan policy requires that any new residential construction meet this standard.

**Policy 5.8: Interior Noise Standards.** Protect the community against the effects of intrusive and unhealthy exterior noise sources. Establish interior noise standards for new residential and residential health care projects of 40dB (Ldn) for bedrooms and 45dB (Ldn) for other rooms — decibel levels determined based on a day night weighted 24-hour average noise level.

**Policy 5.9: Noise Generated by Commercial Projects.** Design of commercial projects should be sensitive to noise impacts on surrounding neighborhoods.

**Policy 5.10: Traffic and Construction Noise.** Require mitigation of construction and traffic noise impacts on the ambient noise level in the Town.

## **Impact Analysis**

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### **SIGNIFICANCE CRITERIA**

For the purposes of this EIR, a significant impact would occur if implementation of the Proposed Project would:

- Criterion 1:** Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Criterion 2:** Generate excessive groundborne vibration or groundborne noise levels; or
- Criterion 3:** For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

### **METHODOLOGY AND ASSUMPTIONS**

This analysis is based on noise modeling performed by Charles M. Salter Associates, informed by traffic modeling prepared by Fehr & Peers for the Proposed Project's study network, including data on traffic volumes, as well as on land use and roadway network changes assumed as part of the Proposed Project. For the purposes of this analysis, street traffic volumes are per traffic engineer data received in November 2022 and are considered the baseline that is compared to noise levels associated with implementation of the Proposed Project.

#### **Construction Noise**

Construction noise from development facilitated by the Proposed Project is estimated on the basis of noise levels for various pieces of construction equipment reported by the FTA's Noise and Vibration Impact Assessment (2018). It is conservatively assumed that construction equipment typically operates as close as 25 feet from the nearest noise-sensitive receptors. Construction noise level estimates do not account for the presence of intervening structures or topography, which could reduce noise levels at receptor locations. New development facilitated by the Proposed Project would have a significant impact if temporary construction noise during permitted daytime hours could expose noise-sensitive receptors to significantly adverse noise levels, or if construction would not meet one of the standards in Chapter 9.20 of the Town Code.

#### **On-site Operational Noise**

On-site activities at new development facilitated by the Proposed Project would have a significant impact if it would expose neighboring noise-sensitive land uses to noise levels exceeding the Town's standards in its General Plan and in Chapter 9.20 of the Town Code, as described above in Regulatory Setting.

## **Traffic Noise**

Traffic-related noise impacts are evaluated using the FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108). This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. The traffic volumes for each roadway segment will be used along with the FHWA Traffic Noise Model to calculate Ldn at a distance of 50 feet from the roadway centerlines for local roadways. Noise standards found in the Town of Ross General Plan 2007-2025 are used to evaluate potential traffic noise impacts in the Planning Area, as discussed above. According to the General Plan, traffic noise impacts require mitigation on the ambient noise level in the Town.

## **Stationary Noise**

As noted above, this analysis evaluates impacts associated with the Proposed Project at the program level, given that specific details on future mechanical equipment or HVAC equipment and layout cannot be known at this time. Accordingly, the specific noise sources that might occur in conjunction with development of land uses allowable under the Proposed Project also cannot be known at this time. Therefore, stationary and other noise source impacts will be discussed on a qualitative basis, considering the potential for new noise sources to exceed established standards.

## **Groundborne Vibration**

The Town has not adopted a significance threshold to assess vibration impacts during construction. The general human response to different levels of groundborne vibration velocity levels is described in Table 3.5-5. To determine vibration impacts during construction under the Proposed Project, vibration levels were calculated at vibration-sensitive receptors using VdB and compared to the FTA guidelines set forth in the FTA Transit Noise and Vibration Assessment (2018). The following vibration thresholds are established by the FTA for the disturbance of people:

- 65 VdB for buildings where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools

These thresholds apply to “frequent events,” which the FTA defines as vibration events occurring more than 70 times per day. The thresholds for frequent events are considered appropriate because of the scale and duration of the construction activity associated with the Proposed Project. In addition, this analysis applies the following FTA thresholds in Table 3.5-4 for potential structural damage to buildings from construction vibration.

## IMPACTS

**Impact 3.5-1      Implementation of the Proposed Project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)**

### *Construction*

Noise from individual construction projects carried out under the Proposed Project would likely result in temporary increases in ambient noise levels at 25 feet and at adjacent property lines. As the precise details and timeframes for individual development projects that would be carried out under the Proposed Project cannot be known at this time, it is not possible to determine exact noise levels, locations, or time periods for construction of such projects, or construction noise at adjacent properties. Buildout of the Proposed Project would primarily involve construction of small-scale infill housing, typically of not more than three single-family residences or multi-family residential structures designed for not more than six dwelling units. Pursuant to CEQA Section 15303, the State has determined that such projects would not have a significant effect on the environment. Of the larger scale projects anticipated with buildout of the Proposed Plan, construction could potentially expose existing sensitive noise receptors to sustained construction noise, including from construction-related traffic, demolition, and reconstruction activities. Table 3.5-7 illustrates typical noise levels associated with construction equipment at a distance of 25 feet. At a distance of 25 feet from the construction site, noise levels similar to those shown in Table 3.5-7 would be expected to occur with individual development projects. Noise would typically drop off at a rate of about 6 dBA per doubling of distance. Therefore, construction noise levels would be about 6 dBA lower than shown in the table at 50 feet from the noise source and 12 dBA lower at a distance of 100 feet from the noise source.

As shown in Table 3.5-7, noise levels from construction activity could approach 107 dBA Leq 25 feet from construction equipment, specifically from the operation of pile drivers. Pile foundations are generally used under two situations: 1) when there is a layer of weak soil at the ground surface that cannot support the weight of a building; or 2) when a building has very heavy, concentrated loads, such as in a high-rise structure, bridge, or water tank. The Proposed Project does not envision new infrastructure such as bridges and water tanks, nor the construction of high-rise buildings in the Planning Area, thus pile drivers would not be needed. However, other construction equipment, such as a backhoe which could approach 86 dBA Leq at 25 feet, would exceed the Land Use/Noise Compatibility Standards established in the Town's General Plan. For residential properties, this would exceed the Town's General Plan exterior noise standards for residential areas of 55 dBA Ldn. Construction noise would exceed ambient noise levels and may temporarily disturb people at neighboring properties.

**Table 3.5-7: Typical Noise Levels for Construction Equipment**

<i>Equipment</i>	<i>Estimated Noise Levels at Nearest Sensitive Receptors (dBA Leq)</i>		
	<i>25 feet</i>	<i>50 feet</i>	<i>100 feet</i>
Air Compressor	86	80	74
Backhoe	86	80	74
Concrete Mixer	91	85	79
Dozer	91	85	79
Grader	91	85	79
Jack Hammer	94	88	82
Loader	86	80	74
Paver	91	85	79
Pile-drive (Impact)	107	101	95
Pile-driver (Sonic)	101	95	89
Roller	91	85	79
Saw	82	76	70
Scarified	89	83	77
Scraper	91	85	79
Truck	90	84	78

*Source: FTA, 2018.*

The severity of construction-related noise impacts depends on the proximity of construction activities to sensitive receptors, the presence of intervening barriers, the number and types of equipment used, and the duration of the activity. While these factors cannot be known precisely for future projects under the Proposed Project, individual projects would be required to comply with Town standards. Per Town Code Section 9.20.053, it is unlawful for any person or construction company within the Town limits to perform any construction operation before 8:00 AM or after 5:00 PM, Monday through Friday of each week and not at any time on Saturday, Sunday, or the other holidays listed in Section 9.20.060. Exceptions are granted for work done solely in the interior of a building or structure, the performance of which does not create any noise which is audible from the exterior of the building or structure; or work physically performed solely by the owner of the property, on Saturday between the hours of 10:00 AM and 4:00 PM and not at any time on Sundays or other holidays. Construction that complies with the time-of-day restrictions for construction activities or these exemptions would result in less than significant noise impacts with regard to the generation of noise in excess of thresholds.

Implementation of policies contained in the General Plan would further reduce construction noise and associated impacts. Policies 5.6, 5.7, and 5.8, listed above, establish noise/land use compatibility standards as well as exterior and interior noise standards. Further, Policy 5.10 requires mitigation of construction and traffic noise impacts on the ambient noise level in the Town.

Since construction of housing units would likely exceed the exterior residential noise exposure threshold in residential areas of 55 dBA Ldn, implementation of mitigation measures as recommended by Policy 5.10 would be required. However, such mitigation would only be applicable to proposed developments of more than three single-family residences or multi-family residential structures with more than six dwelling units since the State has determined that smaller

projects would not have a significant effect on the environment. Therefore, implementation of **Mitigation Measure N-1** would be required to reduce noise impacts of larger construction projects to a less than significant level. During the clearing, earth moving, grading, and foundation/conditioning phases of construction, **Mitigation Measure N-1** would require temporary sound barriers to be installed and maintained between the construction site and sensitive receptors. These sound barriers could consist of sound blankets affixed to construction fencing or temporary solid walls along all sides of the construction site boundary facing potentially sensitive receptors. Further, the mitigation measure would require equipment staging areas, electrically-powered tools, and smart back-up alarms. Therefore, compliance with existing regulations and implementation of **Mitigation Measure N-1** as well as the applicable Town Code and General Plan policies would ensure that impacts related to construction noise would be less than significant.

#### *On-Site Operational Noise*

Residential development associated with the Proposed Project is not likely to generate noise levels that would exceed the Town's standards. The noise generated by on-site activities for new development would be subject to the Town's maximum allowable exterior noise levels, contained in the Town's General Plan. The noise standard for exterior use areas (such as backyards) in residential areas is 55dB (decibels) Ldn (a day-night weighted 24-hour average noise level). Stationary noise sources at new residential and mixed-use development would include ventilation and heating (HVAC) systems. Residential developments that comply with these noise standards would result in less than significant noise impacts with regard to the generation of noise in excess of thresholds. Therefore, compliance with the requirements of the General Plan and Town Code would reduce potential on-site noise impacts to a less than significant level.

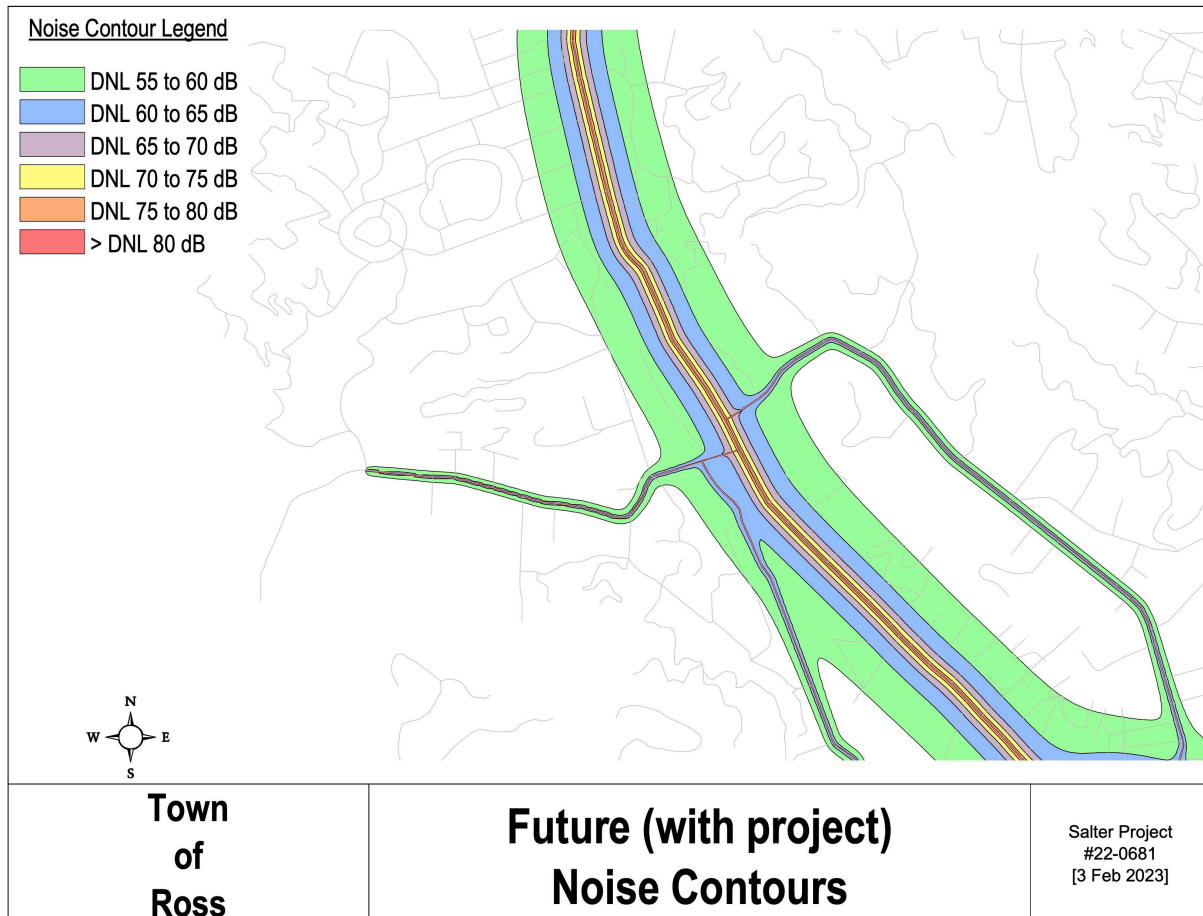
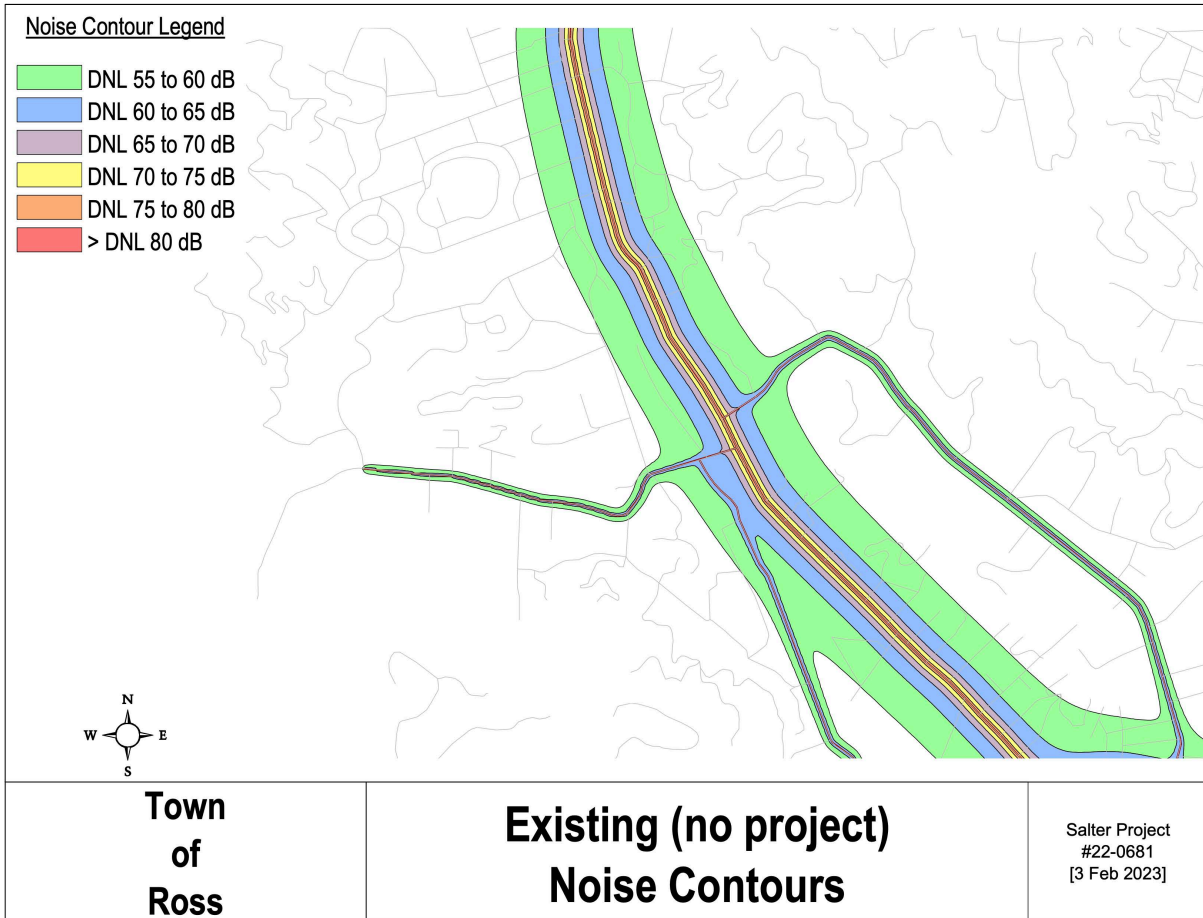
#### *Traffic Noise*

Future development associated with the Proposed Project would result in an increase in traffic in and adjacent to the Planning Area and placement of new sensitive receptors within the Planning Area. Future noise conditions were projected using a reference distance of 50 feet from each roadway segment centerline for local roadways. Then, based on the average daily traffic volumes provided by the traffic consultant, traffic noise levels were quantified for the 2040 Plus Project condition. Existing (2022) traffic noise levels were obtained from traffic modelling data performed by Fehr & Peers. The difference in noise between these two scenarios represents the Proposed Project's incremental contribution to noise levels in the area. Table 3.5-8 shows the results of the noise modeling analysis and Figure 3.5-1: Projected Noise Contours (2040) shows projected noise level contours along local roadways within the Planning Area with the Proposed Project.

Traffic noise impacts along roadways and at intersections with adjacent existing sensitive receptors were analyzed using the Traffic Noise threshold discussed in the Methodology and Assumptions section on page 3.5-15. Under this threshold, the Town of Ross General Plan states that traffic noise impacts require mitigation on the ambient noise level in the Town. Further, as noted in the Environmental Setting on page 3.5-5, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference. Thus, a 3 dB or less change in noise



Figure 3.5-1: Projected Noise Contours



levels traffic would not constitute a significant impact, because such a change in ambient noise levels is considered just noticeable.

As shown in Table 3.5-8, none of the roadway segments studied are projected to exceed a 3 dB increase in noise levels under the Proposed Project compared to existing conditions. As such, the increase in traffic under the Proposed Project is considered to be a less-than-significant noise impact and no mitigation is required.

**Table 3.5-8: Traffic Noise Analysis Summary**

<i>Roadway</i>	<i>Existing (DNL in dB)<sup>1</sup></i>	<i>2040 + Project (DNL in dB)</i>	<i>Increase (dB)</i>	<i>Significant Impact.<sup>2</sup></i>
Sir Francis Drake (from Lagunitas Road to Toussin Avenue)	71	72	1	No
Lagunitas Road	55	55	n/a	No
Ross Common	56	56	n/a	No
Laurel Grove	56	56	n/a	No

Notes:

<sup>1</sup> DNL is estimated to be equal to the peak hour Leq.

<sup>2</sup> A 3 dB or less change in noise levels traffic would not constitute a significant impact, because such a change in noise is considered just noticeable.

Source: Salter & Associates, 2023.

### *Mitigation Measure*

**MM-N-1: Construction Noise Reduction.** For all construction projects of more than three single-family residences or multi-family residential structures with more than six dwelling units that are anticipated to exceed the exterior residential noise exposure threshold in residential areas of 55 dBA Ldn, the following mitigation would be required:

- **Equipment Staging Areas.** Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors.
- **Electrically-Powered Tools and Facilities.** Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.
- **Smart Back-up Alarms.** Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.

- **Additional Noise Attenuation Techniques.** During the clearing, earth moving, grading, and foundation/conditioning phases of construction, temporary sound barriers shall be installed and maintained between the construction site and the sensitive receptors. Temporary sound barriers shall consist of sound blankets affixed to construction fencing or temporary solid walls along all sides of the construction site boundary facing potentially sensitive receptors.

*Significance after mitigation:* Less than significant.

**Impact 3.5-2            Development under the Proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)**

*Construction Vibration*

Construction of individual projects facilitated by the Proposed Project could intermittently generate groundborne vibration on and adjacent to construction sites. Buildings in the vicinity of a construction site respond to vibration with varying degrees ranging from imperceptible effects at the lowest levels, to low rumbling sounds and perceptible vibrations at minor levels, and up to minor damage at the highest vibration levels. Table 3.5-3 lists groundborne vibration levels from various types of construction equipment at various distances. However, the majority of development would primarily involve construction of small-scale infill housing, typically of not more than three single-family residences or multi-family residential structures designed for not more than six dwelling units. Pursuant to CEQA Section 15303, the State has determined that such projects would not have a significant effect on the environment. Larger scale construction, such as at the Civic Center site, would not utilize equipment needed for high-rise structures, such as pile drivers. Applicable construction equipment, such as a small bulldozer, could approach vibration levels of 0.003 PPV at a distance of 25 feet from the source and 0.0011 PPV at 50 feet.

Further, Chapter 9.20 of the Town Code requires that construction activities be limited to between eight a.m. and five p.m. only on Monday through Friday, further reducing the potential for impacts related to excessive groundborne vibration.

Therefore, compliance with applicable Town Code policies and regulatory requirements, such as the construction hour restrictions, would ensure that construction vibration associated with development under the Proposed Project would be minimized to the maximum extent practicable and impacts would be less than significant.

*Operational Vibration*

Stationary Source Vibration

As development occurs, there is generally a potential for more operational vibration sources to be developed. However, implementation of the Proposed Project would not directly result in an increase of operational sources of vibration in the Planning Area given that construction would primarily involve small-scale infill housing. Due to the nature of development not typically

involving large scale vibration generating equipment, stationary source vibration impacts associated with implementation of the Proposed Project would be less than significant.

#### Traffic Vibration

There would be an anticipated increase in traffic in the Planning Area associated with both the increase in density and intensity allowed under the Proposed Project and with regional increases in traffic generally (see Section 3.6: Transportation). Vibration resulting from vehicle traffic is generated primarily by heavy truck passage over discontinuities in the pavement (such as potholes, bumps, and expansion joints). Sir Francis Drake Boulevard, which bisects the Town of Ross, is the major east-west arterial from West Marin to Highway 101. Groundborne vibration generated by traffic traveling on roadways is generally below the threshold of perception at adjacent land uses, unless there are severe discontinuities in the roadway surface. Therefore, vehicle traffic resulting from construction and operation of residential projects under the Proposed Project would not be anticipated to result in substantial or excessive groundborne vibration and impacts would be less than significant.

#### *Mitigation Measures*

None required.

#### **Impact 3.5-3      The Proposed Project would not be located within the vicinity of a private airstrip or an airport land use plan or expose people residing or working in the Planning Area to excessive noise levels. (*No Impact*)**

The Town of Ross is not located within the vicinity of a private airstrip or airport land use plan, or where such a plan has not been adopted, is not located within two miles of a public airport or public use airport. The nearest airport is the San Rafael Airport located approximately eight miles north of the Planning Area. Therefore, future development consistent with the Proposed Project would not expose people residing or working in the project area to excessive noise levels, and no impact would occur.

#### *Mitigation Measures*

None required.

## 3.6 Transportation

This section evaluates the potential impacts to transportation that could arise from implementation of the Proposed Project. The analysis evaluates the possible impacts of the Proposed Project on vehicle miles traveled (VMT), and determines if the Proposed Project would conflict with adopted policies, plans, and programs regarding public transit and bicycle and pedestrian facilities, substantially increase hazards due to a design feature or incompatible uses, or result in inadequate emergency access.

There were no responses to the Notice of Preparation (NOP) regarding topics covered in this section.

## Environmental Setting

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### PHYSICAL SETTING

#### Circulation Network

Regionally, US 101 is a major freeway that functions as the primary north-south route through Marin County, connecting Marin's major population centers to destinations to the south (including San Francisco) via the Golden Gate Bridge, as well as Sonoma County and northern California to the north. State Route (SR) 1 provides access along much of Marin County's coastline, connecting smaller coastal area communities to US 101 near Tamalpais Valley, and points north in Sonoma County near Tomales. Other key roadway connections to adjacent jurisdictions include I-580, which provides access between Marin County and the East Bay via the Richmond-San Rafael Bridge, and SR 37, which links Novato to Sonoma, Napa, and Solano Counties to the east.

Locally, Sir Francis Drake Boulevard (SFD Blvd) bisects the Town of Ross and serves as the major east-west arterial from West Marin to Highway 101. Collector streets that are intended to carry traffic from collector and minor residential streets to an arterial, such as SFD Blvd, include Bolinas Ave, Shady Ln, Laurel Grove Ave, Lagunitas Rd, and Poplar Ave. There are also several minor residential streets throughout the town which are low-capacity streets primarily serving low density residential uses. Minor residential streets are provided within the residential neighborhoods of the Planning Area.

## **Vehicle Miles Traveled**

One performance measure used to quantify automobile travel is VMT, which refers to the amount of automobile travel attributable to a project as well as the distance traveled. In 2013, Governor Brown signed Senate Bill (SB) 743, which added Public Resources Code Section 21099 to the California Environmental Quality Act (CEQA). Public Resources Code Section 21099 changes the way transportation impacts are analyzed in transit priority areas, and aligns local environmental review methodologies with statewide objectives to reduce greenhouse gas (GHG) emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl, and reduce VMT in California.

Increased VMT leads to various direct and indirect impacts on the environment and human health. Among other effects, increased VMT on the roadway network leads to increased emissions of air pollutants, including GHGs, and increased energy consumption. The transportation sector is associated with more GHG emissions than any other sector in California. As documented in the Town of Ross 2016 Greenhouse Gas Emissions Inventory, about 35 percent of the Town’s GHG emissions are produced by local transportation. Reducing VMT is one of the most effective means for reducing the Town’s GHG emissions.

VMT is typically an output from travel demand models. Its calculation is based on the estimated number of vehicles multiplied by the distance traveled by each vehicle. This analysis uses the following VMT metrics:

- **Household VMT per capita**, which measures all the VMT by motor vehicle on a typical weekday associated with a residential use, such as trips to work, school, or shop, and divides that VMT by the number of residents in the Planning Area.

The VMT forecasts generated for this CEQA assessment were produced using the Transportation Authority of Marin Demand Model (TAMDM). For this CEQA assessment, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael General Plan Update. A key reason for applying the updated 2019 base year is that it includes the SMART rail system that was not in place in 2015. The 2019 base year model developed for the San Rafael General Plan Update was validated based on model confidence thresholds defined in the California Transportation Commission 2017 RTP guidelines. VMT estimates were produced using the updated 2019 TAMDM model for all 1,400 analysis zones within Marin County as well as for the entire Bay Area. Table 3.6-1 provides an existing VMT summary for the Town of Ross.

**Table 3.6-1: Existing (2019) VMT Summary**

<i>Geography</i>	<i>Home-Based VMT</i>	<i>Home VMT Per Resident</i>
Baseline Town VMT Metric	33,603	14.1

*Source: Fehr & Peers based on the results of the Alameda CTC Travel Demand Model, 2021.*

## **Existing Transit System**

There is no existing transit service operating within the Town of Ross. Regionally, Golden Gate Transit offers transportation between San Francisco and the North Bay, with buses and ferries

connecting San Francisco to Marin County. Marin Transit provides bus service in Marin County. The system's biggest hub is the San Rafael Transit Center in San Rafael, with smaller hubs in Novato, San Anselmo, and Marin City. Sonoma-Marín Area Rail Transit (SMART) is a rail line opened in 2017 that connects Marin County and Sonoma County, with stops at Sonoma County Airport, Santa Rosa, Rohnert Park, Petaluma, Novato, San Rafael, and Larkspur.

### **Existing Bicycle System**

The Town of Ross Bicycle & Pedestrian Plan (adopted in 2010 and amended in 2018) identifies the following distinct types of bikeway facilities:

- **Class I Bikeway**—Typically called a ‘bike path’, a Class I bikeway provides bicycle travel on a paved right-of-way completely separated from any street or highway.
- **Class II Bikeway** —Often referred to as a ‘bike lane’, a Class II bikeway provides a striped and stenciled lane for one-way travel on a street or highway. The Town is to pursue a 13’ minimum width for combined bicycle lane/parking areas where possible.
- **Class III Bikeway** —Generally referred to as a ‘bike route’, a Class III bikeway provides for shared use with motor vehicle traffic and is identified only by signing. Optional Shared Roadway Bicycle Marking pavement stencils are also available for use on Class III bikeways which have on-street parallel parking.

The Town of Ross has five existing bikeways. The Corte Madera Creek Path is the one existing Class I multi-use path, shared with pedestrians and other non-motorized travelers. This path runs along the Corte Madera Creek at a length of just over one quarter of a mile, with its north end terminating at Lagunitas Rd. Class III bike routes along Lagunitas Rd, Ross Common, Poplar Ave, Shady Ln, and Bolinas Ave comprise the Ross segments of the countywide Bike Routes 15 and 20. These routes have a combined length of approximately one and one-third mile. Proposed bikeways would create a clear east-west bicycle route, north-south bicycle lanes on SFD Blvd, and bicycle route connections on Glenwood Ave, Fernhill Ave, and Norwood Ave.

### **Existing Pedestrian System**

The Pedestrian facilities within the Planning Area include trails, sidewalks, crosswalks, and pedestrian signal heads. There are approximately 5.3 miles of existing sidewalks in Ross, and they are concentrated in downtown and residential areas designated as medium density (6-10 units/acre). While sidewalks are present on at least one side of most higher volume roadways in Ross, gaps in the network and ADA-compliance issues exist. Such issues include:

- Southbound sidewalk gap on SFD Blvd
- Westbound sidewalk gap on Lagunitas Rd
- Southbound sidewalk gap on Redwood Dr
- Southbound sidewalk gap on Poplar Ave
- Eastbound sidewalk gap on Lagunitas Rd
- Unpaved walkway gaps on Lagunitas Rd

## **Planned Transportation Network Changes**

Several changes are planned for bicycle and pedestrian travel within the Planning Area as described below; there are no planned roadway changes for the Town of Ross. These changes include projects planned by the Town and are not related to the Proposed Project; they would be implemented regardless of the Proposed Project. Changes with reasonably foreseeable approval and funding are assumed in the analysis of future-year 2040 conditions. However, not all planned changes have final design plans, full approvals, and/or full funding. Planned changes for transportation modes are summarized below by primary travel category.

There are 3.75 miles of bikeways proposed for the Town of Ross. The proposed bikeway projects can be grouped within a primary East-West route and a primary North-South route, providing connections to the town's most popular destinations and parks, as well as existing and proposed bikeways in neighboring jurisdictions. The majority of bikeways are Class III facilities, signed bicycle routes. These bikeways on Lagunitas Road, Glenwood Avenue, Bolinas Avenue, Fernhill Avenue, Norwood Avenue, and Laurel Grove Avenue provide access to Natalie Coffin Green Park, Branson School, and inner Ross and tie into the existing main North-South Bike Routes 15 and 20. Shared roadway bicycle markings are proposed for all Class III facilities, where appropriate, alongside areas of parallel parking. In addition, Share the Road Signs are recommended, as needed, along all Class III signed bicycle routes. One Class II facility, a striped bike lane, is proposed on Sir Francis Drake Boulevard. This bikeway provides direct north-south travel through Ross.

The proposed pedestrian network would close sidewalk gaps and address ADA-compliance issues along the primary East-West and North-South routes. To accomplish this, it is proposed that a continuous sidewalk/walkway be added to Lagunitas Rd, a walkway be added to Laurel Grove Ave, ADA-compliant curb ramps be added to Lagunitas Rd at Willow Ave and at Shady Ln, and sidewalk gaps be closed on Poplar Ave and Redwood Dr. Lastly, a sidewalk is proposed on Fernhill Ave to provide a safer route for pedestrians between Glenwood Ave and Shady Ln.

## **REGULATORY SETTING**

### **State**

#### *Senate Bill 743*

SB 743 has changed the way transportation impact analysis is conducted as part of CEQA compliance. With these changes, automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion would no longer be the basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.”

In December 2018, the Governor's Office of Planning and Research (OPR) completed an update to the CEQA Guidelines to implement the requirements of SB 743. The guidelines state that VMT must be the metric used to determine significant transportation impacts. The guidelines require all lead



agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 2020.

## **Regional**

### *Metropolitan Transportation Commission (MTC)*

Most of the federal, State, and local financing available for transportation projects is allocated at the regional level by MTC, the transportation planning, coordinating, and financing agency for the nine-county Bay Area. Integrated with the Association of Bay Area Government's (ABAG's) regional land use plan, the current regional transportation plan, Plan Bay Area 2050, was adopted by MTC and ABAG in October 2021. Plan Bay Area 2050 is both the Bay Area's Regional Transportation Plan (RTP) as well as its Sustainable Communities Strategy (SCS). Plan Bay Area grew out of "The California Sustainable Communities and Climate Protection Act of 2008," which requires each of the State's 18 metropolitan areas to reduce GHG emissions from cars and light trucks. Accordingly, Plan Bay Area 2050 recommends increasing non-auto travel mode share and reducing VMT per capita and per employee through promoting transit-oriented development, as well as investments in transit and active transportation modes. These strategies seek to not only improve mobility within the region, but also reduce regional and statewide GHG emissions.

Although MTC adopted Plan Bay Area 2050 in October 2021, this analysis relies on Plan Bay Area 2040 because the Transportation Authority of Marin travel demand model, which was used to estimate the VMT metrics associated with the Proposed Project, is based on Plan Bay Area 2040 and has not yet been updated to reflect Plan Bay Area 2050.

### *Transportation Authority of Marin (TAM)*

The Transportation Authority of Marin (TAM), as a Congestion Management Agency and the Transportation Sales Tax Authority of Marin County, manages transportation projects in Marin County, California, with local, regional, state, and federal funding. TAM's Board of Commissioners is the governing organization of TAM and is made up of 11 members who are public officials and are appointed by each of Marin County's cities and town councils, as well as five members from the County Board of Supervisors.

TAM is tasked with preparing a Congestion Management Program (CMP) to fulfill the state legislative requirements of Propositions 111 and 116, approved in June 1990. TAM's congestion management program monitors local multi-modal transportation networks level of service on roadways, bicycle and pedestrian facilities and transit services, and identifies improvements to the performance of these multi-modal systems.

The CMP consists of a system monitoring effort, performance measurement and capital improvement plan for these systems. As required by state legislation, TAM maintains a travel demand model to forecast proposed changes to the transportation network.

The TAM also administers the Safe Routes to Schools (SR2S) Program, which the Town of Ross participates in. The program works to relieve traffic congestion around schools by promoting alternatives to commuting to school, such as walking, biking, taking the bus and carpooling. In addition, the program helps improve safety, promote a healthy lifestyle for youth, and enhance the sense of community in neighborhoods. It does this through classroom education, special events, infrastructure improvements, a crossing guard program, and other strategies.

## **Local**

### *Town of Ross General Plan 2007-2025 (General Plan)*

The Town of Ross General Plan 2007-2025 (General Plan) includes the following goals and policies associated with transportation:

#### **Goal 7: Safe, Connected and Well-Maintained Streets, Pedestrian and Bicycle Routes**

**Policy 7.1 Safe Streets.** Provide streets that are as user-friendly and safe as possible for motorists, pedestrians and bicyclists.

**Policy 7.2: Traffic Level of Service Standards.** Sir Francis Drake Boulevard will not be widened to accommodate additional vehicular traffic. Establish a level of service (LOS) “D” along Sir Francis Drake Boulevard and level of service “C” on local streets during weekday mornings and evening peak hours using procedures from the most recent Highway Capacity Manual.

**Policy 7.3: Traffic Diversions.** Minimize diversion of Sir Francis Drake Boulevard traffic onto local streets, and reduce incidents of speeding and other unsafe behavior.

**Policy 7.4: Traffic Impacts.** Ensure that full CEQA review is undertaken of significant development proposals in Ross, in nearby areas and along the Sir Francis Drake Boulevard corridor that may impact traffic operations, safety, air quality and other environmental conditions.

**Policy 7.5: Pavement Management.** Maintain acceptable pavement management on all public streets and mitigate roadway impacts due to construction activities for aesthetic, structural and acoustical reasons. Hold developers responsible for pavement degradation caused by construction vehicles.

**Policy 7.6: Parking Program.** Address on-site and street parking needs through adequate parking standards and enforcement. Limit on-street and overnight parking.

**Policy 7.7: Transit and Carpools.** Encourage carpooling and transit use, including handicapped-accessible transit service, commuter service and local service.

**Policy 7.8: Bicycle and Pedestrian Travel.** Encourage travel via bicycle and walking by providing and maintaining safe pedestrian and bicycle routes along main arteries in Ross.

Consider links with Town destinations, surrounding area destinations and regional trails and bicycle systems. Participate in the Safe Routes to Schools Program.

#### *Town of Ross Bicycle & Pedestrian Plan*

The Town's Bicycle & Pedestrian Plan (adopted in 2010, amended in 2018) provides for a town-wide system of bicycle paths and routes, along with bicycle-related programs and support facilities, intended to ensure bicycling becomes a viable transportation option for people who live, work, and recreate in Ross. The goals of the Bicycle & Pedestrian Plan include increasing bicycle and pedestrian access, making the bicycle an integral part of daily life in Ross, and encouraging walking as a daily form of transportation. Recommended transportation improvements in the town are described on page 3.6-5.

#### *Sidewalk and Pathway Design Guidelines within the Public Right-of-Way*

In 2016, the Town of Ross adopted sidewalk and pathway design guidelines that include a desired 5' width, compliance with American with Disabilities Act standards, and preferred materials. The Town requires property owners to adhere to these guidelines when making improvements to an existing home or business.

#### *Town of Ross Municipal Code (Town Code)*

Chapter 10.56 of the Town Code establishes the Town of Ross Trip Reduction Ordinance (TRO) in which it incorporates the Marin County Congestion Management Agency (CMA) minimum trip reduction and travel demand requirements. The ordinance applies to all employers within the town with 100 or more employees at an individual work site. The ordinance requires all employers to disseminate trip reduction information, conduct an annual employee trip survey, and designate an "employee transportation coordinator" to be responsible for administering the employer requirements for trip reduction.

Chapter 18.41, Design Review, of the Town Code outlines several transportation-related regulations. The chapter states that developments should encourage multi-modal transportation and pedestrian-friendly neighborhood character. In addition, good access, circulation, and off-street parking should be provided consistent with the natural features of the site. Access ways and parking areas should be in scale with the design of buildings and structures on the site. Off-street parking should be screened from view.

## **Impact Analysis**

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### **SIGNIFICANCE CRITERIA**

For the purposes of this EIR, a significant impact would occur if the Proposed Project would:

- Criterion 1: Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities**
- Criterion 2: Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)**
- Criterion 3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)**
- Criterion 4: Result in inadequate emergency access**

### **ASSUMPTIONS AND METHODOLOGY**

This section describes the methodology for VMT forecasts developed for this transportation assessment and as supporting data for other assessments in the CEQA document including the GHG assessment. The new CEQA Guidelines Section 15064.3(b)(4) establishes that the lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence.

The VMT forecasts generated for this CEQA assessment were produced using the Transportation Authority of Marin Demand Model (TAMDM). For this CEQA assessment, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael General Plan Update. A key reason for applying the updated 2019 base year is that it includes the SMART rail system that was not in place in 2015. This analysis includes a 2040 No Project scenario that is based on the TAMDM horizon year and reflects land use changes and transportation improvements consistent with the San Rafael General Plan 2040 adopted in 2021. The 2019 base year model developed for the San Rafael General Plan Update was validated based on model confidence thresholds defined in the California Transportation Commission 2017 RTP guidelines. VMT estimates were produced using the updated 2019 TAMDM model for all 1,400 analysis zones within Marin County as well as for the entire Bay Area. Appendix E includes the VMT forecast methodology and impact assessment performed by the Proposed Project's traffic engineers, Fehr and Peers.

### **RELEVANT GOALS AND POLICIES**

The following goals and policies of the Proposed Project are relevant to potential transportation impacts.

**Policy 3.2 High Potential Housing Opportunity Areas and Programs.** Given the diminishing availability of developable land, the Town will continue to identify housing opportunity sites and specific program actions to provide affordable workforce and special needs housing. The Town will use the following criteria in selecting Housing Opportunity areas, sites or locations for program actions:

- a) Adequate vehicular and pedestrian access.
- b) Convenient access to public transportation as needed by the prospective residents.
- c) Convenient access to neighborhood services and facilities as needed by the prospective residents.
- d) Convenient access to neighborhood recreation facilities, or designed to provide adequate recreation facilities on site.
- e) Cost effective mitigation of physical site constraints (including geologic hazards, flooding, drainage, soils constraints, etc.).
- f) Cost effective provision of adequate services and utilities to the site.
- g) Ability to meet applicable noise requirements.
- h) Appropriate site size to provide adequate parking; parking requirements should be flexible and based on the needs of the project's prospective residents.
- i) Finding that development of a specific project on the site will not result in significant adverse cumulative effects, unless the Town adopts a statement of overriding considerations.

**Policy 3.3 Housing Opportunities in the Commercial District.** Well-designed mixed-use residential/non-residential developments in the Commercial District are highly encouraged by the Town. The Town will encourage and facilitate a variety of housing types in the Commercial District, including mixed-use development and single-room occupancy units.

## IMPACTS

**Impact 3.6-1 Implementation of the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities (*Less than Significant*)**

New residential development under the Proposed Project would typically be expected to result in additional vehicular trips and the increased use of streets (for all modes of transportation). Applicable local regulations and plans related to transportation include the Town's General Plan, Town Code, and the Town of Ross Bicycle & Pedestrian Plan. Implementation of the Proposed Project would result in the development of up to 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots.

The Town's General Plan policies encourage the provision of safe streets, adequate parking, and transportation alternatives to the private automobile, such as carpooling and pedestrian and bicycle improvements. Chapter 18.41, Design Review, of the Town Code states that developments should

encourage multi-modal transportation and pedestrian-friendly neighborhood character. In addition, good access, circulation, and off-street parking should be provided consistent with the natural features of the site. Access ways and parking areas should be in scale with the design of buildings and structures on the site. Off-street parking should be screened from view. The goals of the Bicycle & Pedestrian Plan include increasing bicycle and pedestrian access, making the bicycle an integral part of daily life in Ross, and encouraging walking as a daily form of transportation.

Buildout of the Proposed Project housing sites inventory and development of ADU/JADUs would increase the number of housing units in the more walkable areas of Ross within a half mile of Sir Francis Drake Boulevard, an important transit corridor for the region. Development under the Proposed Project would be consistent with such policies and regulations by increasing housing opportunities in already urbanized areas which is an integral part of VMT reduction and encouraging transportation alternatives, such as walking and biking. For example, proposed Policy 3.2 identifies housing opportunity sites for development that have convenient access to pedestrian amenities, neighborhood services, and recreation facilities, thus encouraging non-vehicular modes of travel. Proposed Policy 3.3 facilitates a variety of housing types in the Commercial District which will further reduce VMT. In addition, parking requirements will be amended under the Proposed Project to support the financial feasibility of workforce housing. Development would continue to ensure that parking will be designed to be out of public view (proposed Program 3-C). As a result, future development consistent with the Proposed Project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, adoption of the Proposed Project would result in a less-than-significant impact related to conflicts with transportation plans.

#### *Mitigation Measures*

None required.

#### **Impact 3.6-2 Implementation of the Proposed Project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). *(Significant and Unavoidable with Mitigation)***

CEQA Guidelines Section 15064.3 requires that the determination of significance for transportation impacts be based on VMT instead of a congestion metric such as LOS. The change in the focus of transportation analysis is the result of SB 743. OPR's Technical Advisory provides recommendations for implementing Section 15064.3 of the CEQA Guidelines related to VMT. For residential projects, OPR indicates that VMT per capita should be used as the metric to determine whether a proposed project may cause a significant transportation impact. For the purposes of this EIR, based on CEQA and OPR guidance, VMT impacts would be significant if new residential development would exceed the following threshold:

- Aggregate Future (2040) Home VMT per resident with new housing units exceeds 15 percent below baseline (2019) Aggregate Town VMT per resident

For individual developments, OPR indicates that projects that generate or attract fewer than 100 trips per day may provide a basis for the lead agency to find a less-than-significant impact on VMT. Average trip rates in the 11th edition of the Institute of Transportation Engineers (ITE) Trip

Generation Manual indicate that single family projects of 10 units or fewer and multi-family projects of 14 units or fewer are likely to generate less than 100 vehicle trips per day. Therefore, since the buildout of the Proposed Project would primarily involve construction of small-scale infill housing, all individual developments would result in a less-than-significant impact.

Table 3.6-2 provides a summary of the cumulative VMT forecast for buildout of the Proposed Project. The threshold recommended by OPR for residential uses involves comparing the project VMT per capita to the baseline Town VMT per capita. A significant impact would occur if a proposed project VMT per capita exceeds a level of 15 percent below existing baseline Town VMT per capita. The VMT forecasts indicate that the proposed residential uses would result in a Home-Based VMT per capita that is 12 percent below the baseline 2019 Town VMT per capita.

**Table 3.6-2: Daily Home-Based Vehicle Miles Traveled (VMT) for Residential Uses**

<i>Scenario</i>	<i>Home-Based VMT</i>	<i>Home VMT Per Resident</i>
Baseline Town VMT Metric (2019)	33,603	14.1
2040 Plus Housing Element Units	35,442	12.4
<b><i>Percent Change – 2040 Plus Project Home VMT per Resident Rate Compared to Baseline Rate for Ross 2019</i></b>		
2040 Plus Housing Element Units		-12%

Notes:

1. The VMT shown in the table above is home-based VMT for all residential uses in the project including single family residential, multi-family residential, affordable housing, and the residential care facility.
2. The VMT per resident values are based on 2,385 residents for the baseline (2019) scenario and 2,855 future residents for the 2040 plus Project scenario.

*Source: Fehr & Peers, 2022.*

As shown in Table 3.6-2, the implementation of the Proposed Project would reduce the household VMT per capita in the Planning Area by about 12 percent from 14.1 under 2019 baseline conditions to 12.4 under 2040 buildout conditions. The cumulative effect of adding up to 148 housing units on Daily Home-Based VMT for residential uses in the Town of Ross is considered a significant impact prior to mitigation. This is because the Aggregate 2040 Home VMT per Resident with the added housing units is not 15 percent or below the Baseline Aggregate 2019 Home VMT per Resident for the Town of Ross as measured using the Transportation Authority of Marin Demand Model (TAMDM).

The VMT estimates developed using the TAM travel demand model for the 10 new multi-family units on the Branson campus do not reflect the fact that the housing units are dedicated to campus employees. The unaccounted VMT benefit of providing housing on the Branson campus for faculty and staff is that the commute trips made by these employees would be eliminated as they are living on campus. As such, the VMT forecasts presented above slightly overstate the VMT affect associated with the Branson site on aggregate future VMT. The level of unaccounted VMT benefit would depend on where the employees live prior to moving on campus as well as whether they have a partner living with them that has an off-site job. Because data is not available on the existing home location of Branson employees that would relocate to the new campus housing (i.e., to determine a commute VMT adjustment) and whether or not the Branson employees would have partners living with them that have an off-site job, it is not possible to quantify the incremental VMT reduction of the Branson housing.

Since the cumulative effect of adding up to 148 housing units on Daily Home-Based VMT for residential uses in the Town of Ross is considered a significant impact, mitigation is required in order to reduce this impact. However, mitigation is only feasible on Town-owned sites because they involve multi-family residential projects. Feasible VMT reduction measures are not available for the other sites as they are very small in scale in terms of number of units, low density, located far from the bus stop on Sir Francis Drake at Lagunitas Road, and/or not located in walkable mixed-use areas. Thus, Mitigation Measure VMT-1 implements VMT reduction measures for Town-owned sites which includes reduced off-street parking requirements and providing a bikeshare facility. Even with Mitigation Measure MM VMT-1, the Town may not achieve the overall VMT threshold reduction level due to the fact that VMT reduction measures would not be applied to projects that meet the VMT screening criteria and the uncertainty in the cumulative effectiveness of trip reduction measures. Therefore, the Proposed Project's impact on VMT would conservatively remain significant and unavoidable with mitigation.

This significant and unavoidable program-level VMT impact does not preclude the finding of less-than-significant impact for future development projects that achieve VMT below the applicable thresholds of significance. Considering that the implementation of the Proposed Project could result in home-based VMT per capita lower than the townwide averages, and that the Proposed Project policies and the Branson School TDM Plan includes improvements that would further reduce the VMT generated in the Planning Area, it is expected that many future developments would achieve the applicable VMT thresholds of significance.

#### *Mitigation Measures*

**MM VMT-1: Implement VMT Reduction Measures for Town-Owned Sites.** The following VMT reduction measures would apply to the Civic Center and Post Office housing sites.

- Reduced off-street parking requirement: establish a maximum of 1 parking space per unit
- Town-owned Bikeshare Facility: provide a secure bikeshare facility at or near Town Hall with 10 electric bicycles that would be accessible for use via digital methods to Town employees as well as residents of the Civic Center and Post Office housing units

*Significance After Mitigation: Significant and unavoidable.*

**Impact 3.6-3 Implementation of the Proposed Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment) (Less than Significant)**

Implementation of the Proposed Project would involve construction of up to 148 housing units throughout the town, consisting primarily of small scale, infill housing on previously developed lots within the Town limit. While the Project does not specifically propose the construction or realignment of any roadways, access improvements may be needed to accommodate new housing on some proposed housing sites.



Since the Proposed Project is a program-level plan, the design elements of individual future developments and new transportation facilities are not known. However, all future public and private improvement projects and transportation facilities would be subject to additional review and approval to ensure safety. Through the design and engineering review process, Town staff and other potential jurisdiction staff will evaluate development proposals as well as modifications to the existing transportation facilities and new proposed facilities to ensure public health and safety by ensuring adequate and safe sidewalks or crosswalks, dedicated and protected bicycle facilities, realigning sharp curves, prohibiting certain movements, signaling intersections, and improving sight distance, among other measures. All new streets and redesign of existing streets will be completed according to applicable federal, State, and local design standards, such as the California Manual on Uniform Traffic Control Devices, the California Highway Design Manual, the Town Code, and the Town Sidewalk and Pathway Design Guidelines.

Considering that the Proposed Project would not substantially increase hazards due to design features and that it would be compatible with existing uses in the area, impacts would be less than significant.

*Mitigation Measures*

None required.

**Impact 3.6-4 Implementation of the Proposed Project would not result in inadequate emergency access. (*Less than Significant*)**

The Ross Valley Fire Department (RVFD) services Ross, San Anselmo, Sleepy Hollow, and Fairfax. Fire Station 18 is located at 33 Sir Francis Drake Boulevard in Ross and services the town. However, the Fire Station is planned to be closed and consolidated to other existing fires station facilities in nearby San Anselmo and Fairfax. Even so, it is still expected that emergency response vehicles from the RVFD would respond to emergency calls in the Planning Area.

While the Proposed Project is a program-level plan and does not specifically propose the construction or realignment of any roadways, access improvements may be needed to accommodate new housing on some proposed housing sites. However, all such access improvements would be required to comply with applicable provisions of the Town Code and the Ross Valley Fire Department Fire Prevention Standards, which include provisions for premises identification, residential turn arounds, vegetation management, and fire road access gates. In addition, Town staff, including emergency responders, review all development applications to ensure that applicable requirements are met, including provisions for adequate access for emergency responders and response vehicles, consistent with the Fire Code.

Compliance with existing regulations and standards would ensure that Proposed Project impacts related to emergency access would be less than significant.

*Mitigation Measures*

None required.

## 3.7 Wildfire

This section describes the environmental and regulatory setting for wildfires. It also describes events related to wildfires that have already occurred in the Planning Area and that could occur during implementation of the Proposed Project. A wildland fire is a fire in which the primary fuel is natural vegetation and can consume thousands of acres of vegetation, timber and agricultural lands, as well as developed properties located in or adjacent to susceptible areas. Wildfires can be caused by human actions as well as natural events, such as lightning or high winds.

There were no responses to the Notice of Preparation (NOP) regarding topics covered in this section.

## Environmental Setting

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### PHYSICAL SETTING

A wildland fire is a fire in which the primary fuel is natural vegetation and can consume thousands of acres of vegetation, timber and agricultural lands, as well as developed properties located in or adjacent to susceptible areas. Wildfires can be caused by natural events, such as lightning or high winds. Most wildfires in the country are human caused (89 percent on average from 2017 to 2021), although the wildfires caused by lightning tend to be slightly larger and burn more acreage (52 percent of the average acreage burned from 2017 to 2021 was ignited by lightning).<sup>1</sup>

Marin County is an area with a long history of wildland fires. At the county's coastline, mist from fog can keep the land surfaces modestly moist, while inland land surfaces above the fog are often very dry and more susceptible to wildfires. Historically, the most common months for wildfires in the Bay Area are in August, September, and October. Northern California Diablo winds are most common in the late summer through early winter. These winds are warm and lower the relative humidity of the area while drying out vegetation. It is under these wind regimes that California typically experiences its largest and most destructive fires.<sup>2</sup>

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<sup>1</sup> Congressional Research Service. November 2022. Wildfire Statistics. Available: <https://sgp.fas.org/crs/misc/IF10244.pdf>. Accessed: November 14, 2022.

<sup>2</sup> FIRE Safe Marin. December 2020. Marin County Community Wildfire Protection Plan. Available: [https://secureservercdn.net/72.167.25.213/j0i.68d.myftpupload.com/wp-content/uploads/CWPP\\_2020\\_Final\\_1-4-2021\\_FSM\\_published.pdf](https://secureservercdn.net/72.167.25.213/j0i.68d.myftpupload.com/wp-content/uploads/CWPP_2020_Final_1-4-2021_FSM_published.pdf). Accessed: November 14, 2022.

Recent research indicates that higher summer temperatures will likely increase the area burned and fire severity in California, and particularly in Northern California.<sup>3</sup> Future changes in fire frequency and severity are difficult to predict; however, regional climate change associated with elevated greenhouse gas concentrations could alter large weather patterns and produce conditions conducive to extreme fire behavior. A warmer climate will bring drier winters, higher spring temperatures, and early snowmelt. Combined with drought conditions, this leads to drier soils in early summer, drier vegetation, and an increase in the number of days in the year with flammable fuels, all which further raise the likelihood and severity of fires throughout the year.<sup>4</sup>

### **Wildland Urban Interface (WUI) Zones**

The Wildland Urban Interface (WUI) is the transition zone between areas of native vegetation and developed areas. Approximately 60,000 acres – 18 percent of the County’s land area – falls within the wildland urban interface (WUI) where residences (i.e., homes and structures) are adjacent to or intermixed with open space and wildland vegetation.<sup>5</sup> The term “WUI” is not a designation of potential wildfire severity but a defined description of an area where urban development meets undeveloped lands at risk of wildfires. Because of the mix and density of structures with natural fuels in close proximity to each other, combined with more limited access and egress routes, fire management is more complex in WUI environments. In Marin County specifically, many of the access roads within the WUI are narrow and winding and are often on hillsides with overgrown vegetation, making it even more difficult and costly to reduce fire hazards, fight wildfires, and protect homes and lives in these areas.

Ross is located in a valley with steep, wooded hillsides rising to the east and west which serves as a WUI area. Therefore, the Marin Wildfire Prevention Authority is implementing a 38-mile shaded fuel break project around structures in the WUI zones at the periphery of communities adjacent to undeveloped open spaces, including parcels in the Greater Ross Valley. The shaded fuel break will create and maintain a continuous reduced-fuel and forest-health-restoration zone intended to reduce wildfire intensity and rate of spread as well as to provide strategic and safer locations for firefighters and emergency personnel to fight a wildfire in the event of ignition. Figure 3.7-1 shows the WUI areas in Marin County as identified in the Marin County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). The Town of Ross falls almost entirely within a WUI area.

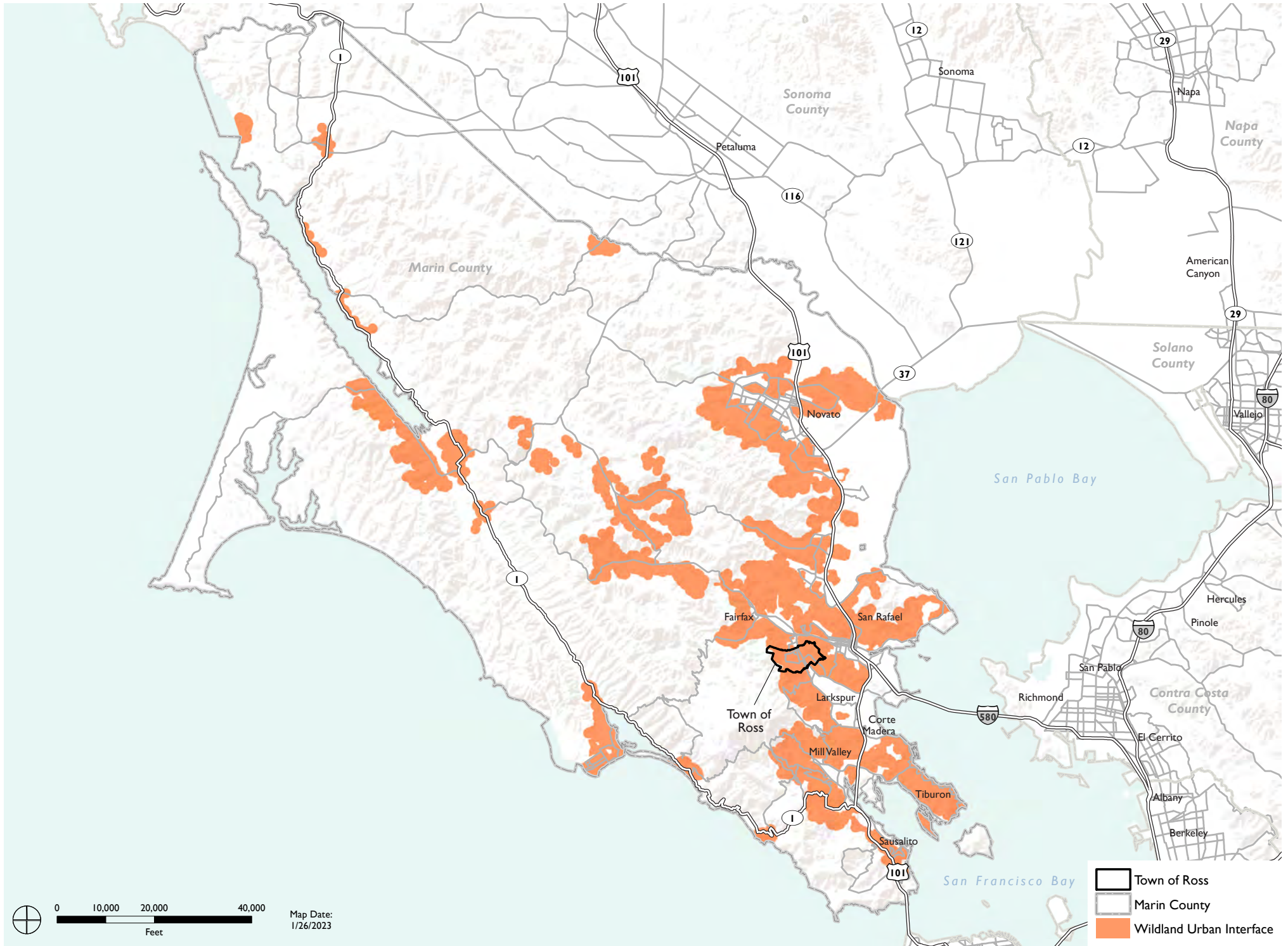
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<sup>3</sup> Westerling A.L. August 2018. Wildfire Simulations for California’s Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate. Available: [https://www.energy.ca.gov/sites/default/files/2019-11/Projections\\_CCCA4-CEC-2018-014\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-014_ADA.pdf). Accessed: November 14, 2022.

<sup>4</sup> FIRE Safe Marin. December 2020. Marin County Community Wildfire Protection Plan. Available: [https://securservercdn.net/72.167.25.213/j0i.68d.myftpupload.com/wp-content/uploads/CWPP\\_2020\\_Final\\_1-4-2021\\_FSM\\_published.pdf](https://securservercdn.net/72.167.25.213/j0i.68d.myftpupload.com/wp-content/uploads/CWPP_2020_Final_1-4-2021_FSM_published.pdf). Accessed: November 14, 2022.

<sup>5</sup> FIRE Safe Marin, Marin County Fire Department, Marin Community Wildfire Protection Plan, December 2020, <https://firesafemarin.org/resources/marin-community-wildfire-protection-plan/>, accessed 7/8/22.

Figure 3.7-1: Wildland Urban Interface (WUI) Areas in Marin County



Source: Marin Map, 2018; Marin County Multi-Jurisdiction Local Hazard Mitigation Plan, 2018; Dyett & Bhatia, 2022

## **Slope and Aspect**

According to CAL FIRE, sloping land increases susceptibility to wildfire because fire typically burns faster up steep slopes and they may hinder firefighting efforts.<sup>6</sup> Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. Aspect is the direction that a slope faces, and it determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation; thus, they are warmer and the vegetation drier than on slopes facing a northerly to northeasterly direction, increasing the potential for wildfire ignition and spread.<sup>7</sup>

Marin County is topographically diverse, with rolling hills, valleys, and ridges that trend from northwest to southeast. Elevation throughout the county varies considerably, with Mt. Tamalpais' peak rising 2,574 feet above sea level and many communities at or near sea level. Correspondingly, there is considerable diversity in slope percentages. The San Geronimo Valley slopes run from level (in the valley itself) to near 70 percent. Mt. Barnabe has slopes that run from 20 percent to 70 percent, and Throckmorton Ridge has slopes that range in steepness from 40 percent to 100 percent. These slope changes can make fighting fires extremely difficult.<sup>8</sup> Within the Town of Ross, the steepest slopes occur along the western and eastern boundaries of the town as shown in Figure 2-1.

## **Historical Wildfires**

The historical record shows that many large wildfires (greater than 500 acres) have occurred in Marin County since 1850. Many more frequent and smaller fires have occurred throughout the county. Fire records for Marin are incomplete, but historic newspaper articles and old fire planning studies document an active fire history going back to the early 20th century. Throughout its history, Marin County has experienced many wildland fires. The most recent fire in Marin County was the Woodward Fire, which was started on August 17, 2020 by lightning from a rare dry lightning weather event. The Woodward Fire was contained by October 9, 2020 at 4,929 acres. The last fire in Marin County that resulted in significant structure loss was the Vision Fire in 1995, which destroyed 48 structures in the community of Inverness. In 1929, the base of Mt. Tamalpais – specifically the community of Mill Valley – experienced a significant fire known as the Great Mill Valley Fire. Historically, the largest and most destructive fires in Marin County, including the Vision Fire, the Angel Island Fire, and the Woodward Fire, have occurred under Diablo winds conditions.<sup>9</sup>

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<sup>6</sup> CAL FIRE 2007b.

<sup>7</sup> Anthony Leroy Westerling, UC Merced. August 2018. Wildfire Simulations for California's Fourth Climate Change Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate. Available: [https://www.energy.ca.gov/sites/default/files/2019-11/Projections\\_CCCA4-CEC-2018-014\\_ADA.pdf](https://www.energy.ca.gov/sites/default/files/2019-11/Projections_CCCA4-CEC-2018-014_ADA.pdf). Accessed : July 19, 2022.

<sup>8</sup> FIRE Safe Marin, Marin County Fire Department, Marin Community Wildfire Protection Plan, December 2020, <https://firesafemarin.org/resources/marin-community-wildfire-protection-plan/>, accessed 7/8/22.

<sup>9</sup> Ibid.

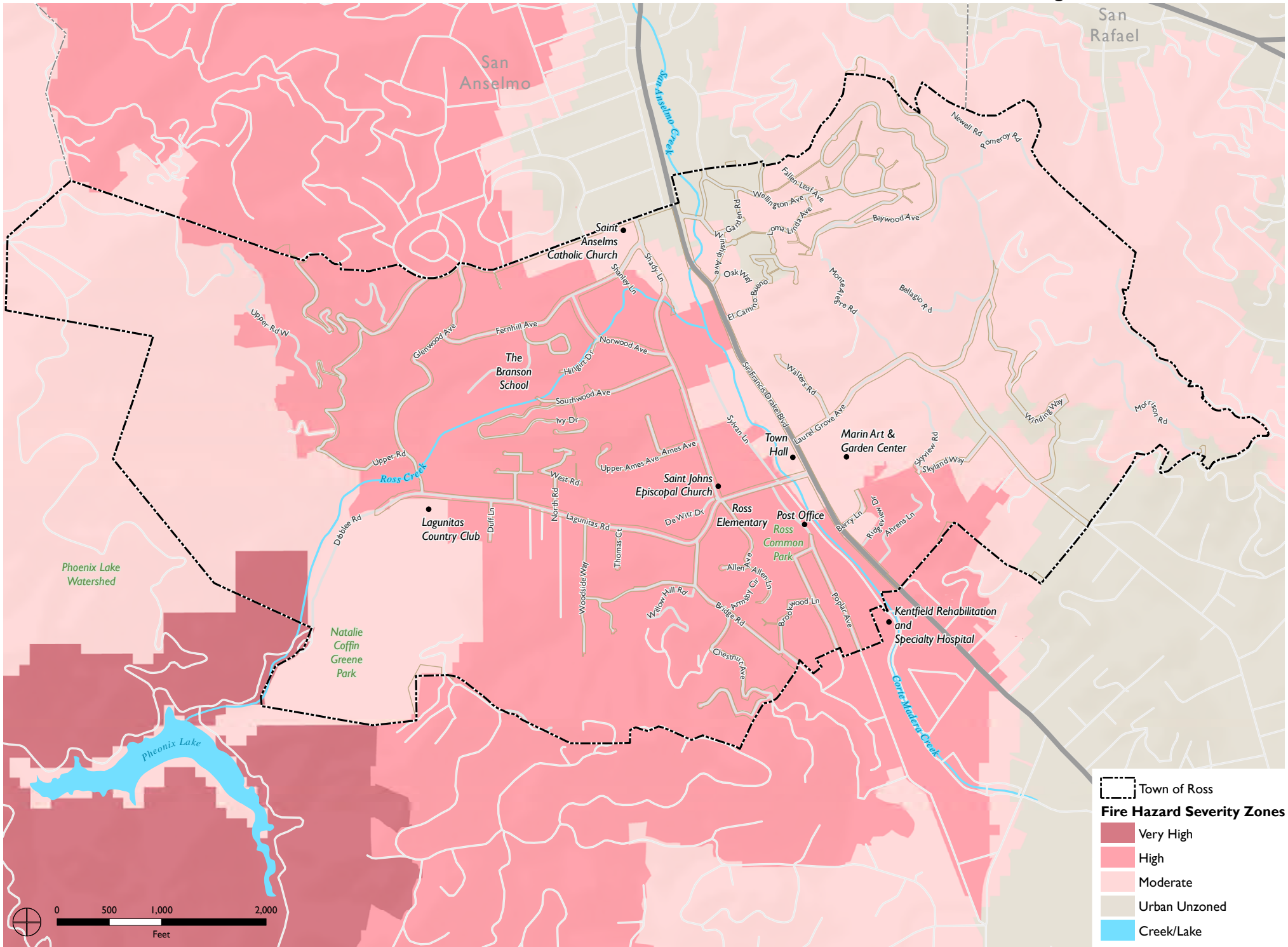
## **WILDFIRE HAZARDS**

Primary responsibility for preventing and suppressing wildland fires in Marin County is divided between local firefighting agencies and the State of California, Department of Forestry and Fire Protection (CAL FIRE). In State Responsibility Areas (SRAs), which are defined according to land ownership, population density, and land use, CAL FIRE has a legal responsibility to provide fire protection. CAL FIRE is not responsible for densely populated areas, incorporated cities, agricultural lands, or federal lands. Local Responsibility Areas (LRAs) include incorporated cities and cultivated agriculture lands. In LRAs, fire protection is provided by local fire departments, fire protection districts, or counties, or by CAL FIRE under contract to local government. The Town of Ross is currently located in an area identified as a Local Responsibility Area (LRA) which is serviced by the Ross Valley Fire Department.

Government Code Sections 51175-89 advise CAL FIRE, to identify areas, or zones, of very high fire hazard severity potential under the Fire and Resources Assessment Program (FRAP). These zones are mapped and identified based on expected burn probabilities, potential fuels over a 30-to-50-year time period, and their correlated expected fire behavior, to better predict the possible vegetation fire exposure to buildings and developments. Under the FRAP, CAL FIRE has mapped a Very High Fire Hazard Severity Zone (VHFHSZ) on a portion of a parcel in the southwest of Ross, and much of the area west of Sir Francis Drake is located in a High Fire Hazard Severity Zone (Figure 3.7-2). New buildings proposed in any Local Agency Very-High Fire Hazard Severity Zone or any Wildland-Urban Interface Fire Area are required to comply with California Building Code Section 701A.3.2 New Buildings Located in Any Fire Hazard Severity Zone. These regulations stipulate materials and construction methods required in areas of exterior wildfire exposure, including vegetation management practices, non-combustible and fire-retardant materials, and ignition-resistant construction.



Figure 3.7-2: Fire Hazards



Source: CAL FIRE Fire Hazard Severity Zones, 2007; Town of Ross Local Hazard Mitigation Plan Update, 2017; MarinMap, 2022; Dyett & Bhatia, 2022

## **REGULATORY SETTING**

### **Federal**

#### *The Disaster Mitigation Act of 2000*

The Disaster Mitigation Act of 2000 requires a state-level mitigation plan as a condition of disaster assistance. There are two different levels of state disaster plans: “Standard” and “Enhanced.” States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act also established new requirements for local mitigation plans.

#### *National Fire Plan*

The National Fire Plan was developed in August 2000, following a historic wildfire season. Its intent is to establish plans for active response to severe wildfires and their impacts on communities while ensuring sufficient firefighting capacity. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

### **State**

#### *California Office of Emergency Services (OES)*

Under the California Emergency Services Act, the State developed an emergency response plan to coordinate emergency services provided by all governmental agencies. The plan is administered by the California Office of Emergency Services (OES). OES coordinates the responses of other agencies, including EPA, the Federal Emergency Management Agency (FEMA), the California Highway Patrol (CHP), regional water quality control boards, air quality management districts, and county disaster response offices. Local emergency response teams, including fire, police, and sheriff’s departments, provide most of the services to protect public health.

OES prepares the State of California Multi-Hazard Mitigation Plan (SHMP). The SHMP identifies hazard risks and includes a vulnerability analysis and a hazard mitigation strategy. The SHMP is federally required under the Disaster Mitigation Act of 2000 for the State to receive Federal funding. The Disaster Mitigation Act of 2000 requires a state mitigation plan as a condition of disaster assistance.

#### *California Public Resources Code – State Responsibility Area*

The California Public Resources Code (PRC) requires the designation of State Responsibility Areas (SRAs), which are identified based on cover, beneficial water uses, probable erosion damage, and fire risks and hazards. The financial responsibility of preventing and suppressing fires in an SRA is primarily the responsibility of the state. Fire protection in areas outside SRAs are the responsibilities of local or federal jurisdictions and are referred to as local responsibility areas and federal responsibility areas, respectively.



### *California Public Resources Code Sections 4201–4204*

This portion of the PRC, most recently amended by AB 9 in 2021, requires the State Fire Marshal to classify Fire Hazard Severity Zones within SRAs. Lands within SRAs are classified in accordance with the severity of fire hazard present to identify measures to be used to retard the rate of spreading and reduce the potential intensity of uncontrolled fires that threaten to destroy resources, life, or property.

### *Very High Fire Hazard Severity Zones*

Government Code Section 51178 requires CAL FIRE to identify very high Fire Hazard Severity Zones in the state. Very high Fire Hazard Severity Zones shall be based on fuel loading, slope, fire weather, and other relevant factors including areas where Santa Ana, Mono, and Diablo winds have been identified by CAL FIRE as a major cause of wildfire spread. Government Code Section 51179 requires a local agency to designate, by ordinance, very high Fire Hazard Severity Zones in its jurisdiction. As shown on Figure 3.7-2, CAL FIRE has designated an area in the southwestern portion of the Planning Area as a Very High Fire Hazard Severity Zone.

### *California Board of Forestry*

The Board of Forestry maintains fire safe road regulations, as part of Title 14 of the California Code of Regulations (CCR). This includes requirements for road width, surface treatments, grade, radius, turnarounds, turnouts, structures, driveways, and gate entrances. These regulations are intended to ensure safe access for emergency wildland fire equipment and civilian evacuation.

### *California Fire and Building Codes (2019)*

The California Fire Code is Chapter 9 of CCR Title 24. It establishes the minimum requirements consistent with nationally recognized good practices to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structure, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The California Fire Code regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The California Fire Code and the California Building Code (CBC) use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines and specialized equipment. To ensure that these safety measures are met, the California Fire Code employs a permit system based on hazard classification. The provisions of this Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California.

More specifically, the Fire Code is included in Title 24 of the CCR. Title 24, part 9, Chapter 7 addresses fire-resistances-rated construction; CBC (Part 2), Chapter 7A addresses materials and construction methods for exterior wildfire exposure; Fire Code Chapter 8 addresses fire related

Interior finishes; Fire Code Chapter 9 addresses fire protection systems; and Fire Code Chapter 10 addresses fire related means of egress, including fire apparatus access road width requirements. Fire Code Section 4906 also contains existing regulations for vegetation and fuel management to maintain clearances around structures. These requirements establish minimum standards to protect buildings located in Fire Hazard Severity Zones (FHSZs) within SRAs and Wildland-Urban Interface (WUI) Fire Areas. This code includes provisions for ignition-resistant construction standards for new buildings.

#### *Wildland-Urban Interface Building Standards*

On September 20, 2007, the Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the CCR Title 24, Part 2, known as the 2007 CBC. These codes include provisions for ignition-resistant construction standards in the WUI.

- Interface zones are areas with dense housing adjacent to vegetation that can burn and meeting the following criteria:
- Housing density class 2 (one house per 20 acres to one house per 5 acres), 3 (more than one house per 5 acres to one house per acre), or 4 (more than one house per acre)
- In moderate, high, or very high Fire Hazard Severity Zone
- Not dominated by wildland vegetation (i.e., lifeform not herbaceous, hardwood, conifer, or shrub)
- Spatially contiguous groups of 30-meter cells<sup>10</sup> that are 10 acres and larger

Intermix zones are housing development interspersed in an area dominated by wildland vegetation and must meet the following criteria:

- Not interface
- Housing density class 2
- Housing density class 3 or 4, dominated by wildland vegetation
- In moderate, high, or very high Fire Hazard Severity Zone
- Improved parcels only
- Spatially contiguous groups of 30-meter cells 25 acres and larger

Influence zones have wildfire-susceptible vegetation up to 1.5 miles from an interface zone or intermix zone.<sup>11</sup>

#### *The California Fire Plan*

The Strategic Fire Plan for California is the State's road map for reducing the risk of wildfire. The most recent version of the Plan was finalized in August 2018 and directs each CAL FIRE Unit to revise and update its locally-specific Fire Management Plan. These plans assess the fire situation within each of the 21 CAL FIRE units and six contract counties. These plans address wildfire

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<sup>10</sup> Note that "30-meter cells" refers to raster data, and indicates data is presented as 30-meter by 30-meter squares.

<sup>11</sup> CAL FIRE 2019b.

protection areas, initial attack success, assets and infrastructure at risk, pre-fire management strategies, and accountability within their geographical boundaries.

#### *State Emergency Plan*

The foundation of California's emergency planning and response is a statewide mutual aid system which is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation.

The California Disaster and Civil Defense Master Mutual Aid Agreement (California Government Code Sections 8555–8561) requires signatories to the agreement to prepare operational plans to use within their jurisdiction, and outside their area. These plans include fire and non-fire emergencies related to natural, technological, and war contingencies. The State of California, all State agencies, all political subdivisions, and all fire districts signed this agreement in 1950.

The “California Emergency Services Act,” in Section 8568 of the California Government Code, states that “the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof.” The Act provides the basic authorities for conducting emergency operations following the proclamations of emergencies by the Governor or appropriate local authority, such as a City Manager or County Administrator. The provisions of the act are further reflected and expanded on by appropriate local emergency ordinances. The Act further describes the function and operations of government at all levels during extraordinary emergencies, including war.

All local emergency plans are extensions of the State of California Emergency Plan. The State Emergency Plan conforms to the requirements of California's Standardized Emergency Management System (SEMS), which is the system required by Government Code 8607(a) for managing emergencies involving multiple jurisdictions and agencies. The SEMS incorporates the functions and principles of the Incident Command System (ICS), the Master Mutual Aid Agreement, existing mutual aid systems, the operational area concept, and multi-agency or inter-agency coordination. Local governments must use SEMS to be eligible for funding of their response-related personnel costs under state disaster assistance programs. The SEMS consists of five organizational levels that are activated as necessary, including: field response, local government, operational area, regional, and state. OES divides the state into several mutual aid regions. The Town of Ross is located in Mutual Aid Region II, which includes Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, Marin, Solano, Contra Costa, San Francisco, San Mateo, Alameda, Santa Clara, Santa Cruz, San Benito, and Monterey Counties.

#### *Government Code Sections 65302 and 65302.5, Senate Bill 1241 (Kehoe) of 2012*

Senate Bill (SB) 1241 requires cities and counties to address fire risk in SRAs and Very High FHSZs in the safety element of their general plans. The bill also amended CEQA to direct amendments to the CEQA Guidelines Appendix G environmental checklist to include questions related to fire hazard impacts for projects located in or near lands classified as SRAs and Very High FHSZs. In adopting these Guidelines amendments, the Governor's Office of Planning and Research

recognized that generally, low-density, leapfrog development may create higher wildfire risks than high-density, infill development.<sup>12</sup>

#### *California Public Utilities Commission General Order 166*

General Order 166 Standard 1.E requires that investor-owned utilities (IOU) develop a Fire Prevention Plan which describes measures that the electric utility will implement to mitigate the threat of power-line fires generally. Additionally, this standard requires that IOUs outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning in a high fire threat area. Fire Prevention Plans created by IOUs are required to identify specific parts of the utility's service territory where the conditions described above may occur simultaneously. Standard 11 requires that utilities report annually to the California Public Utilities Commission (CPUC) regarding compliance with General Order 166. In compliance with Standard 1.E of this General Order, Pacific Gas and Electric Company (PG&E) adopted a 2022 Wildfire Mitigation Plan Update dated February 25, 2022. PG&E developed a High Fire Risk Area (HFRA) map that designates steeper areas of Ross as Tier 2 and Tier 3 High Fire Threat Districts (HFTD). Tier 2 and Tier 3 HFTDs are intended to identify areas where stricter fire-safety regulations are to be applied from wildfires associated with overhead utility power lines and overhead utility power-line facilities.

### **Regional**

#### *Marin Community Wildfire Protection Plan (CWPP)*

The Marin County Community Wildfire Protection Plan (CWPP) provides a science-based assessment of wildfire hazards and threats to homes in the wildland urban interface (WUI) of Marin County, California. The Marin CWPP was published in 2016 and updated in 2020. This Marin CWPP was developed through a collaborative process involving Fire Safe Marin, Marin County fire agencies, county officials, county, state, and federal land management agencies, and community members. The purpose of the CWPP is to provide fire agencies, land managers, and other stakeholders in Marin County with guidance and strategies to reduce fire hazard and the risk of catastrophic wildfires in the WUI, while promoting the protection and enhancement of the county's economic assets and ecological resources.

#### *Marin County Multi-Jurisdiction Local Hazard Mitigation Plan (LHMP)*

The 2018 Marin County Multi-Jurisdiction Local Hazard Mitigation Plan defines measures to reduce risks from natural disasters in the Marin County Operational Area, which consists of the entire county, including unincorporated areas, incorporated cities, and special purpose districts. The plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency (FEMA) grant programs for all planning partners.

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<sup>12</sup> "Leapfrog development" describes the construction of new development at a distance from existing developed areas, with undeveloped land between the existing and new development.

#### *Marin County Emergency Operations Plan (EOP)*

The 2014 County's Emergency Operations Plan is a guidebook for the Marin County Operational Area (OA) to utilize during phases of an all-hazards emergency management process which include preparedness, response, recovery, and mitigation. The EOP is intended to facilitate coordination between agencies and jurisdictions within Marin County while ensuring the protection of life, property, and the environment during disasters. In accordance with California's Standardized Emergency Management System (SEMS), this Plan provides the framework for a coordinated effort between partners and provides stability and coordination during a disaster.

#### *Marin Wildfire Prevention Authority (MWPA) Evacuation Ingress/Egress Risk Assessment*

The Marin Wildfire Prevention Authority (MWPA) is the public agency that coordinates the county-wide response to prepare and adapt to wildfire. Their Evacuation Risk Assessment project includes the construction of a set of risk factors and dynamic models of wildfire spread, taking into account the communications processes and transportation networks to simulate the wildfire evacuation process in Marin County. Based on these risk factors and models, the proposal includes the development of an evacuation planning software application to simulate the effect of different risks as they would impact each road and roadway within the jurisdictions served by the MPWA member agencies.

This tool will help MWPA agencies prioritize areas of highest concern and help identify possible risk mitigation. The product will provide multiple layers of decision-making processes for MWPA members' use. For strategic and policy level decisions, the initial development of the tool will allow users to see a geographic representation of the highest risk routes, and the factors that are driving the risk (fire risk conditions, roads and roadways conditions, traffic conditions, etc.). For practitioners and technical staff, a second phase of the tool's development will allow users to enter the parameters of a proposed mitigation project and assess its impact on risk.

#### *Ross Valley Fire Department Residential Property Resale Inspection*

The Ross Valley Fire Department enforces its vegetation management regulations through a "Resale Inspection" program. Resale Inspections occur whenever a property is (re)sold in the town of Ross and other communities in the Ross Valley. Fire inspectors visit properties listed for sale to conduct vegetation hazard inspections prior to sale. Current vegetation management standards and codes are included with property sale disclosures, and the vegetation hazard and mitigation requirements become part of the listed "disclosures" during the sale of the property. Mitigation actions and cost are shared by the seller and buyer and must be completed as outlined in the related fire and municipal codes.

### **Local**

#### *Town of Ross Local Hazard Mitigation Plan (LHMP)*

Adopted in 2012 and updated in 2017, the Town of Ross LHMP identifies and evaluates hazard risks to which the Town is vulnerable and identifies goals, strategies, and actions for reducing future disaster losses. Specifically, the plan details emergency response preparations and practices to

minimize risks of fire danger. Such mitigation strategies include requiring fire-resistant building materials, road access for emergency vehicles, reliable sources of water for fire suppression, fire-preventative vegetation management techniques, fire-safety inspections, fire sprinklers, evacuation plans, weather monitoring, and public education.

*Town of Ross General Plan 2007-2025 (General Plan)*

The Town of Ross General Plan 2007-2025 (General Plan) includes the following goals and policies associated with wildfire:

**Goal 5: Protecting Community Health and Safety, and Preparing for Emergencies**

**Policy 5.1 Location of Future Development.** Development will only be permitted in areas where risks to residents can be adequately mitigated.

**Policy 5.2: Geologic Review Procedures.** At the time a development is proposed, Ross geologic and slope stability maps should be reviewed to assess potential geologic hazards. In addition, suitability for development must be based on site-specific geotechnical investigations.

**Policy 5.3: Fire Resistant Design.** Buildings should be designed to be fire defensive. Designs should minimize risk of fire by a combination of factors including, but not limited to, the use of fire-resistant building materials, fire sprinklers, noncombustible roofing and defensible landscaping space.

**Policy 5.4: Maintenance and Landscaping for Fire Safety.** Ensure that appropriate fire safety and landscaping practices are used to minimize fire danger, especially in steeper areas. Due to the high fire hazard in the steeper areas of Town, special planting and maintenance programs will be required to reduce fire hazards in the hills and wildland areas, including removal of invasive non-native vegetation such as broom, acacia and eucalyptus.

**Policy 5.5: Fire Safety in New Development.** New construction will adhere to all safety standards contained in the Building and Fire Code. Hazards to life and property shall be minimized by such measures as fire preventive site design, fire resistant landscaping and building materials, and the use of fire suppression techniques and resources.

*Town of Ross Municipal Code (Town Code)*

The California Building Code (Chapter 15.05 of the Town Code) and Fire Code (Chapter 14.04 of the Town Code) contain all fire safety standards that development must adhere to in the town. The Hillside Lot Ordinance (Ross Municipal Code, Chapter 18.39) also establishes a variety of requirements to reduce the threat of wildfires including the clearance of brush and vegetative growth from structures and driveways and the creation of defensible spaces around each building and structure as prescribed by the California Fire Code and the State Public Resources Code.

## Impact Analysis

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### SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant impact would occur if the Proposed Project would:

- Criterion 1:** Substantially impair an adopted emergency response plan or emergency evacuation plan;
- Criterion 2:** Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- Criterion 3:** Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- Criterion 4:** Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

### ASSUMPTIONS AND METHODOLOGY

Impacts related to wildfire hazards and risks were evaluated using a review of FHSZ mapping for the Planning Area and research prepared in compliance with federal, State, and local laws, regulations and professional standards pertaining to wildfire. CEQA does not generally require an agency to consider the effects of existing environmental conditions on a project's future users or residents. Consequently, impacts under the thresholds identified below would only be considered significant if the Proposed Project risks exacerbating those existing environmental conditions.

### IMPACTS

- Impact 3.7-1** Implementation of the Proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

Sir Francis Drake Boulevard is the principal evacuation route available in and out of the Ross Valley in the event of a natural hazard event. Increased development under the Proposed Project would increase traffic on Sir Francis Drake; however, there is a robust framework of emergency preparedness and evacuation actions in place to facilitate evacuation.

The RVFD has published detailed emergency evacuation maps and information on preparedness. Such maps highlight temporary refuge areas, lower risk areas, WUI elevated risk areas, safe routes, and evacuation routes in order to inform residents about emergency evacuation procedures. Maps also detail neighborhood zones to inform citywide evacuation routes. RVFD also disseminates

helpful evacuation tips to residents, such as on what to wear, where to go, and what to avoid doing in the event of an emergency.

Similarly, Fire Safe Marin, a non-profit organization dedicated to reducing fire hazards, promotes fire safety awareness and helps residents prepare for wildfires in Marin County. Their Safe Evacuation Routes program aims to create safe evacuation routes for residents and emergency responders by investing in fuel reduction in Central Marin and Ross Valley. The Central Marin and Ross Valley Wildfire Access/Egress Fuel Reduction Program was initiated to reduce vegetation fuels adjacent to primary ingress and egress evacuation route roadways in central Marin County. The project heightens the safety of evacuating residents and provides alternate or improved means of access and egress for responding fire apparatus.

In addition, Marin County has developed AlertMarin which is the county's system used for notification when there is some sort of imminent threat (wildfire, flooding, criminal activity) and residents need to take some sort of protective action (evacuate, shelter in place). Residents can register to receive emergency alerts sent by call, text, email, or smartphone application from the County of Marin. The associated Marin County Public Information Map displays information useful during emergency situations, such as evacuation zones and zone status and major incidents such as wildfires, controlled burns, and road closures. The Marin Sheriff's Office of Emergency Services (OES) and other public safety agencies aim to keep this information current at all times.

The Town of Ross LHMP also details emergency response and evacuation preparations to minimize risks of fire danger. Such mitigation strategies include ensuring that all dead-end segments of roads and/or long driveways include turn-arounds sufficient for fire equipment, hillside areas provide adequate access roads, fire roads and public right-of-way roads are maintained, fuel and other equipment will be available for emergency vehicles and responders, the consideration of evacuation and emergency vehicle access when reviewing proposals to add secondary units, and public education on evacuation procedures, as well as developing plans for evacuation for Ross and Branson school children.

In total, development associated with the Proposed Project would house additional residents in the Planning Area which would make it necessary to evacuate more people in the event of a wildfire. However, there are numerous robust strategies in place from regional and local planning efforts to facilitate emergency response and evacuation plans. Therefore, housing development associated with the Proposed Project would not impede the implementation of emergency response and evacuation plans and this impact would be less than significant.

#### *Mitigation Measures*

None required.



**Impact 3.7-2 Implementation of the Proposed Project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)**

As shown in Figure 3.7-2, much of Ross is located in a High Fire Hazard Severity Zone as mapped by CAL FIRE and an area in the southwestern part of town is in a Very High Fire Hazard Severity Zone. There is extensive existing development within the HFHSZ in Ross, consisting primarily of low density single-family homes, small-scale commercial development downtown, and public and institutional uses including the Ross and Branson School, and the Post Office. As such, additional small-scale, infill residential development in these areas as envisioned under the Proposed Project would not substantially exacerbate wildfire risk. A portion of the Berg site is within a VHFHSZ, and while no specific development is proposed on this site, implementation of the Proposed Project could potentially result in the extension of utility infrastructure in the vicinity of the VHFHSZ.

However, all new construction under the Proposed Project would be subject to the California Fire Code, which include safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves and vents to prevent intrusion by flame or embers. A Fire Protection Plan would be required for construction and development in areas designated as Wildland-Urban Interface (WUI), and/or Moderate, High, or Very High Fire Hazard Severity Zone per the Town Code's Fire Code (Chapter 14.04). Such plans describe ways to minimize and mitigate potential for loss from wildfire exposure. Construction would also be required to meet CBC requirements, including CCR Title 24, Part 2, which includes specific requirements related to exterior wildfire exposure. The Board of Forestry, via CCR Title 14, sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards. The codes and regulations would reduce the risk of loss, injury, or death from wildfire for new developments encouraged by the Proposed Project.

As such, compliance with existing State and local codes, plans, and regulations would reduce impacts to the maximum extent practicable and, therefore, impacts related to exacerbated wildfire risks, increased exposure to pollutant concentrations from a wildfire, and uncontrolled spread of wildfire resulting from implementation of the Proposed Project would be less-than-significant.

*Mitigation Measures*

None required.

**Impact 3.7-3 Implementation of the Proposed Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (*Less than Significant*)**

As noted above, implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. Given that development under the Proposed Project would occur primarily on infill sites and that these sites are already served by local stormwater drainage, energy, and telecommunications systems; there would generally not be a need for expansion of existing systems or the construction of new systems. As described above, while the Proposed Plan may result in the need to extend utility infrastructure to vacant land in steeper terrain within Ross, all new construction would be required to comply with the provisions of the CBC Section 701A.3.2 regarding New Buildings Located in Any Fire Hazard Severity Zone, as well as with CCR Title 14 and the provisions of the Town's Fire Code (Chapter 14.04). Further, potential environmental impacts related to the construction and installation of such infrastructure - including impacts to biological, cultural, geologic resources; seismic hazards; and GHG emissions - are identified and mitigated in this EIR. As such, to the extent that the installation or maintenance of infrastructure is required with implementation of the Proposed Project, compliance with applicable State and local codes, plans, and regulations would reduce associated environmental impacts to a less-than-significant level.

*Mitigation Measures*

None required.

**Impact 3.7-4 Implementation of the Proposed Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less than Significant with Mitigation Incorporated*)**

Ross is located in a valley with steep, wooded hillsides rising to the east and west. The risk of landslides in the hilly terrain could be exacerbated if existing vegetation is substantially removed during a wildfire event. As described above, the Marin Wildfire Prevention Authority is implementing a shaded fuel break project around structures in the wildland-urban interface (WUI) at the periphery of communities adjacent to undeveloped open spaces, including Ross. The shaded fuel break will create and maintain a continuous reduced-fuel and forest-health-restoration zone intended to reduce wildfire intensity and rate of spread as well as to provide strategic and safer locations for firefighters and emergency personnel to fight a wildfire in the event of ignition. As such, the shaded fuel break project will help to limit the potential for wildfire in wooded areas of Ross. Further, under the Proposed Project, new housing development is anticipated to occur primarily in the central part of Ross, not in the areas of greatest landslide risk. As described in Chapter 3.3 of this Draft EIR, development in areas of steeper terrain under the Proposed Project would be required to comply with the provisions of Chapter 18.39 of the Town Code, which

contains hillside lot regulations and standards, as well as with NPDES requirements for erosion control, and the provisions of Chapter 12.28 of the Town Code which require implementation of stormwater controls. Mitigation Measures GEO-1, requiring additional erosion protection measures for larger projects in areas of slope instability, and GEO-2, establishing building setbacks from the top/toe of slopes, would further reduce the potential for landslides. Therefore, the risk of landslides would be reduced to the maximum extent practicable with compliance with existing regulations related to hillside construction and erosion control as well as implementation of Mitigation Measures GEO-1 and GEO-2. Accordingly, impacts related to post-fire hazards would be less than significant.

*Mitigation Measures*

**MM GEO-1: Landslides and Slope Stability.**

**MM GEO-2: Setbacks.**

*Significance After Mitigation:* Less than significant

## 4 Alternatives Analysis

The Ross General Plan Housing Element Update (Proposed Project) is described and analyzed in Chapter 3, Sections 3.1 through 3.7, of this Environmental Impact Report (EIR), with an emphasis on potentially significant impacts and recommended mitigation measures to avoid the impacts. The California Environmental Quality Act (CEQA) Guidelines require a description and comparative analysis of a range of alternatives to the Proposed Project that could feasibly attain the objectives of the Proposed Project while avoiding or substantially lessening potential impacts. The CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The following discussion is intended to inform the public and decision-makers about feasible alternatives that would avoid or substantially lessen the significant effects of the Proposed Project. It also compares such alternatives to the Proposed Project. Section 15126.6 of the CEQA Guidelines states that:

*An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.*

CEQA Section 15126.6(f) states that the alternatives in an EIR should be governed by a “rule of reason.” It requires the EIR to set forth the alternatives necessary to permit a reasoned choice that would avoid or substantially lessen any significant effects and feasibly attain most of the project objectives. Project objectives are described in Chapter 2 of this EIR. The Proposed Project would result in significant and unavoidable impacts related to greenhouse gas (GHG) emissions (Impact 3.4-2) and transportation (Impact 3.6-2). CEQA Guidelines Section 15126.6(e) requires consideration of a No Project Alternative in every EIR. In the case of the Proposed Project, the No Project Alternative is a scenario in which the Proposed Project is not adopted. The following discussion includes an evaluation of the Redesigned Civic Center Alternative and the Increased Development on the Valley Floor Alternative. A No Project Alternative and Reduced Development Alternative were also considered; however, for reasons discussed in Section 4.2, below, these alternatives were determined to be infeasible and therefore are not analyzed in detail.

## **PURPOSE**

All California cities and counties are required to have a Housing Element included in their General Plan which establishes housing objectives, policies, and programs in response to community housing conditions and needs. This Housing Element has been prepared to respond to current and near-term future housing needs in the Town of Ross and provide a framework for the community's longer-term approach to addressing its housing needs.

The Housing Element contains goals, updated information and strategic directions (policies and implementing actions) that the Town is committed to undertaking. Housing affordability in Marin County and in the Bay Area as a whole is a critical issue. Over the past thirty years, housing costs have ballooned, driven by rising construction costs and land values, and homeownership in Ross and throughout Marin County has become an ever more distant dream for many people. The typical home value in Ross in June 2022 was more than \$4.7 million, an increase of 25.1 percent over the previous year. The double-edged sword of steep home prices is apparent as subsequent generations are priced out of the local housing market. Similarly, people who work in Ross are often forced to live far away where housing is more affordable and high housing costs have become a significant obstacle to hiring teachers, first responders, and others essential to the community.

The Housing Element touches many aspects of community life. It builds upon the goals, policies and implementing programs contained in the City's 2015-2023 Housing Element and other Town policies and practices to address housing needs in the community. The overall focus of the Housing Element is to preserve and enhance community life, character, and serenity through the provision of adequate housing opportunities for people at all income levels, while being sensitive to the unique and historic character of Ross that residents know and love.

## **OBJECTIVES**

The guiding principles stated below were developed during the Housing Element process and, for purposes of CEQA analysis, serve as the project objective.

1. **Maintain Quality of Life.** Maintain the high quality of life, small town charm and historic character of Ross, which make it distinctive and enjoyable to its residents.
2. **Assure Diversity of Population.** Assess housing needs and provide a vision for housing within the Town to satisfy the needs of a diverse population.
3. **Provide a Variety of Housing Opportunities.** Provide a variety of housing opportunities proportionally by income to accommodate the needs of people who currently live in Ross, such as elderly residents and large families.
4. **Address Regional Housing Needs Allocation (RHNA).** Ensure capacity for the development of new housing to meet the Regional Housing Need Allocation at all income levels for the 2023-2031 planning period.
5. **Maintain Existing Housing.** Maintain the existing housing stock to assure high quality maintenance, safety, and habitability of existing housing resources.

6. **Address Affordable Housing Needs.** Continue existing and develop new programs and policies to meet the projected affordable housing need of extremely low, very low, low and moderate-income households.
7. **Address the Housing Needs of Special Need Groups.** Continue existing and develop new programs and policies to meet the projected housing needs of persons living with disabilities, elderly residents, and other special needs households in the community.
8. **Remove Potential Constraints to Housing.** Evaluate potential constraints to housing development and encourage new housing in locations supported by existing or planned infrastructure, while maintaining existing neighborhood character. Develop design directions to help eliminate barriers to the development of housing for all income levels.
9. **Provide for Special Needs Groups.** Provide for emergency shelter, transitional and supportive housing opportunities.
10. **Provide Adequate Housing Sites.** Identify appropriate housing sites, within specified areas proximate to transportation, shopping and schools, and the accompanying zoning required to accommodate housing development.

## **4.1 Alternatives Analyzed in This EIR**

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### **REDESIGNED CIVIC CENTER ALTERNATIVE**

This alternative would not involve development of workforce housing at the Ross Post Office, but would instead involve the development of six additional affordable units on the Civic Center site for a total of 12 housing units as part of the Master Plan project. As with the Proposed Project, the historic Town Hall and Fire House would be preserved on site and housing development at the Ross Civic Center site would be located on the corporate yard in the northern portion of the site away from the historic Town Hall and Fire House. The total number of new housing units would be the same as with the Proposed Project; however, the alternative would result in more affordable units closer to transit on Sir Francis Drake Boulevard.

### **INCREASED DEVELOPMENT ON THE VALLEY FLOOR ALTERNATIVE**

This alternative would focus more residential development in the more walkable areas of Ross within a half mile of transit service on Sir Francis Drake Boulevard to cumulative VMT and GHG emissions by promoting more compact housing development in mixed use areas and the downtown of Ross. To achieve this, the inventory and action plan would be revised to facilitate more residential development on institutional and public sites and to incentivize ADU/JADU production within a half mile of Sir Francis Drake Boulevard only, rather than throughout the Town. Specifically, this would involve 9 units at the Civic Center, 9 units at the post office, 15 units at Branson, and 5 units at MAGC. The additional 16 affordable units on these sites would be offset by a commensurate reduction in ADU projections to 8 per year for a total of 64 over the planning period. As such, the number of housing units developed under this Alternative would be equivalent to the Proposed Project.

Studies have shown that promoting more compact housing development in mixed land use areas is more strongly correlated to increases in non-vehicular modes of travel and reduction of VMT. As such, this alternative would address the significant impacts of the Proposed Project related to VMT and GHG emissions. This alternative would implement the project objectives and develop housing on the sites identified in the Proposed Project as well as provide six additional housing units at the Civic Center site compared to the Proposed Project.

## **4.2 Alternatives Considered but Not Evaluated in Detail in this EIR**

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Two alternatives to the Proposed Project that could avoid or substantially reduce the significant impacts of the Proposed Project were considered, a No Project Alternative and a Reduced Development Alternative. However, as described below, these alternatives were determined to be infeasible and therefore are not analyzed further.

### **NO PROJECT ALTERNATIVE**

State CEQA Guidelines Section 15126.6(e) requires an EIR to analyze the specific alternative of “No Project”. The purpose of describing and analyzing the No Project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impact of not approving the proposed project. The No Project Alternative shall discuss the existing conditions at the time the EIR notice of preparation is published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Additionally, State CEQA Guidelines Section 15126.6(e)(3)(a) states that when the project is the revision of an existing land use or regulatory plan, the “No Project” alternative will be the continuation of the existing plan. Typically, this is a situation where new projects would be proposed under the existing plan. Thus, the impacts of the proposed project would be compared to the impacts that would occur under the existing plan.

Under the No Project Alternative, the Town would not update the existing 2015 to 2023 Housing Element. The existing Housing Element would continue to direct the Town’s decisions related to housing development and the RHNA assignment of 18 units in the current Housing Element would remain the Town’s goal for new housing units. The 2015 to 2023 Housing Element goals, policies, and implementing programs would continue to guide Town decisions regarding housing within the Planning Area. Under these conditions it would be reasonable to assume that applications for new housing developments consistent with the 2015 to 2023 Housing Element would continue to be submitted and approved.

However, the No Project Alternative does not meet any of the Housing Elements Update project objectives. This is because all California cities and counties are required to have a Housing Element included in their General Plan which establishes housing objectives, policies, and programs in response to community housing conditions and needs. Under State law, each city and county in California must plan to accommodate its share of the regional housing need - called the Regional

Housing Needs Allocation (RHNA) - for the coming 8-year planning period. Therefore, the No Project Alternative is not considered a feasible project alternative and therefore is not analyzed further.

## **REDUCED DEVELOPMENT ALTERNATIVE**

A reduced amount of housing development was considered since it would likely have reduced impacts related to cumulative VMT and cumulative GHG emissions. Given that there is no existing transit service operating within the Town of Ross except along Sir Francis Drake Boulevard, the residents housing more than 0.5 miles from that corridor would likely require a private automobile. Nevertheless, a reduction in the number of housing units compared to the Proposed Project would likely result in reduced VMT impacts and associated GHG emissions. However, this Alternative would not meet the basic Housing Element Update project objectives. Under State law, each city and county in California must plan to accommodate its share of the regional housing need - called the Regional Housing Needs Allocation (RHNA) - for the coming 8-year planning period. Therefore, the number of housing units associated with the Proposed Project is required by State law. Consequently, this alternative would also be infeasible and is not analyzed further.

## **4.3 Impact Analysis of Alternatives**

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### **REDESIGNED CIVIC CENTER ALTERNATIVE**

#### **Biological Resources**

Under the Redesigned Civic Center Alternative, development in the Planning Area would proceed at the sites identified for development under the Proposed Project, with an additional six units at the Civic Center site and zero units at the Post Office site. Because the Redesigned Civic Center Alternative would still allow development, including construction and demolition, the Alternative would have similar biological resources impacts compared to those of the Proposed Project. However, since the development of six units at the Post Office site is shifted to the Civic Center site under this Alternative, impacts on special-status species and riparian habitat that may reside near the Post Office site would be slightly less than that of the Proposed Project. As such, biological resource impacts under the Redesigned Civic Center Alternative would result in less-than-significant impacts with mitigation related to special-status species and wildlife movement and a less than cumulatively considerable contribution to significant cumulative biological resources impacts. Therefore, applicable mitigation measures presented in Chapter 3.1 of the EIR would be implemented as necessary to reduce biological resources impacts under the Redesigned Civic Center Alternative.

#### **Cultural, Tribal, and Historic Resources**

Under the Redesigned Civic Center Alternative, development in the Planning Area would proceed as envisioned under the Proposed Project. Excavation, grading, or demolition activities in the Planning Area would still occur at sites identified for development under the Proposed Project. Equivalent to the Proposed Project, all housing development at the Ross Civic Center site will be located on the vacant north corporate yard in order to avoid potential construction impacts to the



existing historic Ross Town Hall and Fire House. Further, redevelopment of the Civic Center site would be required to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. Therefore, applicable State and local regulations and mitigation measures presented in Chapter 3.2 of this EIR would be implemented as necessary to reduce cultural, tribal, and historic resources impacts under the Redesigned Civic Center Alternative.

### **Geology, Soils, and Seismicity**

Under the Redesigned Civic Center Alternative, development in the Planning Area would proceed as envisioned under the Proposed Project, with an addition of six housing units at the Civic Center site. Excavation, grading, or demolition activities in the Planning Area would still occur at sites identified for development under the Proposed Project. Because the Redesigned Civic Center Alternative would still allow development at roughly the same intensities as the Proposed Project, the Redesigned Civic Center Alternative would have similar impacts related to geology, soils, and paleontological resources compared with the Proposed Project, which would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State and local regulations. Therefore, applicable mitigation measures presented in Chapter 3.3 of this EIR would be implemented as necessary to reduce impacts related to geology, soils, and seismicity under the Redesigned Civic Center Alternative.

### **Greenhouse Gas Emissions**

Under the Redesigned Civic Center Alternative, development in the Planning Area would proceed as envisioned under the Proposed Project, with an addition of six housing units at the Civic Center site. Demolition and construction activities, as well as new operational sources of GHG emissions, would still occur throughout the Planning Area. This Alternative would thus be expected to have a similar duration for construction activities, which would result in roughly equivalent impacts from construction-related emissions. Operation of land uses supported by the Alternative would generate direct and indirect GHG emissions similar to that of the Proposed Project. Applicable mitigation measures presented in Chapter 3.4 of the EIR would be implemented as necessary to reduce construction-related and operational GHG emissions impacts under the Redesigned Civic Center Alternative. Further, GHG emissions from mobile sources would still conflict with goals of SB 743 under the Redesigned Civic Center Alternative and it would have a significant and unavoidable impact.

### **Noise**

Buildout of the Redesigned Civic Center Alternative would result in the same number of housing units as the Proposed Project. Therefore, similar construction and associated construction noise and vibration would result, meaning roughly equivalent impacts would occur under this Alternative as compared to the Proposed Project. This Alternative would include all Town of Ross General Plan policies and Town Code regulations to implement construction noise control measures, as well as mitigation measures proposed in Chapter 3.5 of this EIR. As a result, construction noise and vibration levels would be similar under this Alternative compared with the Proposed Project. Overall, noise and vibration impacts under this Alternative would be less than

significant with implementation of applicable local regulations and mitigation and roughly equivalent as compared to the Proposed Project.

### **Transportation**

The Redesigned Civic Center Alternative would result in equivalent impacts on transportation compared to the Proposed Project since this Alternative proposes the same number of units proposed for development in roughly the same locations. The goals and policies that would reduce VMT in the General Plan and other planning documents would be implemented under the Redesigned Civic Center Alternative as well as the mitigation measure introduced in Chapter 3.6 of this EIR. However, because the effectiveness of an individual project's VMT impact to a less than significant level cannot be determined in this analysis, the Redesigned Civic Center Alternative may not achieve the overall VMT threshold reduction level to result in a less-than-significant impact. Thus, similar to the Proposed Project, the impact on VMT would remain significant and unavoidable under the Redesigned Civic Center Alternative.

Under the Redesigned Civic Center Alternative, the impact on consistency with circulation system plans would remain less than significant, similar to the Proposed Project, with adherence to existing regulations and codes. Similarly, the impacts on transportation hazards and emergency access would remain less than significant because the Planning Area would continue to be consistent with applicable codes.

### **Wildfire**

In comparison with the Proposed Project, the Redesigned Civic Center Alternative has a similar development footprint within the Planning Area, with an additional six housing units at the Civic Center site. As with the Proposed Project, the development under this Alternative would be required to adhere to State and local plans and regulations, including the Town's Safety Element policies. Compliance with these policies will ensure that development in the Planning Area is resilient to the risk of a wildfire under the Alternative. As with the Proposed Project, impacts from wildfire are considered less than significant for the Redesigned Civic Center Alternative, and impacts would be roughly equivalent compared to the Proposed Project.

## **INCREASED DEVELOPMENT ON THE VALLEY FLOOR ALTERNATIVE**

### **Biological Resources**

Under the Increased Development on the Valley Floor Alternative, development in the Planning Area would involve more housing on sites in the downtown area of Ross, as opposed to sites identified for ADUs. Because the Increased Development on the Valley Floor Alternative would still allow development, including construction and demolition, the Alternative would have similar biological resources impacts compared to those of the Proposed Project. However, since development is concentrated at greater densities in the center of the Town than throughout the entire Planning Area, impacts on special-status species that may reside near the town limits would be less than that of the Proposed Project. As such, biological resource impacts under the Increased Development on the Valley Floor Alternative would result in less-than-significant impacts with mitigation related to special-status species and wildlife movement and a less than cumulatively

considerable contribution to significant cumulative biological resources impacts. Therefore, applicable mitigation measures presented in Chapter 3.1 of the EIR would be implemented as necessary to reduce biological resources impacts under the Increased Development on the Valley Floor Alternative.

### **Cultural, Tribal, and Historic Resources**

Under the Increased Development on the Valley Floor Alternative, development in the Planning Area would proceed with the same number of housing units as envisioned under the Proposed Project. Excavation, grading, or demolition activities in the Planning Area would still occur only with more sites in the valley floor as opposed to the Proposed Project. Equivalent to the Proposed Project, all housing development at the Ross Civic Center site will be located on the vacant north corporate yard in order to avoid potential construction impacts to the existing historic Ross Town Hall and Fire House. Further, redevelopment of the Civic Center site would be required to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. As such, cultural resource impacts under the Increased Development on the Valley Floor Alternative would result in less-than-significant impacts with mitigation and a less than cumulatively considerable contribution to significant cumulative cultural resources impacts. Therefore, applicable State and local regulations and mitigation measures presented in Chapter 3.2 of this EIR would be implemented as necessary to reduce cultural, tribal, and historic resources impacts under the Increased Development on the Valley Floor Alternative.

### **Geology, Soils, and Seismicity**

Under the Increased Development on the Valley Floor Alternative, development in the Planning Area would proceed with the same number of housing units as envisioned under the Proposed Project. Excavation, grading, or demolition activities in the Planning Area would still occur at sites identified for development. Since the Increased Development on the Valley Floor Alternative would still allow development at roughly the same intensities as the Proposed Project, the Alternative would have similar impacts related to geology, soils, and paleontological resources compared with the Proposed Project. However, since development would be concentrated more in the valley floor rather than the hillsides under this Alternative, developments would have a reduced risk of landslides and slope instability compared to the Proposed Project. As such, the Increased Development on the Valley Floor Alternative would result in less-than-significant project-level impacts and a less than cumulatively considerable contribution to significant cumulative impacts with implementation of existing State and local regulations. Applicable mitigation measures presented in Chapter 3.3 of this EIR would be implemented as necessary to reduce impacts related to geology, soils, and seismicity under the Increased Development on the Valley Floor Alternative.

### **Greenhouse Gas Emissions**

Under the Increased Development on the Valley Floor Alternative, development in the Planning Area would proceed with the same number of housing units as envisioned under the Proposed Project. Demolition and construction activities would still occur throughout the Planning Area. This Alternative would thus be expected to have a similar duration for construction activities, which would result in roughly equivalent impacts from construction-related emissions. Operation of land

uses supported by the Alternative would generate direct and indirect GHG emissions similar to that of the Proposed Project. However, given that development would be more concentrated on the valley floor in this Alternative, per capita GHG emissions may be reduced due to more compact development patterns compared to the Proposed Project. Applicable mitigation measures presented in Chapter 3.4 of the EIR would be implemented as necessary to reduce construction-related and operational GHG emissions impacts under the Increased Development on the Valley Floor Alternative.

Overall, greenhouse gas impacts would be lessened compared to the Proposed Project. However, it is not possible to quantify the precise extent of reductions for the majority of the measures for a plan-level analysis. It is likely that GHG emissions from mobile sources would still conflict with goals of SB 743 under the Increased Development on the Valley Floor Alternative and it would have a significant and unavoidable impact.

### **Noise**

Buildout of the Increased Development on the Valley Floor Alternative would result in the same number of housing units as the Proposed Project. Therefore, similar construction and associated construction noise and vibration would result, meaning roughly equivalent impacts would occur under this Alternative as compared to the Proposed Project. This Alternative would include all Town of Ross General Plan policies and Town Code regulations to implement construction noise control measures, as well as mitigation measures proposed in Chapter 3.5 of this EIR. As a result, construction noise and vibration levels would be similar under this Alternative compared with the Proposed Project. Overall, noise and vibration impacts under this Alternative would be less than significant with implementation of applicable local regulations and mitigation and roughly equivalent as compared to the Proposed Project.

### **Transportation**

The Increased Development on the Valley Floor Alternative would result in slightly reduced impacts on transportation compared to the Proposed Project. This Alternative would accommodate the same number of housing units as the Proposed Project; however, development would be more concentrated in sites in the downtown area of Ross. Since the Alternative would have higher development densities than the Proposed Project, it is estimated that it would result in slightly lower VMT efficiency metrics (i.e., VMT per capita) compared to the Proposed Project. Further, the goals and policies that would reduce VMT in the General Plan and other planning documents would be implemented under the Increased Development on the Valley Floor Alternative as well as the mitigation measure introduced in Chapter 3.6 of this EIR. However, because the effectiveness of an individual project's VMT impact to a less than significant level cannot be determined in this analysis, the Increased Development on the Valley Floor Alternative may not achieve the overall VMT threshold reduction level to result in a less-than-significant impact. Thus, similar to the Proposed Project, the impact on VMT would remain significant and unavoidable under the Increased Development on the Valley Floor Alternative.

Under the Increased Development on the Valley Floor Alternative, the impact on consistency with circulation system plans would remain less than significant, similar to the Proposed Project, with adherence to existing regulations and codes. Similarly, the impacts on transportation hazards and

emergency access would remain less than significant because the Planning Area would continue to be consistent with applicable codes.

### **Wildfire**

In comparison with the Proposed Project, the Increased Development on the Valley Floor Alternative has the same number of housing units as the Proposed Project, only with more units concentrated in the central portion of town. As with the Proposed Project, the development under this Alternative would be required to adhere to State and local plans and regulations, including the Town's Safety Element policies. Compliance with these policies will ensure that development in the Planning Area is resilient to the risk of a wildfire under the Alternative. As with the Proposed Project, impacts from wildfire are considered less than significant for the Increased Development on the Valley Floor Alternative, and impacts would be roughly equivalent compared to the Proposed Project.

## **4.4 Environmentally Superior Alternative**

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The CEQA Guidelines Section 15126.6 requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. If the No Project Alternative is identified as the environmentally superior alternative, the guidelines require another environmentally superior alternative to be identified.

Table 4-1 summarizes the alternatives' overall environmental impacts for each topic presented in Section 4.3. For the Proposed Project, two impacts were expected to be significant and unavoidable, 12 impacts were expected to be less than significant with mitigation, and 17 impacts were expected to be less than significant.

For the Redesigned Civic Center Alternative, similar to the Proposed Project, two impacts were expected to be significant and unavoidable, 12 impacts were expected to be less than significant with mitigation, and 17 impacts were expected to be less than significant. However, impacts would be marginally reduced for special-status species, sensitive habitat, and wildlife corridors as compared to the Proposed Project. For the Increased Development on the Valley Floor Alternative, similar to the Proposed Project, two impacts were expected to be significant and unavoidable, 12 impacts were expected to be less than significant with mitigation, and 17 impacts were expected to be less than significant. However, impacts would be marginally reduced for special-status species, unstable soils, GHG emissions, and VMT as compared to the Proposed Project.

The Increased Development on the Valley Floor Alternative reduces the greatest number of environmental impacts. However, the Town cannot prohibit the development of ADUs on residentially-zoned properties in steep terrain more than 0.5 miles from transit on Sir Francis Drake Boulevard and there is no guarantee that the additional incentives would be sufficient to incentivize substantially more ADU development on the Valley floor than in other areas of Ross. Additionally, parcels adjacent to Sir Francis Drake Boulevard tend to be smaller and have less capacity to accommodate ADU development than larger residential properties farther from the main transit route in Ross. Further, given that this Alternative would only result in an additional 16 units on the Valley floor, the resulting decrease in VMT and GHG emissions would be only a marginal

improvement over the Proposed Project. Therefore, the Increased Development on the Valley Floor Alternative cannot be considered the Environmentally Superior Alternative.

**Table 4-1: Summary of Impacts for Alternatives**

<i>Impact</i>	<i>Level of Significance</i>		
	<i>Proposed Project</i>	<i>Redesigned Civic Center Alternative</i>	<i>Increased Development on the Valley Floor Alternative</i>
<b>3.1 Biological Resources</b>			
3.3-1 Special-Status Species	LTSM	LTSM, -	LTSM, -
3.3-2 Sensitive Habitat	LTS	LTS, -	LTS, =
3.3-3 Wetlands	LTS	LTS, =	LTS, =
3.3-4 Wildlife Corridors	LTSM	LTSM, -	LTSM, =
3.3-5 Policies and Ordinances	LTS	LTS, =	LTS, =
3.3-6 HCPs	NI	NI, =	NI, =
<b>3.2 Cultural and Tribal Resources</b>			
3.2-1 Historic Resources	LTSM	LTSM, =	LTSM, =
3.2-2 Archaeological Resources	LTSM	LTS, =	LTS, =
3.2-3 Human Remains	LTSM	LTS, =	LTS, =
3.3-4 Tribal Cultural Resources	LTSM	LTSM, =	LTSM, =
<b>3.3 Geology, Soils, and Seismicity</b>			
3.6-1 Seismic Hazards	LTSM	LTSM, =	LTSM, =
3.6-2 Soil Erosion	LTS	LTS, =	LTS, =
3.6-3 Unstable Soils	LTSM	LTSM, =	LTSM, -
3.6-4 Expansive Soils	LTS	LTS, =	LTS, =
3.6-5 Septic Systems	LTS	LTS, =	LTS, =
3.6-6 Paleontological Resources	LTS	LTS, =	LTS, =
<b>3.4 GHG Emissions</b>			
3.4-1 Generate GHG Emissions	LTSM	LTSM, =	LTSM, -
3.4-2 Conflict with an Applicable Plan, Policy, or Regulation	SU	SU, =	SU, -
<b>3.5 Noise</b>			
3.5-1 Noise Standards	LTSM	LTSM, =	LTSM, =
3.5-2 Vibration	LTS	LTS, =	LTS, =
3.5-3 Airports	NI	NI, =	NI, =
<b>3.6 Transportation</b>			
3.6-1 Circulation System Plan	LTS	LTS, =	LTS, =
3.6-2 VMT	SU	SU, =	SU, -

**Table 4-1: Summary of Impacts for Alternatives**

<i>Impact</i>	<i>Level of Significance</i>		
	<i>Proposed Project</i>	<i>Redesigned Civic Center Alternative</i>	<i>Increased Development on the Valley Floor Alternative</i>
3.6-3 Traffic Hazards	LTS	LTS, =	LTS, =
3.6-4 Emergency Access	LTS	LTS, =	LTS, =
<b>3.7 Wildfire</b>			
3.7-1 Emergency Response/Evacuation	LTS	LTS, =	LTS, =
3.7-2 Wildfire Risks	LTS	LTS, =	LTS, =
3.7-3 Infrastructure	LTS	LTS, =	LTS, =
3.7-4 Flooding or Landslides	LTS	LTS, =	LTS, =
Notes:			
LTS = Less than Significant			
LTSM = Less than Significant with Mitigation			
NI = No Impact			
SU = Significant and Unavoidable			
+/-/= = impact of the alternative is greater than, less than, or similar to the impact of the Proposed Project			

## 5 CEQA Required Conclusions

This section presents a summary of the impacts of the Proposed Project in several subject areas specifically required by CEQA, including growth-inducing impacts, cumulative impacts, significant and unavoidable impacts, and significant irreversible environmental changes. These findings are based, in part, on the analysis provided in Chapter 3: Environmental Settings and Impacts.

### 5.1 Growth-Inducing Impacts

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CEQA Guidelines require that an EIR “discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly” (CEQA Guidelines Section 15126.2(e)). This analysis must also consider the removal of obstacles to population growth, such as improvements in the regional transportation system.

Growth-inducing impacts, such as those associated with job increases that might affect housing and retail demand in surrounding jurisdictions over an extended time period, are difficult to assess with precision, since future economic and population trends may be influenced by unforeseeable events such as business development cycles and natural disasters. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes or policies related to a single city or development project, particularly in a highly urbanized region such as the San Francisco Bay Area. Business trends are influenced by economic conditions throughout the state and country, as well as around the world.

Another consideration is that the creation of growth-inducing potential does not automatically lead to growth. Growth occurs through capital investment in new economic opportunities by the private or public sector. These investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. These factors, combined with the regulatory authority of local governments, mediate the growth-inducing potential or pressure created by a Proposed Project. Despite these limitations on the analysis, it is still possible to qualitatively assess the general potential growth-inducing impacts of the Proposed Project.

#### **PROJECTED GROWTH**

The Proposed Project is intended to result in the development of 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. Thus, the Project would not involve extending infrastructure, utilities, or public services outside of the established urban service area; on the contrary, it would concentrate new development within the existing service area for utilities and public services. Further, development



would happen incrementally over the course of eight years, from 2023-2031, which would minimize project growth impacts.

**Population**

The current population within the Town of Ross is estimated to be 2,290. With the Proposed Project, the Planning Area would accommodate a total population of approximately 355 people, representing a 15.5 percent increase from the existing population. This represents an average annual growth rate of 1.9 percent over eight years in the Planning Area, along with an increase in the number of housing units from 812 to 960.

**Table 5.1-1: Planning Area Population, Housing, and Job Growth Projections, 2020–2040**

	<i>Existing (2019)</i>	<i>Projected Net New (2031)</i>	<i>Total Projected with Proposed Project (2031)</i>
<b>Population</b>	2,290 <sup>1</sup>	355	2,645
<b>Housing Units</b>	812 <sup>2</sup>	148	960
<b>Jobs</b>	952 <sup>3</sup>	n/a	952

Sources:

1. U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B01001
2. U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B11016
3. U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table C24030

Although the population within the Planning Area is projected to increase substantially, the Proposed Project is consistent with the overarching regional growth goals identified in Plan Bay Area, the integrated land use/transportation plan for the nine-county San Francisco Bay Area region. To reduce greenhouse gas emissions, Plan Bay Area 2050 promotes compact mixed-use infill development within walkable/bikeable neighborhoods that are close to public transit, jobs, schools, shopping, parks, recreation, and other amenities. To ensure consistency, the Proposed Project generally involves small-scale infill housing within urbanized areas and on existing single family residential lots.

The Proposed Project is also consistent with the Town of Ross General Plan’s goals of encouraging sustainable building practices and preserving natural systems. By guiding the majority of the Town’s growth and development within the Planning Area, infill development would be prioritized, and public space areas would be preserved and enhanced; by nature, the Project would therefore reduce potential for uncontrolled growth and associated impacts.

*Increase in Regional Housing Demand*

In the urbanized context of the Bay Area, housing and employment demand are somewhat fluid across municipalities. As the employment base in the Bay Area continues to increase, more people may be drawn to live in Ross even if they work in other nearby cities, or vice versa. As a result, housing demand may continue to increase in Ross and within the Planning Area. ABAG’s Regional Housing Needs Assessment (RHNA) attempts to balance regional housing demand across Bay Area

cities, and all municipalities are required to provide a “fair share” of housing. According to the Final 2023–2031 RHNA, ABAG has determined that Ross’ fair share of regional housing need for the 2023 to 2031 period would be 111 units. To ensure that housing is available to meet the needs of future residents under the Proposed Project, the Town is currently updating its Housing Element to assess its supply of housing and provide policies and programs to ensure that the community continues to meet its fair share of regional housing needs.

*Jobs/Housing Ratio*

A desirable jobs-to-housing ratio is often defined as a ratio greater than 1.0 but less than 2.0. Because most households have more than one wage earner, ratios below 1.0 suggest that residents are required to commute to jobs outside of their area of residence, and ratios greater than 2.0 suggest that employers are not able to house their workers within the jurisdiction, requiring workers to commute into the area. Theoretically, a balanced jobs-to-housing ratio would reduce the need for people to commute in or out of the area for work. In reality, the match of education, skills, and interests is not always accommodated within the boundaries of one community, and regional interdependencies almost always result in at least some inter-city commuting.

Based on the estimated buildout of up to 148 housing units under the Proposed Project, the jobs-to-housing balance in the Planning Area in 2031 would be about 1.0, as shown in Table 5.1-2: Jobs-to-Housing Unit Ratio. Given that the Proposed Project is associated with housing development within the town limits and does not propose additional jobs, the Proposed Project would not be expected to induce substantial new unplanned residential growth in areas surrounding the Planning Area.

**Table 5.1-2: Jobs-to-Housing Unit Ratio (2019 and 2031)**

	<i>Existing (2019)</i>	<i>Total Projected with Proposed Project (2031)</i>
<b>Housing Units</b>	812 <sup>1</sup>	960
<b>Jobs</b>	952 <sup>2</sup>	952
<b>Jobs-to-Housing Unit Ratio</b>	1.17	1.0

Sources:

1. U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table B11016
2. U.S. Census Bureau, American Community Survey 5-Year Data (2015-2019), Table C24030

**Public Facilities and Services**

Public services for the Planning Area, including police, fire protection, schools, and parks and recreation, are currently provided by the Ross Police Department, Ross Valley Fire Department, the Ross School District, Marin County Parks, and Ross Recreation, respectively. Development under the Proposed Project would be required to comply with all applicable codes for fire safety and emergency access.

As stated in the Initial Study, which is available in Appendix A of this EIR, student potential for new development under the Proposed Project was calculated using the applicable student generation rate of 0.2 per dwelling unit and applied to project buildout of 148 units. Thus, implementation of the Proposed Project could result in an additional 30 students attending the Ross School District over the planning period. New students of various ages would be enrolled incrementally over the 8-year planning period. Therefore, in view of the school's recent enrollment trend, the incremental increase in enrollment resulting from the Proposed Project would not necessitate the construction or expansion of new school facilities and this impact would be less than significant. Further, development under the Proposed Project would also be required to comply with SB 50, which mandates statutory school facilities fees for residential developments. Compliance with SB 50 would financially offset impacts on Ross School District capacity and would provide funding for potential future school facility development needs associated with the Proposed Project-related population increase.

As future buildout occurs under the Proposed Project, the Town will evaluate operations and deployment of services to efficiently use resources, ensure sufficient staffing to serve all new development and associated population growth in the Planning Area, and monitor the need for new facilities or additional equipment needed to provide adequate public services to future and existing residents.

## **DIRECT AND INDIRECT GROWTH**

As described above, the Proposed Project facilitates growth in the Planning Area, and this direct growth is analyzed throughout this EIR. Impacts from direct growth on infrastructure such as public services and utilities, the transportation system, and natural resources are identified, based on the buildout of the Proposed Project. Some of the identified effects of growth are significant and unavoidable. In general, future development under the Proposed Project would be subject to additional site-specific environmental review under CEQA, with tiering and streamlining opportunities as provided for under State law.

Indirect growth can result from the construction of infrastructure, such as the extension of utilities or the construction of new roadways connecting urban centers to green field areas. In such cases, this extension of infrastructure to serve one property can facilitate the subsequent development of other intervening properties, effectively inducing additional growth indirectly. Given the location of the Planning Area in the urbanized context of the Bay Area and comprised of the Town limits, the potential for this type of indirect growth does not exist. Further, the Proposed Project includes the identification of 15 workforce housing units on the Branson School Site. This could encourage more school workers to live within the Planning Area rather than commute long distances, consistent with overarching regional and State objectives for sustainable development and reduction of GHG emissions and VMT.

## **5.2 Cumulative Impacts**

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CEQA requires that an EIR examine cumulative impacts. As discussed in CEQA Guidelines Section 15130(a)(1), a cumulative impact “consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts.” Furthermore, the analysis of cumulative impacts need not provide the level of detail required of the analysis of impacts from the project itself, but shall “reflect the severity of the impacts and their likelihood of occurrence.” (CEQA Guidelines Section 15130(b)).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan or related planning document. The cumulative impact analysis in this Draft EIR relies on the projections approach because the Project has a long-term perspective. Unless so stated, the potential for cumulative contributions is projected to the Proposed Project horizon year of 2031. The geographic context for cumulative impacts is generally the Planning Area and immediately surrounding lands but can be a much larger area for resource categories such as greenhouse gas emissions and transportation.

Several analyses presented in Chapter 3: Environmental Settings and Impacts represent cumulative analyses of issues through the Proposed Project horizon year of 2031 because they combine the anticipated effects of the Proposed Project with anticipated effects of regional growth and development. By their nature, the transportation, noise, greenhouse gas emissions, and climate change analyses presented in Chapter 3 represent a cumulative analysis, because the effects specific to the Proposed Project cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, analyses for these topics reflect not just growth in the Planning Area, but growth elsewhere in the region as well. The cumulative conclusions are summarized there, and where applicable, significant unavoidable impacts are listed in Section 5.3, Significant and Unavoidable Impacts. Other cumulative impacts are identified below.

### **BIOLOGICAL RESOURCES**

Development associated with the Proposed Project through the horizon year of 2031 could contribute to the loss of natural lands in the Planning Area, with potential effects on special-status species, sensitive natural communities, federally protected wetlands, wildlife and fish movement corridors, and invasive species.

As described above, the Planning Area is largely developed and located entirely within the Town limit, in the highly urbanized context of the San Francisco Bay Area. However, the Town of Ross contains a wide variety of natural and biological resources, including trees, hillsides, ridgelines, and creeks. The Town’s location in a valley between wooded hillsides provides a natural habitat for flora and fauna, including some endangered and threatened plant and wildlife species, while the riparian corridors along the creeks provide habitat and movement corridors for wildlife.

Thus, future development within the Planning Area has the potential to have significant impacts on biological resources. In particular, there are several special-status species known to occur throughout the Planning Area that could be impacted by housing development. Implementation of

through Mitigation Measure BIO-1 would require implementation of a worker environmental awareness training program to train construction staff on the needs of protecting sensitive biological resources and the ramifications for not complying with applicable laws. Further, Mitigation Measures BIO-2 through BIO-4 outline additional construction requirements to ensure the protection of special-status plant species, bat species, and the Foothill Yellow-Legged Frog.

Development in the Planning Area would also be required to adhere to the existing Town of Ross Tree Protection Ordinance (Chapter 12.24.005). This ordinance aims to provide reasonable regulations for the maintenance and removal of trees in the town and establish a stable and sustainable urban forest. Additionally, development resulting from the Proposed Project, as well as future development projects that could occur within the Planning Area or in the vicinity of the Planning Area, would be subject to the requirements of biological resource protection laws, including FESA, CESA, MBTA, and the California Fish and Game Code, as well as protection policies and provisions in the Town's General Plan and Town Code.

With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4 including compliance with federal, state, and local regulations, the Proposed Project's contribution to cumulative biological resources impacts would be less than cumulatively considerable.

## **CULTURAL AND TRIBAL CULTURAL RESOURCES**

The cumulative geographic context for cultural, historic, and tribal cultural resources is the Town of Ross. If the Proposed Project, in combination with other past, present, and reasonably foreseeable projects in Ross, would result in the loss of or adverse changes to multiple historic or cultural resources a significant cumulative impact could result. However, as described in Chapter 3.2 of this Draft EIR, the Town of Ross General Plan and the Town Code provide a framework for the preservation of cultural and historic resources. Further, buildout of the Proposed Project would primarily involve construction of small-scale infill housing, typically of not more than three single-family residences or multi-family residential structures designed for not more than six dwelling units. Pursuant to CEQA Section 15303, the State has determined that such projects would not have a significant effect on the environment. However, developments of more than three single-family residences or multi-family residential structures with more than six dwelling units would be subject to project-level CEQA analysis and would need to identify potential impacts on known or potential historic sites and structures. Such project-level review in combination with the Mitigation Measure CUL-1, which requires that all proposed development within the Planning Area undergo additional investigation to determine the project-level impact on the built environment's historical resources, would ensure that the Proposed Project's incremental contribution to this impact would not be cumulatively considerable.

There are known prehistoric and historic archaeological resources in and around the Town of Ross. The Planning Area has a high potential for encountering deposits associated with known resources or as-yet undocumented resources. Anticipated development projects under the Proposed Project may involve grading, excavation, or other ground-disturbing activities, which could have a cumulative impact on unknown archaeological resources. Mitigation Measure CUL-3 would ensure that developers in the Planning Area receive cultural resources awareness training and half work if cultural resources are encountered. Further, any adverse effects to archaeological resources shall be mitigated as specified by PRC Section 21083.2 Thus, compliance with mitigation measures

and General Plan policies, as well as applicable local, State, and federal laws, would ensure that the Proposed Project's contribution to this impact would not be cumulatively considerable.

All development projects allowed under the Proposed Project would be required to comply with State laws pertaining to the discovery of human remains and disposition of Native American burials; therefore, the Proposed Project would result in a less than cumulatively considerable contribution to impacts related to human burials.

There are known Native American tribal cultural resources within the Planning Area, and development projects allowed under the Proposed Project may result in the identification of unrecorded tribal cultural resources given the historic occupation of the area. Future projects that would not otherwise qualify for an exemption under CEQA would be required to comply with the provisions of AB 52 to incorporate tribal consultation into the CEQA process. In addition, Mitigation Measure CUL-4 requires continued tribal consultation for all individual housing developments. Therefore, the Proposed Project's contribution to this impact would not be cumulatively considerable.

## **GEOLOGY, SOILS, AND SEISMICITY**

The cumulative geographic context for geology and soils consists of sites within the Planning Area and nearby properties in the immediate vicinity. Although regional geographies can be similar, in general, geology and soils impacts do not typically combine such that a larger geographic context would be involved. Depending on subsurface conditions, slopes, and other factors, each cumulative project would require different levels of grading, cut-and-fill, and excavation. In addition, each cumulative project would be required to comply with the General Plan, Town Code, Proposed Project, and California Building Standards Code requirements. The standards presented in these documents require that a site-specific geotechnical investigation be prepared which would include design recommendations to reduce each cumulative project's impacts. Similar seismic safety standards would apply to the cumulative projects. For these reasons, project building under the Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a significant cumulative impact on geology and soils. Therefore, no significant cumulative impact exists in the geographic context for geology, soils, and seismicity.

All significant paleontological resources are unique and nonrenewable resources. Unlike archaeological resources, which are site-specific, paleontological resources can occur throughout a sensitive geologic unit, regardless of location. Therefore, the geographic context for paleontological resources encompasses the complete extent of geologic units with high or undetermined paleontological sensitivity that underlie the Planning Area. Although not anticipated, sub-surface construction activities, such as grading or trenching, could result in a significant impact to paleontological resources, if encountered. However, Public Resources Code Section 5097.5 specifies the procedures to be followed in the event of the unexpected discovery of paleontological resources. Therefore, a cumulative impact on paleontological resources in the geographic context exists.

As noted in Chapter 3.3, paleontological resources have been documented about 20 miles north of the Planning Area. While the Proposed Project would not directly involve ground-disturbing activities that could damage or destroy unique paleontological resources, it would enable development that would involve ground disturbance. This future development, in combination

with other foreseeable development in the identified geographic context, has the potential to encounter and damage or destroy previously unknown paleontological resources during both construction and operation. However, Public Resources Code Section 5097.5 specifies the procedures to be followed in the event of the unexpected discovery of paleontological resources. Therefore, the contribution of the Proposed Project to the cumulative impact on paleontological resources would not be cumulatively considerable.

## **GHG EMISSIONS**

By their nature, the energy and greenhouse gas emissions impacts analyzed in Chapter 3 represent a cumulative analysis, because the effects specific to the Proposed Project cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, analyses for these topics reflect not just growth in the Planning Area, but growth elsewhere in the region as well. Please see Chapter 3.4 for a discussion of cumulative impacts associated with GHG emissions.

## **NOISE**

The cumulative geographic context for noise and vibration is the Planning Area and the immediate vicinity. The noise analysis represents cumulative analyses of issues through the Proposed Project because it combines the anticipated effects of the Proposed Project with anticipated effects of growth and development within the town and the Bay Area region through 2031. By its nature, the noise analysis represents a cumulative analysis, because it accounts for the contribution that citywide and regional growth will make to the noise environment within the Planning Area through modeling that factors in road and construction traffic generated from projects throughout the wider region. Consequently, the impact significance conclusions discussed in Chapter 3.5 are representative of cumulative impacts.

The Proposed Project would result in both short-term and long-term changes to the existing noise environment in the Planning Area. Construction activities, including traffic, demolition, and reconstruction, would generate ambient and groundborne noise. However, there are a variety of policies, codes, and regulations in place to prevent substantially adverse impacts, particularly to sensitive land uses. The Town of Ross General Plan policies establish noise/land use compatibility standards as well as exterior and interior noise standards. In addition, policies require mitigation of construction and traffic noise impacts on the ambient noise level in the Town. Additionally, The Proposed Project's Mitigation Measures N-1 would further reduce groundborne vibration and noise impacts of construction projects by requiring equipment staging areas, electrically-powered tools and facilities, smart back-up alarms, and additional noise attenuation techniques. All new construction would also be required to comply with noise and vibration level restrictions which regulate the time and intensity of construction in the Ross Town Code.

Together, these policies, mitigation measures, and noise level restrictions in the Town Code would ensure that cumulative adverse noise and vibration impacts associated with construction be attenuated to a less than significant impact. The Proposed Project would result in no impact from airport noise, and therefore, its impact on noise and vibration would result in a less than cumulatively considerable impact.

## **TRANSPORTATION**

The geographic context for cumulative impacts related to transportation is the roadway network within the Planning Area and the regional roadway network with connections to the Planning Area. Buildout of the Proposed Project would result in increased development in the Planning Area and would generate additional vehicle trips on the local and regional roadway network. The Town of Ross General Plan includes policies that seek to improve mode share and reduce the impact of new traffic on alternative transportation modes. Development under the Proposed Project would be consistent with such policies and regulations by increasing housing opportunities in already urbanized areas which is an integral part of VMT reduction and encouraging transportation alternatives, such as walking and biking. Further, Mitigation Measure VMT-1 requires the implementation of VMT reduction measures, such as reduced off-street parking requirements and bikeshare facilities, for city-owned housing development sites. While these VMT reduction measures can be expected to reduce VMT, their effectiveness cannot be guaranteed, and they may be insufficient to reduce residential VMT per capita in the Planning Area below the applicable significance threshold or fully offset the effects of induced VMT. There are no other feasible mitigation measures available. Impacts would be cumulatively considerable.

## **WILDFIRE**

The cumulative geographic context for wildfire consists of sites within the Planning Area and nearby properties in the immediate vicinity. The Proposed Project would generate an increase in daily trips as detailed in Chapter 3.6 of this EIR, which may have an impact on emergency access and may conflict with the County's adopted emergency response and evacuation plans. However, any development must be constructed in accordance with federal, state, regional, and local requirements, which are intended to ensure the safety of county residents and structures to the extent feasible. Compliance with these standard regulations would be consistent with the County's Emergency Operations Plan. Further, development must adhere to the Town of Ross General Plan Safety Element update which will include policies associated with wildfire risk and evacuation. Thus, implementation of the Proposed Project would not impair an emergency response or emergency evacuation plan there would be no cumulatively considerable impact.

Further, while the projected population in the Planning Area would increase the number of people potentially exposed to impacts from wildfire, the Proposed Project would not induce substantial unplanned population growth in the Planning Area. New development would be subject to the California Fire Code, which includes safety measures to minimize the threat of fire. A Fire Protection Plan would be required for construction and development in areas designated as Wildland-Urban Interface (WUI), and/or Moderate, High, or Very High Fire Hazard Severity Zone per the Town Code's Fire Code (Chapter 14.04). Construction would also be required to meet CBC requirements, including CCR Title 24, Part 2, which includes specific requirements related to exterior wildfire exposure. The Board of Forestry, via CCR Title 14, sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures or life by reducing wildfire hazards.

Therefore, compliance with local and state regulations and plans pertaining to wildfire would help reduce impacts regionally; the Proposed Project's contribution to wildfire risks is not considered cumulatively considerable.



## **5.3 Significant and Unavoidable Impacts**

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Significant unavoidable impacts are those that cannot be mitigated to a level that is less than significant. According to CEQA Guidelines 15126.2(b), an EIR must discuss any significant environmental impacts that cannot be avoided under full implementation of the proposed program, including those that can be mitigated, but not to a less-than-significant level. The analysis in Chapter 3 determined that the Proposed Project would result in significant impacts related to transportation and greenhouse gas emissions, and that, even with implementation of mitigation measures, would remain significant and unavoidable. These impacts are summarized below:

### **TRANSPORTATION**

Goals and policies in the Proposed Project are designed to reduce VMT in the Planning Area by identifying sites for development in Housing Opportunity areas, which encourages housing opportunities in commercial districts and adequate residential access to pedestrian infrastructure, neighborhood services, and recreation facilities to further reduce VMT. Further, Mitigation Measure VMT-1 requires the implementation of VMT reduction measures, such as reduced off-street parking requirements and bikeshare facilities, for city-owned housing development sites. While these VMT reduction measures can be expected to reduce VMT, their effectiveness cannot be guaranteed, and they may be insufficient to reduce residential VMT per capita in the Planning Area below the applicable significance threshold of 15 percent reduction from baseline town levels by 2040 as recommended by the OPR Technical Advisory. There are no other feasible mitigation measures available because the Proposed Project emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT. Therefore, impacts would remain significant and unavoidable.

### **GREENHOUSE GAS EMISSIONS**

As discussed above, the Proposed Project would not achieve the 15 percent VMT per capita reduction target under buildout conditions. Based on information in Chapter 3.6, Transportation, implementation of VMT reduction strategies would not be adequate to reduce the impact to a less-than-significant level. Therefore, the Proposed Project's mobile-source GHG emissions would conflict with SB 743. Because a reduction in GHG emissions from passenger vehicles is one of the objectives of SB 743 and one of the overarching strategies of the 2022 Scoping Plan, operation of the Proposed Project would conflict with the statewide GHG target for 2030 mandated by SB 32. Overall, the Proposed Project would be consistent with policies and plans that encourage energy conservation, energy efficiency, and sustainability, however, GHG emissions from mobile sources would conflict with goals of SB 743. There are no other feasible mitigation measures available because the Proposed Project emphasizes development designed to reduce VMT and contains goals and policies aimed at minimizing VMT. Therefore, the impact would remain significant and unavoidable.

## **5.4 Significant Irreversible Environmental Changes**

---

CEQA Guidelines require an EIR to consider whether “uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely” (CEQA Guidelines Section 15126.2(d)). “Nonrenewable resources” refers to the physical features of the natural environment, such as land or waterways, and resources that are renewable only over long time spans, such as soil productivity. A resource commitment is considered irretrievable when the use or consumption of the resource is neither renewable nor recoverable for use by future generations. Irreversible changes and irretrievable commitments of non-renewable resources anticipated by the Proposed Project include the following issues. The Proposed Project would involve two types of resources: (1) general industrial resources including fuels and construction materials; and (2) project-specific resources such as land, biotic, and cultural resources at the building sites.

### **COMMITMENT/CONSUMPTION OF NON-RENEWABLE RESOURCES**

Implementation of the Proposed Project could result in the long-term commitment of various resources to urban development. While the Proposed Project itself would not directly entitle or result in any new development, it is reasonably foreseeable that the Proposed Project, which acts as a blueprint for growth and development in the Planning Area over the next 20 years, could result in significant irreversible impacts related to the commitment of non-renewable and/or slowly renewable natural and energy resources, such as:

- **Air Quality:** Increases in vehicle trips resulting from buildout of the Proposed Project would potentially contribute to long-term degradation of air quality and atmospheric conditions in the region. Technological improvements in automobiles, including the growth of the electric vehicle market share, may lower the rate of air quality degradation in the coming decades. Nonetheless, vehicle trips resulting from implementation of the Proposed Project could result in the irreversible consumption of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline for non-electric automobiles and long-term degradation of air quality.
- **Water Consumption:** To the extent that the Proposed Project would accommodate new population, it would increase the demand for water and place a greater burden on water supply. While additional residents and workers would use more water, the Town is expected to have adequate water to meet demand in normal and wet years through 2040. Despite the change in demand resulting from the Proposed Project being marginal, the increase would represent an irreversible environmental change, as use of this resource would increase.
- **Energy Sources:** Residential developments use electricity, natural gas, and petroleum products for lighting, heating, and other indoor and outdoor power demands, while automobiles use both oil and gas. New development anticipated by the Proposed Project would result in increased energy use for the operation of new buildings and for transportation. This new development would therefore result in an overall increased use of both renewable and nonrenewable energy resources. To the extent that new development

uses more nonrenewable energy sources, this would represent an irreversible environmental change.

## **CONSTRUCTION-RELATED COMMITMENTS**

Irreversible environmental changes could also occur during the course of constructing development projects anticipated by the Proposed Project. New construction would result in the consumption of building materials (such as lumber, sand and gravel), natural gas, and electricity, water, and petroleum products to process, transport and build with these materials. Though it is possible for construction equipment to be fueled by renewable sources over the course of the Proposed Project buildout, the timing and availability of these energy sources is unknown. Construction equipment running on fossil fuels would be needed for excavation and the shipping of building materials. Due to the non-renewable or slowly renewable nature of these resources, this represents an irretrievable commitment of resources.

However, development allowed under the Proposed Project would not necessarily result in the inefficient or wasteful use of resources. Compliance with all applicable building codes would ensure that natural resources are conserved to the maximum extent feasible. It is possible that new technologies or systems will emerge, or become more cost-effective or user-friendly, to further reduce the reliance upon non-renewable natural resources. Nonetheless, future activities related to implementation of the Proposed Project could result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

## 6 List of Preparers

A list of contributing Town staff and consultant team members, their titles, and affiliations, is provided below.

### Ross

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- Rebecca Markwick, Director of Planning and Building
- Linda Lopez, Town Clerk/Administrative Manager
- Barbara Reher, Building Permit Technician

### Consultants

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#### Dyett and Bhatia

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- Clare Kucera, Planner
- Isha Bhattarai, Senior GIS Specialist
- Julie Ramsey, Graphic Designer

#### Charles Salter Associates

- Jeremy Decker, PE, Vice President

#### Fehr & Peers

- Bob Grandy, Principal
- Jess Sandoval, GIS Specialist

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Appendix B: NOP and Comment Letters

Appendix C: Supporting Materials for Cultural and Tribal Cultural Resources

Appendix D: GHG Data

Appendix E: Transportation VMT Assessment

# APPENDIX A: INITIAL STUDY

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**INITIAL STUDY AND ENVIRONMENTAL  
CHECKLIST FOR THE  
General Plan Housing and Safety Element Update**

Town of Ross, California

Prepared by:

**DYETT & BHATIA**  
Urban and Regional Planners

4001 Howe St  
Oakland, CA 94611  
(415) 956-4300

November 2022



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Town of Ross Housing and Safety Element Update Project  
Initial Study/Environmental Checklist

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**1. PROJECT TITLE:**

Town of Ross General Plan Housing and Safety Element Update

**2. LEAD AGENCY NAME AND ADDRESS:**

Town of Ross, 31 Sir Francis Drake Boulevard, Ross, CA 94957

**3. CONTACT PERSON AND PHONE NUMBER:**

Rebecca Markwick  
Director of Planning and Building  
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Email: rmarkwick@townofross.org  
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**4. PROJECT LOCATION:**

Town of Ross, Marin County, California

**5. PROJECT SPONSOR'S NAME AND ADDRESS:**

N/A

**6. GENERAL PLAN DESIGNATION:**

Varies

**7. ZONING:**

Varies

**8. SURROUNDING LAND USES AND SETTING:**

Located in the scenic Ross Valley amid wooded hillsides and meandering creeks, the Town of Ross is a quiet residential community that takes pride in its historic character, small-town charm, tree-lined streets, and excellent school system. Existing residential development in Ross numbers approximately 880 homes. These are predominantly single-family residences, with some guest houses and accessory dwelling units on single-family properties, and some apartment units located above retail in the downtown commercial area. The beauty of the natural landscape helps define the character of the community, but it also presents risk of natural hazards that limit the potential for new housing, including steep topography and areas of landslide hazard in the hills and risk of flooding and liquefaction on much of the valley floor.

**Planning Area Boundaries**

Approximately 18 miles north of San Francisco and centrally located in Marin County, Ross is bounded by the Town of San Anselmo to the north, the City of San Rafael to the east, and the

unincorporated community of Kentfield to the south, with undeveloped open space administered by the Marin Municipal Water District in the hills to the west. Sir Francis Drake Boulevard bisects Ross in a north-south direction, providing the principal access route to and from the region. Marin Transit operates bus service along Sir Francis Drake, connecting Ross with San Rafael, Larkspur, Fairfax and the wider Bay Area. The Corte Madeira Creek runs roughly parallel to Sir Francis Drake Boulevard and Ross Creek drains from Phoenix Lake in the western hills to the Ross Valley floor. The Town's regional location and planning boundaries are shown in Figure 1.

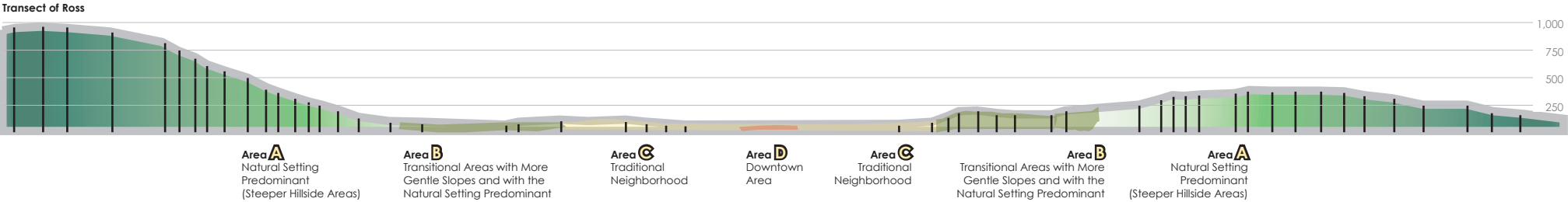
### **Existing Land Uses**

Home to 2,453 residents, the Town of Ross is the second smallest jurisdiction in Marin County, encompassing just 1.6 square miles. The town is largely developed with single-family homes with no vacant parcels on the valley floor. At the heart of the community is the Ross Common, located just west of Sir Francis Drake Boulevard and flanked by the Ross Post Office, the Ross School, and the downtown commercial area. The Ross Civic Center, comprised of the Town Hall and Public Safety Building, is located just north of the Post Office on the west side of Sir Francis Drake, while on the opposite side street is the Marin Art and Garden Center, an 11-acre site that features gardens and historic buildings, added to the National Register of Historic Places in 2022. Other notable land uses in Ross include the Branson School, the Lagunitas Country Club, and Saint Anselms Church. Much of the rest of the community is made up of single-family neighborhoods with a dense tree canopy. The lots on the flat land of the valley floor tend to be smaller, with large lots in the hilly terrain further away from the center of the community. Overall, residential uses account for 657.3 acres, commercial uses occupy 20.3 acres, and institutional uses occupy 1.6 acres. Vacant land accounts for 145.6 acres; however, this is predominantly located in areas of steep terrain.

### **Natural and Environmental Resources**

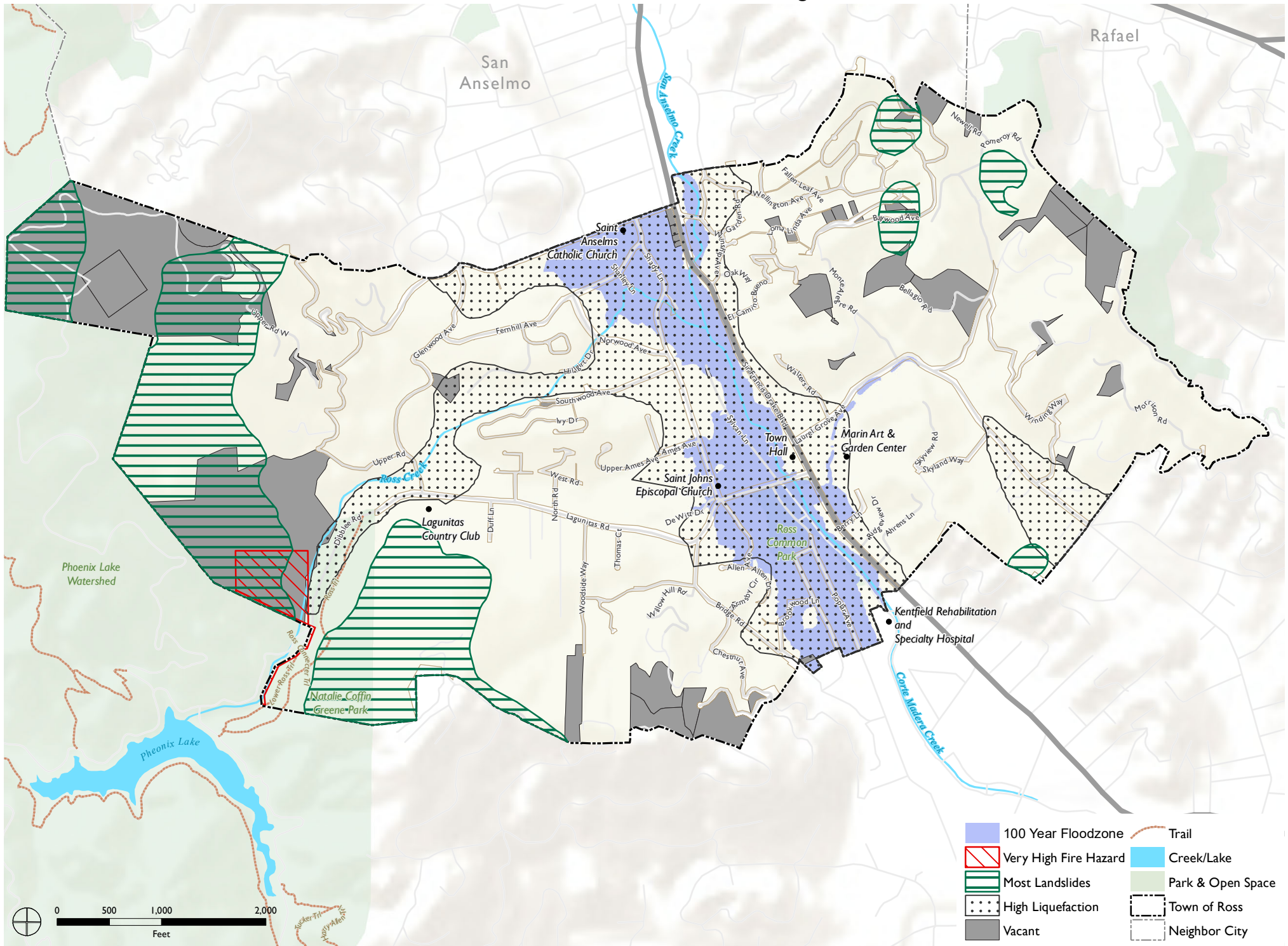
Set in a valley between wooded hillsides, Ross enjoys a natural environment with an abundance of green from tree-lined streets, hillsides, ridgelines, creeks, and parks and open space. This setting also provides natural habitat for wildlife and birds. Riparian forests along the Town's creeks provide habitat and movement corridors for flora and fauna. Residential development is limited in and near these resources to preserve existing biodiversity, including required setbacks along the creeks. Flooding is common within the 100-year flood zones along Corte Madera and Ross Creeks. These riparian areas along the creeks are also subject to high liquefaction risk. Landslides can occur along the hillsides of the western and eastern boundaries of the town. In addition, there is a very high wildfire hazard severity zone just southwest of the town limits while a high fire hazard severity zone exists within the town's boundaries. Such features in the town that bring risk of exposure to natural hazards, including flooding, wildfires, liquefaction, and landslides, are shown in Figure 2.

Figure I: Location and Planning Boundaries



This map was developed for general planning usage. The Town of Ross is not responsible nor liable for use of this map beyond its intended purpose.

Figure 2: Environmental Hazards and Constraints



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

## 9. DESCRIPTION OF PROJECT:

The Proposed Project involves updates to the Town of Ross General Plan Housing and Safety Elements. In compliance with State law, the Housing Element is being updated to account for changing demographics, market conditions, and projected housing need over an 8-year planning period that runs from 2023 through 2031. Under State law, the Housing Element update triggers the need to incorporate new data on natural hazards and climate change into the Safety Element along with actions to strengthen community resilience and emergency evacuation capacity.

The Town initiated the Project in March 2022 and conducted a range of community engagement activities to solicit input from Ross residents. These activities included townwide mailers sent to all residents to raise awareness of the process and opportunities for input; focus group discussions with property owners, developers, and architects; presentations to stakeholder groups including the Ross Property Owners' Association, the Age Friendly Task Force, and the Advisory Design Review Group; and presentations before the Town Council. Additionally, two community workshops were held, and the Town conducted an online survey to gather feedback from Ross residents. A page on the Town's website was set up to serve as an information portal for the Project.

### Project Objectives

The following objectives have been established for the Project:

1. **Maintain Quality of Life.** Maintain the high quality of life, small town charm and historic character of Ross, which make it distinctive and enjoyable to its residents.
2. **Assure Diversity of Population.** Assess housing needs and provide a vision for housing within the Town to satisfy the needs of a diverse population.
3. **Provide a Variety of Housing Opportunities.** Provide a variety of housing opportunities proportionally by income to accommodate the needs of people who currently live in Ross, such as elderly residents and large families.
4. **Address Regional Housing Needs Allocation (RHNA).** Ensure capacity for the development of new housing to meet the Regional Housing Need Allocation at all income levels for the 2023-2031 planning period.
5. **Assure a Fit with the Look and Feel of the Community.** Ensure that housing developments at all income levels are sensitive to and fit with adjacent neighborhoods.
6. **Address Affordable Housing Needs.** Continue existing and develop new programs and policies to meet the projected affordable housing need of extremely low, very low, low and moderate-income households.
7. **Address the Housing Needs of Special Need Groups.** Continue existing and develop new programs and policies to meet the projected housing needs of persons living with disabilities, elderly residents, and other special needs households in the community.
8. **Remove Potential Constraints to Housing.** Evaluate potential constraints to housing development and encourage new housing in locations supported by existing or planned infrastructure, while maintaining existing neighborhood character. Develop design directions to help eliminate barriers to the development of housing for all income levels.



9. **Provide for Special Needs Groups.** Provide for emergency shelter, transitional and supportive housing opportunities.
10. **Provide Adequate Housing Sites.** Identify appropriate housing sites, within specified areas proximate to transportation, shopping and schools, and the accompanying zoning required to accommodate housing development.
11. **Protect Life and Property from Natural and Humanmade Hazards.** Assess the risk to life and property from natural hazards and climate change and incorporate strategies to strengthen community resilience and emergency evacuation capacity.

## **Project Components**

### *Draft 2023-31 Housing Element*

The Housing Element is a legally mandated part of the Ross General Plan, published under separate cover. The Draft 2023-31 Housing Element is an update to the current Housing Element prepared to respond to the requirements for the Sixth Housing Element Cycle, which runs from 2023 through 2031. The organization and content is described below.

- **Chapter 1 - Introduction:** An introduction to the purpose of the document and the legal requirements for a Housing Element, together with an overview of the community and the community involvement process.
- **Chapter 2 – Community Profile:** Documents population characteristics, housing characteristics, and current development trends to inform the current housing state of Ross and to identify community needs.
- **Chapter 3 – Adequate Sites for Housing:** An inventory of adequate sites suitable for construction of new housing sufficient to meet needs at all economic levels.
- **Chapter 4 - Housing Action Plan:** Articulates housing goals, policies, and programs to address the Town’s identified housing needs, including those of special needs groups and the findings of an analysis of fair housing issues in the community. This Housing Element identifies a foundational framework of five overarching goals to comprehensively address the housing needs of Ross residents and workers.
- **Appendix A – Sites Inventory:** Summarizes the Town’s ability to accommodate the RHNA on available land, and the selection of sites in light of Affirmatively Furthering Fair Housing (AFFH) requirements.
- **Appendix B – Housing Needs Assessment:** Presents community demographic information, including both population and household data, to identify Ross’s housing needs.
- **Appendix C – Constraints Analysis:** Includes an analysis of constraints to housing production and maintenance in Ross. Constraints include potential market, governmental, and environmental limitations to meeting the Town’s identified housing needs. In addition, an assessment of impediments to fair housing is included, with a fuller analysis of actions needed to affirmatively further fair housing included in a separate appendix.
- **Appendix D – Accomplishments of the 2015-2023 Ross Housing Element:** Summarizes the Town’s achievements in implementing goals, policies, and actions under the previous Housing Element.
- **Appendix E – Fair Housing Assessment:** Identifies fair housing issues and solutions to meet Ross’s AFFH mandate.

### Summary of Proposed Actions

#### INVENTORY OF SITES AVAILABLE FOR HOUSING

Under State law, each city and county in California must plan to accommodate its share of the regional housing need - called the Regional Housing Needs Allocation (RHNA) - for the coming 8-year planning period. The State determines the estimated need for new housing in each region of California, based on population projections and other factors including rates of vacancy, overcrowding, and cost-burden. The various regional planning agencies then allocate a target to each city or town within their jurisdiction, considering factors such as access to jobs, good schools, and healthy environmental conditions. RHNA is split into four categories representing different levels of affordability, based on median income level in the county. The affordability categories are as follows:

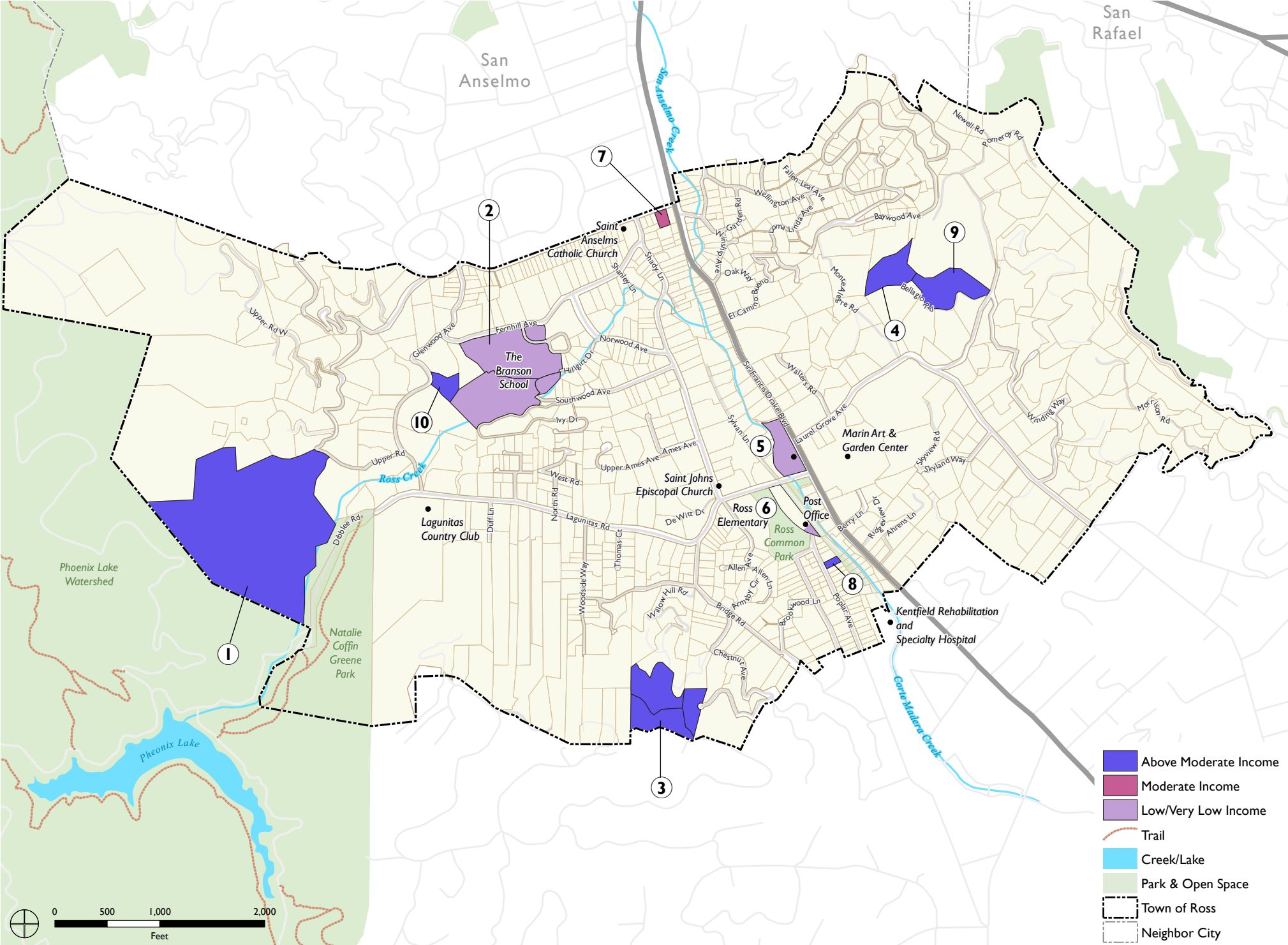
- Very Low Income - Households making less than 50 percent of the average median income (AMI)
- Low Income - Households making 50-80 percent of AMI
- Moderate Income - Households making 80-120 percent of AMI
- Above Moderate Income - Households making more than 120 percent of AMI

Amid the ongoing housing crisis in California, Ross is required to plan for at least 111 new housing units between 2023 and 2031, including 34 Very Low Income units, 20 Low Income units, 16 Moderate income units, and 41 Above Moderate units.

As required by State law, the Draft Housing Element includes a map of sites available for housing and an inventory of realistic capacity. The inventory demonstrates a total capacity of up to 148 new housing units, which is sufficient to meet the Town's RHNA obligations at all income levels with a buffer. The buffer is required to ensure that there is sufficient capacity to meet RHNA obligations at all times during the planning period, in the event that some sites on the inventory develop at lower densities than envisioned. Implementation of the Draft Housing Element would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites.

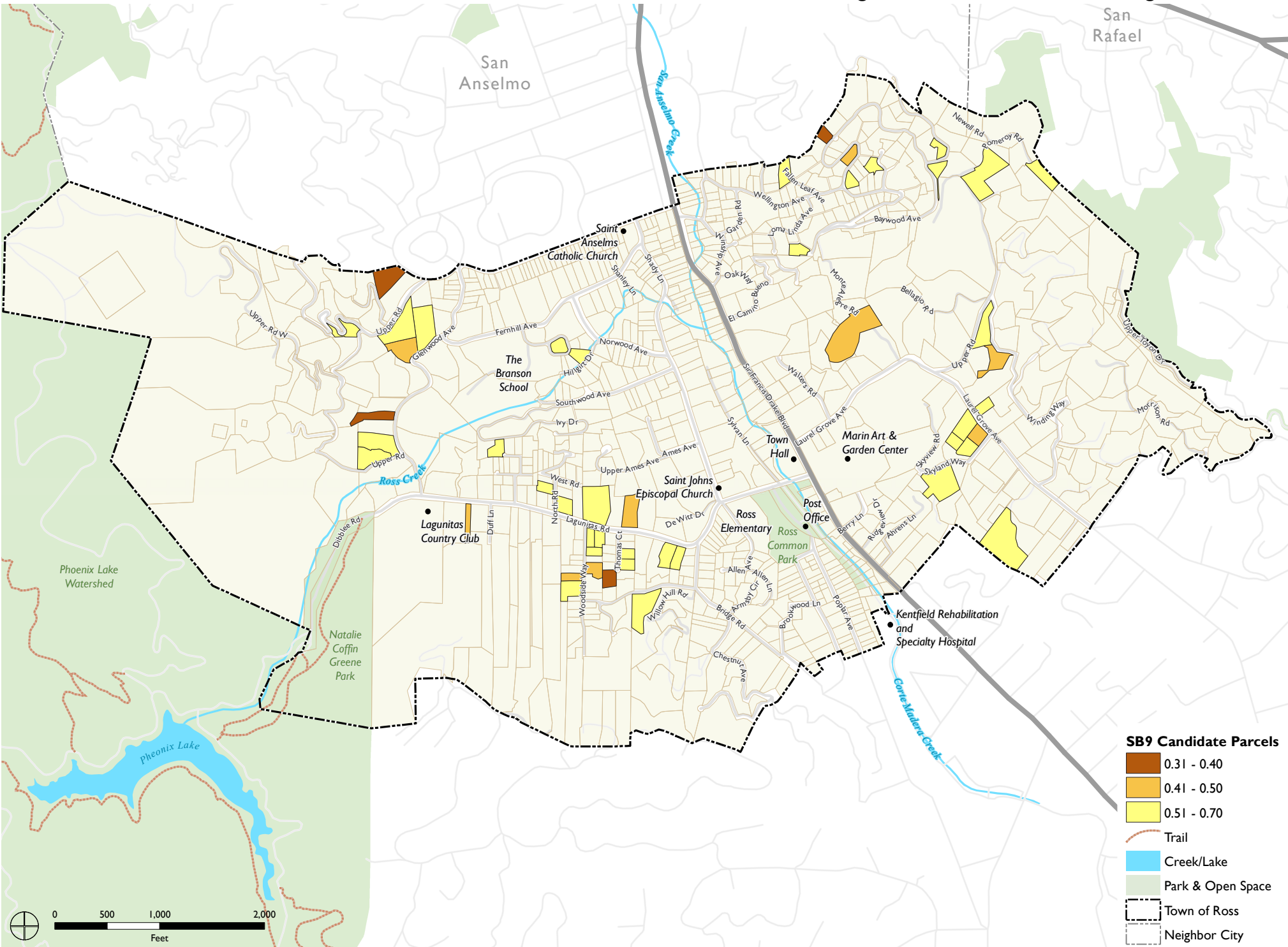
Of the total capacity on the inventory, 41 units would be accommodated on the 10 sites with current zoning that allows for housing shown on Figure 3. These are vacant and underutilized sites or sites where the property owner has expressed interest in housing. They include the Ross Civic Center, the Branson School, the Post Office, and vacant several residential properties. Additionally, the inventory projects development of 80 accessory dwelling units (ADUs) on existing single-family lots in established neighborhoods, based on past production trends in Ross and a suite of programs proposed to facilitate and incentivize production over the planning period. Given their small size and lower rents and sales prices, ADUs would offer affordable housing options for seniors, live-in caregivers, teachers, public servants, and other who work in Ross. A further 22 units are projected on existing single-family lots pursuant to Senate Bill 9 (SB9), a California state law that enables homeowners to split their single-family residential lot into two separate lots and/or build additional residential units on their property without the need for discretionary review or public hearing. The law gives qualifying property owners the right to a maximum total of four units across the two lots, whether as single-family dwellings, duplexes, and/or ADUs. As shown on Figure 4, there are at least 48 of sufficient size, located outside of areas of environmental hazard, and meeting other

Figure 3: Sites Available for Housing



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

Figure 4: SB9 Candidate Housing Sites



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

parameters define in State law that may also be underutilized. The inventory projects up to 22 new units on some combination of the SB9 sites will be developed by 2031.

Table 1 shows the inventory of sites available for housing and the capacity projections for the 2023-31 planning period.

#### ACTION PLAN

The Draft Housing Element includes an Action Plan, organized around five housing goals. Each goal is supported by policies and implementing programs that describe actions the Town will take to help meet its RHNA obligations. A summary of Action Plan contents is provided below.

**Goal 1, Work together to achieve the Town's housing goals**, is supported by programs that seek to promote collaboration among public agencies, non-profit groups, and the private sector to meet local housing needs and addressing fair access to housing. Programs involve preparing information and conducting outreach on housing issues, participating in inter-jurisdictional planning for housing, disseminating fair housing information, and responding to fair housing complaints.

**Goal 2, Maintain and enhance existing housing and blend well-designed new housing into existing neighborhoods**, is supported by programs that seek to preserve existing residential units while maintaining the quality of housing and neighborhoods. Through implementation of these programs the Town would explore options for streamlining and expediting design review to minimize time and cost in the development process. For adjacent low density residential lots under common ownership, the Zoning Ordinance would be amended to permit allowable floor area ratio (FAR) to be calculated on the basis of total site area rather than per parcel in order to incentivize the development of lots with market rate, single-family housing. The Town would also further incentivize and promote the creation of SB9 housing, implement rehabilitation loan programs, and work with the Branson School to explore the possibility of deed-restricting five existing multifamily units at the school so that they remain available to members of the local workforce making less than 80 percent of AMI for a period of 55 years.

**Goal 3, Use our land efficiently to increase the range of housing options and to meet the housing needs for all economic segments of the community**, details programs needed to fulfill the Town's RHNA requirement. As part of the Civic Center redevelopment, the Town would pursue construction of six workforce housing units on the site. In addition, a small portion of the Ross Post Office parking lot would be made available for redevelopment with workforce housing, in partnership with a non-profit housing developer. The Town would also ease parking requirements for caretaker units and multi-family developments and prepare a Downtown Area Plan to plan holistically for the area to integrate new workforce housing along with street design improvements, pedestrian and bicycle access, parking and design standards. Programs supporting this goal also seek to facilitate and incentivize ADU production, by establishing an amnesty program that allows owners to legalize unpermitted ADUs; by offering pre-approved ADU building plans and technical assistance to interested homeowners; by offering a development fee discount for homeowners who deed-restrict their ADUs and make them available to lower income households; and by updating the ADU ordinance for consistency with current State law and to clarify methods of measurement.

Town of Ross Housing and Safety Element Update Project  
Initial Study/Environmental Checklist

**Table 1: Sites Available for Housing**

No.	Site Name	Address	APN	Existing Use	Acres	Zoning	Capacity			
							Total Units	Low/ Very Low	Moderate	Above Moderate
1	Berg	Between 7 and 25 Upper Rd	073-011-26	Vacant	53.00	R-I_B-10A	6			6
2	Branson School	39 Fernhill Ave	073-151-05; 073-082-01; 073-082-12; 073-141-03	School	14.72	R-I_B-A	10	10		
3	I IWH	At the end of unnamed road west of Chestnut Ave and Hillside Ave intersection, south of 24 Chesnut Ave	073-291-13; 073-291-14; 073-291-15	Vacant	7.93	R-I_B-5A	2			2
4	Pomeroy	North of 14 Bellagio Rd and South of 78 Baywood Ave	072-031-01	Vacant	2.82	R-I_B-5A	1			1
5	Civic Center	33 Sir Francis Drake Blvd	073-191-16	Public	2.40	C-D	6	6		
6	Post Office	1 Ross Common	073-242-05	Public	1.56	C-D	6	6		
7	Saint Anselms Parking Lot	Southwest corner of Bolinas Ave and Sir Francis Drake Blvd	073-052-25	Parking lot	0.39	R-I_B-6	3		3	
8	Badalamenti	27 Ross Common	073-273-09	Commercial	0.22	C-L	4			4
9	Bellagio	0 Bellagio Road (at the intersection of Bellagio Rd and Canyon Rd)	072-031-04	Vacant	2.63	35.8%	2			2
10	Siebel	Between 36 Glenwood Ave and 81 Fernhill Ave	073-072-07	Vacant	1.07	0.0%	1			1

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**Table 1: Sites Available for Housing**

No.	Site Name	Address	APN	Existing Use	Acres	Zoning	Capacity			
							Total Units	Low/ Very Low	Moderate	Above Moderate
<b>SUBTOTAL</b>							<b>41</b>	<b>22</b>	<b>3</b>	<b>16</b>
Accessory dwelling units (@ 10/year)							80	48	24	8
Existing units at Branson to deed restrict							5	5		
SB9 Housing <sup>1</sup>							22			22
<b>TOTAL</b>							<b>148</b>	<b>75</b>	<b>27</b>	<b>46</b>
<b>RHNA</b>							<b>111</b>	<b>54</b>	<b>16</b>	<b>41</b>
<b>BUFFER</b>							<b>37</b>	<b>21</b>	<b>11</b>	<b>5</b>

<sup>1</sup> The inventory projects development of 22 SB9 units over the planning period, based on the assumption that 15 percent of the total capacity on SB9 candidate sites is developed.

**Goal 4, Provide housing for special needs populations,** is supported by programs to promote affordable housing for all special needs groups, including persons with developmental disabilities, the homeless, single parent families, and large families, consistent with State law. Programs address zoning for transitional and supportive housing and amending the Zoning Ordinance to include objective standards to regulate emergency shelters and to state that residential community care facilities for six or fewer persons are permitted by right in all zones where single-family residential uses are allowed. Programs also address homeless needs, utilize and support available rental assistance programs, and provide information on reasonable accommodation.

**Goal 5, Monitor program effectiveness and respond to housing needs,** is supported by programs that provide a regular monitoring and update process to assess housing needs and achievements. Programs commit the Town to annual reporting on progress toward Housing Element objectives, ensuring adequate sites are available to meet the Town's share of RHNA at all times throughout the planning period, and monitoring of ADU and JADU trends.

#### *Safety Element*

The Safety Element will be updated to incorporate new data on natural hazards and climate change along with actions to strengthen community resilience and emergency evacuation capacity. Risk to life and property will be characterized and maps showing special flood hazard area, wildfire hazard severity, and geologic hazards will be updated. The Safety Element update will also draw on the findings of a regional evacuation study by the Marin Wildfire Prevention Authority (MWPA) expected in early 2023. The study will simulate the wildfire evacuation process in Marin County, prioritize areas of highest concern, and help identify possible risk mitigation.

#### **Project Implementation**

The Town of Ross 6th Cycle 2023-2031 Housing Element Update must be certified by the State following a legally-mandated 90-day review period. Adoption hearings for the Housing and Safety Element Updates will be scheduled before the Town Council, likely in May 2023. Once adopted, the goals, policies, and strategies would become part of the General Plan and would be implemented by the Town through the adoption and implementation of regulations, guidelines, and programs; and through the approval process for private development projects, including site, architectural, and environmental review.

#### **10. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED:**

No other agency is required to approve the Housing Element update, but it will be reviewed by the California Department of Housing and Community Development for the purpose of determining whether it complies with the requirements of the Housing Element Law.



**11. NATIVE AMERICAN CONSULTATION:**

In accordance with the requirements of Public Resources Code 21080.3.1, the Town notified those Native American Tribes both traditionally and culturally affiliated with the project area. These tribes were notified via certified mail and email. As of this date, response and formal request for tribal consultation has been received by the Federated Indians of Graton Rancheria and consultation is ongoing.

**12. SUMMARY OF ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The project would have the following Potentially Significant Impacts to the resource areas listed below. A summary of the environmental factors potentially affected by this project, consisting of a Potentially Significant Impact or Potentially Significant Impact Unless Mitigated, include:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources  | <input type="checkbox"/> Air Quality                                   |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources       | <input type="checkbox"/> Energy  |
| <input checked="" type="checkbox"/> Geology/Soils        | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials      |
| <input type="checkbox"/> Hydrology/Water Quality         | <input type="checkbox"/> Land Use/Planning                   | <input type="checkbox"/> Mineral Resources                             |
| <input checked="" type="checkbox"/> Noise                | <input type="checkbox"/> Population/Housing                  | <input type="checkbox"/> Public Services                               |
| <input type="checkbox"/> Recreation                      | <input checked="" type="checkbox"/> Transportation           | <input checked="" type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities/Service Systems       | <input checked="" type="checkbox"/> Wildfire                 | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

### **13. ENVIRONMENTAL CHECKLIST:**

This section analyzes the potential environmental impacts that may result from the Proposed Project. For the evaluation of potential impacts, the questions in the Initial Study Checklist (Section 2) are stated and answers are provided according to the analysis undertaken as part of the Initial Study. The analysis considers the project's short-term impacts (construction-related), and its operational or day-to-day impacts. For each question, there are four possible responses. They include:

1. No Impact. Future development arising from the project's implementation will not have any measurable environmental impact on the environment and no additional analysis is required.
2. Less than Significant Impact. The development associated with project implementation will have the potential to impact the environment; these impacts, however, will be less than the levels or thresholds that are considered significant and no additional analysis is required.
3. Potentially Significant Unless Mitigated. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
4. Potentially Significant Impact. Future implementation will have impacts that are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.A Aesthetics.</b> Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic building along a State-designated scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** Set in a valley between wooded hillsides, Ross enjoys a natural environment where there is an abundance of green from tree-lined streets, parks and open space, and healthy creeks and watershed. These natural resources create scenic vistas that are valued by the community. Through objective standards in the Town Code and adopted Design Guidelines, the Town of Ross also promotes architectural variety of buildings and the open feeling of the town. Buildings and structures recede into the background while landscaping and open space take center stage. Ross' neighborhoods mix old and new construction through the use of appropriate building materials and landscaping, and through the appropriate design, scale, and siting of improvements.

**a. Less than Significant Impact.** A significant impact may occur if a project were to introduce incompatible scenic elements within a field of view containing a scenic vista or substantially block views of a scenic vista. There are no identified scenic vistas or corridors in the Town of Ross General Plan 2007 - 2025. However, the natural landscape and views of nearby hills are key features of the Town of Ross that the community aims to preserve. Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. All development under the Proposed Project would be required to adhere to General Plan policies, the Town Code, and the Town's adopted Design Guidelines regarding scenic resources. According to Chapter 18.41.010 of the Town Code, development must preserve lands which are unique environmental resources including scenic resources (ridgelines, hillsides and trees), vegetation and wildlife habitat, creeks, threatened and endangered species habitat, open space and areas necessary to protect community health and safety. Site design and intensity must preserve natural landforms and existing vegetation and prevent excessive and unsightly hillside grading. As such, implementation of the Project would not result in substantial adverse effects on

scenic vistas and impacts would be less than significant with adherence to applicable policies, regulations, and guidelines.

***b. No Impact.*** A significant impact would occur if scenic resources, including but not limited to trees, rock outcroppings, and historic buildings, would be damaged or removed by a project within a state scenic highway. According to maps produced by the California Department of Transportation Scenic Highways Mapping Project, there are no designated State scenic highways in the Town of Ross and the closest eligible highway segment, US-101 from Marin to Leggett, is not located in or near the Town of Ross (Caltrans, 2022). Therefore, the Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and no impacts would occur.

***c. Less than Significant Impact.*** A significant impact may occur if a project were to introduce incompatible visual elements on the project site or visual elements that would be incompatible with the character of the area surrounding the project site. Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. All housing development pursuant to the Proposed Project would be required to comply with the objective design and development standards of the Town Code (Chapter 18) and, as applicable, would be subject to design review to ensure compatibility with the surrounding neighborhood. Design review is conducted by Town staff and an Advisory Design Review (ADR) Group. The ADR Group provides professional review of design related issues, including site planning, building massing, setbacks, light and air, and privacy, as well as architectural details and materials selection. Such requirements include designing with topography, aligning development with existing buildings, orienting buildings to face the street, and minimizing the visibility of a secondary structure or ADU. Therefore, the Project would not conflict with applicable zoning and other regulations governing scenic quality. Compliance with existing regulations would help ensure the compatibility of new development and impacts would be less than significant.

***d. Less than Significant Impact.*** A significant impact may occur if a project were to introduce new sources of light or glare on or from the project site which would be incompatible with the surrounding area. As a residential community of primarily large lot single-family homes and neighborhoods of dense tree canopy, the principal sources of light and glare are limited to the existing homes in the community. Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. All new development would be required to comply with Town of Ross regulations, including the provisions of the Town Code Chapter 18.41.100 – Design review and criteria standards, require that exterior lighting not create glare, hazard or annoyance to adjacent property owners or passersby. Lighting should be shielded and directed downward, with the location of lights coordinated with the approved landscape plan. Further, Town of Ross Design Guidelines recommend incorporating site lighting only where it is needed, using small scale lighting fixtures, and shielding site lighting to minimize off-site glare onto adjacent properties and toward the sky. In addition, the Town’s forested hillsides and tree-lined streets would limit light spillover to adjacent properties and illumination of the night sky. Therefore, compliance with applicable regulations and guidelines would ensure the Project would not result in a substantial adverse effects from light or glare. As such, associated impacts would be less than significant.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.B Agriculture and Forestry Resources.</b> 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. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency or (for annexations only) as defined by the adopted policies of the Local Agency Formation Commission, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established by the State Legislature in 1982 to assess the location, quality, and quantity of agricultural lands and conversion of these lands over time. The FMMP has established five Important Farmland categories.

- Prime Farmland comprises the best combination of physical and chemical features able to sustain long-term agricultural production. Irrigated agricultural production is a necessary land use 4 years prior to the mapping date. The land must be able to store moisture and produce high yields.
- Farmland of Statewide Importance possesses similar characteristics to Prime Farmland with minor shortcomings, such as less ability to hold and store moisture and more pronounced slopes.
- Unique Farmland has a production history of propagating crops with high-economic value.

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- Farmland of Local Importance is important to the local agricultural economy. Local advisory committees and county specific board of supervisors determine this status.
- Grazing Land is suitable for browsing or grazing of livestock.

**a. No Impact.** Under the FMMP, the Town of Ross is categorized as “Urban and Build-Up Land” and “Other Land” (California DOC, 2021). There is no Farmland within the Town limit, and the closest Farmland is about five miles west of the Town limit, where there are approximately 100 acres of Farmland of Local Importance and Grazing Land located in western hills. Therefore, the Project would have no impact on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

**b. No Impact.** The Williamson Act, codified in 1965 as the California Land Conservation Act, allows local governments to enter into contracts with private landowners with the intent of restricting the use of land to agricultural or related open space through tax incentives. These incentives tax farmers based on an open space designation, which is a much lower rate than the full market value tax. Through this contract, farmers agree to freeze development of their land for 10 years. The current Marin County Williamson Act Parcel Map does not list any Williamson Contract parcels located within the Town of Ross (County of Marin, 2020). Additionally, there are no districts on the Ross Zoning Map zoned for agricultural uses in the town (Town of Ross, 2018). Therefore, no impacts related to conflicts with agricultural zoning or Williamson Act contracts would occur.

**c. Less than Significant Impact.** In the Public Resources Code (PRC) section 4526, the California Board of Forestry and Fire Protection defines “Timberland” as land, not owned by the federal government, nor designated as experiential forest land, which is capable and available for growing any commercial tree species. The board defines commercial trees on a district basis following consultation with district committees and other necessary parties. There is no land within the Town of Ross zoned for timberland production or that otherwise meets this definition. The PRC section 12220 (g) defines forest land as “. . . land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.” While wooded hillsides in Ross may support more than 10 percent native tree coverage, development pursuant to the Proposed Plan would take place on parcels currently zoned for residential uses and as such no conflicts would result from Project implementation. Impacts would be less than significant.

**d. Less than Significant Impact.** Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. While wooded hillside areas of Ross may meet the definition of forest land in the PRC, any development pursuant to the Proposed Project would be on parcels currently zoned for residential uses and would not result in the loss of forest land or conversion of forest land to non-forest use. Impacts would be less than significant.

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**e. Less than Significant Impact.** As described above, there is no Farmland in or adjacent to the Town of Ross and all development pursuant to the Proposed Plan would be on land currently zoned for residential uses. Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites and would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non- agricultural use or conversion of forest land to non-forest use. Impacts would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.C Air Quality.</b> Where applicable, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under the applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The Town of Ross is located within the San Francisco Bay Area Air Basin (Air Basin). The Bay Area Air Quality Management District (BAAQMD) is the air pollution control agency for the Air Basin and is responsible for air quality management plans (AQMP) to achieve air quality standards. The Air Basin is an area designated as non-attainment because it does not currently meet National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for certain pollutants regulated under the Clean Air Act and California Clean Air Act, respectively. Specifically, the Air Basin does not meet the NAAQS for ozone, PM10, and PM2.5.

**a-b. Less than Significant Impact.** Implementation of the Proposed Project would result in the development of up to 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. Development would happen incrementally over the course of eight years, from 2023-2031, which would minimize construction-related air quality impacts. Further, the number of residential developments under the Proposed Project would fall below BAAQMD screen criteria for single family

residential and apartment projects which is 114 du (ROG) and 240 (ROG) (BAAQMD, 2017). As such, construction-related air quality impacts would be less than significant.

To meet the Threshold of Significance for operational-related criteria air pollutant and precursor impacts for plans (other than regional plans), a proposed plan must satisfy the following criteria:

- Consistency with current air quality plan (AQP) control measures (this requirement applies to project-level as well as plan-level analyses).
- A proposed plan's projected VMT or vehicle trips (VT) (either measure may be used) increase is less than or equal to its projected population increase.

AQPs may be clean air plans, state implementation plans (SIPS), ozone plans, and other potential air quality plans developed by BAAQMD. To date, the Air District's most current plan is the 2017 Clean Air Plan (CAP). The primary goals of the 2017 CAP are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, reduce GHG emissions, and protect the climate. The Proposed Project focuses on promoting infill development on existing residential lots and within urbanized areas, preserving existing residential units, implementing sustainable and environmentally sensitive design, and promoting multimodal mobility, all of which would support the goals of the CAP (proposed policies 2.1, 2.2, 2.4, 3.2, 3.3, 3.4, and proposed programs 2-B, 2-C, 3-A, 3-B, 3-D, and 3-K). Other fundamental components of the Proposed Project also support the goals of the CAP. The preservation of open space through Proposed Project programs that develop SB9 housing, ADUs, and identify housing sites in already urbanized areas would help to reduce emissions by preserving existing green space throughout the town that can sequester carbon. The Proposed Project's criteria for selecting Housing Opportunity areas includes adequate pedestrian, neighborhood service, and neighborhood facility access which support multimodal mobility that could result in less energy consumption and fewer vehicle trips compared to the current more auto-oriented development pattern. Therefore, the Proposed Project would support the primary goals of the CAP and have a less than significant impact with respect to conflicts with the 2017 Clean Air Plan.

Table 2 provides a summary of the VMT forecasts for baseline 2019 conditions and for future townwide VMT, accounting for buildout of the Proposed Project. The VMT forecasts indicate that, at buildout, the Proposed Project would result in a Home-Based VMT per capita that is 12 percent below the baseline 2019 Town VMT per capita, which is less than the projected population increase. As such, operational impacts from implementation of the Proposed Project would be less than significant.



**Table 2: Daily Home-Based Vehicle Miles Traveled (VMT) for Residential Uses**

Scenario	Home-Based VMT	Home VMT Per Resident
BASELINE TOWN VMT METRIC (2019)	33,603	14.1
2040 PLUS HOUSING ELEMENT UNITS	35,442	12.4
<b>PERCENT CHANGE – 2040 Plus Project Home VMT per Resident Rate Compared to Baseline Rate for Ross 2019</b>		
2040 PLUS HOUSING ELEMENT UNITS		-12%

Notes:

1. The VMT shown in the table above is home-based VMT for all existing residential uses in Ross and in the Proposed Project including single family residential, multi-family residential, affordable housing, and the residential care facility.
2. The VMT per resident values are based on 2,385 residents for the baseline (2019) scenario and 2,855 future residents for the 2040 plus Project scenario.

Data for the Bay Area Region is for the full nine-county area.

Source: Fehr & Peers.

**c. Less than Significant Impact.** Implementation of the Proposed Project would result in the development of 146 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. Development would happen incrementally over the course of eight years, from 2023-2031, which would minimize construction-related air quality impacts. While large scale construction projects involving diesel-emitting equipment over many months could impact adjacent sensitive receptors, this is not the type of development that would happen with the Proposed Project, which primarily involves small scale infill development. Off-road diesel construction equipment and heavy-duty diesel trucks (e.g., concrete trucks, building materials delivery trucks), which are sources of diesel exhaust particulate matter, are regulated under three airborne toxic control measures (ATCMs) adopted by the California Air Resources Board (CARB). The ATCM for diesel construction equipment specifies particulate matter emission standards for equipment fleets, which become increasingly stringent over time. Furthermore, most newly-purchased construction equipment introduced into construction fleets after 2013–2015, depending on the engine horsepower rating, are equipped with high-efficiency diesel particulate filters. One of the ATCMs for heavy-duty diesel trucks specifies that commercial trucks with a gross vehicle weight rating over 10,000 pounds are prohibited from idling for more than five minutes unless the engines are idling while queuing or involved in operational activities. In addition, starting in model year 2008, new heavy-duty trucks must be equipped with an automatic shutoff device to prevent excessive idling or meet stringent NOx requirements. Lastly, fleets of diesel trucks with a gross vehicle weight rating greater than 14,000 pounds are subject to another ATCM. This ATCM requires truck fleet operators to replace older vehicles and/or equip them with diesel particulate filters, depending on the age of the truck. As such, compliance with ATCMs would reduce construction-related impacts to a less than significant level.

Operation of the Proposed Project involves residential development which may result in areas of vehicle congestion that have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. However, under existing and future vehicle emission rates, a plan would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour in order to generate a significant CO impact. Since the Proposed Project involves limited amounts of small-scale development over 8 years, it would not result in substantial amounts of pollution. Therefore, both construction- and operational-relation air quality impacts would be less than significant under the Proposed Project.

***d. Less than Significant Impact.*** According to the BAAQMD, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Residential development does not create substantial odors. Potential odor emitters during construction include diesel exhaust and evaporative emissions generated by asphalt paving and the application of architectural coatings. Construction-related activities near existing receptors would be temporary in nature, and construction activities would not result in nuisance odors. Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings as part of ongoing building maintenance. However, odor impacts would be limited to circulation routes, parking areas, and areas immediately adjacent to recently painted structures. Although such brief exhaust- and paint-related odors may be considered adverse, they would not be atypical of developed urban areas and would not affect a substantial number of people or rise to the level of a significant impact under CEQA. Because the Proposed Project would not result in a new, substantial, or long-term source of odors, this impact would be less than significant.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.D Biological Resources.</b> Would the project:				
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 Wildlife or the U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The Town of Ross contains a wide variety of natural and biological resources, including trees, hillsides, ridgelines and creeks. The Town’s location in a valley between wooded hillsides provides a natural habitat for flora and fauna, including some endangered and threatened plant and wildlife species, while the riparian corridors along the creeks habitat and movement corridors for wildlife.

A “special-status species” refers to species that are considered sufficiently rare that they require special consideration and/or protection and should be, or have been, listed as rare, threatened, or endangered by Federal and/or State governments. Information regarding the occurrences of special-status species in the vicinity of the Planning Area was obtained from a query of the CDFW’s California Natural Diversity Database (CNDDDB). The CNDDDB is regularly updated to track occurrences of previously documented special-status species; however, it contains only those records that have been submitted to CDFW. Therefore, there may be additional occurrences of special-status species within the area that have not yet been surveyed and/or mapped. A lack of information in the CNDDDB about a species or an area does not imply that the species does not occur or that there is a lack of diversity in that area. Based on the

records search shown in Table 3 and Table 4, 10 special-status plant species and six special-status wildlife species were identified as having the potential to occur in the Planning Area.

**a-d. Potentially Significant Impact.** Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. However, given the extent of biological resources throughout the community, future development pursuant to the Proposed Project has the potential to adversely affect sensitive species, riparian habitats, sensitive communities, and federally protected wetlands. As noted above, 10 special-status plant species and six special-status wildlife species were identified as having the potential to occur throughout the Planning Area. Future development under the Proposed Project could have a significant direct or indirect impact on special-status species if it would result in the removal or degradation of the species or potentially suitable habitat. For riparian habitats, impacts could occur on three of the ten sites identified for development since they are located adjacent to creeks. There is a chance that riparian habitat and other sensitive communities could be impacted throughout the buildout of the Proposed Project due to construction activities, such as grading, evacuation, and removal of vegetation.

The Proposed Project would be required to comply with federal and State regulations related to biological resources, including the Federal Endangered Species Act, Clean Water Act, California Endangered Species Act, California Fish and Game Code, and the California Native Plant Protection Act. General Plan policies would further reduce impacts on biological resources by requiring the protection of environmental resources, retention of natural areas, and creek setbacks to protect riparian habitat. While federal, State, regional, and General Plan policies need to be complied with by the Proposed Project, potential impacts to biological resources remain potentially significant and will be studied further in the EIR.

**e. Less than Significant Impact.** A significant impact would occur if the Proposed Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The Ross General Plan Part II, Our Relationship with the Natural Environment, includes goals and policies that the Proposed Project would be subject to. These policies include but are not limited to protection of environmental resources, tree canopy preservation, tree maintenance and replacement, natural areas retention, and open space planning. Protection of environmental resources includes hillsides, creeks, drainage ways, trees, and tree groves. Specific requirements include ensuring proper tree maintenance and replacement, executing an Open Space Plan for land in public and private ownership, and establishing creek setbacks. All development near riparian areas must be done in a manner that retains and protects 25creekside vegetation, integrates fish passage, and includes habitat restoration in its natural state. Further, residential development must maximize the amount of land retained in a natural state wherever possible.

The Town Code Design Review chapter also supports the preservation of vegetation and wildlife habitat, creeks, and threatened and endangered species habitat (Chapter 18.41). These design review guidelines state that the high-quality and fragile natural environment should

**Table 3: Special-Status Plant Species with the Potential to Occur in the Planning Area**

Scientific Name	Common Name	Status	
		USFWS <sup>1</sup>	CDFW <sup>2</sup>
<i>Hemizonia congesta</i> ssp. <i>Congesta</i>	Congested-Headed Hayfield Tarplant	None	None
<i>Pleuropogon hooverianus</i>	North Coast Semaphore Grass	None	Threatened
<i>Holocarpha macradenia</i>	Santa Cruz Tarplant	Threatened	Endangered
<i>Amorpha californica</i> var. <i>napensis</i>	Napa False Indigo	None	None
<i>Pentachaeta bellidiflora</i>	White-Rayed Pentachaeta	Endangered	Endangered
<i>Trifolium amoenum</i>	Two-Fork Clover	Endangered	None
<i>Lessingia micradenia</i> var. <i>micradenia</i>	Tamalpais Lessingia	None	None
<i>Arctostaphylos montana</i> ssp. <i>Montana</i>	Mt. Tamalpais Manzanita	None	None
<i>Eriogonum luteolum</i> var. <i>caninum</i>	Tiburon Buckwheat	None	None
<i>Arctostaphylos virgata</i>	Marin Manzanita	None	None

Source: CNDDDB GIS Data, California Department of Fish and Wildlife, 2022

**Table 4: Special-Status Animal Species with the Potential to Occur in the Planning Area**

Scientific Name	Common Name	Status	
		USFWS <sup>1</sup>	CDFW <sup>2</sup>
<i>Rana boylei</i> pop. 1	Foothill Yellow-Legged Frog	None	None
<i>Vespericola marinensis</i>	Marin Hesperian	None	None
<i>Antrozous pallidus</i>	Pallid Bat	None	None
<i>Lasiurus cinereus</i>	Hoary Bat	None	None
<i>Emys marmorata</i>	Western Pond Turtle	None	None
<i>Laterallus jamaicensis coturniculus</i>	California Black Rail	None	Threatened

Source: CNDDDB GIS Data, California Department of Fish and Wildlife, 2022

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be preserved and maintained through protecting scenic resources, vegetation and wildlife habitat, creeks, drainageways, and threatened and endangered species habitat. Specific requirements include keeping the removal of trees, vegetation, rocks, and soil to a minimum; planting and reseeding disturbed areas to prevent erosion; prioritizing the preservation of environmental sensitive areas, including areas along streams, forested areas, and steep slopes; and establishing a minimum 50-foot creek setback from the top of bank for all new buildings. Development anticipated by the Proposed Project would also be required to adhere to the existing Town of Ross Tree Protection Ordinance (Chapter 12.24.005). This ordinance aims to provide reasonable regulations for the maintenance and removal of trees in the town and establish a stable and sustainable urban forest. As a result, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, and a less than significant impact would occur.

**f. No Impact.** A significant impact would occur if a project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. There are no Habitat Conservation Plans in Marin County (CDFW, 2022). Therefore, development of the Proposed Project would not conflict with any Habitat Conservation Plan. No impacts would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.E Cultural Resources.</b> Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** In order to determine the presence or absence of cultural and historical resources within the Proposed Project site and the surrounding area, a records search and literature review was requested for the Planning Area on March 29, 2022, at the NWIC, located at Sonoma State University. The purpose of this review was to access existing cultural resource survey reports, archaeological site records and historic maps, and evaluate whether any previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or other resources exist within or near the town. According to the NWIC results, the State Office of Historic Preservation Built Environment Resources Directory (OHPBERD) lists eight recorded buildings or structures within the Town of Ross. In addition to these inventories, the NWIC base maps show eight recorded buildings or structures within the town limits. The Caltrans Bridge Inventory also indicates six historic bridges in the town. Given these resources, NWIC also determines that there is a high potential for unrecorded historic-period archaeological resources to be within the town limits.

Further, the Town of Ross contains four recorded Native American archaeological resources. Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the San Francisco Bayshore, and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Town of Ross is located between one third mile to one half mile west of the historic San Francisco Bay shore and marshland margins, inland and west of Point San Quentin. Current aerial maps indicate a high percentage of densely wooded areas, as well as areas of bare dirt, areas including buildings, roads, landscaped areas, etc. Given the similarity of these environmental factors and the ethnographic and archaeological sensitivity of the Planning Area, NWIC has determined that there is a high potential for unrecorded Native American resources to be within the Town limits.

Details of the recorded archaeological and historic resources are included in Appendix A – Supporting Materials for Cultural and Tribal Cultural Resources.

***a-b. Potentially Significant Impact.*** The Proposed Project identifies an inventory of 10 sites available for housing development and 48 properties that are candidates for development with housing pursuant to SB9. With the exception of the Ross Civic Center site, none of these properties contain historic buildings or structures as identified by NWIC. The Ross Town Hall and Fire House, however, are listed on the California Register of Historical Resources and eligible for listing on the National Register. While redevelopment of the Civic Center site would need to comply with the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings, the redevelopment could potentially result in adverse effects on the historic significance of the buildings. As such, this potentially significant impact will be analyzed in further detail in the EIR. Additionally, given that there is a high potential for unrecorded historic-period archaeological resources and Native American resources within the Town limits, implementation of the Proposed Project could potentially also result in a significant impact to cultural resources. As such, this potentially significant impact will also be analyzed in further detail in the EIR.

***c. Less than Significant Impact.*** The Proposed Plan would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites and not in areas known to contain human remains. However, there is always the possibility that subsurface construction activities associated with the Proposed Project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.94 and Section 5097.98 must be followed. Thus, with compliance of existing regulations, implementation of the Proposed Project would result in a less than significant impact to disturbance of human remains.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.F Energy.</b> Would the project:				
a. Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** Energy resources in the State of California include natural gas, electricity, water, wind, oil, coal, solar, geothermal, and nuclear resources. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and result in the emissions of pollutants. PG&E provides natural gas and electricity to the Planning Area. All buildings within the Planning Area have existing connections to infrastructure, although the vacant areas do not.

**a-b. Less than Significant Impact.** Implementation of the Proposed Project would result in the development of up to 148 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. Energy resources would be consumed during construction and long-term operation of future residential development. However, future development would be required to comply with the California Green Building Standards Code and California’s Title 24 Building Energy Efficiency Standards. This includes the update to Title 24, effective January 1, 2020, which requires that all new homes under three stories install solar panels. Title 24 also applies to ADUs and requires them to include a solar energy system that can generate enough to offset the dwelling’s annual electrical usage. The Town also verifies compliance with the California Building Code (CBC) as part of the building permit issuance and construction inspection process. The Town’s General Plan also adopted a number of sustainability building and energy efficiency goals and policies, such as requiring large homes to limit energy usage and increasing the use of renewable energy sources. Given the minimal level of buildout and compliance with existing regulations, the Proposed Project would result in a less than significant impact to energy resources.



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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.G Geology and Soils.</b> Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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- site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The Town of Ross is situated in the seismically active San Francisco Bay Area. The regional seismic setting is dominated by stress associated with the oblique collision of the Pacific tectonic plate with the North American tectonic plate. The boundary between the two tectonic plates is the San Andreas fault system, which extends nearly 700 miles along a north-west trend from Mexico to offshore northern California. The San Andreas fault system includes the San Andreas, Hayward, Calaveras, Seal Cove-San Gregorio, and other related faults in the San Francisco Bay area. According to the U.S. Geological Survey (Working Group on California Earthquake Probabilities 2015), there is a 72 percent chance of at least a magnitude 6.7 (or greater) earthquake in the San Francisco Bay region within the next 30 years. While there are no active faults within Ross designated under the Alquist-Priolo Earthquake Fault Zoning Act, the Town is subject to moderate to high levels of ground shaking because of its proximity to the San Andreas fault.

Creekside and hillside areas, which comprise the majority of the built environment in Ross, are most vulnerable to damage caused by seismic-related ground failure. Creekside development on alluvial deposits can experience differential settlement caused by liquefaction. Most land on the Ross Valley floor within the Town limit is located in areas of high liquefaction risk. Hillside construction is also vulnerable to earthquake-induced landslides. This vulnerability is increased during periods of intense or prolonged rainfall when soils become saturated.

Slope stability maps of the Town of Ross area were prepared by Marin County and identify many slide areas in the Town (County of Marin, 2022). The classifications are interpretive, and generally apply to large areas. Within each area conditions may range on a local level. The slope stability zones (1 through 4) represent qualitative evaluations of potential slope instability (Zone 1 being the most stable, and Zone 4 being the least stable). The most unstable areas occur on slopes in the along the western and eastern boundaries of the town.

The weathering of bedrock and the growth of vegetation have resulted in the formation of relatively shallow (20 to 40 inches typical) soils on hillsides in the town. According to the Soil Survey of Marin County, California (U.S. Department of Agriculture, 2012), the predominant soil type in the town limits is the Tocaloma-McMullin Urban Land Complex, which is a loam to very gravelly loam. The Tocaloma-McMullin soils have a "severe" erosion rating, indicating that significant erosion should be expected. The soils also have a moderate corrosion potential for steel and concrete.

***a (i and ii). Less than Significant Impact.*** As noted above, there are no designated Alquist-Priolo zones in Ross, however, the area is subject to ground shaking in the event of an earthquake due to its proximity to the San Andreas Fault System. All future development under the Proposed Project would be required to comply with the provisions of Ross Town Code – Chapter 15.24, the current California Building Codes, and the specifications outlined in project-specific geotechnical investigations which are required for development in hillside areas per Chapter 18.39 of the Town Code. Compliance with existing regulations would ensure that risks are minimized to the extent practicable and impacts related to fault rupture and ground shaking would be less than significant.

***a (iii). Less than Significant Impact.*** As shown on Figure 2, areas adjacent to the creeks and most of the Valley floor west of Sir Francis Drake Boulevard are subject to high liquefaction risk. Housing development within these areas pursuant to the Proposed Project would be required to comply with the provisions of the California Building Code related to soils and foundations and with the following mitigation strategies contained in the Town of Ross Local Hazard Mitigation Plan:

- EQ-3 Requires preparation of site-specific geologic or geotechnical reports for development and redevelopment proposals in areas subject to earthquake-induced landslides or liquefaction and condition project approval on the incorporation of necessary mitigation measures related to site remediation, structure and foundation design, and/or avoidance.

- EQ-11 Require geologic reports in areas mapped by others as having significant liquefaction or landslide hazards.
- AH-26 Comply with all applicable building and fire codes, as well as other regulations (such as state requirements for fault, landslide, and liquefaction investigations in particular mapped areas) when constructing or significantly remodeling Town-owned facilities.

While the precise location and specific site conditions for development under the Proposed Project cannot be known at this time, compliance with existing regulations and mitigation strategies would reduce potential impacts related to liquefaction to the maximum extent practicable. Therefore, impacts are considered less than significant.

***a (iv) and c. Potentially Significant Impact.*** Given the steep terrain in much of Ross, there is potential for landslides, particularly in wet weather months. As shown in Figure 2, hillside areas in the west, northeast, and southeast of Ross have experienced landslides in the past. Sites 1 and 4 shown on Figure 4 are in proximity to mapped landslides. While development on these sites and in areas with slope stability hazards would be subject to the provisions of Chapter 18.39 of the Town Code, which contains hillside lot regulations and standards. Nevertheless, the potential for loss or damage due to landslides remains. As such, impacts are considered potentially significant and will be analyzed in further detail in the EIR.

***b. Less than Significant Impact.*** Stormwater can cause erosion of soils on hillsides and creek banks in Ross. Future development under the Proposed Plan would be required to comply with the provisions of the Town Code pertaining to grading and to stormwater controls. Specifically, Chapter 15.24 of the Town Code requires that any project involving grading prepare an Erosion and Sediment Control Plan, a Stormwater Control Plan, and a Stormwater Facilities Operation and Maintenance Plan. As such, compliance with existing regulations would reduce impacts to the extent practicable and impacts related to erosion would be less than significant.

***d. Less than Significant Impact.*** Areas within Ross are underlain by expansive soils, which swell and shrink as they gain and lose moisture and can result in damage to overlying structures. Compliance with the provisions of the California Building Code, adopted by the Town as Chapter 15.05 of the Town Code require soil investigations by a civil engineer to identify corrective action needed to prevent structural damage to each dwelling proposed to be constructed on the expansive soil. Therefore, compliance with existing regulations would reduce expansive soil-related impacts to a less than significant level.

***e. Less than Significant Impact.*** The Town Code (Chapter 13.04) requires that every building be connected to the public sewer system maintained by the sanitary district, unless an exception is authorized by the Town Council. Given that implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established

neighborhoods on existing lots and infill sites, future development under the Proposed Project would generally connect to existing sewer trunk lines or future expansion of sewer trunk lines. In the event that the use septic tanks is permitted during development under the Proposed Project, compliance with all requirements outlined in Chapter 13.04 of the Town Code would be required. As a result, impacts would be less than significant.

**f. Less than Significant.** Paleontological resources are mineralized or fossilized remains of prehistoric plants and animals, as well as mineralized impressions or trace fossils that provide indirect evidence of the form and activity of ancient organisms. A search of the fossil database maintained by the University of California Museum of Paleontology at the University of California, Berkeley did not identify any fossils within Ross (Town of Ross 2007a). Although not anticipated, sub-surface construction activities associated with the Project implementation, such as grading or trenching, could result in a significant impact to paleontological resources, if encountered. Public Resources Code Section 5097.5 specifies the procedures to be followed in the event of the unexpected discovery of human remains. Compliance with existing regulations would result in less than significant impacts related to paleontological resources.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.H Greenhouse Gas Emissions.</b> Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Setting.** At the State level, target have been set for reduction of greenhouse gas (GHG) emissions to combat climate change. Senate Bill (SB) 32 calls for a reduction in statewide GHG emissions 40 percent below 1990 levels by 2030, while Executive Order B-55-18 establishes a statewide target of carbon neutrality by 2045. Ross adopted a Climate Action Plan (CAP) in 2010, which incorporates GHG reduction measures. To help track progress toward the goals established in the CAP, the Town publishes annual community greenhouse gas (GHG) emissions estimates through the Marin Climate & Energy Partnership (MCEP). Annual inventories help the Town to more closely monitor its progress in meeting its local goal to reduce community emissions 15 percent below baseline (2005) emissions by 2020 and to meet the statewide goal to reduce emissions 40 percent below 1990 levels by 2030. According to MCEP, the Town of Ross has reduced emissions 29 percent since 2005 and has met its 2020 goal. Emissions dropped from about 15,603 metric tons carbon dioxide equivalents (MTCO<sub>2e</sub>) in 2005 to 11,082 MTCO<sub>2e</sub> in 2019 (MCEP, 2021). Ross needs to reduce emissions another 3,060 MTCO<sub>2e</sub> to meet the State target for 2030.

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**a and b. Potentially Significant Impact.** As a long-range plan, the Proposed Project would be assumed to have a less than significant impact related to GHG emissions if the Town has a qualified GHG Reduction Strategy that demonstrates consistency with established SB32 and EO B-55-18 targets. While the Town's CAP sets out a pathway to reducing GHG emissions by 15 percent below 2005 levels by the year 2020, it does not demonstrate consistency with targets for 2030 and 2045. Therefore, GHG emissions from the Proposed Project will be quantified and analyzed in further detail in the EIR. Consistency with the CARB Scoping Plan will also be analyzed.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.I Hazards and Hazardous Materials.</b> Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Setting.** Ross is a quiet residential community of 880 homes. According to State databases, there are no recorded hazardous materials sites in or adjacent to the Town limit and the principal hazardous substances in the community are cleaning supplies, and landscaping chemicals. Given that 44 percent of the homes in Ross were built before 1939, asbestos and lead-based paints may be present in some existing structures. A variety of federal, State and local regulations governs the handling, transport and disposal of hazardous materials in Ross.

***a thru c. Less than Significant Impact.*** Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites and would not involve the transport, use, or disposal of significant quantities of hazardous materials. Demolition or development under the Proposed Project may involve the handling and transport of could result in the need to handle and transport asbestos or lead based paints; however, such activities are subject to various federal, State, and local regulations, including BAAQMD regulations pertaining to asbestos abatement; Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations; Part 61, Subpart M of the Code of Federal Regulations (pertaining to asbestos); and lead exposure guidelines provided by the United States Department of Housing and Urban Development. Asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the state Department of Health Services. Construction activities may involve the use of diesel-powered equipment or the application of architectural coatings, but not at levels that could create a significant hazard to the public or environment. Similarly, once constructed, the residents of new homes constructed pursuant to the Proposed Project may use cleaning solvents or landscaping chemicals, but not at levels that could create a significant hazard to the public or environment. Overall, any transport, use, storage, and disposal of hazardous materials would be required to comply with existing regulations established by several agencies, including the Department of Toxic Substances Control, the US Environmental Protection Agency (EPA), the US Department of Transportation, and the Occupational Safety and Health Administration. The construction and operation of housing generally does not involve the release -- accidental or otherwise -- of hazardous materials that would create a significant hazard to the public, nor would it involve emitting or handling acutely hazardous materials or wastes in the vicinity of schools. Overall, compliance with existing regulations would result in a less than significant impact.

***d. No Impact.*** A significant impact would occur if development under the Proposed Project is 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. The California Department of Toxic Substances Control's EnviroS-tor database which, pursuant to Government Code Section 65962.5, lists Federal Superfund, State Response, Voluntary Cleanup, School Cleanup, Hazardous Waste Permit, and Hazardous Waste Corrective Action site, and the State Water Resources Control Board's GeoTracker database, which tracks authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks. According to the database, there are no hazardous materials sites located in the Town of Ross. Therefore, there would be no impact.

***e. No Impact.*** There are no public airports within two miles of the town limits. The nearest airport is the San Rafael Airport located approximately eight miles north of the town. The Proposed Project generally involves small-scale residential development on previously developed parcels within the Town limit. Therefore, implementation of the Proposed Project would result in no impact related to airport hazards.

**f. Potentially Significant Impact.** The Town of Ross has adopted an Emergency Operations Plan and a Local Hazard Mitigation Plan with strategies to address emergency evacuation scenarios. The risk of natural hazards, including flooding and wildfire, is present in Ross, where evacuation was necessary as a result of flooding as recently as 2017. Implementation of the Proposed Project could result in construction of up to 146 new housing units in Ross. While new housing would largely be on or near the Valley floor, some development in hillside areas with small winding roads is likely. Further, Sir Francis Drake Boulevard, the principal evacuation route in Town, is located within the 100-year flood plain and could be obstructed in the event of a natural disaster. The Safety Element Update, a component of the Project, will involve additional analysis and strategies to address emergency evacuation scenarios. The potentially significant impacts from Project implementation and the effectiveness of new Safety Element strategies will be analyzed in the EIR.

**g. Potentially Significant Impact.** The California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas in Marin County with significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), are classified by the CAL FIRE Director in accordance with Government Code Sections 51175-51189 to assist responsible local agencies identify measures to reduce the potential for losses of life, property, and resources from wildland fire. As shown on Figure 2, a portion of a parcel in the southwest of Ross is within a VHFHSZ delineated by CAL FIRE. Additionally, much of the area of Ross west of Sir Francis Drake Boulevard is located in a High Fire hazard Severity Zone. All new development would be required to comply with the fire protection provisions of the California Building Code and the Town Code; however, given the extent of wildfire hazard in Ross, Project implementation would involve risk of exposure of people and structures to wildland fires. This is a potentially significant impact that will be analyzed in further detail in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.J Hydrology and Water Quality.</b> Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting.** Throughout recorded history there has been widespread flooding in low-lying areas of Ross near Corte Madera and Ross Creek. The 100-year storms in 1982, 1986 and 2006 were particularly severe but even less severe storms can create local flooding problems. The floods affected a large number of properties near Corte Madera and Ross Creeks. During the New Year's Eve Flood of 2005, there was massive and widespread flooding in the low-lying areas of town when the creek overflowed its banks in Ross and San Anselmo. Figure 2 identifies the 100-year and 500-year flood zones in Ross.

The Ross Valley Watershed and Flood Protection Program was initiated after the 2005 New Year's Eve flood in partnership with Ross Valley's four cities and towns as well as environmental, business and community organizations. The program has a 10 Year Work Plan that will create a 25-Year-Flood level of flood protection. This is the first phase of a 20-year program to achieve a 100-Year-Flood level of protection. The program is funded through the Ross Valley Watershed Storm Drain-age fee assessed on property owners throughout the watershed. This locally generated funding source provides the local match necessary to leverage state and federal agency grants, which are needed to fully fund the program. The overall cost of the program is currently estimated at \$130 million. In addition to structural solutions, the Town enacted Municipal Code Chapter 15.36, Flood Damage Prevention, which applies to all areas with special flood hazards identified and mapped by the Federal Emergency Management Agency's Flood Insurance Study. These programs impose development restrictions on properties susceptible to flooding and required owners to purchase flood insurance for the acquisition and/or construction of buildings in the Special Flood Hazard Area.

**a. Less than Significant Impact.** A significant impact would occur if the Proposed Project would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. Development would be required to adhere to



all applicable federal, State, and local regulations. Construction activities must comply with the NPDES Construction General Permit which requires standard erosion control measures and BMPs identified in a Stormwater Pollution Prevention Plan (SWPPP) and implemented during construction to reduce sedimentation in waterways and any loss of topsoil. Development associated with the Proposed Plan would also be required to comply with the Town's MS4 requirements and prepare a stormwater control plan, which would require construction-site control and erosion control BMPs to reduce impacts related to stormwater runoff. The Town's Urban Runoff Pollution Prevention Ordinance (Chapter 12.28) requires development projects to maintain or reduce the volume of runoff as compared to pre-development stormwater runoff through stormwater management controls and ensuring that these management controls are properly maintained. Conformance with federal, State, and local regulations would ensure that future projects would not result in increased rates or amounts of surface runoff, exceed the capacity of existing or planned stormwater drainage systems, or impede or redirect flood flows. Therefore, implementation of the Proposed Project would result in less than significant impacts related to water quality and waste discharge.

***b and c. Less than Significant Impact.*** A significant impact would occur if the Proposed Project would substantially decrease groundwater supplies, interfere with groundwater recharge, or alter the existing drainage pattern of the site. Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites. All development pursuant to the Proposed Project would be subject to the applicable provisions of Chapter 15.54 of the Town Code regarding low impact development for stormwater management and drainage plans. Provisions stipulate that no connections to the Town storm drain system without prior treatment to clean, filter, and slow the speed and amount of water leaving a property. Additionally, projects subject to a building permit of \$250,000 or more and that may result in an increase in stormwater runoff are subject to a no net increase standard, meaning they must produce no net increase in the rate and volume of peak runoff from the site compared to pre-project conditions. Compliance with these regulations would ensure that future development under the Proposed Project would not result in substantial increases of impervious surfaces such that groundwater recharge would be hindered, or the existing drainage pattern of the Town would be altered. Therefore, implementation of the Proposed Project would result in less than significant impacts related to groundwater and drainage patterns.

***d. Less than Significant Impact.*** Figure 2 shows Special Flood Hazard areas in Ross, as defined on maps prepared by the Federal Emergency Management Agency (FEMA). Implementation of the Proposed Project would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites, some of which are located within or adjacent to Special Flood Hazard areas, including the 100-year flood plain. Development in Special Flood Hazard areas is regulated by the standards in Chapter 15.36 of the Town Code, which requires that buildings be protected against flood damage at the time of initial construction; restricts the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters; and establishes standards for filling, grading, dredging, and other development activities which may increase flood damage. Additionally, as noted above, all development pursuant to the Proposed Project would be subject to the applicable provisions of Chapter 15.54 of the Town Code regarding

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stormwater management and drainage control, which would help ensure no net increase in the rate and volume of peak runoff from the site compared to pre-project conditions. Compliance with these regulations would limit the risk of loss and damage due to flooding to the maximum extent practicable and associated impacts would be less than significant with compliance.

There would be no impact with respect to tsunamis, given that Ross is located about 15 miles inland from the Pacific Ocean and outside any tsunami hazard zone (DOC, 2019). A seiche is a temporary disturbance or oscillation in the water level of a landlocked body of water (such as a lake) that may be caused by seismic activity. At some locations and times, the resulting oscillations and currents can produce hazardous or even destructive conditions. The only sizable body of water with the potential for seiche in the vicinity of Ross is Phoenix Lake; however, given its location in Marin Water District opens space lands in the hills to the west of the town and its distance from development that may occur with Project implementation, the risk of loss or damage due to seiche is minimal and impacts would be less than significant.

**e. No Impact.** As discussed above, future development under the Proposed Project would be required to adhere to all applicable federal, State, and local regulations with respect to stormwater pollution control, which would reduce the potential for stormwater pollution to the maximum extent practicable. There are three primary groundwater basins in Marin County that include the Novato Valley Subbasin, Sand Point Area Subbasin, and the San Rafael Valley Subbasin. The California Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to prepare Groundwater Sustainability Plans to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Since the groundwater basins within Marin County have been ranked by the Department of Water Resources (DWR) as low priority, there are no requirements for the County to prepare a Groundwater Sustainability Plan at this time. For these reasons, future development under the proposed project would not substantially degrade water quality or conflict with a sustainable groundwater management plan, and no impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.K Land Use and Planning.</b> Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting.** Home to 2,453 residents, the Town of Ross is the second smallest jurisdiction in Marin County, encompassing just 1.6 square miles. The town is largely developed with single-family homes with no vacant parcels on the valley floor. At the heart of the community is the Ross Common, located just west of Sir Francis Drake Boulevard and flanked by the Ross Post

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Office, the Ross School, and the downtown commercial area. The Ross Civic Center, comprised of the Town Hall and Public Safety Building, is located just north of the Post Office on the west side of Sir Francis Drake, while on the opposite side street is the Marin Art and Garden Center, an 11-acre site that features gardens and historic buildings, added to the National Register of Historic Places in 2022. Other notable land uses in Ross include the Branson School, the Lagunitas Country Club, and Saint Anselms Church. Much of the rest of the community is made up of single-family neighborhoods with a dense tree canopy. The lots on the flat land of the valley floor tend to be smaller, with large lots in the hilly terrain further away from the center of the community. Overall, residential uses account for 657.3 acres, commercial uses occupy 20.3 acres, and institutional uses occupy 1.6 acres. Vacant land accounts for 145.6 acres; however, this is predominantly located in areas of steep terrain.

**a. Less than Significant Impact.** The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge that would impact mobility within an existing community of between a community and outlying area. The Project does not involve any such features and would not remove any means of access or impact mobility. Implementation of the Proposed Project would facilitate residential development required to meet the Town's RHNA allocation, consisting primarily of small scale, infill housing on previously developed lots within the Town limit. As such, the Proposed Project would not physically divide an established community and impacts would be less than significant.

**b. No Impact.** Implementation of the Proposed Project would not require amendments to the General Plan Land Use Diagram or the Town of Ross Zoning Map. To accommodate the RHNA allocation, the Proposed Housing Element identifies strategies and programs to support above moderate housing, promote workforce housing, and promote ADUs/JADU production. Such programs will require amendments to the Town Code that add objective development standards, permit allowable floor area ratio (FAR) to be calculated on the basis of total site area rather than per parcel, reduce the rear setback requirements, eliminate the requirement for covered parking spaces to serve caretaker units, and revise the parking requirements for multi-family developments. However, the Proposed Project would not require rezoning of the Town's land use districts. Future residential projects consistent with the Proposed Project will be required to comply with the policies in the General Plan regarding land use and Town Code requirements associated with zoning districts, allowable uses, and development standards. All future residential development occurring within the town would be required to be evaluated in accordance with local regulations, including the General Plan and Town Code. Therefore, implementation of the Proposed Project would have no impact in regard to conflicts with a land use plan, policy, or regulation adopted to avoid an environmental effect.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.L Mineral Resources.</b> Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting.** The State requires local jurisdictions to adopt policies that restrict designated mineral resource sites from premature development and protect surrounding communities from impacts associated with mineral extraction. The purposes of such State policies include encouraging extraction of necessary mineral and construction commodities in locations reasonably close to their markets and ensuring that mined lands are reclaimed to minimize adverse effects on the environment and public health. Furthermore, local governments have a responsibility to protect the public health and safety of their residents by requiring that only legal mining and material transport and handling activities are conducted, and that the impacts of such operations are adequately mitigated using the best available management practices.

The State Mining and Geology Board maintains information on mineral deposits of statewide or regional significance. The North Bay region, comprising Sonoma, Marin, and Napa counties, places an ongoing demand on crushed stone and alluvial deposits for construction materials, including asphaltic concrete, aggregate, road base and sub-base, and Portland cement concrete. However, there are no mineral preservation sites located in the Town of Ross (Marin County Community Development Agency, 2014).

**a and b. No Impact.** Mineral resources in the Town of Ross are limited to gravel and stone. However, there are no mineral preservation sites located in the Town of Ross as noted in the Marin Countywide Plan (Marin County Community Development Agency, 2014). Thus, the Proposed Project would not result in the loss or availability of a known mineral resource that would be of value to the region and the residents or the state. In addition, no locally important mineral resource recovery sites are delineated in the General Plan or other land use plans. Therefore, adoption of the Proposed Plan would result in no impact to mineral resources.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.M Noise.</b> Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting.** Ross is a quiet residential community. The primary source of noise is motor vehicles on roadways in the town, including Sir Francis Drake Boulevard, a regional arterial that bisects Ross. The Town of Ross aims to minimize noise pollution through General Plan policies and regulations in the Town Code. General Plan policies establish standards for noise/land use compatibility, noise in exterior residential use areas, interior noise, noise generated by commercial projects, and traffic and construction noise. These policies identify normally acceptable, conditionally acceptable, and clearly unacceptable ranges of noise exposure. Projects that may exceed these standards require mitigation. The Town’s Unnecessary Noise Ordinance (Chapter 9.20) establishes standards for acceptable exterior and interior noise levels and vibrations and describes how noise shall be measured.

**a-b. Potentially Significant Impact.** Implementation of the Proposed Project would result in construction activities on existing lots and infill sites in established neighborhoods. Chapter 9.20 of the Town Code limits construction hours to prevent unnecessary noise from construction, but noise impacts could potentially result from construction during permitted hours and will be analyzed at a programmatic level in the EIR. Additionally, noise modeling will be conducted to determine if noise levels in excess of standards established in the General Plan and Town Code could be exceeded as a result of project implementation, either cumulatively or as a result of project implementation. Construction activities in hillside areas, special flood hazard areas, and areas of liquefaction risk may require the use of equipment that could generate vibration. Therefore, associated impacts will also be analyzed at a programmatic level in the EIR.

**c. No Impact.** The Town of Ross is not located within the vicinity of a private airstrip or airport land use plan, or where such a plan has not been adopted, is not located within two miles of a public airport or public use airport. Therefore, future development consistent with the Proposed Project would not expose people residing or working in the project area to excessive noise levels, and no impact would occur.

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	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.N Population and Housing.</b> Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting.** The Regional Housing Needs Assessment (RHNA) is a State-mandated process intended to ensure every city, town, and county plans for enough housing production to accommodate future growth. The State of California Housing and Community Development Department (HCD) assigns each region of the state an overall RHNA allocation. For the nine-county Bay Area region, Association of Bay Area Governments (ABAG) then distributes a “fair share” portion of that allocation to each local jurisdiction. Each jurisdiction must then identify adequate sites with a realistic capacity for development sufficient to meet this RHNA.

For the 2023-2031 period, Ross must identify sites sufficient to accommodate at least 111 new housing units between 2023 and 2031, with a specific number of units designated as affordable to each income category, as shown in Table 1. This determination is based on population projections produced by the California Department of Finance and the application of specific adjustments to determine the total amount of housing needs for the region. The RHNA does not specifically break down the need for extremely-low-income households. As provided by State law, the housing needs of extremely-low-income households, or those making less than 30 percent of area median income (AMI), is estimated as 50 percent of the very-low-income housing need.

The timing for jurisdictions to update their housing elements is based on the update schedule of the regional transportation plans (RTPs) by the federally designated metropolitan planning organizations (MPOs). The Town of Ross is a member of ABAG, which is the designated MPO for the region. ABAG is required to update its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) every four years, which puts all member jurisdictions on a schedule to update their housing elements every eight years. Plan Bay Area combines these three initiatives into a single, integrated regional plan. For example, RTPs traditionally include land use projections. Plan Bay Area’s distribution of growth is the SCS. Senate Bill 375 also stipulates that the SCS will identify areas to accommodate the RHNA. State law requires that the RHNA follow the development pattern specified in the SCS.

**a. Less than Significant Impact.** The implementation of the Proposed Project would facilitate construction of new housing to meet Ross’ RHNA obligations. As such, the resulting increase in population and housing units would not be considered substantial unplanned growth as it would be consistent with regional planning projections and it would occur incrementally over a period of 8 years. Further, the Proposed Project generally involves small scale infill

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development within the town limit and does not propose the extension of roads or infrastructure into undeveloped areas. Therefore, the Proposed Project would result in a less than significant impact associated with population growth, either directly or indirectly.

**b. No Impact.** The proposed project would facilitate the provision of housing to meet the projected need at all income levels in Ross. The proposed project also includes measures to preserve the existing housing stock, especially affordable units, such as by providing amnesty for unpermitted ADUs. Development under the proposed project would increase housing supply in the community at all income levels and help prevent displacement. Therefore, it would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and no impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.O Public Services.</b> Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The Ross Valley Fire Department (RVFD) is a consolidated department that services Ross, San Anselmo, Sleepy Hollow, and Fairfax. RVFD currently has 33 full-time paid employees: 1 fire chief, 3 battalion chiefs, 12 captains, 15 firefighter/engineers, 1 administrative assistant and 1 fire inspector. In addition, RVFD has an active volunteer force of 15 members (RVFD, 2013). Located at 33 Sir Francis Drake Boulevard in Ross, the historic Ross Fire Station 18 was built by the Town of Ross in 1926. Fire Station 18's daily on-duty emergency response personnel consist of a Fire Captain and an Engineer/Firefighter. The station houses one first due Type 1 Fire Engine (structural firefighting) and a reserve Type 1 Fire Engine, which can be staffed by off-duty and volunteer personnel as needed. Additionally, the fire station houses the Ross Valley Paramedic Authority transport ambulance, Medic 18, staffed with two paramedic firefighters.

The Ross Police Department, located at 33 Sir Francis Drake Boulevard, provides 24-hour law enforcement services to the Town of Ross. Personnel include the Chief of Police, two police sergeants, and two police officers.

The Ross School District is a single-site school district and served 376 students in kindergarten through eighth grade in the Town of Ross during the 2020-2021 enrollment year (Ross School District, 2021). Enrollment for the school district has decreased slightly over the past few years, with a total of 394 students during the 2018-2019 school year and 383 students during the 2019-2020 school year. The Marin County Office of Education (MCOE) collaborates with the county’s 17 school districts by providing financial oversight and centralized services in the areas of business, technology, professional development, emergency services, maintenance, and operations. As shown in Table 5, the MCOE also uses a student generation rate of .2 used to determine school facility needs throughout its service area.

**Table 5: MCOE Student Generation Rates**

<i>Dwelling Type</i>	<i>Student Generation Rates</i>
Multi-Family Dwellings – Apartments, Condominiums	0.2
Single Family Detached Homes, Townhouses	0.2
Below Market Rate – Apartments, Condominiums, Townhouses	0.2

*Source: MCOE, 2022*

According to the Town of Ross General Plan, public parks and open space account for 50.47 acres or 6.4 percent of the land uses. This translates into about 20.7 acres of parkland per 1,000 residents. Current and future residents of Ross also have access to community facilities within the town, including the Ross Recreation Center and school spaces that could be used for community activities. The nearest public library to Ross is the Fairfax Library, about three miles north of Ross.

**a (I and ii). Less than Significant Impact.** Implementation of the Proposed Project would involve construction of up to 148 housing units throughout the town, consisting primarily of small scale, infill housing on previously developed lots within the Town limit. The increased local population generated by the Proposed Project would likely result in an increase in calls for fire and emergency medical service compared to existing conditions. However, development would take place incrementally over the 8-year planning period and be concentrated primarily in central infill areas with fire and police access. The redevelopment of the Public Safety Building as part of the Civic Center Master Plan would involve construction of new facilities for the Police Department and the relocation of Fire Station 18 to other existing facilities in nearby San Anselmo and Fairfax. As such, the Proposed Plan would not require the construction of new police and fire facilities over and above those already anticipated in the Civic Center Master Plan. Impacts would be less than significant.

**a (iii). Less than Significant Impact.** Implementation of housing programs in the Proposed Project would involve construction of up to 148 housing units throughout the town. While many of these new housing units would be ADUs and smaller apartments for singles and seniors, it is reasonably foreseeable that some of these units would support families with children



that may attend the Ross School District. To calculate student potential for new development under the Proposed Project, the applicable student generation rate of 0.2 per dwelling unit (as provided in Table 5) is applied to project buildout of 146 units. Thus, implementation of the Proposed Project could result in an additional 30 students attending the Ross School District over the planning period. New students of various ages would be enrolled incrementally over the 8-year planning period. Therefore, in view of the school's recent enrollment trend, the incremental increase in enrollment resulting from the Proposed Project would not necessitate the construction or expansion of new school facilities and this impact would be less than significant. Further, development under the Proposed Project would be also required to comply with SB 50, which mandates statutory school facilities fees for residential developments. Compliance with SB 50 would financially offset impacts on Ross School District capacity and would provide funding for potential future school facility development needs associated with the Proposed Project-related population increase.

**a (iv). Less than Significant Impact.** Implementation of housing programs in the Proposed Project would involve construction of up to 148 housing units throughout the town, consisting primarily of small scale, infill housing on previously developed lots within the Town limit. Chapter 17.44.020 of the Ross Town Code establishes a ratio of 5 acres of parkland per thousand residents. As described above, Town parks and open spaces in Ross total over 54.7 acres, which translates into about 20.7 acres of parkland per 1,000 residents. Thus, implementation of the Proposed Project would not trigger the need to construct new parks in order to maintain established services rations. Impacts would be less than significant.

**a (v). Less than Significant Impact.** Other public facilities typically include libraries, hospitals, and administrative buildings. As described above there are no libraries and no hospitals in Ross and the construction of up to 148 new homes over the 8-year planning period would not be of a magnitude that would trigger the need for new or expanded facilities elsewhere in the county. As described above, redevelopment of the existing Town Hall and administrative building, which is aging and in need of extensive repair, is planned and the Proposed Project would not require the construction of other public services facilities over and above those already planned. As such, impacts would be less than significant.

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<b>13.P Recreation.</b> Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** As described above, there are over 54.7 acres of parks and open space in Ross. Town residents also have access to the Ross Recreation Center and nearby County recreational facilities, including a public pool in the adjacent town of Kentfield, and to State parks and Marin County Open Space District lands.

**a and b. Less than Significant Impact.** Project implementation would result in increased use of parks and recreational facilities in the Town and the surrounding area; however, given the extent of existing facilities in Ross and the surrounding area and that development under the proposed project would result in up to 148 new housing units incrementally over the planning period, population growth with implementation of the Proposed Project would not be expected to result in the substantial physical deterioration of existing facilities or to require construction or expansion of recreational facilities to meet the needs of new residents. Therefore, a less than significant impact associated with the provision of new or expanded recreational facilities would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigated.	Less than Significant Impact	No Impact
<b>13.Q Transportation.</b> Would the project:				
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The Town of Ross primarily accommodates vehicular travel given that there are no existing public transit services. Sir Francis Drake Boulevard, which bisects the Town of Ross,

is the major east-west arterial from West Marin to Highway 101. According to the Town's 2018 Bicycle & Pedestrian Plan, Ross is home to 1.15 miles of signed bicycle routes on Shady Lane/ Lagunitas Road and 0.16 miles of the Corte Madera Creek Path. There are also approximately 5.3 miles of existing sidewalks in Ross, and they are concentrated in downtown and residential areas designated as medium density. General Plan measures are in place to keep the town's streets and walkways safe for adults, children, pedestrians, bikers, and the disabled. The Town has worked to develop safe bicycle routes and provided bicycle racks in public areas, including the Downtown, parks, schools and the post office. In addition, the Town also coordinates with Ross School on the Safe Routes to Schools Program and is implementing pedestrian and biking improvements along Sir Francis Drake, Shady Lane, Laurel Grove, and other main arteries in Ross.

With the passage of SB 743 (September 27, 2013) and the subsequent adoption of revised California Environmental Quality Act (CEQA) Guidelines in 2019, level of service (LOS) can no longer be used as a criterion for identifying significant transportation impacts for most projects under CEQA. LOS measures the average amount of delay experienced by vehicle drivers at an intersection during the most congested time of day, while the new CEQA metric (vehicle miles traveled, or VMT) measures the total number of daily miles traveled by vehicles on the roadway network and the impacts on the environment from those miles traveled.

In other words, SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. Land use projects with one or more of the following characteristics would have lesser VMT impacts: higher land use densities, mix of project uses, support of a citywide jobs-housing balance (i.e., provide housing in a job rich area, or vice versa), proximity to the core of a region, proximity to high quality transit service, or located in highly walkable or bikeable areas. This shift in transportation impact criteria is expected to better align transportation impact analysis and mitigation outcomes with the state's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation.

For residential projects, The Governor's Office of Planning and Research (OPR) indicates that VMT per capita should be used as the metric to determine whether a proposed project may cause a significant transportation impact. For the purposes of this assessment, based on CEQA and OPR guidance, VMT impacts would be significant if new residential development that does not meet one of the above screening thresholds would exceed the following threshold:

- Residential Uses: Home VMT per resident exceeds 15% below baseline Town VMT per resident

The VMT forecasts generated for this Proposed Project CEQA assessment were produced using the Transportation Authority of Marin Demand Model (TAMDM). For this CEQA assessment, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael General Plan Update. A key reason for applying the updated 2019 base year is that it includes the SMART rail system that was not in place in 2015. This analysis

includes a 2040 No Project scenario that is based on the TAMDM horizon year and reflects land use changes and transportation improvements consistent with the San Rafael General Plan 2040 adopted in 2021. The 2019 base year model developed for the San Rafael General Plan Update was validated based on model confidence thresholds defined in the California Transportation Commission 2017 RTP guidelines. VMT estimates were produced using the updated 2019 TAMDM model for all 1,400 analysis zones within Marin County as well as for the entire Bay Area.

***a. Less than Significant Impact.*** New residential development under the Proposed Project would typically be expected to result in additional vehicular trips and the increased use of streets (for all modes of transportation). Applicable local regulations and plans related to transportation include the Town's General Plan, Town Code, and the Town of Ross Bicycle & Pedestrian Plan. Implementation of the Proposed Project would result in the development of 146 housing units, primarily comprised of small-scale infill housing within urbanized areas and on existing single family residential lots. Several sites identified for development would be located in or near downtown Ross and along Sir Francis Drake Boulevard, which is an important transit corridor for the region. Thus, the Proposed Project's development pattern is relatively transit oriented.

The Town's General Plan policies encourage the provision of safe streets, adequate parking, and transportation alternatives to the private automobile, such as carpooling and pedestrian and bicycle improvements. Chapter 18.41, Design Review, of the Town Code states that developments should encourage multi-modal transportation and pedestrian-friendly neighborhood character. In addition, good access, circulation, and off-street parking should be provided consistent with the natural features of the site. Access ways and parking areas should be in scale with the design of buildings and structures on the site. Off-street parking should be screened from view. The goals of the Bicycle & Pedestrian Plan include increasing bicycle and pedestrian access, making the bicycle an integral part of daily life in Ross, and encouraging walking as a daily form of transportation.

Development under the Proposed Project would be consistent with such policies and regulations by increasing housing opportunities in already urbanized areas which is an integral part of VMT reduction and encouraging transportation alternatives, such as walking and biking (proposed policies 3.2, 3.3, and 3.4 and proposed programs 2-B, 2-C, 3-A, 3-B, 3-D, and 3-K). The Proposed Project's criteria for selecting Housing Opportunity areas includes adequate pedestrian, neighborhood service, and neighborhood facility access which support multi-modal mobility that could result in fewer vehicle trips compared to the current more auto-oriented development pattern. Further, parking requirements will be amended under the Proposed Project to support the financial feasibility of workforce housing. Development would continue to ensure that parking will be designed to be out of public view (proposed Program 3-C). As a result, future development consistent with the Proposed Project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, adoption of the Proposed Project would result in a less than significant impact related to conflicts with transportation plans.

***b. Potentially Significant Impact.*** CEQA Guidelines Section 15064.3, subdivision (b) establishes that vehicle miles traveled (VMT), which measures the total number of daily miles traveled by vehicles on the roadway network, shall be used as the metric for evaluating transportation impacts on the environment. The Town of Ross has not adopted thresholds for VMT impacts under CEQA; therefore, this analysis relies upon the recommendations contained in the 2018 Governor’s Office of Planning and Research (OPR), Technical Advisory on Evaluating Transportation Impacts in CEQA. For residential projects, OPR indicates that VMT per capita should be used as the metric to determine whether a proposed project may cause a significant transportation impact. For the purposes of this assessment, based on CEQA and OPR guidance, VMT impacts would be significant if new residential development under the Proposed Project would exceed the following threshold: Home VMT per resident exceeds 15 percent below baseline Town VMT per resident.

VMT forecasts were generated for the Proposed Project using the Transportation Authority of Marin Demand Model (TAMDM). For this CEQA assessment, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael General Plan Update. A key reason for applying the updated 2019 base year is that it includes the SMART rail system that was not in place in 2015. This analysis includes a 2040 No Project scenario that is based on the TAMDM horizon year and reflects land use changes and transportation improvements consistent with the San Rafael General Plan 2040 adopted in 2021. The 2019 base year model developed for the San Rafael General Plan Update was validated based on model confidence thresholds defined in the California Transportation Commission 2017 RTP guidelines. VMT estimates were produced using the updated 2019 TAMDM model for all 1,400 analysis zones within Marin County as well as for the entire Bay Area. As indicated on Table 2 above, the Proposed Plan would result in a 12 percent reduction in per capita VMT as compared to 2019 baseline conditions. This is because development under the Proposed Project would consist of up to 148 housing units throughout the town, primarily small scale, infill housing on previously developed lots within the Town limit. Nevertheless, this reduction would still exceed the threshold of 15 percent below baseline Town VMT per resident prior to mitigation. As such, this is a potentially significant impact that will be analyzed in further detail in the EIR.

***c and d. Less than Significant Impact.*** Implementation of the Proposed Project would involve construction of up to 148 housing units throughout the town, consisting primarily of small scale, infill housing on previously developed lots within the Town limit. While the Project does not specifically propose the construction or realignment of any roadways, access improvements may be needed to accommodate new housing on some proposed housing sites. However, all such access improvements would be required to comply with applicable provisions of the Town Code, including Chapter 17.20 which requires that the standard design of the layout of new roadways conform to “Standard Specifications for Cities and County of Marin (June 1992)” and “Uniform Construction Standards – All Cities and County of Marin (June 2018),” and the Ross Valley Fire Department Fire Prevention Standards, which include provisions for premises identification, residential turn arounds, vegetation management, and fire road access gates. Compliance with these regulations and standards would ensure that impacts related to roadway design features and emergency access would be less than significant.

Town of Ross Housing and Safety Element Update Project  
Initial Study/Environmental Checklist

	Potentially Significant Impact	Potentially Significant Unless Mitigated.	Less than Significant Impact	No Impact
<b>13.R Tribal Cultural Resources.</b> Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision I of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Setting.** The 2022 NWIC records search indicates that the Town of Ross contains four recorded Native American archaeological resources. Native American resources in southern Marin County have been found in shoreline areas of San Francisco Bays, and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine. The Town of Ross is located approximately one half mile west of the historic San Francisco Bay shore and marshland margins, inland and west of Point San Quentin. Current aerial maps indicate a high percentage of densely wooded areas, as well as areas of bare dirt, areas including buildings, roads, landscaped areas, etc. Given the similarity of these environmental factors and the ethnographic and archaeological sensitivity of the Planning Area, NWIC has determined that there is a high potential for unrecorded Native American resources to be within the Town limits.

In accordance with the requirements of Public Resources Code 21080.3.1, the Town contacted the Native American Heritage Commission (NAHC) on April 29, 2022 with a request to facilitate involvement of interested Native American tribes in the planning process and a search of the Sacred Lands File for sites within the Planning Area. A response from NAHC was received on June 7, 2022 stating that a search of the Sacred Lands File to identify sacred lands in the Planning Area was negative and recommending the Town contact two tribal representatives traditionally and culturally affiliated with the project area. Tribes were notified via certified mail and email on June 21, 2022 and formal request for tribal consultation has been received by the Federated Indians of Graton Rancheria. Consultation is ongoing.

**a (i and ii). Potentially Significant Impact.** Implementation of the Proposed Project would primarily involve development of small scale, infill housing on previously developed lots within the Town limit and generally not on previously undisturbed sites. SB9 candidate housing sites have been screened to confirm they do not contain known historic or tribal cultural resources based on information available to the Town. Further, all development under the Proposed Plan would be required to comply with existing regulations, including CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Section 5097.94 and Section 5097.98, and provisions of the Town Code which stipulate protocols that must be followed in the event of discovery of archaeological resources, tribal cultural resources, and human remains. Nevertheless, given the high potential for as yet undiscovered resources in Ross and the ongoing tribal consultation, it cannot be definitively determined that no significant impact will result at this stage, even with regulatory compliance. Therefore, impacts related to tribal cultural resources remain potentially significant and will be analyzed in further detail in the EIR.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact	No Impact
<b>13.S Utilities and Service Systems.</b> Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves, or may serve, the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Setting.** The Marin Municipal Water District (MMWD) supplies water to the Town of Ross. Most of the District’s water supply comes from a network of seven local, rain-fed reservoirs. This supply is supplemented with water from Sonoma County Water Agency (SCWA or Sonoma Water), which provides surface water from the Russian River and to a lesser extent groundwater from the Santa Rosa Plain Subbasin of the Santa Rosa Valley Basin (California Department of Water Resources [DWR] Basin No. 1-55.01). Some recycled water is also used

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for non-potable uses such as landscape irrigation, cooling towers, car washes, and toilet flushing (MMWD, 2020).

The Central Marin Sanitation Agency (CMSA) treats wastewater from the central Marin County area, including Ross Valley. The CMSA plant has a permitted dry weather treatment capacity of 10 million gallons per day (mgd) and flows of 7.5 mgd. The plant's wet weather capacity is 90 mgd, and in 2010, the agency expanded the plant's wet weather capacity to over 125 mgd (CMSA, 2018).

Pacific Gas and Electric (PG&E) provides natural gas and electric infrastructure in the town. In addition, the Town of Ross Public Works Department oversees the management, maintenance and construction of public facilities and infrastructure and the public rights-of-way. This includes oversight, management and supervision of private contractors who perform capital projects and maintenance on storm drains. Public Works operations staff provides maintenance and complete minor repairs of the Town's basic infrastructure including catch basin cleaning and storm drainage system and storm drain repairs.

Ross contracts with Marin Sanitary Service (MSS) for waste and recycling collection and handling. Demolition and construction waste is handled by Marin Sanitary Service's Resource Recovery Center. MSS also owns and operates the Marin Recycling Center. MSS transports the Town's non-recyclable waste to Redwood Landfill located just north of Novato, which is the only permitted landfill operating in the county. The landfill's maximum permit capacity is 19,100,000 cubic yards with a remaining capacity of 26 million cubic yards. The maximum permitted intake at the landfill is approximately 2,300 tons per day (CalRecycle, 2021).

***a - c. Less than Significant Impact.*** New residential development under the Proposed Project would increase demand for utilities and service systems involving water, wastewater treatment storm water drainage, and solid waste disposal. The Marin Municipal Water District (MMWD) supplies water to the Town of Ross. In 2020, MMWD prepared an Urban Water Management Plan to ensure that sufficient water supplies are available to meet existing and future water needs, and that steps are in place should a critical water shortage occur. The UWMP accounts for ABAG projections through 2040 (MMWD, 2020). Therefore, sufficient water supply is available to serve development under the Proposed Project during normal, dry, and multiple dry years. Further, no additional infrastructure over and above that already planned in the UWMP would be required to serve development under the Proposed Project.

Similarly, the Central Marin Sanitation Agency (CMSA) utilizes development projections contained in the general plans of the cities, towns, and unincorporated areas of Marin County to plan for future growth-related demand for wastewater treatment (CMSA, 2018). CMSA services an area that includes San Rafael, Mill Valley, and the Ross Valley. While the Proposed Project could involve development of up to 148 new housing units by 2031, this represents a relatively small increase with respect to the total available capacity. As such, there would be sufficient sewer capacity to serve development under the Proposed Project.



Given that development under the Proposed Project would occur primarily in existing residential neighborhoods and on infill sites and that these sites are already served by local stormwater drainage, energy, and telecommunications systems; there would generally not be a need for expansion of existing systems or the construction of new systems. As noted above, new development would be subject to the applicable provisions of Chapter 15.54 of the Town Code regarding stormwater management and drainage control, which would help ensure no net increase in the rate and volume of peak runoff from the site compared to pre-project conditions. Overall, impacts related to adequate water supply, sewer capacity, and extension or construction of utility infrastructure would be less than significant.

***d. Less than Significant Impact.*** According to the California Department of Resources Recycling and Recovery (CalRecycle), the typical solid waste generate rate for single-family homes is between 8 and 12 pounds per day, while the typical rate for multi-family homes is between 4 and 8 pounds per day. Conservatively assuming an average rate of 10 pounds per unit per day and development of up to 148 new housing units by 2031, the Proposed Project would generate 1,460 pounds or 0.73 tons per day. This represents less than 0.03 percent of the average daily permitted capacity of the Redwood Landfill. Further, between 2005 and 2016, solid waste generation in Ross decreased by 15 percent (Town of Ross, 2016 GHG Inventory) with the implementation of various programs and requirements, and residential development under the Proposed Plan would be required to comply with Senate Bill 1883, which requires a 75 percent reduction in organic waste disposal from 2014 levels by 2025. As such, implementation of the Proposed Project would not generate solid waste in excess of established standards or in excess of the capacity of local infrastructure. Impacts would be less than significant.

***e. Less than Significant Impact.*** As described above, between 2005 and 2016, solid waste generation in Ross decreased by 15 percent with the implementation of various programs and requirements, including measures in the 2010 CAP. The Town Code incorporates provisions to insure compliance with State laws governing solid waste reduction and recycling, including the California Integrated Waste Management Act of 1989 (commencing with Section 40000 of the Public Resources Code), the Jobs and Recycling Act of 2011 (AB 341), SB 1016 (Chapter 343, Statutes of 2008 [Wiggins, SB 1016]), the Mandatory Commercial Organics Recycling Act of 2014 (AB 1826), and the Short- Lived Climate Pollutants Bill of 2016 (SB 1383), and as implemented by the regulations of CalRecycle. Chapter 6.12 of the Town Code also requires the diversion of recyclable construction materials from landfill consistent with State law. Development pursuant to the Proposed Plan would be required to comply with all applicable State and local regulations. Therefore, impacts would be less than significant..

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	Potentially Significant Impact	Potentially Significant Unless Mitigated.	Less than Significant Impact	No Impact
<b>13.T Wildfire.</b> If located in or near state responsibility areas or land classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Setting.** The risk of wildfire is real and present in Ross. As noted above and shown on Figure 2, CalFire has mapped a Very High Fire Hazard Severity Zone (VHFHSZ) on a portion of a parcel in the southwest of Ross, and much of the area west of Sir Francis Drake is located in a High Fire hazard Severity Zone. The California Building Code and the Town Code incorporate requirements for new construction to address this risk, and the both the Safety Element of the Town's 2025 General Plan and the Local Hazard Mitigation Plan include strategies to reduce and avoid the potential for loss and damage due to wildfires. Additionally, the Marin Wildfire Prevention Authority (MWPA) is currently in the process of conducting a multi-jurisdictional study that will include an evaluation of residential access (ingress/egress) as well as a risk assessment to inform development of a shared fuel break along the boundary of the wildland-urban interface area, where risk from wildfire is potentially greatest. The Safety Element Update will incorporate strategies to address the risk of wildfire in Ross, leveraging the analysis conducted by MWPA.

**a thru d. Potentially Significant Impact.** Given the extent of wildfire hazard in Ross, Project implementation would involve risk of exposure of people and structures to woodland fires, expose people to pollutant concentrations from wildfire, or involve construction that could exacerbate fire risk. This is a potentially significant impact that will be analyzed in further detail in the EIR.

Town of Ross Housing and Safety Element Update Project  
Initial Study/Environmental Checklist

	Potentially Significant Impact	Potentially Significant Unless Mitigated.	Less than Significant Impact	No Impact
<b>13.U Mandatory Findings of Significance.</b> Does the project:				
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, substantially reduce the number, or restrict the range, of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a. Less than Significant Impact.** As noted above, implementation of the Proposed Project would have potentially significant impacts related to biological, cultural, historic, and tribal cultural resources that will be analyzed in further detail in the EIR. However, given that the Proposed Project would involve construction of up to 148 new housing units of smaller scale housing primarily in established neighborhoods on existing lots and infill sites, the Project does not have the potential to substantially degrade the quality of the environment, 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, adversely affect rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

**b. Potentially Significant Impact.** As noted above, implementation of the Proposed Project would have potentially significant impacts related to biological, cultural, historic, and tribal cultural resources as well as to GHG emission, noise, VMT, and wildfire that will be analyzed in further detail in the EIR. The potential for cumulative impacts related to these topics in combination with other past, present, and reasonably foreseeable projects will be considered in the EIR.

**c. Less than Significant Impact.** As noted above, implementation of the Proposed Project would have potentially significant impacts related to the following resource categories that will be analyzed in further detail in the EIR: biological resources; cultural and historic resources; GHG emissions; noise; VMT; tribal cultural resources; and wildfire. However, given that implementation of the Proposed Plan would involve construction of up to 148 new small scale housing units on primarily in established neighborhoods on existing lots and infill sites,

the Project does not have the potential cause substantial adverse effects on human beings, either directly or indirectly.

**14. PREPARATION. THE INITIAL STUDY FOR THE SUBJECT PROJECT WAS PREPARED BY:**

Dyett & Bhatia, Urban and Regional Planners, on behalf of the Town of Ross.

**15. DETERMINATION. (REDEVELOPMENT DEPARTMENT) BASED ON 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 the mitigation measures described on an attached sheet have been added to the project. 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, and nothing further is required.

**16. DE MINIMIS FEE DETERMINATION (CHAPTER 1706, STATUTES OF 1990-AB 3158)**

- It is hereby found that this project involves no potential for any adverse effect, either individually or cumulatively, on wildlife resources and that a "Certificate of Fee Exemption" shall be prepared for this project.

Town of Ross Housing and Safety Element Update Project  
Initial Study/Environmental Checklist

- [X] It is hereby found that this project could potentially impact wildlife, individually or cumulatively, and therefore fees shall be paid to the County Clerk in accordance with Section 711.4(d) of the Fish and Game Code.

**17. ENVIRONMENTAL DETERMINATION:**

The initial study for this project has been reviewed and the environmental determination, contained in Section V. preceding, is hereby approved:

p.p. *Claire Villegas*  
\_\_\_\_\_  
Director of Planning and Building  
Town of Ross

## **18. REFERENCES**

Bay Area Air Quality Management District (BAAQMD)

2017 Air Quality Guidelines. May.

California Air Resources Board (CARB)

2020 Ambient Air Quality Standards. October.

California Department of Conservation (DOC)

2021. California Important Farmland Finder. Available: <https://maps.conservation.ca.gov/DLRP/CIFF/>.

California Department of Conservation (DOC)

2019. California Tsunami Maps and Data. Available: <https://www.conservation.ca.gov/cgs/tsunami/maps>.

California Department of Fish and Wildlife (CDFW)

2022. NCCP Plan Summaries. Available: <https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans>.

California Department of Forestry and Fire Protection (CAL FIRE)

2007 Fire Hazard Severity Zones in SRA – Marin County. Available: [https://osfm.fire.ca.gov/media/6709/fhszl\\_map21.pdf](https://osfm.fire.ca.gov/media/6709/fhszl_map21.pdf).

California Department of Resources Recycling and Recovery (CalRecycle)

2021a SWIS Facility/Site Activity Details: Redwood Landfill (21-AA-0001). Available: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3054?siteID=1727>.

California Department of Transportation (Caltrans)

2022. California State Scenic Highways. Available: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.

Central Marin Sanitation Agency

2018 2017 Facilities Master Plan. Available: [https://www.cmsa.us/assets/documents/administrative/2017FacilitiesMasterPlan\\_FINAL.pdf](https://www.cmsa.us/assets/documents/administrative/2017FacilitiesMasterPlan_FINAL.pdf).

County of Marin

2022 Ross Slope Stability 3 or 4. Available: <https://gisopendata.marincounty.org/datasets/MarinCounty::ross-slope-stability-3-or-4/explore?location=37.960407%2C-122.540047%2C12.83>.

County of Marin

Town of Ross Housing and Safety Element Update Project  
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2020 Williamson Act Parcel. Available: <https://gisopendata.marincounty.org/datasets/MarinCounty::williamson-act-parcel/explore?location=38.016662%2C-122.674500%2C11.71>.

Marin Climate & Energy Partnership (MCEP)

2021 Summary Date for Marin Sustainability Tracker. Available: <http://www.marin-tracker.org/>.

Marin County Community Development Agency

2014 Marin Countywide Plan. Available: [https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp\\_2015\\_update.pdf](https://www.marincounty.org/-/media/files/departments/cd/planning/currentplanning/publications/county-wide-plan/cwp_2015_update.pdf).

Marin Municipal Water District

2021 2020 Urban Water Management Plan. Available: <https://www.marinwater.org/sites/default/files/2021-06/Draft%20MMWD%20UWMP%202020-1.pdf>.

Ross, Town of

2007 General Plan

2010 Climate Action Plan

2016 2016 GHG Inventory for Communitywide Emissions

2018 Zoning Map

2022 Town Code

Ross School District

2021 School Accountability Report Card 2021. Available at: <https://www.rossbears.org/Page/1102>.

Ross Valley Fire Department (RVFD)

2013 Annual Report 2012-2013. Available at: [https://www.rossvalleyfire.org/images/Annual\\_Report\\_09\\_13\\_Final\\_Version.pdf](https://www.rossvalleyfire.org/images/Annual_Report_09_13_Final_Version.pdf).

U.S. Environmental Protection Agency (U.S. EPA)

2022 Basics of Climate Change. Available at: <https://www.epa.gov/climatechange-science/basics-climate-change>

APPENDIX A: SUPPORTING  
MATERIALS FOR CULTURAL AND  
TRIBAL CULTURAL RESOURCES



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## ACCESS AGREEMENT SHORT FORM

File Number:

I, the the undersigned, have been granted access to historical resources information on file at the Northwest Information Center of the California Historical Resources Information System.

I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III(A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixty (60) calendar days of completion.

I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name:	<input type="text" value="Lauren Pepe"/>	Date:	<input type="text"/>
Signature:	<input type="text"/>		
Affiliation:	<input type="text" value="Dyett &amp; Bhatia"/>		
Address:	<input type="text"/>	City/State/ZIP:	<input type="text"/>
Billing Address (if different from above):	<input type="text"/>		
Special Billing Information	<input type="text"/>		
Telephone:	<input type="text" value="(415) 956-4300"/>	Email:	<input type="text" value="lauren@dyettandbhatia.com"/>
Purpose of Access:	<input type="text"/>		
Reference (project name or number, title of study, and street address if applicable):	<input type="text" value="Data Search for Town of Ross Housing Element Update"/>		
County:	<input type="text" value="MRN"/>	USGS 7.5' Quad:	<input type="text" value="San Rafael"/>

CALIFORNIA  
HISTORICAL  
RESOURCES  
INFORMATION  
SYSTEM



ALAMEDA  
COLUSA  
CONTRA COSTA  
DEL NORTE

HUMBOLDT  
LAKE  
MARIN  
MENDOCINO  
MONTEREY  
NAPA  
SAN BENITO

SAN FRANCISCO  
SAN MATEO  
SANTA CLARA  
SANTA CRUZ  
SOLANO  
SONOMA  
YOLO

**Northwest Information Center**  
Sonoma State University  
1400 Valley House Drive, Suite 210  
Rohnert Park, California 94928-3609  
Tel: 707.588.8455  
nwic@sonoma.edu  
<http://nwic.sonoma.edu>

May 16, 2022

NWIC File No.: 21-1615

Lauren Pepe  
Dyett & Bhatia  
Urban and Regional Planners  
1330 Broadway, Ste. 604  
Oakland, CA 94612

Re: Record search results for the proposed Town of Ross Housing Element Update.

Dear Lauren Pepe:

Per your request received by our office on the 29<sup>th</sup> of March, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Marin County. The maps provided depicting the city limits will be used as the project area for this request. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

Ross is a small, incorporated community in Marin County, located approximately 18 miles north of San Francisco. The Planning Area encompasses approximately 1,024 acres. The 2023-31 Ross Housing Element is the Town's plan to address local housing needs. It will identify sites available for housing and include a realistic projection of their capacity, along with policies and programs to address special needs groups and constraints to housing production. For the 8-year planning period, the Town must plan to accommodate 111 new housing units. As a largely built out community with few vacant sites, it is anticipated that the majority of these new units will be accessory dwelling units built on existing single-family lots, with some small-scale multi-family housing in the downtown area, the Marin Art and Garden Center site, and City owned properties along Sir Francis Drake Boulevard.

Review of this information indicates that there have been twenty-two cultural resource studies that cover up to approximately 15% of the Town of Ross Housing Element Update project area. See attached Report List. The Town of Ross Housing Element Update project area contains four recorded Native American archaeological resources. See table below:

PrimaryString	TrinomialString	ResourceName	ResType	Age
P-21-000102	CA-MRN-000072/H	Nelson No. 72	Building, Site	Prehistoric, Historic
P-21-000103	CA-MRN-000073	Nelson No. 73	Site	Prehistoric
P-21-000294	CA-MRN-000311	Nelson No. 74A	Site	Prehistoric
P-21-002794		Archaeological Site 1; Ross Firehouse redeposited midden	Site	Prehistoric

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists eight recorded buildings or structures within the proposed Town of Ross Housing Element Update project area (see table below). For more information on the eligibility of each resource, based on the information in the 'Evaluation Info' field, see attached California Historical Resource Status Codes.

OTIS I	Name	St Number	St Name	City	Other Geography	Evaluation Info	Construct
404613	GLENWOOD AVENUE BRIDGE, BRIDGE #27C-72		GLENWOOD AVE	ROSS	ROSS CR (Corridor)	2D2, 01/01/1980, 4957-0001-0000	1909
404614	LAGUNITAS STREET BRIDGE, BRIDGE #27C-71		LAGUNITAS ST	ROSS	SAN ANSELMO CR (Corridor)	2D2, 01/01/1980, 4957-0002-0000	1909
575081	PHOENIX LAKE LOG CABIN		LAKE SERVICE RD	ROSS		7R, , 4957-0007-0000	1893
404615	NORWOOD AVENUE BRIDGE		NORWOOD AVE	ROSS	ROSS CR (Corridor)	2D2, 01/01/1980, 4957-0003-0000	1909
404616	SHADY LANE BRIDGE, BRIDGE #27C-78		SHADY LN	ROSS	ROSS CR (Corridor)	2D2, 01/01/1980, 4957-0004-0000   2D2, 01/01/1980, 4957-0005-0000	1909
404617	SIR FRANCIS DRAKE BOULEVARD BRIDGE, BRIDGE #27C-50		SIR FRANCIS DRAKE BLVD	ROSS	SAN ANSELMO CR (Corridor)	2D2, 10/22/1980, 65001013	1909
527952	Ross Town Hall and Fire House	31	SIR FRANCIS DRAKE BLVD	ROSS		2S2, 12/31/2007, FCC071109D	1927
404618	WINSHIP BRIDGE, BRIDGE #27C-74		WINSHIP RD	ROSS	CORTE MADERA CR	7R, , 4957-0006-0000	1920

In addition to these inventories, the NWIC base maps show eight recorded buildings or structures within the proposed Town of Ross Housing Element Update project area. Please note some of these resources overlap with previous listings. See table below:

PrimaryString	TrinomialString	ResourceName	ResType	Age
P-21-000102	CA-MRN-000072/H	Bosqui Tract	Building	Historic
P-21-001327		Lagunitas Street Bridge	Structure	Historic
P-21-001328		Norwood Ave. Bridge	Structure	Historic
P-21-001329		Shady Lane Bridge	Structure	Historic
P-21-001330		Sir Francis Drake Blvd. Bridge	Structure	Historic
P-21-001331		Winship Bridge	Structure	Historic
P-21-002635		Ross Town Hall and Fire House	Building	Historic
P-21-003098		14 Brookwood Lane	Building	Historic

The Caltrans Bridge Inventory also indicates six bridges (Hope 2005). Please note these resources may overlap with previous listings. See table below.

Bridge	Name	Fac	City	Yr Blt	Notes
27C0149	ROSS CREEK	NORWOOD AVE	Ross	1908	Remains eligible in 2004 survey.
27C0071	CORTE MADERA CREEK	LAGUNITAS ROAD	Ross	1930	Contributor to an historic district.
27C0072	ROSS CREEK	GLENWOOD AVE	Ross	1930	Contributor to an historic district.
27C0074	CORTE MADERA CREEK	WINSHIP ROAD	Ross	1925	Remains ineligible in 2004 survey.
27C0078	ROSS CREEK	SHADY LANE	Ross	1930	Remains eligible in 2004 survey.
27C0050	CORTE MADERA CR(DRAKE)	SIR FRANCIS DRAKE	Ross	1926	Remains eligible in 2004 survey.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Coast Miwok language, part of the California Penutian language family (Kelly 1978:414). Using Milliken’s study of various mission records, the proposed project area is located within the lands of the *Habasto* tribe, whose territory held the eastern side of the Marin Peninsula, Point San Pedro, and the small valleys just to its north and south (Milliken 1995: 242-243).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the San Francisco Bayshore, and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Town of Ross Housing Element Update project area encompasses the Town of Ross located in Marin County between the towns of San Anselmo and Kentfield. The project area is located between one third mile to one half mile west of the historic San Francisco bay shore and marshland margins, inland and west of Point San Quentin. The northwestern corner of the project area includes a portion of the ridgeline and eastern facing slope of Bald Hill, is adjacent to Phoenix Lake at its southwestern corner, Ross Hill at its southern boundary and Moore Hill adjacent to its eastern boundary. The project area is bisected by Ross Valley and includes the confluence of Corte Madera Creek and Ross Creek. Current aerial maps indicate a high percentage of densely wooded areas, as well as areas of bare dirt, areas including buildings, roads, landscaped areas, etc. Given the similarity of these environmental factors and the ethnographic and archaeological sensitivity of the project area, there is a high potential for unrecorded Native American resources to be within the proposed Town of Ross Housing Element Update project area.

Review of historical literature and maps indicated historic-period activity within the Town of Ross Housing Element Update project area. The 1865 Rancho Plat for Punta de Quintin indicates the project area was located within the lands of A.R. Bucksley. The 1897 Mt. Tamalpais USGS 15-minute topographic quadrangle depicts several buildings and structures within the Town of Ross Housing Element Update project area, including a portion of the North Coast Pacific Railroad. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Town of Ross Housing Element Update project area.

The 1950 Mt. Tamalpais USGS 15-minute topographic quadrangle depicts numerous buildings and structures within the Town of Ross Housing Element Update project area. If

present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

## **RECOMMENDATIONS:**

1) There are four recorded archaeological resources in the proposed Town of Ross Housing Element Update project area. There have been twenty-two cultural resource studies that cover approximately 15% of the Town of Ross Housing Element Update project area. According to our research, there is a high potential of identifying Native American archaeological resources and a high potential of identifying historic-period archaeological resources in unsurveyed portions of the project area.

Given that the proposed Town of Ross Housing Element Update project area covers such a large area with known sensitivity, and the proposed improvements will guide future projects, it is recommended that these future projects be considered on an individual basis under the Northwest Information Center's Project Review Program. This Program is organized to aid cities and counties in meeting their CEQA obligations on a project-by-project basis. These reviews result in project specific information and recommendations. Please contact the NWIC Coordinator at 707/588-8455 for additional information.

2) If archaeological resources are encountered during construction, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

3) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: [https://ohp.parks.ca.gov/?page\\_id=28351](https://ohp.parks.ca.gov/?page_id=28351)

4) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

5) Our research indicates that there are eight buildings and structures included in the OHP BERD within the Town of Ross Housing Element Update project area. NWIC base maps show eight recorded buildings or structures within the proposed Town of Ross Housing Element Update

project area. The Caltrans Bridge Inventory also indicates six bridges. Additionally, the project area has the potential to contain other unrecorded buildings or structures that meet the minimum age requirement.

Therefore, prior to commencement of project specific activities, it is recommended that the above listed resources, and any other ones that have yet to be inventoried, be assessed by a professional familiar with the architecture and history of Marin County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

6) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

Jillian Guldenbrein  
Researcher

## LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources File System, the following literature was reviewed:

Barrett, S.A.

1908 *The Ethno-Geography of the Pomo and Neighboring Indians*. In *American Archaeology and Ethnology*, vol. 6, edited by Frederic Ward Putnam, pp. 1-332, maps 1-2. University of California Publications, Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964).

General Land Office

1865 Survey Plat for Rancho Punta de Quintin, Township 1 North/Ranges 7, 8 West.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair

1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hope, Andrew

2005 *Caltrans Statewide Historic Bridge Inventory Update*. Caltrans, Division of Environmental Analysis, Sacramento, CA.

Kelly, Isabel

1978 Coast Miwok. In *California*, edited by Robert F. Heizer, pp. 414-425. *Handbook of North American Indians*, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Kroeber, A.L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976).

Milliken, Randall

1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Nelson, N.C.

1909 *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology 7(4):309-356. Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964).

Nichols, Donald R., and Nancy A. Wright

1971 Preliminary Map of Historic Margins of Marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map. U.S. Department of the Interior, Geological Survey in cooperation with the U.S. Department of Housing and Urban Development, Washington, D.C.

State of California Department of Parks and Recreation

1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.



State of California Department of Parks and Recreation and Office of Historic Preservation  
1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of  
Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation \*\*  
2021 *Built Environment Resources Directory*. Listing by City (through September 15, 2021).  
State of California Office of Historic Preservation, Sacramento.

\*\*Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-001184		1978	Edward Kandler	Cultural Resource Reconnaissance of the Corte Madera Creek Unit 4 Flood Control Project, Township of Ross, Marin County, California.	U.S. Army Corps of Engineers
S-007095		1984	Miley Paul Holman	333 Kent St. Archaeological Reconnaissance (letter report)	Holman & Associates
S-012944		1979	Robert Cartier, Barbara Bocek, and Jan Whitlow	Archeological Testing Program of Corte Madera Creek Flood Control Project - Unit 4	Archaeological Resource Management
S-013217	Voided - S-13399; Voided - S-13400; Voided - S-13401	1990	Thomas M. Origer	An Archaeological Survey for the AT&T Fiber Optics Cable, San Francisco to Point Arena, California	
S-013217a		1990	Thomas M. Origer	Archaeological findings regarding a selection of a route through Novato for the AT&T Fiber Optics Cable (letter report)	
S-013217b		1991	Thomas M. Origer	An archaeological study of revised portions of the AT&T route near Santa Rosa and Sausalito (letter report)	
S-013217c		1991	Thomas M. Origer	Archaeological study of AT&T revised fiber cable routes (letter report)	
S-013217d		1992	Thomas M. Origer	Archaeological survey of alternative fiber optics cable routes, Point Arena (letter report)	Tom Origer & Associates
S-015576	Submitter - A.R.S. Project 93-51	1993	William Roop	A Cultural Resources Evaluation of the Lands of Van Den Berg, Goodhill Road, Kent Woodlands, Marin County	Archaeological Resource Service
S-017321		1995	Vicki Beard and Thomas Origer	A Cultural Resources Study for the Mount Tamalpais Vegetation Management Project, Marin County, California	Tom Origer & Associates
S-030313	Submitter - A.R.S. Project 05-040	2005	William Roop	A Cultural Resources Evaluation of the Lands of Wynne, 44 Redwood Drive, Ross, Marin County, California.	Archaeological Resource Service
S-030906	Caltrans - Contract # 43A0089; Caltrans - EA 43-984433; Caltrans - Task Order: 01	2004	Christopher McMorris	Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges, Contract: 43A0089, Task Order: 01, EA: 43-984433, Volume I: Report and Figures	JRP Historical Consulting

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-031617	Submitter - A.R.S. Project #05-096	2006	Katherine Flynn	A Cultural Resources Evaluation of the Property of Cindy Fabian and Robert Bronson, 41 Redwood Drive, APN 073-041-30, in the Town of Ross, Marin County, California	Archaeological Resource Service
S-032891	Submitter - A.R.S. Project 06-061	2006		Results of an Archaeological Monitoring Program for the Property of Cindy Fabian and Robert Bronson, 41 Redwood Drive, APN 073-312-04, in the Town of Ross, Marin County, California	Archaeological Resource Service
S-034272		2007	Dana E. Supernowicz	New Tower ("NT") Submission Packet, FCC Form 620, Ross, SF-90550A	Earth Touch, Inc.
S-034272a		2007	Dana E. Supernowicz	Cultural Resources Study of the Ross Project Metro PCS Site No. SF-90550A 33 Sir Francis Drive Boulevard, Ross, Marin County, California 94957	EarthTouch, Inc.
S-034335		2007	Thomas M. Origer	An Archaeological Survey of the Property at 18 Redwood Drive, Town of Ross, Marin County, California	Tom Origer & Associates
S-036271		2008		Historic Property Survey Report, Lagunitas Road Bridge (27C-71) at Corte Madera Creek Replacement Project, BRLS 5176(003), Town of Ross, California	URS Corporation
S-036271a		2008	Jay Rehor	Archaeological Survey Report, Lagunitas Road Bridge (27C-71) at Corte Madera Creek Replacement Project, BRLS 5176(003) Town of Ross, California	URS Corporation
S-036271b		2008	Toni Webb	Finding of Effect for the Lagunitas Bridge Replacement Project Bridge No. 27C0071, Town of Ross, Marin County, California	JRP Historical Consulting, LLC
S-040278		2012	Sunshine Psota	Historic Property Survey Report Sir Francis Drake-Lagunitas Intersection Improvements Project, Town of Ross, Marin County	Holman and Associates
S-040278a		2012	Sunshine Psota	Archaeological Survey Report for the Sir Francis Drake - Lagunitas Intersection Improvements Project, Town of Ross, Marin County	Holman & Associates
S-040278b		2012	Sunshine Psota	Extended Phase I Proposal for Portions of the Sir Francis Drake - Lagunitas Intersection Improvements Project in Ross, Marin County	Holman & Associates

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-040278c		2012	Sunshine Psota	Extended Phase I Report for the Proposed Portions of the Sir Francis Drake - Lagunitas Intersection Improvements Project, Ross, Marin County	Holman & Associates
S-043124		2013		Phase I Cultural Resources Evaluation for the Ross Valley Sanitary District Sewer Rehabilitation FY 2014 Project, Marin County, California	Archeo-Tec
S-045692		2012	Erica Schultz and Cassidy DeBaker	Cultural Resources Investigation for the Proposed Improvement Plan for the Branson School, Ross, Marin County, California (letter report)	Garcia and Associates
S-047475		1979	Linton D. Stables, III	Historical/Architectural Assessment of Buildings and Grounds Along Corte Madera Creek in Ross, California	U.S. Army Engineer District, San Francisco
S-048813	OHP PRN - FCC071109D; OTIS Report Number - FCC_2017_0410_002	2017	Carolyn Losée	Cultural Resources Investigation for AT&T CCL04584 "Ross" 31-33 Sir Francis Drake Boulevard, Ross, Marin County, California 94957 (letter report)	Archaeological Resources Technology
S-048813a		2017	Carolyn Losee	FCC Wireless Telecommunication Bureau, Collocation ("CO") Submission Packet, FCC Form 621, AT&T CCL04584 "Ross" 31-33 Sir Francis Drake Boulevard, Ross, CA 94957	Diablo Green Consulting; Archaeological Resources Technology
S-048813b		2017	Carolyn Losee and Julianne Polanco	FCC_2017_0410_002, CCL04584 "Ross" 31-33 Sir Francis Drake Boulevard, Ross, Marin County, California 94957 (letter report)	Diablo Green Consulting; Archaeological Resources Technology; Office of Historic Preservation
S-050061		2017		Phase I Cultural Resources Evaluation for the Ross Valley Sanitary District Large Diameter Gravity Sewer Rehabilitation Project II-3, Marin County, California	Archeo-Tec, Inc.
S-050211	OTIS Report Number - COE File No. 2015-00311; OTIS Report Number - COE_2015_0923_001	2015	Matt Smeltzer	JARPA Attachment 2: Project Description Report, Glenwood Avenue Bridge Scour Mitigation Project, Ross, California (pg. 2-8)	Geomorph Design

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-050211a		2015	Julianne Polanco and Tori White	COE_2015_0923_001, Section 106 Consultation for the Glenwood Avenue Bridge, Town of Ross, Marin County, California	Office of Historic Preservation; Department of the Army
S-053181		2017	Kara Brunzell	Historical Evaluation of the house at 14 Brookwood Lane, Ross, Marin County, California (letter report)	Brunzell Historical
S-055652	Submitter - ALTA 2019-60	2019	Dean Martorana and Sarah King-Narasimha	Archaeological Survey Report, WRA Upper Toyon Drive, Ross, Marin County, California, APNs 072-031-60+63 And 072-031-02+61	Alta Archaeological Consulting

## CALIFORNIA HISTORICAL RESOURCE STATUS CODES

(effective 5/1/2017)

### **1 Listed in the National Register (NR) or the California Register (CR)**

- 1D Contributor to a multi-component resource like a district listed in the NR by the Keeper. Listed in the CR.
- 1S Individually listed in the NR by the Keeper. Listed in the CR.
- 1CD Contributor to a multi-component resource listed in the CR by the SHRC.
- 1CS Individually listed in the CR by the SHRC.
- 1CL State Historical Landmarks (CHL) numbered 770 and above, or SHRC reevaluated CHLs that also meet CR criteria. Listed in the CR.
- 1CP State Points of Historical Interest (CPHI) nominated after December 1997 and recommended for listing by the SHRC or SHRC reevaluated CPHIs that also meet CR criteria. Listed in the CR.

### **2 Determined eligible for listing in the National Register (NR) or the California Register (CR)**

- 2B Determined eligible for the NR both individually and as a contributor to a NR eligible multi-component resource like a district in a federal regulatory process. Listed in the CR.
- 2D Contributor to a multi-component resource determined eligible for the NR by the Keeper. Listed in the CR.
- 2D2 Contributor to a multi-component resource determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2D3 Contributor to a multi-component resource determined eligible for NR by Part I Tax Certification. Listed in the CR.
- 2D4 Contributor to a multi-component resource determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.
- 2S Individually determined eligible for NR by the Keeper. Listed in the CR.
- 2S2 Individually determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2S3 Individually determined eligible for NR by Part I Tax Certification. Listed in the CR.
- 2S4 Individually determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.
- 2CB Determined eligible for CR both individually and as a contributor to a CR eligible multi-component resource by the SHRC.
- 2CD Contributor to a multi-component resource determined eligible for CR by the SHRC.
- 2CS Individually determined eligible for CR by the SHRC.

### **3 Appears eligible for National Register (NR) or California Register (CR).**

- 3B Appears eligible for NR both individually and as a contributor to a NR eligible multi-component resource like a district through survey evaluation.
- 3D Appears eligible for NR as a contributor to a NR eligible multi-component resource through survey evaluation.
- 3S Appears eligible for NR individually through survey evaluation.
  
- 3CB Appears eligible for CR both individually and as a contributor to a CR eligible multi-component resource through survey evaluation.
- 3CD Appears eligible for CR as a contributor to a CR eligible multi-component resource through survey evaluation.
- 3CS Appears eligible for CR individually through survey evaluation.

### **4 Appears eligible for National Register (NR) or State Historical Landmark (CHL) through PRC§ 5024**

- 4CM State agency owned resource added to Master List - appears to meet NR and/or CHL criterion.

### **5 Recognized as Historically Significant by Local Government**

- 5B Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a multi-component resource like a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation.
- 5D1 Contributor to a multi-component resource that is listed or designated locally.
- 5D2 Contributor to a multi-component resource that is eligible for local listing or designation.
- 5D3 Appears to be a contributor to a multi-component resource that appears eligible for local listing or designation.
- 5S1 Individually listed or designated locally.
- 5S2 Individually eligible for local listing or designation.
- 5S3 Appears to be individually eligible for local listing or designation through survey evaluation.

### **6 Not Eligible for Listing or Designation as specified**

- 6C Determined ineligible for or removed from California Register (CR) by the SHRC.
- 6CD Determined ineligible for or removed from CR by the SHRC as a component of a CR listed multi-component resource. [Code to differentiate a resource that has more than one CR evaluation. Example, a resource that is on the CR as both contributor to a district and individually would still be on the CR if the district was removed/determined ineligible. This code would convey the change of a specific evaluation rather than the resource's CR status.]
- 6J State Historic Landmarks (CHL) or State Points of Historical Interest (SPHI) determined ineligible for or removed as a CHL or SPHI by the SHRC.
- 6L Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning.
- 6T Determined ineligible for NR through Part I Tax Certification process.
- 6U Determined ineligible for NR pursuant to Section 106 without review by SHPO.
- 6W Removed from NR by the Keeper.
- 6X Determined ineligible for NR by the SHRC or the Keeper.
- 6Y Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.
- 6Z Found ineligible for NR, CR or local designation through survey evaluation.
- 6WM Removed from Master List because no longer state owned.
- 6XM Removed from Master List because of historic feature loss or further evaluation.
- 6YM State agency owned resource determined ineligible for Master List.

### **7 Not Evaluated for National Register (NR) or California Register (CR) or Needs Re-evaluation**

- 7E Treated as eligible for the purpose of OHP review.
- 7J Received by OHP for evaluation or action but not yet evaluated.
- 7K Submitted to OHP for action but not reevaluated.
- 7L State Historical Landmarks 1-769 – that do not meet CR criteria.
- 7M Submitted to OHP but not evaluated - referred to NPS.
- 7N Needs to be reevaluated - formerly coded as may become NR eligible with specific conditions.
- 7N1 Needs to be reevaluated (former status code 4) - may become NR eligible with restoration or other specific conditions.
- 7P State Point of Historical Interests that do not meet CR criteria.
- 7R Identified in Reconnaissance Level Survey or in an Area of Potential Effect (APE): Not evaluated.
- 7W Submitted to OHP for action – withdrawn or inactive.

## NATIVE AMERICAN HERITAGE COMMISSION

June 7, 2022

Matthew Weintraub  
Town of Ross

Via Email to: [mweintraub@townofross.org](mailto:mweintraub@townofross.org)

**Re: Native American Consultation, Pursuant to Senate Bill 18 (SB18), Government Codes §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Town of Ross Housing Element Update Project, Marin County**

Dear Mr. Weintraub:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties or projects.

Government Codes §65352.3 and §65352.4 require local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending General Plans, Specific Plans and Community Plans.

Public Resources Codes §21080.3.1 and §21080.3.2 requires public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to tribal cultural resources as defined, for California Environmental Quality Act (CEQA) projects.

The law does not preclude local governments and agencies from initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The NAHC believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

Best practice for the AB52 process and in accordance with Public Resources Code §21080.3.1(d), is to do the following:

*Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.*

The NAHC also recommends, but does not require that lead agencies include in their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential affect (APE), such as:



CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

SECRETARY  
**Sara Dutschke**  
Miwok

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

COMMISSIONER  
**Buffy McQuillen**  
Yokayo Pomo, Yuki,  
Nomlaki

COMMISSIONER  
**Wayne Nelson**  
Luiseño

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

EXECUTIVE SECRETARY  
**Raymond C. Hitchcock**  
Miwok/Nisenan

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
NAHC.ca.gov

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
  - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE, such as known archaeological sites;
  - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
  - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
  - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
  - Any report that may contain site forms, site significance, and suggested mitigation measures.  
  
All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.
3. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event, that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address:

[Cody.Campagne@nahc.ca.gov](mailto:Cody.Campagne@nahc.ca.gov).

Sincerely,

*Cody Campagne*

Cody Campagne  
Cultural Resources Analyst

Attachment



**Native American Heritage Commission  
Tribal Consultation List  
Marin County  
6/7/2022**

***Federated Indians of Graton  
Rancheria***

Greg Sarris, Chairperson  
6400 Redwood Drive, Ste 300      Coast Miwok  
Rohnert Park, CA, 94928      Pomo  
Phone: (707) 566 - 2288  
Fax: (707) 566-2291  
gbuvelot@gratonrancheria.com

***Guidiville Indian Rancheria***

Donald Duncan, Chairperson  
P.O. Box 339      Pomo  
Talmage, CA, 95481  
Phone: (707) 462 - 3682  
Fax: (707) 462-9183  
admin@guidiville.net

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3, 65352.4 et seq. and Public Resources Code Sections 21080.3.1 for the proposed Town of Ross Housing Element Update Project, Marin County.

June 17, 2022

Donald Duncan  
Chairperson  
Guidiville Indian Rancheria  
P.O. Box 339  
Talmage, CA, 95481

**Re: Native American and Tribal Consultation under SB 18 and AB 52**

Dear Mr. Duncan,

The Town of Ross is preparing an update to the Housing Element of its General Plan ('Project'). The Planning Area for the Housing Element covers the corporate limits of the Town of Ross as shown in the attached maps. Figure 1 depicts the 1,024-acre Planning Area, including parcels, building footprints, creeks, and the Town of Ross boundary. Figure 2 shows the USGS 7.5" topographic quadrangle that covers the Planning Area.

The 2023-31 Ross Housing Element is the Town's plan to address local housing needs. As required under State law, it will identify sites available for housing and include a realistic projection of their capacity, along with policies and programs to address special needs groups and constraints to housing production. For the 8-year planning period, the Town must plan to accommodate 111 new housing units. As a largely built out community with few vacant sites, it is anticipated that the majority of these new units will be accessory dwelling units built on existing single-family lots, with some small-scale multi-family housing in the downtown area, the Marin Art and Garden Center site, and City-owned property along Sir Francis Drake Boulevard. The Project will also involve a technical update to the Safety Element to incorporate new analysis of emergency evacuation capacity. More information about the Housing Element update can be found at [www.townofross.org](http://www.townofross.org).

This letter serves to invite consultation in accordance with California Government Code Sections 65352.3 – 65352.4 per Senate Bill 18 (SB 18). SB 18 requires local governments to conduct meaningful consultation with California Native American tribes prior to adopting an update to the General Plan, for the purpose of protecting, or mitigating impacts to, cultural places. To assist in your evaluation of the Project, the Town has requested a Sacred Lands File (SFL) check through the NAHC. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative.

This letter also serves to initiate consultation pursuant to Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), to evaluate the Project's potential impacts to tribal cultural resources as part of the Project's environmental review under CEQA. The Town has determined that an Environmental Impact Report (EIR) is required for the Project, and a Notice of Preparation of the EIR will be publicly released later this summer. We respectfully invite you to consult on and participate in the review process for this Project.

Your input is important to the Town's planning process. Please advise the Town in writing if you wish to initiate consultations with the Town on the Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the Town if you are interested in further consultation on the Project.

Page 2

RE: Native American and Tribal Consultation under SB 18 and AB 52

June 17, 2022

Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the Town if you are interested in consultation as part of CEQA environmental review. After your written request is received, we will contact you within 30 calendar days to begin the consultation process.

If the Town does not receive a written request within 30 or 90 calendar days, we will conclude that the invitation to consult been declined. This notification does not limit the ability of the Tribe to submit information to the Town or comment on the EIR.

Sincerely,

REBECCA MARKWICK

Planning and Building Director

rmarkwick@townofross.org

Office (415) 453-1453 Ext. 121.

Attachments:

- Planning Area Map
- USGS 7.5' Quadrangle Map

June 17, 2022

Greg Sarris  
Chairperson  
Federated Indians of Graton Rancheria  
6400 Redwood Drive, Ste 300  
Rohnert Park, CA, 94928

**Re: Native American and Tribal Consultation under SB 18 and AB 52**

Dear Mr. Sarris,

The Town of Ross is preparing an update to the Housing Element of its General Plan ('Project'). The Planning Area for the Housing Element covers the corporate limits of the Town of Ross as shown in the attached maps. Figure 1 depicts the 1,024-acre Planning Area, including parcels, building footprints, creeks, and the Town of Ross boundary. Figure 2 shows the USGS 7.5" topographic quadrangle that covers the Planning Area.

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If the Town does not receive a written request within 30 or 90 calendar days, we will conclude that the invitation to consult been declined. This notification does not limit the ability of the Tribe to submit information to the Town or comment on the EIR.

Sincerely,

REBECCA MARKWICK

Planning and Building Director

rmarkwick@townofross.org

Office (415) 453-1453 Ext. 121.

Attachments:

- Planning Area Map
- USGS 7.5' Quadrangle Map

# APPENDIX B: NOP AND COMMENT LETTERS

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# **DRAFT NOTICE OF PREPARATION**

## **Program Environmental Impact Report Ross Housing and Safety Update**

**Date** November 28, 2022

**To** Reviewing Agencies, Interested Parties, and Organizations

**Subject** Notice of Preparation of a Draft Environmental Impact Report for the Ross General Plan Housing and Safety Element Update and Scheduling of a Scoping Meeting on Thursday December 8, 2022

The Town of Ross will be the Lead Agency and will prepare a programmatic Environmental Impact Report (EIR) for the Ross Housing and Safety Element Update (the Project). The Project, its location, and potential environmental effects are described below. Pursuant to CEQA Section 15060, the Town has determined that an EIR is required for the Project and an Initial Study has been prepared (see attached).

Public agencies and members of the general public are invited to provide comments in writing as to the scope and content of the EIR. Specifically, the Town needs to know the views of Responsible and Trustee Agencies as to the potentially significant environmental issues, reasonable alternatives, and mitigation measures that are germane to each agency's statutory responsibilities in connection with the Project. Responsible Agencies will need to use the EIR prepared by the Town when considering permit or other approval for the Project.

Due to the time limits mandated by State law, responses must be sent at the earliest possible date, but no later than the close of the NOP review period, which runs as follows: November 28, 2022 through December 29, 2022.

Please send written responses to Rebecca Markwick at the address shown below. Public agencies providing comments are requested to include a contact person for the agency.

---

### **PROJECT TITLE:**

Ross Housing and Safety Element Update

### **LEAD AGENCY CONTACT:**

Rebecca Markwick  
Director of Planning and Building  
P.O. Box 320  
Ross, CA, 94957  
Email: [rmarkwick@townofross.org](mailto:rmarkwick@townofross.org)  
Phone: 415-453-1453 x121



## **PROJECT SPONSOR:**

Town of Ross  
P.O. Box 320  
31 Sir Francis Drake Boulevard  
Ross, CA 94957

## **PROJECT LOCATION AND CONTEXT:**

Located in the scenic Ross Valley amid wooded hillsides and meandering creeks, the Town of Ross is a quiet residential community that takes pride in its historic character, small-town charm, tree-lined streets, and excellent school system. Existing residential development in Ross numbers approximately 880 homes. These are predominantly single-family residences, with some guest houses and accessory dwelling units on single-family properties, and some apartment units located above retail in the downtown commercial area. The beauty of the natural landscape helps define the character of the community, but it also presents risk of natural hazards that limit the potential for new housing, including steep topography and areas of landslide hazard in the hills and risk of flooding and liquefaction on much of the valley floor.

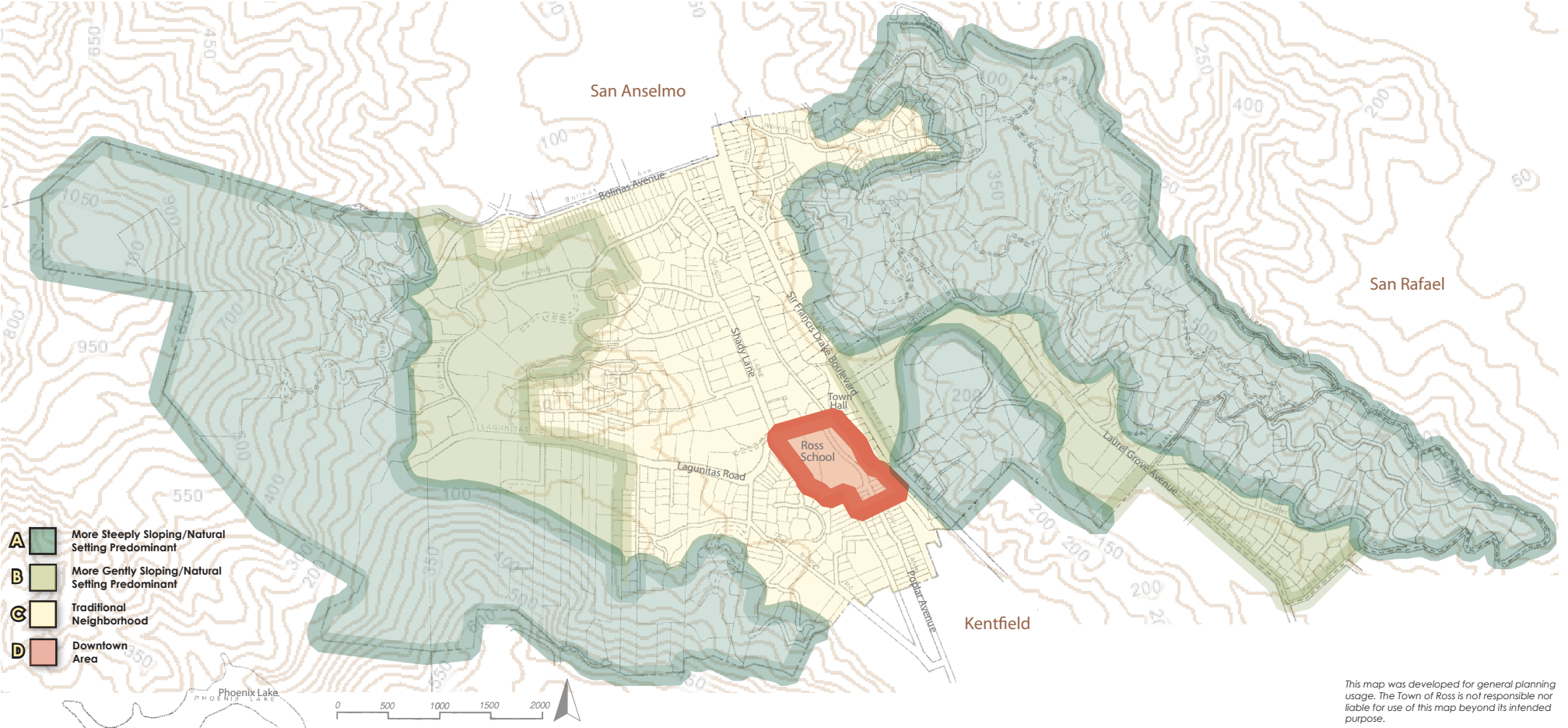
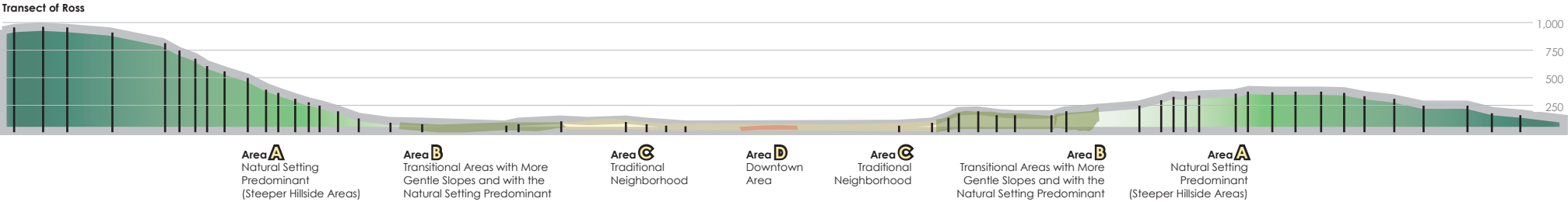
### **Planning Area Boundaries**

Located approximately 18 miles north of San Francisco and centrally located in Marin County, Ross is bounded by the Town of San Anselmo to the north, the City of San Rafael to the east, and the unincorporated community of Kentfield to the south, with undeveloped open space administered by the Marin Municipal Water District in the hills to the west. Sir Francis Drake Boulevard bisects Ross in a north-south direction, providing the principal access route to and from the region. Marin Transit operates bus service along Sir Francis Drake, connecting Ross with San Rafael, Larkspur, Fairfax and the wider Bay Area. The Corte Madeira Creek runs roughly parallel to Sir Francis Drake Boulevard and Ross Creek drains from Phoenix Lake in the western hills to the Ross Valley floor. The Town's regional location and planning boundaries are shown in Figure 1.

### **Existing Land Uses**

Home to 2,453 residents, the Town of Ross is the second smallest jurisdiction in Marin County, encompassing just 1.6 square miles. The town is largely developed with single-family homes with no vacant parcels on the valley floor. At the heart of the community is the Ross Common, located just west of Sir Francis Drake Boulevard and flanked by the Ross Post Office, the Ross School, and the downtown commercial area. The Ross Civic Center, comprised of the Town Hall and Public Safety Building, is located just north of the Post Office on the west side of Sir Francis Drake, while on the opposite side street is the Marin Art and Garden Center, an 11-acre site that features gardens and historic buildings, added to the National Register of Historic Places in 2022. Other notable land uses in Ross include the Branson School, the Lagunitas Country Club, and Saint Anselms Church. Much of the rest of the community is made up of single-family neighborhoods with a dense tree canopy. The lots on the flat land of the valley floor tend to be smaller, with large lots in the hilly terrain further away from the center of the community. Overall, residential uses account for 657.3 acres, commercial uses occupy 20.3 acres, and institutional uses occupy 1.6 acres. Vacant land accounts for 145.6 acres; however, this is predominantly located in areas of steep terrain.

Figure I: Location and Planning Boundaries



## Natural Resources and Environmental Constraints

Set in a valley between wooded hillsides, Ross enjoys a natural environment with an abundance of green from tree-lined streets, hillsides, ridgelines, creeks, and parks and open space. This setting also provides natural habitat for wildlife and birds. Riparian forests along the Town's creeks provide habitat and movement corridors for flora and fauna. Residential development is limited in and near these resources to preserve existing biodiversity, including required setbacks along the creeks. Flooding is common within the 100-year flood zones along Corte Madera and Ross Creeks. These riparian areas along the creeks are also subject to high liquefaction risk. Landslides can occur along the hillsides of the western and eastern boundaries of the town. In addition, there is a very high wildfire hazard severity zone just southwest of the town limits while a high fire hazard severity zone exists within the town's boundaries. Such features in the town that bring risk of exposure to natural hazards, including flooding, wildfires, liquefaction, and landslides, are shown in Figure 2.

## PROJECT DESCRIPTION:

The Proposed Project involves updates to the Town of Ross General Plan Housing and Safety Elements. In compliance with State law, the Housing Element is being updated to account for changing demographics, market conditions, and projected housing need over an 8-year planning period that runs from 2023 through 2031. Under State law, the Housing Element update triggers the need to incorporate new data on natural hazards and climate change into the Safety Element along with actions to strengthen community resilience and emergency evacuation capacity. A detailed project description is included in the attached Initial Study (Attachment 1). Key project components are summarized below.

### Draft 2023-31 Housing Element

The Draft 2023-31 Housing Element is an update to the current Housing Element prepared to respond to the requirements for the Sixth Housing Element Cycle, which runs from 2023 through 2031. The Draft Housing Element was released for public review on October 18, 2022 and is posted on the Town of Ross website, accessible at this link:

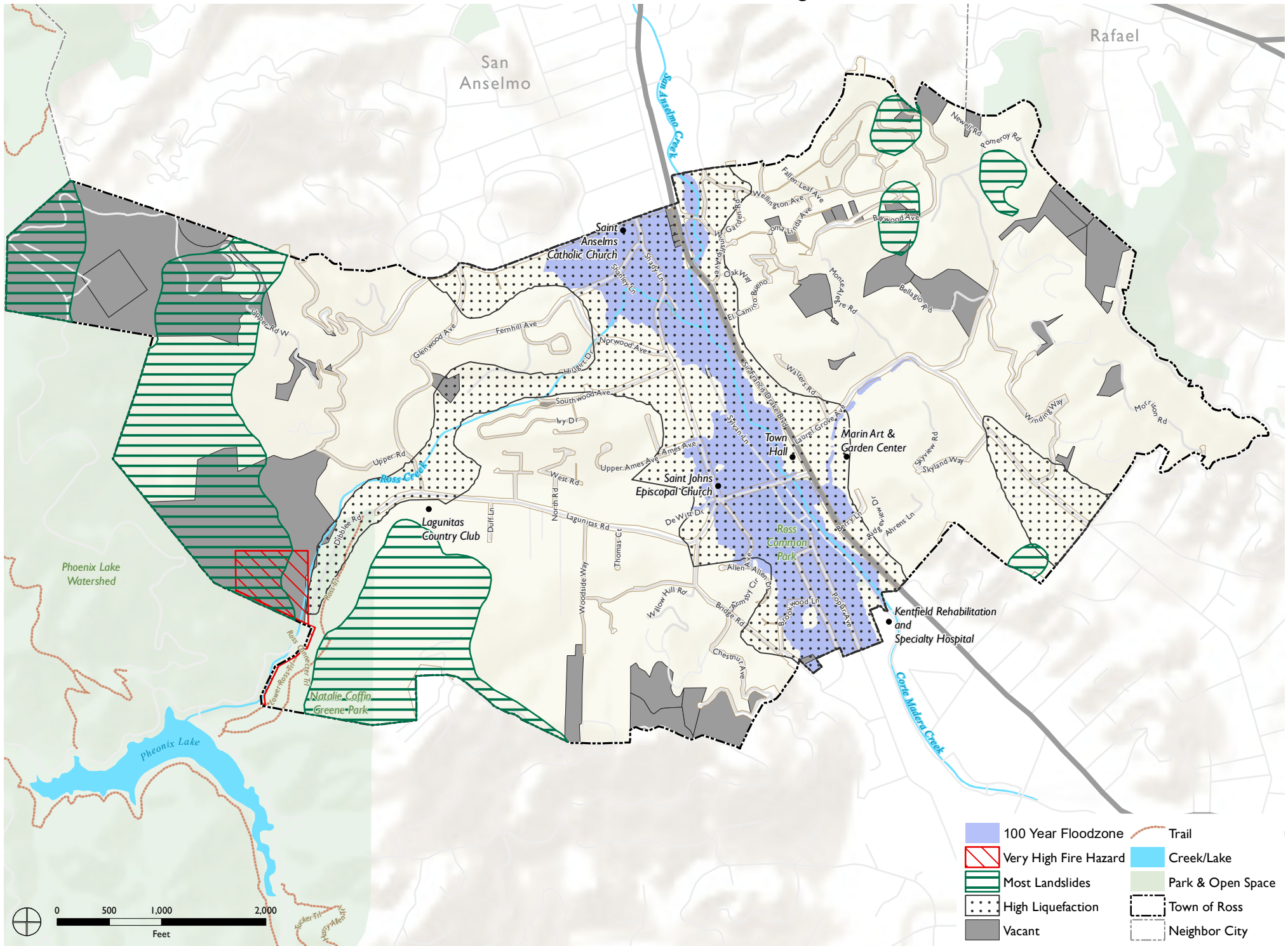
<https://www.townofross.org/planning/webform/draft-housing-element-public-review>

Under State law, each city and county in California must plan to accommodate its share of the regional housing need - called the Regional Housing Needs Allocation (RHNA) - for the coming 8-year planning period. The State determines the estimated need for new housing in each region of California, based on population projections and other factors including rates of vacancy, overcrowding, and cost-burden. The various regional planning agencies then allocate a target to each city or town within their jurisdiction, considering factors such as access to jobs, good schools, and healthy environmental conditions. RHNA is split into four categories representing different levels of affordability, based on median income level in the county. The affordability categories are as follows:

- Very Low Income - Households making less than 50 percent of the average median income (AMI)
- Low Income - Households making 50-80 percent of AMI
- Moderate Income - Households making 80-120 percent of AMI
- Above Moderate Income - Households making more than 120 percent of AMI



Figure 2: Environmental Hazards and Constraints



Source: FEMA; 2019; CAL FIRE, 2021; MarinMap, 2022; Dyett & Bhatia, 2022

Amid the ongoing housing crisis in California, Ross is required to plan for at least 111 new housing units between 2023 and 2031, including 34 Very Low Income units, 20 Low Income units, 16 Moderate income units, and 41 Above Moderate units.

As required by State law, the Draft Housing Element includes a map of sites available for housing and an inventory of realistic capacity. The inventory demonstrates a total capacity of up to 148 new housing units, which is sufficient to meet the Town's RHNA obligations at all income levels with a buffer. The buffer is required to ensure that there is sufficient capacity to meet RHNA obligations at all times during the planning period, in the event that some sites on the inventory develop at lower densities than envisioned. Implementation of the Draft Housing Element would primarily involve facilitation of smaller scale housing construction in established neighborhoods on existing lots and infill sites.

Of the total capacity on the inventory, 41 units would be accommodated on the 10 sites with current zoning that allows for housing. These are vacant and underutilized sites or sites where the property owner has expressed interest in housing. They include the Ross Civic Center, the Branson School, the Post Office, and vacant several residential properties. Additionally, the inventory projects development of 80 accessory dwelling units (ADUs) on existing single-family lots in established neighborhoods, based on past production trends in Ross and a suite of programs proposed to facilitate and incentivize production over the planning period. Given their small size and lower rents and sales prices, ADUs would offer affordable housing options for seniors, live-in caregivers, teachers, public servants, and other who work in Ross. A further 22 units are projected on existing single-family lots pursuant to Senate Bill 9 (SB9), a California state law that enables homeowners to split their single-family residential lot into two separate lots and/or build additional residential units on their property without the need for discretionary review or public hearing. The law gives qualifying property owners the right to a maximum total of four units across the two lots, whether as single-family dwellings, duplexes, and/or ADUs. There are at least 48 of sufficient size, located outside of areas of environmental hazard, and meeting other parameters define in State law that may also be underutilized. The inventory projects up to 22 new units on some combination of the SB9 sites will be developed by 2031.

The Draft Housing Element also includes an Action Plan, organized around five housing goals. Each goal is supported by policies and implementing programs that describe actions the Town will take to help meet its RHNA obligations. The housing sites inventory and map are included in the detailed project description in the attached Initial Study (Attachment 1), together with a summary of Action Plan contents.

### **Safety Element Update**

The Safety Element will be updated to incorporate new data on natural hazards and climate change along with actions to strengthen community resilience and emergency evacuation capacity. Risk to life and property will be characterized and maps showing special flood hazard area, wildfire hazard severity, and geologic hazards will be updated. The Safety Element update will also draw on the findings of a regional evacuation study by the Marin Wildfire Prevention Authority (MWPA) expected in early 2023. The study will simulate the wildfire evacuation process in Marin County, prioritize areas of highest concern, and help identify possible risk mitigation.

### **PROBABLE ENVIRONMENTAL IMPACTS OF THE PROJECT**

An Initial Study (Attachment 1) was prepared to evaluate potentially significant environmental impacts associated with the adoption and implementation of the Project. Consistent with the State CEQA Guidelines (Appendix G), the following environmental resource categories were analyzed:

- Aesthetics
- Agricultural and Forest Resources
- Air Quality
- Biological Resources
- Cultural, Tribal, and Historic Resources
- Energy, Climate Change, and Greenhouse Gas Emissions
- Geology, Soils and Seismicity
- Hazards and Hazardous Materials
- Hydrology, Drainage, and Water Quality
- Land Use, Population, and Housing
- Noise and Vibration
- Public Facilities and Recreation
- Traffic and Transportation
- Utilities and Service Systems
- Wildfire

Environmental effects found to have no impact or a less-than significant impact are identified in the Initial Study. These topics will not be evaluated in detail in the EIR, which will focus on the potentially significant impacts of the Project, as identified in the Initial Study. Mitigation measures will be recommended in the EIR as needed to address any significant impacts identified, and the Initial Study will be incorporated as an Appendix to the Draft EIR. A summary of the potentially significant environmental impacts of the Project identified in the Initial Study is provided below.

### **Biological Resources**

Given the extent of biological resources throughout Ross, future development pursuant to the Proposed Project has the potential to adversely affect sensitive species, riparian habitats, sensitive communities, and federally protected wetlands. The potential presence of sensitive biological resources within the Town will be reviewed as a basis to determine whether new development on one or more of the housing opportunity sites may have potential to affect such resources. Where potential impacts are identified, programmatic biological resources mitigation measures will be identified that would apply to future individual development projects.

### **Cultural Resources**

The Ross Town Hall and Fire House is listed on the California Register of Historical Resources and eligible for listing on the National Register. The Proposed Project identifies the Ross Town Hall and Fire House as the Civic Center site, and it is included in the inventory of sites available for housing development. The redevelopment of the Civic Center could potentially result in adverse effects on the historic significance of the buildings. Additionally, there is a high potential for unrecorded historic-period archaeological resources and Native American resources within the Town limits. As such, related potentially significant impact will be analyzed in further detail in the EIR.

## **Geology and Soils**

Given the steep terrain in much of Ross, there is potential for landslides, particularly in wet weather months. Hillside areas in the west, northeast, and southeast of Ross have experienced landslides in the past. The development of housing in or adjacent to areas of geologic hazard could potentially result in significant impacts, which will be analyzed in further detail in the EIR.

## **Greenhouse Gas Emissions**

As a long-range plan, the Proposed Project would be assumed to have a less than significant impact related to GHG emissions if the Town has a qualified GHG Reduction Strategy that demonstrates consistency with established SB32 and EO B-55-18 targets. While the Town's Climate Action sets out a pathway to reducing GHG emissions by 15 percent below 2005 levels by the year 2020, it does not demonstrate consistency with SB32 targets for 2030 or EO B-55-18 targets for 2045. Therefore, GHG emissions from the Proposed Project will be quantified and analyzed in further detail in the EIR. Consistency with the CARB Scoping Plan will also be analyzed.

## **Hazards and Hazardous Materials**

The risk of natural hazards, including flooding and wildfire, is present in Ross. Sir Francis Drake Boulevard, the principal evacuation route in Town, is located within the 100-year flood plain and could be obstructed in the event of a natural disaster. Further, given the extent of wildfire hazard in Ross, project implementation could potentially exposure people and structures to risk from wildland fires. Emergency evacuation and wildfire are potentially significant impacts that will be analyzed in further detail in the EIR, accounting for new strategies proposed in the Safety Element Update and identifying mitigation as needed.

## **Noise**

Vehicle trips generated by new residential development pursuant to the Project may increase ambient noise levels in Ross, while construction activities may cause intermittent impacts. Construction-related noise effects and traffic noise effects will be evaluated based on Town standards and data regarding noise intensities for typical construction activities. Noise modeling will be conducted to determine if noise levels in excess of standards established in the General Plan and Town Code could be exceeded as a result of project implementation, either cumulatively or as a result of project implementation.

## **Transportation**

According to State guidance, transportation impacts would result if home-based vehicle miles travelled (VMT) per resident under the Project are not 15 percent below baseline levels. VMT forecasts developed for the Project indicate that a 12 percent reduction in per capita VMT as compared to 2019 baseline conditions would result. This exceeds the threshold prior to mitigation. As such, this is a potentially significant impact that will be analyzed in further detail in the EIR with mitigation identified accordingly.

## Tribal Cultural Resources

Given the high potential for yet undiscovered tribal cultural resources in Ross and the ongoing tribal consultation, it cannot be definitively determined that no significant impact will result at this stage. This section will address whether the Proposed Project may have an adverse change on the significance of a tribal cultural resource.

## Wildfire

Given the extent of wildfire hazard in and adjacent to Ross, this section of the EIR will address whether the project would substantially impair an adopted emergency response plan or emergency evacuation plan; expose people to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; require installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or expose people or structures to significant risks, including downslope of downstream flooding or landslides as a result of runoff, postfire slope instability, or drainage changes.

## SCOPING MEETING:

A scoping meeting will be conducted on Thursday December 8, 2022 to collect oral comments from agencies and members of the public regarding the scope and content of the EIR in accordance with CEQA Section 21083.9.

### EIR Scoping Meeting on the Ross General Plan Update

Thursday December 8, 2022 | 6:00 PM

Ross Town Council Chambers

31 Sir Francis Drake Boulevard Ross, California 94957

For project information, please visit <https://www.townofross.org/planning/page/town-ross-housing-element-update>

Please contact Rebecca Markwick at 415-453-1453 x121 or [rmarkwick@townofross.org](mailto:rmarkwick@townofross.org) with any questions regarding this notice or the scoping meeting.

p.p *Claire Villegas*

11/28/22

Rebecca Markwick, Director of Planning and Building

Date

### *Attachment 1 - Initial Study and Environmental Checklist*





State of California – Natural Resources Agency

DEPARTMENT OF FISH AND WILDLIFE

Bay Delta Region

2825 Cordelia Road, Suite 100

Fairfield, CA 94534

(707) 428-2002

[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

**GAVIN NEWSOM, Governor**

**CHARLTON H. BONHAM, Director**



Governor's Office of Planning & Research

December 19, 2022

**Dec 19 2022**

**STATE CLEARINGHOUSE**

Rebecca Markwick

Town of Ross

31 Sir Francis Drake Boulevard

Ross, CA 94957

[rmarkwick@townofross.org](mailto:rmarkwick@townofross.org)

Subject: Ross Housing and Safety Element Update, Notice of Preparation of a Draft Subsequent Environmental Impact Report, SCH No. 2022110593, Town of Ross, Marin County

Dear Ms. Markwick:

The California Department of Fish and Wildlife (CDFW) reviewed the Notice of Preparation (NOP) of a Draft Subsequent Environmental Impact Report (EIR) for Ross Housing and Safety Element Update (Project).

CDFW is providing the Town of Ross, as the lead agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (Cal. Code Regs., tit. 14, § 15082, subd. (b)).

### **CDFW ROLE**

CDFW is a **Trustee Agency** with responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact fish, plant, and wildlife resources (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15386). CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as a permit pursuant to the California Endangered Species Act (CESA) or Native Plant Protection Act (NPPA), Lake and Streambed Alteration (LSA) Program, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Pursuant to our authority, CDFW has the following concerns, comments, and recommendations regarding the Project.

### **PROJECT DESCRIPTION AND LOCATION**

The Town of Ross is a small residential community in Marin County with a footprint of 1.6 square miles and a population of 2,453 residents living in predominantly single-family dwellings. The town is situated in a valley between wooded hills whose boundaries intersect several prominent creeks, including Ross Creek and Corte Madera Creek.

Rebecca Markwick  
Town of Ross  
December 19, 2022  
Page 2 of 11

The Project entails updates to the Town of Ross General Plan Housing and Safety Elements which, as required by State law, must be updated to reflect changes in local housing needs and requirements over the ensuing span of 8 years (2023-2031). Project objectives include maintaining quality of life, addressing affordable housing needs, and providing adequate housing sites.

The Housing Element of the Housing and Safety Update includes plans for at least 111 new housing units between 1021 and 2031, 41 of which will be developed on sites currently zoned for housing. Additional housing sites under consideration include the Ross Civic Center, the Branson School, and the Post Office; as well as a projected 80 accessory dwelling units on existing lots. An additional 22 units are qualified for development in accordance with Senate Bill 9. The Safety Element will receive updates to reflect new data on community risk factors such as climate change, wildfire, floods, and geologic hazards.

The CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.) require that the EIR incorporate a full project description, including reasonably foreseeable future phases of the Project, that contains sufficient information to evaluate and review the Project's environmental impact (CEQA Guidelines, §§ 15124 & 15378). Please include a complete description of the following Project components in the Project description:

- Land use changes resulting from, for example, rezoning certain areas.
- Footprints of permanent Project features and temporarily impacted areas, such as staging areas and access routes.
- Area and plans for any proposed buildings/structures, ground disturbing activities, fencing, paving, stationary machinery, landscaping, and stormwater systems.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- Construction schedule, activities, equipment, and crew sizes.

The NOP identifies that the EIR will be a Program EIR. While Program EIRs have a necessarily broad scope, CDFW recommends providing as much information related to anticipated future activities as possible. CDFW recognizes that, pursuant to CEQA Guidelines section 15152, subdivision (c), if a Lead Agency is using the tiering process in connection with an EIR or large-scale planning approval, the development of detailed, site-specific information may not be feasible and can be deferred, in many instances, until such time as the Lead Agency prepares a future environmental document. This

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future environmental document would cover a project of a more limited geographical scale and is appropriate if the deferred information does not prevent adequate identification of significant effects of the planning approval at hand. The CEQA Guidelines section 15168, subdivision (c)(4) states, "Where the later activities involve site-specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were within the scope of the program EIR." Based on CEQA Guidelines section 15183.3 and associated *Appendix N Checklist*, and consistent with other program EIRs, CDFW recommends creating a procedure or checklist for evaluating subsequent project impacts on biological resources to determine if they are within the scope of the Program EIR or if an additional environmental document is warranted. This checklist should be included as an attachment to the EIR. Future analysis should include all special-status species and sensitive habitat including but not limited to species considered rare, threatened, or endangered species pursuant to CEQA Guidelines, section 15380.

When used appropriately, the checklist should be accompanied by enough relevant information and reasonable inferences to support a "within the scope" of the EIR conclusion. For subsequent Project activities that may affect sensitive biological resources, a site-specific analysis should be prepared by a qualified biologist to provide the necessary supporting information. In addition, the checklist should cite the specific portions of the EIR, including page and section references, containing the analysis of the subsequent Project activities' significant effects and indicate whether it incorporates all applicable mitigation measures from the EIR.

## **REGULATORY REQUIREMENTS**

### *California Endangered Species Act and Native Plant Protection Act*

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA or NPPA, either during construction or over the life of the Project. Issuance of a CESA ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, such as those identified in **Attachment 1**, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species (Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration

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(FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA.

#### *Lake and Streambed Alteration Agreement*

CDFW will require an LSA Notification, pursuant to Fish and Game Code sections 1600 et. seq. for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that will substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

#### *Nesting Birds*

CDFW also has authority over actions that may disturb or destroy active nest sites or take birds. Fish and Game Code sections 3503, 3503.5, and 3513 protect birds, their eggs, and nests. Migratory birds are also protected under the federal Migratory Bird Treaty Act.

#### *Fully Protected Species*

Fully Protected species, including any listed in **Attachment 1**, may not be taken or possessed at any time except for collecting these species for necessary scientific research, relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

### **ENVIRONMENTAL SETTING**

The EIR should provide sufficient information regarding the environmental setting ("baseline") to understand the Project's, and its alternative's (if applicable), potentially significant impacts on the environment (CEQA Guidelines, §§ 15125 & 15360).

CDFW recommends that the CEQA document prepared for the Project provide baseline habitat assessments for special-status plant, fish and wildlife species located and potentially located within the Project area and surrounding lands, including but not limited to all rare, threatened, or endangered species (CEQA Guidelines, § 15380). The EIR should describe aquatic habitats, such as wetlands or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to the Project site (for sensitive natural communities see:

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<https://wildlife.ca.gov/Data/VegCAMP/NaturalCommunities#sensitive%20natural%20communities>), and any stream or wetland set back distances the City may require. Fully protected, threatened or endangered, candidate, and other special-status species that are known to occur, or have the potential to occur in or near the Project site, include but are not limited to those listed in **Attachment 1**.

Habitat descriptions and the potential for species occurrence should include information from multiple sources: aerial imagery, historical and recent survey data, field reconnaissance, scientific literature and reports, U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System, and findings from "positive occurrence" databases such as California Natural Diversity Database (CNDDB). Based on the data and information from the habitat assessment, the EIR should adequately assess which special-status species are likely to occur on or near the Project site, and whether they could be impacted by the Project.

CDFW recommends that prior to Project implementation, surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at: <https://www.wildlife.ca.gov/Conservation/Survey-Protocol>.

Botanical surveys for special-status plant species, including those with a California Rare Plant Rank (<http://www.cnps.org/cnps/rareplants/inventory/>)<sup>1</sup>, must be conducted during the blooming period within the Project area and adjacent habitats that may be indirectly impacted by, for example, changes to hydrological conditions, and require the identification of reference populations. More than one year of surveys may be necessary based on environmental conditions. Please refer to CDFW protocols for surveying and evaluating impacts to special status plants available at: <https://www.wildlife.ca.gov/Conservation/Plants>.

## **IMPACT ANALYSIS AND MITIGATION MEASURES**

The EIR should discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project (CEQA Guidelines, § 15126.2). This includes evaluating and describing impacts such as:

- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development;

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<sup>1</sup> California Rare Plant Rank (CRPR) 1B plants are considered rare, threatened, or endangered in California and elsewhere. Further information on CRPR ranks is available in CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>) and on the California Native Plant Society website (<https://www.cnps.org/rare-plants/cnps-rare-plant-ranks>).

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- Encroachments into riparian habitats, wetlands or other sensitive areas;
- Potential for impacts to special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features (e.g., snags, roosts, vegetation overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence; and
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.

The CEQA document should also identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project's contribution to the impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact – e.g., reduction of available habitat for a special-status species – should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines direct the lead agency to consider and describe all feasible mitigation measures to avoid potentially significant impacts in the EIR, and/or mitigate significant impacts of the Project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370). This includes a discussion of impact avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with CDFW, USFWS, and the National Marine Fisheries Service. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels.

## **ENVIRONMENTAL DATA**

CEQA requires that information developed in EIRs and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDDB. The CNDDDB online field survey form and other methods for submitting data can be found at the following link:

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<https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link:  
<https://wildlife.ca.gov/Data/CNDDDB/Plantsand-Animals>.

## **FILING FEES**

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

If you have any questions, please contact Alex Single, Environmental Scientist, at (707) 799-4210 or by email at [Alex.Single@Wildlife.ca.gov](mailto:Alex.Single@Wildlife.ca.gov); or Melanie Day, Senior Environmental Scientist (Supervisory), at (707) 210-4415 or by email at [Melanie.Day@wildlife.ca.gov](mailto:Melanie.Day@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
Erin Chappell  
Regional Manager  
Bay Delta Region

Attachment 1: Special-Status Species

ec: State Clearinghouse # 2022110593

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### Attachment 1: Special-Status Species

Scientific Name	Common Name	Status
<b>Amphibians and Reptiles</b>		
<i>Dicamptodon ensatus</i>	California giant salamander	SSC
<i>Rana boylei</i>	foothill yellow-legged frog - north coast distinct population segment (DPS)	SSC
<i>Rana draytonii</i>	California red-legged frog	FT, SSC
<i>Emys marmorata</i>	western pond turtle	SSC
<b>Birds</b>		
<i>Laterallus jamaicensis coturniculus</i>	California black rail	ST, FP
<i>Melospiza melodia samuelis</i>	San Pablo song sparrow	SSC
<i>Athene cunicularia</i>	burrowing owl	SSC
<i>Strix occidentalis caurina</i>	northern spotted owl	FT, ST
<b>Plants</b>		
<i>Arctostaphylos montana</i> ssp. <i>montana</i>	Mt. Tamalpais manzanita	CRPR 1B.3
<i>Arctostaphylos virgata</i>	Marin manzanita	CRPR 1B.2
<i>Cirsium hydrophilum</i> var. <i>vaseyi</i>	Mt. Tamalpais thistle	CRPR 1B.2
<i>Navarretia rosulata</i>	Marin County navarretia	CRPR 1B.2
<i>Horkelia tenuiloba</i>	thin-lobed horkelia	CRPR 1B.2
<i>Trifolium amoenum</i>	two-fork clover	FE, CRPR 1B.1
<i>Kopsiopsis hookeri</i>	small groundcone	CRPR 2B.3



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<i>Ceanothus masonii</i>	Mason's ceanothus	SR, CRPR 1B.2
<i>Sidalcea calycosa</i> ssp. <i>rhizomata</i>	Point Reyes checkerbloom	CRPR 1B.2
<i>Hesperolinon congestum</i>	Marin western flax	FT, ST, CRPR 1B.1
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i>	San Francisco Bay spineflower	CRPR 1B.2
<i>Helianthella castanea</i>	Diablo helianthella	CRPR 1B.2
<i>Polygonum marinense</i>	Marin knotweed	CRPR 3.1
<i>Quercus parvula</i> var. <i>tamalpaisensis</i>	Tamalpais oak	CRPR 1B.3
<i>Holocarpha macradenia</i>	Santa Cruz tarplant	FT, SE, CRPR 1B.2
<i>Astragalus pycnostachyus</i> var. <i>pycnostachyus</i>	coastal marsh milk-vetch	CRPR 1B.2
<i>Microseris paludosa</i>	marsh microseris	CRPR 1B.2
<i>Gilia capitata</i> ssp. <i>chamissonis</i>	blue coast gilia	CRPR 1B.1
<i>Stebbinsoseris decipiens</i>	Santa Cruz microseris	CRPR 1B.2
<i>Pentachaeta bellidiflora</i>	white-rayed pentachaeta	FE, SE, CRPR 1B.1
<i>Eriogonum luteolum</i> var. <i>caninum</i>	Tiburon buckwheat	CRPR 1B.2
<i>Hemizonia congesta</i> ssp. <i>congesta</i>	congested-headed hayfield tarplant	CRPR 1B.2
<i>Streptanthus glandulosus</i> ssp. <i>pulchellus</i>	Mt. Tamalpais bristly jewelflower	CRPR 1B.2
<i>Lessingia micradenia</i> var. <i>micradenia</i>	Tamalpais lessingia	CRPR 1B.2

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<i>Amorpha californica</i> var. <i>napensis</i>	Napa false indigo	CRPR 1B.2
<i>Streptanthus batrachopus</i>	Tamalpais jewelflower	CRPR 1B.3
<i>Gilia millefoliata</i>	dark-eyed gilia	CRPR 1B.2
<i>Dirca occidentalis</i>	western leatherwood	CRPR 1B.2
<i>Sidalcea hickmanii</i> ssp. <i>Viridis</i>	Marin checkerbloom	CRPR 1B.1
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	CRPR 1B.2
<i>Castilleja affinis</i> var. <i>neglecta</i>	Tiburon paintbrush	FE, SE, CRPR 1B.2
<i>Plagiobothrys glaber</i>	hairless popcornflower	CRPR 1A
<i>Pleuropogon hooverianus</i>	North Coast semaphore grass	ST, CRPR 1B.1
<i>Carex lyngbyei</i>	Lyngbye's sedge	CRPR 2B.2
<i>Fritillaria lanceolata</i> var. <i>tristulis</i>	Marin checker lily	CRPR 1B.1
<i>Calamagrostis crassiglumis</i>	Thurber's reed grass	CRPR 2B.1
<i>Calochortus tiburonensis</i>	Tiburon mariposa-lily	FT, ST, CRPR 1B.1
<b>Fish</b>		
<i>Oncorhynchus kisutch</i>	coho salmon - central California coast evolutionarily significant unit (ESU)	FE, SE
<i>Oncorhynchus mykiss</i> <i>irideus</i>	steelhead - central California coast DPS	FE
<i>Acipenser medirostris</i>	green sturgeon - southern DPS	FT
<b>Invertebrates</b>		
<i>Bombus caliginosus</i>	obscure bumble bee	SC, ICP

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<i>Bombus occidentalis</i>	western bumble bee	SC, ICP
<i>Danaus plexippus plexippus</i>	monarch - California overwintering population	FC, ICP
<b>Mammals</b>		
<i>Antrozous pallidus</i>	pallid bat	SSC
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	SSC

FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; FC = a candidate for listing under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SC = a candidate for listing under CESA; SSC = state Species of Special Concern; CRPR = California Rare Plant; SR = state listed as Rare pursuant to Native Plant Protection Act of 1977; ICP = California Terrestrial and Vernal Pool Invertebrates of Conservation Priority

## NATIVE AMERICAN HERITAGE COMMISSION

November 30, 2022

Rebecca Markwick  
Town of Ross  
31 Sir Francis Drake Blvd  
Ross, CA 94957

**Re: 2022110593, Ross Housing and Safety Element Project, Marin County**

Dear Ms. Markwick:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b))). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1))). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

[AB 52](#)



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Luiseño

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AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

**1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:**

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

**2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

**3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

**4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

**5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

**6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation**: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation**. There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality**: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation**: Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

### NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([https://ohp.parks.ca.gov/?page\\_id=30331](https://ohp.parks.ca.gov/?page_id=30331)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
  - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
  
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:  
[Cody.Campagne@nahc.ca.gov](mailto:Cody.Campagne@nahc.ca.gov).

Sincerely,

*Cody Campagne*

Cody Campagne  
Cultural Resources Analyst

cc: State Clearinghouse



APPENDIX C: SUPPORTING  
MATERIALS FOR CULTURAL AND  
TRIBAL CULTURAL RESOURCES

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## ACCESS AGREEMENT SHORT FORM

File Number:

I, the the undersigned, have been granted access to historical resources information on file at the Northwest Information Center of the California Historical Resources Information System.

I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III(A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixty (60) calendar days of completion.

I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name:	<input type="text" value="Lauren Pepe"/>	Date:	<input type="text"/>
Signature:	<input type="text"/>		
Affiliation:	<input type="text" value="Dyett &amp; Bhatia"/>		
Address:	<input type="text"/>	City/State/ZIP:	<input type="text"/>
Billing Address (if different from above):	<input type="text"/>		
Special Billing Information	<input type="text"/>		
Telephone:	<input type="text" value="(415) 956-4300"/>	Email:	<input type="text" value="lauren@dyettandbhatia.com"/>
Purpose of Access:	<input type="text"/>		
Reference (project name or number, title of study, and street address if applicable):	<input type="text"/>		
	<input type="text" value="Data Search for Town of Ross Housing Element Update"/>		
County:	<input type="text" value="MRN"/>	USGS 7.5' Quad:	<input type="text" value="San Rafael"/>

CALIFORNIA  
HISTORICAL  
RESOURCES  
INFORMATION  
SYSTEM



ALAMEDA  
COLUSA  
CONTRA COSTA  
DEL NORTE

HUMBOLDT  
LAKE  
MARIN  
MENDOCINO  
MONTEREY  
NAPA  
SAN BENITO

SAN FRANCISCO  
SAN MATEO  
SANTA CLARA  
SANTA CRUZ  
SOLANO  
SONOMA  
YOLO

**Northwest Information Center**  
Sonoma State University  
1400 Valley House Drive, Suite 210  
Rohnert Park, California 94928-3609  
Tel: 707.588.8455  
nwic@sonoma.edu  
<http://nwic.sonoma.edu>

May 16, 2022

NWIC File No.: 21-1615

Lauren Pepe  
Dyett & Bhatia  
Urban and Regional Planners  
1330 Broadway, Ste. 604  
Oakland, CA 94612

Re: Record search results for the proposed Town of Ross Housing Element Update.

Dear Lauren Pepe:

Per your request received by our office on the 29<sup>th</sup> of March, 2022, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) base maps that reference cultural resources records and reports, historic-period maps, and literature for Marin County. The maps provided depicting the city limits will be used as the project area for this request. Please note that use of the term cultural resources includes both archaeological resources and historical buildings and/or structures.

Ross is a small, incorporated community in Marin County, located approximately 18 miles north of San Francisco. The Planning Area encompasses approximately 1,024 acres. The 2023-31 Ross Housing Element is the Town's plan to address local housing needs. It will identify sites available for housing and include a realistic projection of their capacity, along with policies and programs to address special needs groups and constraints to housing production. For the 8-year planning period, the Town must plan to accommodate 111 new housing units. As a largely built out community with few vacant sites, it is anticipated that the majority of these new units will be accessory dwelling units built on existing single-family lots, with some small-scale multi-family housing in the downtown area, the Marin Art and Garden Center site, and City owned properties along Sir Francis Drake Boulevard.

Review of this information indicates that there have been twenty-two cultural resource studies that cover up to approximately 15% of the Town of Ross Housing Element Update project area. See attached Report List. The Town of Ross Housing Element Update project area contains four recorded Native American archaeological resources. See table below:

PrimaryString	TrinomialString	ResourceName	ResType	Age
P-21-000102	CA-MRN-000072/H	Nelson No. 72	Building, Site	Prehistoric, Historic
P-21-000103	CA-MRN-000073	Nelson No. 73	Site	Prehistoric
P-21-000294	CA-MRN-000311	Nelson No. 74A	Site	Prehistoric
P-21-002794		Archaeological Site 1; Ross Firehouse redeposited midden	Site	Prehistoric

The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists eight recorded buildings or structures within the proposed Town of Ross Housing Element Update project area (see table below). For more information on the eligibility of each resource, based on the information in the 'Evaluation Info' field, see attached California Historical Resource Status Codes.

OTIS I	Name	St Number	St Name	City	Other Geography	Evaluation Info	Construct
404613	GLENWOOD AVENUE BRIDGE, BRIDGE #27C-72		GLENWOOD AVE	ROSS	ROSS CR (Corridor)	2D2, 01/01/1980, 4957-0001-0000	1909
404614	LAGUNITAS STREET BRIDGE, BRIDGE #27C-71		LAGUNITAS ST	ROSS	SAN ANSELMO CR (Corridor)	2D2, 01/01/1980, 4957-0002-0000	1909
575081	PHOENIX LAKE LOG CABIN		LAKE SERVICE RD	ROSS		7R, , 4957-0007-0000	1893
404615	NORWOOD AVENUE BRIDGE		NORWOOD AVE	ROSS	ROSS CR (Corridor)	2D2, 01/01/1980, 4957-0003-0000	1909
404616	SHADY LANE BRIDGE, BRIDGE #27C-78		SHADY LN	ROSS	ROSS CR (Corridor)	2D2, 01/01/1980, 4957-0004-0000   2D2, 01/01/1980, 4957-0005-0000	1909
404617	SIR FRANCIS DRAKE BOULEVARD BRIDGE, BRIDGE #27C-50		SIR FRANCIS DRAKE BLVD	ROSS	SAN ANSELMO CR (Corridor)	2D2, 10/22/1980, 65001013	1909
527952	Ross Town Hall and Fire House	31	SIR FRANCIS DRAKE BLVD	ROSS		2S2, 12/31/2007, FCC071109D	1927
404618	WINSHIP BRIDGE, BRIDGE #27C-74		WINSHIP RD	ROSS	CORTE MADERA CR	7R, , 4957-0006-0000	1920

In addition to these inventories, the NWIC base maps show eight recorded buildings or structures within the proposed Town of Ross Housing Element Update project area. Please note some of these resources overlap with previous listings. See table below:

PrimaryString	TrinomialString	ResourceName	ResType	Age
P-21-000102	CA-MRN-000072/H	Bosqui Tract	Building	Historic
P-21-001327		Lagunitas Street Bridge	Structure	Historic
P-21-001328		Norwood Ave. Bridge	Structure	Historic
P-21-001329		Shady Lane Bridge	Structure	Historic
P-21-001330		Sir Francis Drake Blvd. Bridge	Structure	Historic
P-21-001331		Winship Bridge	Structure	Historic
P-21-002635		Ross Town Hall and Fire House	Building	Historic
P-21-003098		14 Brookwood Lane	Building	Historic

The Caltrans Bridge Inventory also indicates six bridges (Hope 2005). Please note these resources may overlap with previous listings. See table below.

Bridge	Name	Fac	City	Yr Blt	Notes
27C0149	ROSS CREEK	NORWOOD AVE	Ross	1908	Remains eligible in 2004 survey.
27C0071	CORTE MADERA CREEK	LAGUNITAS ROAD	Ross	1930	Contributor to an historic district.
27C0072	ROSS CREEK	GLENWOOD AVE	Ross	1930	Contributor to an historic district.
27C0074	CORTE MADERA CREEK	WINSHIP ROAD	Ross	1925	Remains ineligible in 2004 survey.
27C0078	ROSS CREEK	SHADY LANE	Ross	1930	Remains eligible in 2004 survey.
27C0050	CORTE MADERA CR(DRAKE)	SIR FRANCIS DRAKE	Ross	1926	Remains eligible in 2004 survey.

At the time of Euroamerican contact, the Native Americans that lived in the area were speakers of the Coast Miwok language, part of the California Penutian language family (Kelly 1978:414). Using Milliken’s study of various mission records, the proposed project area is located within the lands of the *Habasto* tribe, whose territory held the eastern side of the Marin Peninsula, Point San Pedro, and the small valleys just to its north and south (Milliken 1995: 242-243).

Based on an evaluation of the environmental setting and features associated with known sites, Native American resources in this part of Marin County have been found in areas marginal to the San Francisco Bayshore, and inland on ridges, midslope benches, in valleys, near intermittent and perennial watercourses and near areas populated by oak, buckeye, manzanita, and pine, as well as near a variety of plant and animal resources. The Town of Ross Housing Element Update project area encompasses the Town of Ross located in Marin County between the towns of San Anselmo and Kentfield. The project area is located between one third mile to one half mile west of the historic San Francisco bay shore and marshland margins, inland and west of Point San Quentin. The northwestern corner of the project area includes a portion of the ridgeline and eastern facing slope of Bald Hill, is adjacent to Phoenix Lake at its southwestern corner, Ross Hill at its southern boundary and Moore Hill adjacent to its eastern boundary. The project area is bisected by Ross Valley and includes the confluence of Corte Madera Creek and Ross Creek. Current aerial maps indicate a high percentage of densely wooded areas, as well as areas of bare dirt, areas including buildings, roads, landscaped areas, etc. Given the similarity of these environmental factors and the ethnographic and archaeological sensitivity of the project area, there is a high potential for unrecorded Native American resources to be within the proposed Town of Ross Housing Element Update project area.

Review of historical literature and maps indicated historic-period activity within the Town of Ross Housing Element Update project area. The 1865 Rancho Plat for Punta de Quintin indicates the project area was located within the lands of A.R. Bucksley. The 1897 Mt. Tamalpais USGS 15-minute topographic quadrangle depicts several buildings and structures within the Town of Ross Housing Element Update project area, including a portion of the North Coast Pacific Railroad. With this in mind, there is a high potential for unrecorded historic-period archaeological resources to be within the proposed Town of Ross Housing Element Update project area.

The 1950 Mt. Tamalpais USGS 15-minute topographic quadrangle depicts numerous buildings and structures within the Town of Ross Housing Element Update project area. If

present, any unrecorded buildings or structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value.

## **RECOMMENDATIONS:**

1) There are four recorded archaeological resources in the proposed Town of Ross Housing Element Update project area. There have been twenty-two cultural resource studies that cover approximately 15% of the Town of Ross Housing Element Update project area. According to our research, there is a high potential of identifying Native American archaeological resources and a high potential of identifying historic-period archaeological resources in unsurveyed portions of the project area.

Given that the proposed Town of Ross Housing Element Update project area covers such a large area with known sensitivity, and the proposed improvements will guide future projects, it is recommended that these future projects be considered on an individual basis under the Northwest Information Center's Project Review Program. This Program is organized to aid cities and counties in meeting their CEQA obligations on a project-by-project basis. These reviews result in project specific information and recommendations. Please contact the NWIC Coordinator at 707/588-8455 for additional information.

2) If archaeological resources are encountered during construction, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

3) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: [https://ohp.parks.ca.gov/?page\\_id=28351](https://ohp.parks.ca.gov/?page_id=28351)

4) We recommend the lead agency contact the local Native American tribe(s) regarding traditional, cultural, and religious heritage values. For a complete listing of tribes in the vicinity of the project, please contact the Native American Heritage Commission at 916/373-3710.

5) Our research indicates that there are eight buildings and structures included in the OHP BERD within the Town of Ross Housing Element Update project area. NWIC base maps show eight recorded buildings or structures within the proposed Town of Ross Housing Element Update

project area. The Caltrans Bridge Inventory also indicates six bridges. Additionally, the project area has the potential to contain other unrecorded buildings or structures that meet the minimum age requirement.

Therefore, prior to commencement of project specific activities, it is recommended that the above listed resources, and any other ones that have yet to be inventoried, be assessed by a professional familiar with the architecture and history of Marin County. Please refer to the list of consultants who meet the Secretary of Interior's Standards at <http://www.chrisinfo.org>.

6) Review for possible historic-period buildings or structures has included only those sources listed in the attached bibliography and should not be considered comprehensive.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact this office if you have any questions, (707) 588-8455.

Sincerely,

Jillian Guldenbrein  
Researcher



## LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources File System, the following literature was reviewed:

Barrett, S.A.

1908 *The Ethno-Geography of the Pomo and Neighboring Indians*. In *American Archaeology and Ethnology*, vol. 6, edited by Frederic Ward Putnam, pp. 1-332, maps 1-2. University of California Publications, Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964).

General Land Office

1865 Survey Plat for Rancho Punta de Quintin, Township 1 North/Ranges 7, 8 West.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair

1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning*. Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hope, Andrew

2005 *Caltrans Statewide Historic Bridge Inventory Update*. Caltrans, Division of Environmental Analysis, Sacramento, CA.

Kelly, Isabel

1978 Coast Miwok. In *California*, edited by Robert F. Heizer, pp. 414-425. *Handbook of North American Indians*, vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Kroeber, A.L.

1925 *Handbook of the Indians of California*. Bureau of American Ethnology, Bulletin 78, Smithsonian Institution, Washington, D.C. (Reprint by Dover Publications, Inc., New York, 1976).

Milliken, Randall

1995 *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press Anthropological Papers No. 43, Menlo Park, CA.

Nelson, N.C.

1909 *Shellmounds of the San Francisco Bay Region*. University of California Publications in American Archaeology and Ethnology 7(4):309-356. Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964).

Nichols, Donald R., and Nancy A. Wright

1971 Preliminary Map of Historic Margins of Marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map. U.S. Department of the Interior, Geological Survey in cooperation with the U.S. Department of Housing and Urban Development, Washington, D.C.

State of California Department of Parks and Recreation

1976 *California Inventory of Historic Resources*. State of California Department of Parks and Recreation, Sacramento.

State of California Department of Parks and Recreation and Office of Historic Preservation  
1988 *Five Views: An Ethnic Sites Survey for California*. State of California Department of  
Parks and Recreation and Office of Historic Preservation, Sacramento.

State of California Office of Historic Preservation \*\*  
2021 *Built Environment Resources Directory*. Listing by City (through September 15, 2021).  
State of California Office of Historic Preservation, Sacramento.

\*\*Note that the Office of Historic Preservation's *Historic Properties Directory* includes National Register, State Registered Landmarks, California Points of Historical Interest, and the California Register of Historical Resources as well as Certified Local Government surveys that have undergone Section 106 review.

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-001184		1978	Edward Kandler	Cultural Resource Reconnaissance of the Corte Madera Creek Unit 4 Flood Control Project, Township of Ross, Marin County, California.	U.S. Army Corps of Engineers
S-007095		1984	Miley Paul Holman	333 Kent St. Archaeological Reconnaissance (letter report)	Holman & Associates
S-012944		1979	Robert Cartier, Barbara Bocek, and Jan Whitlow	Archeological Testing Program of Corte Madera Creek Flood Control Project - Unit 4	Archaeological Resource Management
S-013217	Voided - S-13399; Voided - S-13400; Voided - S-13401	1990	Thomas M. Origer	An Archaeological Survey for the AT&T Fiber Optics Cable, San Francisco to Point Arena, California	
S-013217a		1990	Thomas M. Origer	Archaeological findings regarding a selection of a route through Novato for the AT&T Fiber Optics Cable (letter report)	
S-013217b		1991	Thomas M. Origer	An archaeological study of revised portions of the AT&T route near Santa Rosa and Sausalito (letter report)	
S-013217c		1991	Thomas M. Origer	Archaeological study of AT&T revised fiber cable routes (letter report)	
S-013217d		1992	Thomas M. Origer	Archaeological survey of alternative fiber optics cable routes, Point Arena (letter report)	Tom Origer & Associates
S-015576	Submitter - A.R.S. Project 93-51	1993	William Roop	A Cultural Resources Evaluation of the Lands of Van Den Berg, Goodhill Road, Kent Woodlands, Marin County	Archaeological Resource Service
S-017321		1995	Vicki Beard and Thomas Origer	A Cultural Resources Study for the Mount Tamalpais Vegetation Management Project, Marin County, California	Tom Origer & Associates
S-030313	Submitter - A.R.S. Project 05-040	2005	William Roop	A Cultural Resources Evaluation of the Lands of Wynne, 44 Redwood Drive, Ross, Marin County, California.	Archaeological Resource Service
S-030906	Caltrans - Contract # 43A0089; Caltrans - EA 43-984433; Caltrans - Task Order: 01	2004	Christopher McMorris	Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges, Contract: 43A0089, Task Order: 01, EA: 43-984433, Volume I: Report and Figures	JRP Historical Consulting

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-031617	Submitter - A.R.S. Project #05-096	2006	Katherine Flynn	A Cultural Resources Evaluation of the Property of Cindy Fabian and Robert Bronson, 41 Redwood Drive, APN 073-041-30, in the Town of Ross, Marin County, California	Archaeological Resource Service
S-032891	Submitter - A.R.S. Project 06-061	2006		Results of an Archaeological Monitoring Program for the Property of Cindy Fabian and Robert Bronson, 41 Redwood Drive, APN 073-312-04, in the Town of Ross, Marin County, California	Archaeological Resource Service
S-034272		2007	Dana E. Supernowicz	New Tower ("NT") Submission Packet, FCC Form 620, Ross, SF-90550A	Earth Touch, Inc.
S-034272a		2007	Dana E. Supernowicz	Cultural Resources Study of the Ross Project Metro PCS Site No. SF-90550A 33 Sir Francis Drive Boulevard, Ross, Marin County, California 94957	EarthTouch, Inc.
S-034335		2007	Thomas M. Origer	An Archaeological Survey of the Property at 18 Redwood Drive, Town of Ross, Marin County, California	Tom Origer & Associates
S-036271		2008		Historic Property Survey Report, Lagunitas Road Bridge (27C-71) at Corte Madera Creek Replacement Project, BRLS 5176(003), Town of Ross, California	URS Corporation
S-036271a		2008	Jay Rehor	Archaeological Survey Report, Lagunitas Road Bridge (27C-71) at Corte Madera Creek Replacement Project, BRLS 5176(003) Town of Ross, California	URS Corporation
S-036271b		2008	Toni Webb	Finding of Effect for the Lagunitas Bridge Replacement Project Bridge No. 27C0071, Town of Ross, Marin County, California	JRP Historical Consulting, LLC
S-040278		2012	Sunshine Psota	Historic Property Survey Report Sir Francis Drake-Lagunitas Intersection Improvements Project, Town of Ross, Marin County	Holman and Associates
S-040278a		2012	Sunshine Psota	Archaeological Survey Report for the Sir Francis Drake - Lagunitas Intersection Improvements Project, Town of Ross, Marin County	Holman & Associates
S-040278b		2012	Sunshine Psota	Extended Phase I Proposal for Portions of the Sir Francis Drake - Lagunitas Intersection Improvements Project in Ross, Marin County	Holman & Associates

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-040278c		2012	Sunshine Psota	Extended Phase I Report for the Proposed Portions of the Sir Francis Drake - Lagunitas Intersection Improvements Project, Ross, Marin County	Holman & Associates
S-043124		2013		Phase I Cultural Resources Evaluation for the Ross Valley Sanitary District Sewer Rehabilitation FY 2014 Project, Marin County, California	Archeo-Tec
S-045692		2012	Erica Schultz and Cassidy DeBaker	Cultural Resources Investigation for the Proposed Improvement Plan for the Branson School, Ross, Marin County, California (letter report)	Garcia and Associates
S-047475		1979	Linton D. Stables, III	Historical/Architectural Assessment of Buildings and Grounds Along Corte Madera Creek in Ross, California	U.S. Army Engineer District, San Francisco
S-048813	OHP PRN - FCC071109D; OTIS Report Number - FCC_2017_0410_002	2017	Carolyn Losée	Cultural Resources Investigation for AT&T CCL04584 "Ross" 31-33 Sir Francis Drake Boulevard, Ross, Marin County, California 94957 (letter report)	Archaeological Resources Technology
S-048813a		2017	Carolyn Losee	FCC Wireless Telecommunication Bureau, Collocation ("CO") Submission Packet, FCC Form 621, AT&T CCL04584 "Ross" 31-33 Sir Francis Drake Boulevard, Ross, CA 94957	Diablo Green Consulting; Archaeological Resources Technology
S-048813b		2017	Carolyn Losee and Julianne Polanco	FCC_2017_0410_002, CCL04584 "Ross" 31-33 Sir Francis Drake Boulevard, Ross, Marin County, California 94957 (letter report)	Diablo Green Consulting; Archaeological Resources Technology; Office of Historic Preservation
S-050061		2017		Phase I Cultural Resources Evaluation for the Ross Valley Sanitary District Large Diameter Gravity Sewer Rehabilitation Project II-3, Marin County, California	Archeo-Tec, Inc.
S-050211	OTIS Report Number - COE File No. 2015-00311; OTIS Report Number - COE_2015_0923_001	2015	Matt Smeltzer	JARPA Attachment 2: Project Description Report, Glenwood Avenue Bridge Scour Mitigation Project, Ross, California (pg. 2-8)	Geomorph Design

## Report List

### NWIC File # 21-1615 Town of Ross Housing Element Update

Report No.	Other IDs	Year	Author(s)	Title	Affiliation
S-050211a		2015	Julianne Polanco and Tori White	COE_2015_0923_001, Section 106 Consultation for the Glenwood Avenue Bridge, Town of Ross, Marin County, California	Office of Historic Preservation; Department of the Army
S-053181		2017	Kara Brunzell	Historical Evaluation of the house at 14 Brookwood Lane, Ross, Marin County, California (letter report)	Brunzell Historical
S-055652	Submitter - ALTA 2019-60	2019	Dean Martorana and Sarah King-Narasimha	Archaeological Survey Report, WRA Upper Toyon Drive, Ross, Marin County, California, APNs 072-031-60+63 And 072-031-02+61	Alta Archaeological Consulting

## CALIFORNIA HISTORICAL RESOURCE STATUS CODES

(effective 5/1/2017)

### **1 Listed in the National Register (NR) or the California Register (CR)**

- 1D Contributor to a multi-component resource like a district listed in the NR by the Keeper. Listed in the CR.
- 1S Individually listed in the NR by the Keeper. Listed in the CR.
- 1CD Contributor to a multi-component resource listed in the CR by the SHRC.
- 1CS Individually listed in the CR by the SHRC.
- 1CL State Historical Landmarks (CHL) numbered 770 and above, or SHRC reevaluated CHLs that also meet CR criteria. Listed in the CR.
- 1CP State Points of Historical Interest (CPHI) nominated after December 1997 and recommended for listing by the SHRC or SHRC reevaluated CPHIs that also meet CR criteria. Listed in the CR.

### **2 Determined eligible for listing in the National Register (NR) or the California Register (CR)**

- 2B Determined eligible for the NR both individually and as a contributor to a NR eligible multi-component resource like a district in a federal regulatory process. Listed in the CR.
- 2D Contributor to a multi-component resource determined eligible for the NR by the Keeper. Listed in the CR.
- 2D2 Contributor to a multi-component resource determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2D3 Contributor to a multi-component resource determined eligible for NR by Part I Tax Certification. Listed in the CR.
- 2D4 Contributor to a multi-component resource determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.
- 2S Individually determined eligible for NR by the Keeper. Listed in the CR.
- 2S2 Individually determined eligible for NR by consensus through Section 106 process. Listed in the CR.
- 2S3 Individually determined eligible for NR by Part I Tax Certification. Listed in the CR.
- 2S4 Individually determined eligible for NR pursuant to Section 106 without review by SHPO. Listed in the CR.
- 2CB Determined eligible for CR both individually and as a contributor to a CR eligible multi-component resource by the SHRC.
- 2CD Contributor to a multi-component resource determined eligible for CR by the SHRC.
- 2CS Individually determined eligible for CR by the SHRC.

### **3 Appears eligible for National Register (NR) or California Register (CR).**

- 3B Appears eligible for NR both individually and as a contributor to a NR eligible multi-component resource like a district through survey evaluation.
- 3D Appears eligible for NR as a contributor to a NR eligible multi-component resource through survey evaluation.
- 3S Appears eligible for NR individually through survey evaluation.
  
- 3CB Appears eligible for CR both individually and as a contributor to a CR eligible multi-component resource through survey evaluation.
- 3CD Appears eligible for CR as a contributor to a CR eligible multi-component resource through survey evaluation.
- 3CS Appears eligible for CR individually through survey evaluation.

### **4 Appears eligible for National Register (NR) or State Historical Landmark (CHL) through PRC§ 5024**

- 4CM State agency owned resource added to Master List - appears to meet NR and/or CHL criterion.

### **5 Recognized as Historically Significant by Local Government**

- 5B Locally significant both individually (listed, eligible, or appears eligible) and as contributor to a multi-component resource like a district that is locally listed, designated, determined eligible, or appears eligible through survey evaluation.
- 5D1 Contributor to a multi-component resource that is listed or designated locally.
- 5D2 Contributor to a multi-component resource that is eligible for local listing or designation.
- 5D3 Appears to be a contributor to a multi-component resource that appears eligible for local listing or designation.
- 5S1 Individually listed or designated locally.
- 5S2 Individually eligible for local listing or designation.
- 5S3 Appears to be individually eligible for local listing or designation through survey evaluation.

### **6 Not Eligible for Listing or Designation as specified**

- 6C Determined ineligible for or removed from California Register (CR) by the SHRC.
- 6CD Determined ineligible for or removed from CR by the SHRC as a component of a CR listed multi-component resource. [Code to differentiate a resource that has more than one CR evaluation. Example, a resource that is on the CR as both contributor to a district and individually would still be on the CR if the district was removed/determined ineligible. This code would convey the change of a specific evaluation rather than the resource's CR status.]
- 6J State Historic Landmarks (CHL) or State Points of Historical Interest (SPHI) determined ineligible for or removed as a CHL or SPHI by the SHRC.
- 6L Determined ineligible for local listing or designation through local government review process; may warrant special consideration in local planning.
- 6T Determined ineligible for NR through Part I Tax Certification process.
- 6U Determined ineligible for NR pursuant to Section 106 without review by SHPO.
- 6W Removed from NR by the Keeper.
- 6X Determined ineligible for NR by the SHRC or the Keeper.
- 6Y Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or local listing.
- 6Z Found ineligible for NR, CR or local designation through survey evaluation.
- 6WM Removed from Master List because no longer state owned.
- 6XM Removed from Master List because of historic feature loss or further evaluation.
- 6YM State agency owned resource determined ineligible for Master List.

### **7 Not Evaluated for National Register (NR) or California Register (CR) or Needs Re-evaluation**

- 7E Treated as eligible for the purpose of OHP review.
- 7J Received by OHP for evaluation or action but not yet evaluated.
- 7K Submitted to OHP for action but not reevaluated.
- 7L State Historical Landmarks 1-769 – that do not meet CR criteria.
- 7M Submitted to OHP but not evaluated - referred to NPS.
- 7N Needs to be reevaluated - formerly coded as may become NR eligible with specific conditions.
- 7N1 Needs to be reevaluated (former status code 4) - may become NR eligible with restoration or other specific conditions.
- 7P State Point of Historical Interests that do not meet CR criteria.
- 7R Identified in Reconnaissance Level Survey or in an Area of Potential Effect (APE): Not evaluated.
- 7W Submitted to OHP for action – withdrawn or inactive.

## NATIVE AMERICAN HERITAGE COMMISSION

June 7, 2022

Matthew Weintraub  
Town of Ross

Via Email to: [mweintraub@townofross.org](mailto:mweintraub@townofross.org)

**Re: Native American Consultation, Pursuant to Senate Bill 18 (SB18), Government Codes §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Town of Ross Housing Element Update Project, Marin County**

Dear Mr. Weintraub:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties or projects.

Government Codes §65352.3 and §65352.4 require local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to cultural places when creating or amending General Plans, Specific Plans and Community Plans.

Public Resources Codes §21080.3.1 and §21080.3.2 requires public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, protecting, and/or mitigating impacts to tribal cultural resources as defined, for California Environmental Quality Act (CEQA) projects.

The law does not preclude local governments and agencies from initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction. The NAHC believes that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

Best practice for the AB52 process and in accordance with Public Resources Code §21080.3.1(d), is to do the following:

*Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.*

The NAHC also recommends, but does not require that lead agencies include in their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential affect (APE), such as:



CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

SECRETARY  
**Sara Dutschke**  
Miwok

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

COMMISSIONER  
**Buffy McQuillen**  
Yokayo Pomo, Yuki,  
Nomlaki

COMMISSIONER  
**Wayne Nelson**  
Luiseño

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

EXECUTIVE SECRETARY  
**Raymond C. Hitchcock**  
Miwok/Nisenan

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)



1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
  - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE, such as known archaeological sites;
  - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
  - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the APE; and
  - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.
2. The results of any archaeological inventory survey that was conducted, including:
  - Any report that may contain site forms, site significance, and suggested mitigation measures.  
  
All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.
3. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event, that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address:

[Cody.Campagne@nahc.ca.gov](mailto:Cody.Campagne@nahc.ca.gov).

Sincerely,

*Cody Campagne*

Cody Campagne  
Cultural Resources Analyst

Attachment

**Native American Heritage Commission  
Tribal Consultation List  
Marin County  
6/7/2022**

***Federated Indians of Graton  
Rancheria***

Greg Sarris, Chairperson  
6400 Redwood Drive, Ste 300      Coast Miwok  
Rohnert Park, CA, 94928      Pomo  
Phone: (707) 566 - 2288  
Fax: (707) 566-2291  
gbuvelot@gratonrancheria.com

***Guidiville Indian Rancheria***

Donald Duncan, Chairperson  
P.O. Box 339      Pomo  
Talmage, CA, 95481  
Phone: (707) 462 - 3682  
Fax: (707) 462-9183  
admin@guidiville.net

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3, 65352.4 et seq. and Public Resources Code Sections 21080.3.1 for the proposed Town of Ross Housing Element Update Project, Marin County.

June 17, 2022

Donald Duncan  
Chairperson  
Guidiville Indian Rancheria  
P.O. Box 339  
Talmage, CA, 95481

**Re: Native American and Tribal Consultation under SB 18 and AB 52**

Dear Mr. Duncan,

The Town of Ross is preparing an update to the Housing Element of its General Plan ('Project'). The Planning Area for the Housing Element covers the corporate limits of the Town of Ross as shown in the attached maps. Figure 1 depicts the 1,024-acre Planning Area, including parcels, building footprints, creeks, and the Town of Ross boundary. Figure 2 shows the USGS 7.5" topographic quadrangle that covers the Planning Area.

The 2023-31 Ross Housing Element is the Town's plan to address local housing needs. As required under State law, it will identify sites available for housing and include a realistic projection of their capacity, along with policies and programs to address special needs groups and constraints to housing production. For the 8-year planning period, the Town must plan to accommodate 111 new housing units. As a largely built out community with few vacant sites, it is anticipated that the majority of these new units will be accessory dwelling units built on existing single-family lots, with some small-scale multi-family housing in the downtown area, the Marin Art and Garden Center site, and City-owned property along Sir Francis Drake Boulevard. The Project will also involve a technical update to the Safety Element to incorporate new analysis of emergency evacuation capacity. More information about the Housing Element update can be found at [www.townofross.org](http://www.townofross.org).

This letter serves to invite consultation in accordance with California Government Code Sections 65352.3 – 65352.4 per Senate Bill 18 (SB 18). SB 18 requires local governments to conduct meaningful consultation with California Native American tribes prior to adopting an update to the General Plan, for the purpose of protecting, or mitigating impacts to, cultural places. To assist in your evaluation of the Project, the Town has requested a Sacred Lands File (SFL) check through the NAHC. The result of the Sacred Lands File (SFL) check conducted through the Native American Heritage Commission was negative.

This letter also serves to initiate consultation pursuant to Assembly Bill 52 (AB 52, Chapter 532, Statutes of 2014), to evaluate the Project's potential impacts to tribal cultural resources as part of the Project's environmental review under CEQA. The Town has determined that an Environmental Impact Report (EIR) is required for the Project, and a Notice of Preparation of the EIR will be publicly released later this summer. We respectfully invite you to consult on and participate in the review process for this Project.

Your input is important to the Town's planning process. Please advise the Town in writing if you wish to initiate consultations with the Town on the Project. Under the provisions of SB 18, you have 90 days from the date of this notice to advise the Town if you are interested in further consultation on the Project.

Page 2

RE: Native American and Tribal Consultation under SB 18 and AB 52

June 17, 2022

Under the provisions of AB 52, you have 30 days from the receipt of this notice to advise the Town if you are interested in consultation as part of CEQA environmental review. After your written request is received, we will contact you within 30 calendar days to begin the consultation process.

If the Town does not receive a written request within 30 or 90 calendar days, we will conclude that the invitation to consult been declined. This notification does not limit the ability of the Tribe to submit information to the Town or comment on the EIR.

Sincerely,

REBECCA MARKWICK

Planning and Building Director

rmarkwick@townofross.org

Office (415) 453-1453 Ext. 121.

Attachments:

- Planning Area Map
- USGS 7.5' Quadrangle Map

June 17, 2022

Greg Sarris  
Chairperson  
Federated Indians of Graton Rancheria  
6400 Redwood Drive, Ste 300  
Rohnert Park, CA, 94928

**Re: Native American and Tribal Consultation under SB 18 and AB 52**

Dear Mr. Sarris,

The Town of Ross is preparing an update to the Housing Element of its General Plan ('Project'). The Planning Area for the Housing Element covers the corporate limits of the Town of Ross as shown in the attached maps. Figure 1 depicts the 1,024-acre Planning Area, including parcels, building footprints, creeks, and the Town of Ross boundary. Figure 2 shows the USGS 7.5" topographic quadrangle that covers the Planning Area.

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June 17, 2022

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If the Town does not receive a written request within 30 or 90 calendar days, we will conclude that the invitation to consult been declined. This notification does not limit the ability of the Tribe to submit information to the Town or comment on the EIR.

Sincerely,

REBECCA MARKWICK

Planning and Building Director

rmarkwick@townofross.org

Office (415) 453-1453 Ext. 121.

Attachments:

- Planning Area Map
- USGS 7.5' Quadrangle Map

# APPENDIX D: GHG DATA

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Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Ross Existing  
Marin County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	69.60	1000sqft	1.60	69,600.00	0
High School	757.00	1000sqft	17.38	757,000.00	0
Place of Worship	95.70	1000sqft	2.20	95,700.00	0
City Park	71.60	Acre	71.60	3,118,896.00	0
Apartments Low Rise	183.00	Dwelling Unit	11.44	183,000.00	523
Single Family Housing	2,018.00	Dwelling Unit	655.19	3,632,400.00	5771
Strip Mall	882.60	1000sqft	20.26	882,600.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	203.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics -
- Land Use -
- Construction Phase - no construction
- Off-road Equipment - none
- Off-road Equipment - none
- Off-road Equipment - no construction

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Off-road Equipment - none

Off-road Equipment - none

Off-road Equipment - none

Trips and VMT - none

On-road Fugitive Dust - none

Demolition - none

Grading - none

Architectural Coating - none

Vehicle Trips - our own calculations

Woodstoves - no woodstoves

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	902,450.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,707,350.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,575,395.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	7,726,185.00	0.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	880.00	0.00
tblConstructionPhase	NumDays	12,400.00	0.00
tblConstructionPhase	NumDays	800.00	0.00
tblConstructionPhase	NumDays	1,240.00	0.00
tblConstructionPhase	NumDays	880.00	0.00
tblConstructionPhase	NumDays	480.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00



Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblTripsAndVMT	VendorTripNumber	1,042.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,831.00	0.00
tblTripsAndVMT	WorkerTripNumber	566.00	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	20.00	0.00
tblVehicleTrips	CC_TTP	17.20	0.00
tblVehicleTrips	CC_TTP	95.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	75.00	0.00
tblVehicleTrips	CW_TTP	77.80	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	34.00	0.00

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	5.70	0.00
tblVehicleTrips	HO_TL	5.70	0.00
tblVehicleTrips	HO_TTP	54.00	0.00
tblVehicleTrips	HO_TTP	54.00	0.00
tblVehicleTrips	HS_TL	4.80	0.00
tblVehicleTrips	HS_TL	4.80	0.00
tblVehicleTrips	HS_TTP	15.00	0.00
tblVehicleTrips	HS_TTP	15.00	0.00
tblVehicleTrips	HW_TL	10.80	6.00
tblVehicleTrips	HW_TL	10.80	6.00
tblVehicleTrips	HW_TTP	31.00	100.00
tblVehicleTrips	HW_TTP	31.00	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	16.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	50.00	100.00
tblVehicleTrips	PR_TP	75.00	100.00
tblVehicleTrips	PR_TP	64.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	8.14	0.63
tblVehicleTrips	ST_TR	1.96	0.15
tblVehicleTrips	ST_TR	3.98	0.31
tblVehicleTrips	ST_TR	5.99	0.46
tblVehicleTrips	ST_TR	9.54	0.73
tblVehicleTrips	ST_TR	42.04	3.23
tblVehicleTrips	SU_TR	6.28	0.48
tblVehicleTrips	SU_TR	2.19	0.17
tblVehicleTrips	SU_TR	1.71	0.13
tblVehicleTrips	SU_TR	27.63	2.12
tblVehicleTrips	SU_TR	8.55	0.66
tblVehicleTrips	SU_TR	20.43	1.57
tblVehicleTrips	WD_TR	7.32	0.56
tblVehicleTrips	WD_TR	0.78	0.06
tblVehicleTrips	WD_TR	33.98	2.61
tblVehicleTrips	WD_TR	14.07	1.08
tblVehicleTrips	WD_TR	6.95	0.53
tblVehicleTrips	WD_TR	9.44	0.73
tblVehicleTrips	WD_TR	44.32	3.41
tblWoodstoves	NumberCatalytic	3.66	0.00
tblWoodstoves	NumberCatalytic	80.72	0.00
tblWoodstoves	NumberNoncatalytic	3.66	0.00
tblWoodstoves	NumberNoncatalytic	80.72	0.00

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2080	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2083	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	37.8787	0.3792	29.3560	0.0218		1.8742	1.8742		1.8742	1.8742	158.5835	93.1373	251.7207	0.0269	0.0152	256.9265
Energy	0.5474	4.7365	2.4232	0.0299		0.3782	0.3782		0.3782	0.3782	0.0000	8,229.2571	8,229.2571	0.5588	0.1545	8,289.2557
Mobile	0.6416	0.6079	5.6618	0.0112	1.2455	8.2700e-003	1.2537	0.3325	7.7000e-003	0.3402	0.0000	1,033.5170	1,033.5170	0.0727	0.0479	1,049.6008
Waste						0.0000	0.0000		0.0000	0.0000	1,089.4931	0.0000	1,089.4931	64.3872	0.0000	2,699.1730
Water						0.0000	0.0000		0.0000	0.0000	79.5474	220.6015	300.1489	8.2060	0.1972	564.0769
<b>Total</b>	<b>39.0677</b>	<b>5.7237</b>	<b>37.4410</b>	<b>0.0629</b>	<b>1.2455</b>	<b>2.2607</b>	<b>3.5061</b>	<b>0.3325</b>	<b>2.2601</b>	<b>2.5926</b>	<b>1,327.6240</b>	<b>9,576.5128</b>	<b>10,904.1368</b>	<b>73.2516</b>	<b>0.4148</b>	<b>12,859.0329</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	37.8787	0.3792	29.3560	0.0218		1.8742	1.8742		1.8742	1.8742	158.5835	93.1373	251.7207	0.0269	0.0152	256.9265
Energy	0.5474	4.7365	2.4232	0.0299		0.3782	0.3782		0.3782	0.3782	0.0000	8,229.2571	8,229.2571	0.5588	0.1545	8,289.2557
Mobile	0.6416	0.6079	5.6618	0.0112	1.2455	8.2700e-003	1.2537	0.3325	7.7000e-003	0.3402	0.0000	1,033.5170	1,033.5170	0.0727	0.0479	1,049.6008
Waste						0.0000	0.0000		0.0000	0.0000	1,089.4931	0.0000	1,089.4931	64.3872	0.0000	2,699.1730
Water						0.0000	0.0000		0.0000	0.0000	79.5474	220.6015	300.1489	8.2060	0.1972	564.0769
<b>Total</b>	<b>39.0677</b>	<b>5.7237</b>	<b>37.4410</b>	<b>0.0629</b>	<b>1.2455</b>	<b>2.2607</b>	<b>3.5061</b>	<b>0.3325</b>	<b>2.2601</b>	<b>2.5926</b>	<b>1,327.6240</b>	<b>9,576.5128</b>	<b>10,904.1368</b>	<b>73.2516</b>	<b>0.4148</b>	<b>12,859.0329</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/13/2023	1/12/2023	5	0	
2	Site Preparation	Site Preparation	2/6/2026	2/5/2026	5	0	
3	Grading	Grading	12/10/2027	12/9/2027	5	0	

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

4	Building Construction	Building Construction	9/10/2032	9/9/2032	5	0
5	Paving	Paving	3/22/2080	3/21/2080	5	0
6	Architectural Coating	Architectural Coating	8/6/2083	8/5/2083	5	0

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	158	0.38
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Scrapers	0	0.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	0	0.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36





























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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.7 Architectural Coating - 2083**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6416	0.6079	5.6618	0.0112	1.2455	8.2700e-003	1.2537	0.3325	7.7000e-003	0.3402	0.0000	1,033.5170	1,033.5170	0.0727	0.0479	1,049.6008
Unmitigated	0.6416	0.6079	5.6618	0.0112	1.2455	8.2700e-003	1.2537	0.3325	7.7000e-003	0.3402	0.0000	1,033.5170	1,033.5170	0.0727	0.0479	1,049.6008

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	102.48	115.29	87.84	223,245	223,245
City Park	0.00	0.00	0.00		
Government (Civic Center)	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Single Family Housing	1,473.14	1,473.14	1331.88	3,173,265	3,173,265
Strip Mall	0.00	0.00	0.00		
<b>Total</b>	<b>1,575.62</b>	<b>1,588.43</b>	<b>1,419.72</b>	<b>3,396,510</b>	<b>3,396,510</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	6.00	0.00	0.00	100.00	0.00	0.00	100	0	0
City Park	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0
Government (Civic Center)	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0
High School	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	6.00	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
City Park	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Government (Civic Center)	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
High School	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Place of Worship	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Single Family Housing	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Strip Mall	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,812.2206	2,812.2206	0.4550	0.0552	2,840.0284
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,812.2206	2,812.2206	0.4550	0.0552	2,840.0284
NaturalGas Mitigated	0.5474	4.7365	2.4232	0.0299		0.3782	0.3782		0.3782	0.3782	0.0000	5,417.0365	5,417.0365	0.1038	0.0993	5,449.2272
NaturalGas Unmitigated	0.5474	4.7365	2.4232	0.0299		0.3782	0.3782		0.3782	0.3782	0.0000	5,417.0365	5,417.0365	0.1038	0.0993	5,449.2272

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.57142e+006	0.0193	0.1646	0.0700	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.5848	190.5848	3.6500e-003	3.4900e-003	191.7174
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.33284e+006	7.1900e-003	0.0653	0.0549	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	71.1254	71.1254	1.3600e-003	1.3000e-003	71.5481
High School	1.23542e+007	0.0666	0.6056	0.5087	3.6300e-003		0.0460	0.0460		0.0460	0.0460	0.0000	659.2693	659.2693	0.0126	0.0121	663.1870
Place of Worship	2.35135e+006	0.0127	0.1153	0.0968	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003	0.0000	125.4769	125.4769	2.4000e-003	2.3000e-003	126.2226
Single Family Housing	7.78769e+007	0.4199	3.5885	1.5270	0.0229		0.2901	0.2901		0.2901	0.2901	0.0000	4,155.8091	4,155.8091	0.0797	0.0762	4,180.5050
Strip Mall	4.02466e+006	0.0217	0.1973	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.7710	214.7710	4.1200e-003	3.9400e-003	216.0473
<b>Total</b>		<b>0.5474</b>	<b>4.7365</b>	<b>2.4232</b>	<b>0.0298</b>		<b>0.3782</b>	<b>0.3782</b>		<b>0.3782</b>	<b>0.3782</b>	<b>0.0000</b>	<b>5,417.0365</b>	<b>5,417.0365</b>	<b>0.1038</b>	<b>0.0993</b>	<b>5,449.2272</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.57142e+006	0.0193	0.1646	0.0700	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.5848	190.5848	3.6500e-003	3.4900e-003	191.7174
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.33284e+006	7.1900e-003	0.0653	0.0549	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	71.1254	71.1254	1.3600e-003	1.3000e-003	71.5481
High School	1.23542e+007	0.0666	0.6056	0.5087	3.6300e-003		0.0460	0.0460		0.0460	0.0460	0.0000	659.2693	659.2693	0.0126	0.0121	663.1870
Place of Worship	2.35135e+006	0.0127	0.1153	0.0968	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003	0.0000	125.4769	125.4769	2.4000e-003	2.3000e-003	126.2226
Single Family Housing	7.78769e+007	0.4199	3.5885	1.5270	0.0229		0.2901	0.2901		0.2901	0.2901	0.0000	4,155.8091	4,155.8091	0.0797	0.0762	4,180.5050
Strip Mall	4.02466e+006	0.0217	0.1973	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.7710	214.7710	4.1200e-003	3.9400e-003	216.0473
<b>Total</b>		<b>0.5474</b>	<b>4.7365</b>	<b>2.4232</b>	<b>0.0298</b>		<b>0.3782</b>	<b>0.3782</b>		<b>0.3782</b>	<b>0.3782</b>	<b>0.0000</b>	<b>5,417.0365</b>	<b>5,417.0365</b>	<b>0.1038</b>	<b>0.0993</b>	<b>5,449.2272</b>

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	737995	68.2821	0.0111	1.3400e-003	68.9573
City Park	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	837984	77.5334	0.0125	1.5200e-003	78.3001
High School	3.30809e+006	306.0770	0.0495	6.0000e-003	309.1035
Place of Worship	711051	65.7891	0.0106	1.2900e-003	66.4397
Single Family Housing	1.57616e+007	1,458.3254	0.2359	0.0286	1,472.7456
Strip Mall	9.03782e+006	836.2136	0.1353	0.0164	844.4822
<b>Total</b>		<b>2,812.2206</b>	<b>0.4550</b>	<b>0.0552</b>	<b>2,840.0284</b>

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	737995	68.2821	0.0111	1.3400e-003	68.9573
City Park	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	837984	77.5334	0.0125	1.5200e-003	78.3001
High School	3.30809e+006	306.0770	0.0495	6.0000e-003	309.1035
Place of Worship	711051	65.7891	0.0106	1.2900e-003	66.4397
Single Family Housing	1.57616e+007	1,458.3254	0.2359	0.0286	1,472.7456
Strip Mall	9.03782e+006	836.2136	0.1353	0.0164	844.4822
<b>Total</b>		<b>2,812.2206</b>	<b>0.4550</b>	<b>0.0552</b>	<b>2,840.0284</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	37.8787	0.3792	29.3560	0.0218		1.8742	1.8742		1.8742	1.8742	158.5835	93.1373	251.7207	0.0269	0.0152	256.9265
Unmitigated	37.8787	0.3792	29.3560	0.0218		1.8742	1.8742		1.8742	1.8742	158.5835	93.1373	251.7207	0.0269	0.0152	256.9265

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.6270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	21.9794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	11.7806	0.1910	13.0116	0.0209		1.7836	1.7836		1.7836	1.7836	158.5835	66.4083	224.9917	1.2700e-003	0.0152	229.5562
Landscaping	0.4918	0.1882	16.3444	8.6000e-004		0.0907	0.0907		0.0907	0.0907	0.0000	26.7290	26.7290	0.0257	0.0000	27.3703
<b>Total</b>	<b>37.8787</b>	<b>0.3793</b>	<b>29.3560</b>	<b>0.0218</b>		<b>1.8742</b>	<b>1.8742</b>		<b>1.8742</b>	<b>1.8742</b>	<b>158.5835</b>	<b>93.1373</b>	<b>251.7207</b>	<b>0.0269</b>	<b>0.0152</b>	<b>256.9265</b>

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.6270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	21.9794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	11.7806	0.1910	13.0116	0.0209		1.7836	1.7836		1.7836	1.7836	158.5835	66.4083	224.9917	1.2700e-003	0.0152	229.5562
Landscaping	0.4918	0.1882	16.3444	8.6000e-004		0.0907	0.0907		0.0907	0.0907	0.0000	26.7290	26.7290	0.0257	0.0000	27.3703
<b>Total</b>	<b>37.8787</b>	<b>0.3793</b>	<b>29.3560</b>	<b>0.0218</b>		<b>1.8742</b>	<b>1.8742</b>		<b>1.8742</b>	<b>1.8742</b>	<b>158.5835</b>	<b>93.1373</b>	<b>251.7207</b>	<b>0.0269</b>	<b>0.0152</b>	<b>256.9265</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	300.1489	8.2060	0.1972	564.0769
Unmitigated	300.1489	8.2060	0.1972	564.0769

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	11.9232 / 7.51679	12.1862	0.3899	9.3400e-003	24.7160
City Park	0 / 85.3101	27.6262	4.4700e-003	5.4000e-004	27.8994
Government (Civic Center)	13.8267 / 8.47444	14.0532	0.4521	0.0108	28.5826
High School	25.1359 / 64.6352	41.4897	0.8245	0.0200	68.0607
Place of Worship	2.99435 / 4.68347	3.9657	0.0981	2.3600e-003	7.1214
Single Family Housing	131.481 / 82.8901	134.3807	4.2993	0.1030	272.5509
Strip Mall	65.3764 / 40.0694	66.4472	2.1377	0.0512	135.1460
<b>Total</b>		<b>300.1489</b>	<b>8.2060</b>	<b>0.1973</b>	<b>564.0769</b>

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	11.9232 / 7.51679	12.1862	0.3899	9.3400e-003	24.7160
City Park	0 / 85.3101	27.6262	4.4700e-003	5.4000e-004	27.8994
Government (Civic Center)	13.8267 / 8.47444	14.0532	0.4521	0.0108	28.5826
High School	25.1359 / 64.6352	41.4897	0.8245	0.0200	68.0607
Place of Worship	2.99435 / 4.68347	3.9657	0.0981	2.3600e-003	7.1214
Single Family Housing	131.481 / 82.8901	134.3807	4.2993	0.1030	272.5509
Strip Mall	65.3764 / 40.0694	66.4472	2.1377	0.0512	135.1460
<b>Total</b>		<b>300.1489</b>	<b>8.2060</b>	<b>0.1973</b>	<b>564.0769</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,089.493 1	64.3872	0.0000	2,699.173 0
Unmitigated	1,089.493 1	64.3872	0.0000	2,699.173 0

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	84.18	17.0878	1.0099	0.0000	42.3343
City Park	6.16	1.2504	0.0739	0.0000	3.0979
Government (Civic Center)	396.72	80.5306	4.7592	0.0000	199.5111
High School	984.1	199.7634	11.8057	0.0000	494.9054
Place of Worship	545.49	110.7295	6.5439	0.0000	274.3278
Single Family Housing	2423.82	492.0136	29.0772	0.0000	1,218.9428
Strip Mall	926.73	188.1178	11.1174	0.0000	466.0539
<b>Total</b>		<b>1,089.4931</b>	<b>64.3872</b>	<b>0.0000</b>	<b>2,699.1730</b>

Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	84.18	17.0878	1.0099	0.0000	42.3343
City Park	6.16	1.2504	0.0739	0.0000	3.0979
Government (Civic Center)	396.72	80.5306	4.7592	0.0000	199.5111
High School	984.1	199.7634	11.8057	0.0000	494.9054
Place of Worship	545.49	110.7295	6.5439	0.0000	274.3278
Single Family Housing	2423.82	492.0136	29.0772	0.0000	1,218.9428
Strip Mall	926.73	188.1178	11.1174	0.0000	466.0539
<b>Total</b>		<b>1,089.4931</b>	<b>64.3872</b>	<b>0.0000</b>	<b>2,699.1730</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Ross Existing - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Ross Proposed Project  
Marin County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government (Civic Center)	69.60	1000sqft	1.60	69,600.00	0
High School	757.00	1000sqft	17.38	757,000.00	0
Place of Worship	95.70	1000sqft	2.20	95,700.00	0
City Park	71.60	Acre	71.60	3,118,896.00	0
Apartments Low Rise	183.00	Dwelling Unit	11.44	183,000.00	523
Single Family Housing	2,164.00	Dwelling Unit	702.60	3,895,200.00	6189
Strip Mall	882.60	1000sqft	20.26	882,600.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	69
<b>Climate Zone</b>	5			<b>Operational Year</b>	2025
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	203.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics -
- Land Use -
- Construction Phase - no construction
- Off-road Equipment - none
- Off-road Equipment - none
- Off-road Equipment - no construction

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Off-road Equipment - none

Off-road Equipment - none

Off-road Equipment - none

Trips and VMT - none

On-road Fugitive Dust - none

Demolition - none

Grading - none

Architectural Coating - none

Vehicle Trips - our own calculations

Woodstoves - no woodstoves

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	902,450.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,707,350.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	2,752,785.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	8,258,355.00	0.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	900.00	0.00
tblConstructionPhase	NumDays	540.00	0.00
tblConstructionPhase	NumDays	1,395.00	0.00
tblConstructionPhase	NumDays	13,950.00	0.00
tblConstructionPhase	NumDays	990.00	0.00
tblConstructionPhase	NumDays	990.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblTripsAndVMT	VendorTripNumber	1,058.00	0.00
tblTripsAndVMT	WorkerTripNumber	2,884.00	0.00
tblTripsAndVMT	WorkerTripNumber	577.00	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	20.00	0.00
tblVehicleTrips	CC_TTP	17.20	0.00
tblVehicleTrips	CC_TTP	95.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	75.00	0.00
tblVehicleTrips	CW_TTP	77.80	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	DV_TP	34.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TL	5.70	0.00
tblVehicleTrips	HO_TL	5.70	0.00
tblVehicleTrips	HO_TTP	54.00	0.00
tblVehicleTrips	HO_TTP	54.00	0.00
tblVehicleTrips	HS_TL	4.80	0.00
tblVehicleTrips	HS_TL	4.80	0.00
tblVehicleTrips	HS_TTP	15.00	0.00
tblVehicleTrips	HS_TTP	15.00	0.00
tblVehicleTrips	HW_TL	10.80	5.90
tblVehicleTrips	HW_TL	10.80	5.90
tblVehicleTrips	HW_TTP	31.00	100.00
tblVehicleTrips	HW_TTP	31.00	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	16.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	50.00	100.00
tblVehicleTrips	PR_TP	75.00	100.00
tblVehicleTrips	PR_TP	64.00	100.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	8.14	0.66
tblVehicleTrips	ST_TR	1.96	0.16
tblVehicleTrips	ST_TR	3.98	0.32
tblVehicleTrips	ST_TR	5.99	0.49
tblVehicleTrips	ST_TR	9.54	0.77
tblVehicleTrips	ST_TR	42.04	3.41
tblVehicleTrips	SU_TR	6.28	0.51
tblVehicleTrips	SU_TR	2.19	0.18
tblVehicleTrips	SU_TR	1.71	0.14
tblVehicleTrips	SU_TR	27.63	2.24
tblVehicleTrips	SU_TR	8.55	0.69
tblVehicleTrips	SU_TR	20.43	1.66
tblVehicleTrips	WD_TR	7.32	0.59
tblVehicleTrips	WD_TR	0.78	0.06
tblVehicleTrips	WD_TR	33.98	2.75
tblVehicleTrips	WD_TR	14.07	1.14
tblVehicleTrips	WD_TR	6.95	0.56
tblVehicleTrips	WD_TR	9.44	0.77
tblVehicleTrips	WD_TR	44.32	3.59
tblWoodstoves	NumberCatalytic	3.66	0.00
tblWoodstoves	NumberCatalytic	86.56	0.00
tblWoodstoves	NumberNoncatalytic	3.66	0.00
tblWoodstoves	NumberNoncatalytic	86.56	0.00

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2087	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2091	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	39.9454	0.4050	31.3478	0.0233		2.0048	2.0048		2.0048	2.0048	169.6597	99.4647	269.1244	0.0287	0.0163	274.6908
Energy	0.5778	4.9961	2.5336	0.0315		0.3992	0.3992		0.3992	0.3992	0.0000	8,635.4333	8,635.4333	0.5816	0.1620	8,698.2619
Mobile	0.7164	0.6753	6.2912	0.0124	1.3776	9.1600e-003	1.3867	0.3678	8.5300e-003	0.3763	0.0000	1,143.7461	1,143.7461	0.0810	0.0532	1,161.6294
Waste						0.0000	0.0000		0.0000	0.0000	1,125.1302	0.0000	1,125.1302	66.4933	0.0000	2,787.4624
Water						0.0000	0.0000		0.0000	0.0000	82.5653	227.3059	309.8712	8.5170	0.2047	583.7956
<b>Total</b>	<b>41.2396</b>	<b>6.0764</b>	<b>40.1726</b>	<b>0.0672</b>	<b>1.3776</b>	<b>2.4131</b>	<b>3.7907</b>	<b>0.3678</b>	<b>2.4125</b>	<b>2.7803</b>	<b>1,377.3552</b>	<b>10,105.9500</b>	<b>11,483.3051</b>	<b>75.7017</b>	<b>0.4362</b>	<b>13,505.8401</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	39.9454	0.4050	31.3478	0.0233		2.0048	2.0048		2.0048	2.0048	169.6597	99.4647	269.1244	0.0287	0.0163	274.6908
Energy	0.5778	4.9961	2.5336	0.0315		0.3992	0.3992		0.3992	0.3992	0.0000	8,635.4333	8,635.4333	0.5816	0.1620	8,698.2619
Mobile	0.7164	0.6753	6.2912	0.0124	1.3776	9.1600e-003	1.3867	0.3678	8.5300e-003	0.3763	0.0000	1,143.7461	1,143.7461	0.0810	0.0532	1,161.6294
Waste						0.0000	0.0000		0.0000	0.0000	1,125.1302	0.0000	1,125.1302	66.4933	0.0000	2,787.4624
Water						0.0000	0.0000		0.0000	0.0000	82.5653	227.3059	309.8712	8.5170	0.2047	583.7956
<b>Total</b>	<b>41.2396</b>	<b>6.0764</b>	<b>40.1726</b>	<b>0.0672</b>	<b>1.3776</b>	<b>2.4131</b>	<b>3.7907</b>	<b>0.3678</b>	<b>2.4125</b>	<b>2.7803</b>	<b>1,377.3552</b>	<b>10,105.9500</b>	<b>11,483.3051</b>	<b>75.7017</b>	<b>0.4362</b>	<b>13,505.8401</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/13/2023	1/12/2023	5	0	
2	Site Preparation	Site Preparation	6/26/2026	6/25/2026	5	0	
3	Grading	Grading	7/21/2028	7/20/2028	5	0	

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4	Building Construction	Building Construction	11/25/2033	11/24/2033	5	0
5	Paving	Paving	5/16/2087	5/15/2087	5	0
6	Architectural Coating	Architectural Coating	3/2/2091	3/1/2091	5	0

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	158	0.38
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Scrapers	0	0.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	0	0.00	89	0.20
Building Construction	Generator Sets	0	0.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36





























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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.7 Architectural Coating - 2091**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7164	0.6753	6.2912	0.0124	1.3776	9.1600e-003	1.3867	0.3678	8.5300e-003	0.3763	0.0000	1,143.7461	1,143.7461	0.0810	0.0532	1,161.6294
Unmitigated	0.7164	0.6753	6.2912	0.0124	1.3776	9.1600e-003	1.3867	0.3678	8.5300e-003	0.3763	0.0000	1,143.7461	1,143.7461	0.0810	0.0532	1,161.6294

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	107.97	120.78	93.33	231,315	231,315
City Park	0.00	0.00	0.00		
Government (Civic Center)	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Place of Worship	0.00	0.00	0.00		
Single Family Housing	1,666.28	1,666.28	1493.16	3,525,390	3,525,390
Strip Mall	0.00	0.00	0.00		
<b>Total</b>	<b>1,774.25</b>	<b>1,787.06</b>	<b>1,586.49</b>	<b>3,756,705</b>	<b>3,756,705</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	5.90	0.00	0.00	100.00	0.00	0.00	100	0	0
City Park	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0
Government (Civic Center)	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0
High School	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0
Place of Worship	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	5.90	0.00	0.00	100.00	0.00	0.00	100	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	100	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
City Park	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Government (Civic Center)	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
High School	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Place of Worship	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Single Family Housing	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774
Strip Mall	0.541923	0.061611	0.201809	0.122882	0.023723	0.005505	0.006748	0.003708	0.000660	0.000400	0.027531	0.000725	0.002774

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,917.7288	2,917.7288	0.4720	0.0572	2,946.5799
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,917.7288	2,917.7288	0.4720	0.0572	2,946.5799
NaturalGas Mitigated	0.5778	4.9961	2.5336	0.0315		0.3992	0.3992		0.3992	0.3992	0.0000	5,717.7045	5,717.7045	0.1096	0.1048	5,751.6820
NaturalGas Unmitigated	0.5778	4.9961	2.5336	0.0315		0.3992	0.3992		0.3992	0.3992	0.0000	5,717.7045	5,717.7045	0.1096	0.1048	5,751.6820

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.57142e+006	0.0193	0.1646	0.0700	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.5848	190.5848	3.6500e-003	3.4900e-003	191.7174
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.33284e+006	7.1900e-003	0.0653	0.0549	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	71.1254	71.1254	1.3600e-003	1.3000e-003	71.5481
High School	1.23542e+007	0.0666	0.6056	0.5087	3.6300e-003		0.0460	0.0460		0.0460	0.0460	0.0000	659.2693	659.2693	0.0126	0.0121	663.1870
Place of Worship	2.35135e+006	0.0127	0.1153	0.0968	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003	0.0000	125.4769	125.4769	2.4000e-003	2.3000e-003	126.2226
Single Family Housing	8.35112e+007	0.4503	3.8481	1.6375	0.0246		0.3111	0.3111		0.3111	0.3111	0.0000	4,456.4771	4,456.4771	0.0854	0.0817	4,482.9597
Strip Mall	4.02466e+006	0.0217	0.1973	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.7710	214.7710	4.1200e-003	3.9400e-003	216.0473
<b>Total</b>		<b>0.5778</b>	<b>4.9961</b>	<b>2.5336</b>	<b>0.0315</b>		<b>0.3992</b>	<b>0.3992</b>		<b>0.3992</b>	<b>0.3992</b>	<b>0.0000</b>	<b>5,717.7045</b>	<b>5,717.7045</b>	<b>0.1096</b>	<b>0.1048</b>	<b>5,751.6820</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	3.57142e+006	0.0193	0.1646	0.0700	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.5848	190.5848	3.6500e-003	3.4900e-003	191.7174
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	1.33284e+006	7.1900e-003	0.0653	0.0549	3.9000e-004		4.9700e-003	4.9700e-003		4.9700e-003	4.9700e-003	0.0000	71.1254	71.1254	1.3600e-003	1.3000e-003	71.5481
High School	1.23542e+007	0.0666	0.6056	0.5087	3.6300e-003		0.0460	0.0460		0.0460	0.0460	0.0000	659.2693	659.2693	0.0126	0.0121	663.1870
Place of Worship	2.35135e+006	0.0127	0.1153	0.0968	6.9000e-004		8.7600e-003	8.7600e-003		8.7600e-003	8.7600e-003	0.0000	125.4769	125.4769	2.4000e-003	2.3000e-003	126.2226
Single Family Housing	8.35112e+007	0.4503	3.8481	1.6375	0.0246		0.3111	0.3111		0.3111	0.3111	0.0000	4,456.4771	4,456.4771	0.0854	0.0817	4,482.9597
Strip Mall	4.02466e+006	0.0217	0.1973	0.1657	1.1800e-003		0.0150	0.0150		0.0150	0.0150	0.0000	214.7710	214.7710	4.1200e-003	3.9400e-003	216.0473
<b>Total</b>		<b>0.5778</b>	<b>4.9961</b>	<b>2.5336</b>	<b>0.0315</b>		<b>0.3992</b>	<b>0.3992</b>		<b>0.3992</b>	<b>0.3992</b>	<b>0.0000</b>	<b>5,717.7045</b>	<b>5,717.7045</b>	<b>0.1096</b>	<b>0.1048</b>	<b>5,751.6820</b>

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	737995	68.2821	0.0111	1.3400e-003	68.9573
City Park	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	837984	77.5334	0.0125	1.5200e-003	78.3001
High School	3.30809e+006	306.0770	0.0495	6.0000e-003	309.1035
Place of Worship	711051	65.7891	0.0106	1.2900e-003	66.4397
Single Family Housing	1.6902e+007	1,563.8336	0.2530	0.0307	1,579.2971
Strip Mall	9.03782e+006	836.2136	0.1353	0.0164	844.4822
<b>Total</b>		<b>2,917.7288</b>	<b>0.4720</b>	<b>0.0572</b>	<b>2,946.5799</b>



Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
Apartments Low Rise	737995	68.2821	0.0111	1.3400e-003	68.9573
City Park	0	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	837984	77.5334	0.0125	1.5200e-003	78.3001
High School	3.30809e+006	306.0770	0.0495	6.0000e-003	309.1035
Place of Worship	711051	65.7891	0.0106	1.2900e-003	66.4397
Single Family Housing	1.6902e+007	1,563.8336	0.2530	0.0307	1,579.2971
Strip Mall	9.03782e+006	836.2136	0.1353	0.0164	844.4822
<b>Total</b>		<b>2,917.7288</b>	<b>0.4720</b>	<b>0.0572</b>	<b>2,946.5799</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	39.9454	0.4050	31.3478	0.0233		2.0048	2.0048		2.0048	2.0048	169.6597	99.4647	269.1244	0.0287	0.0163	274.6908
Unmitigated	39.9454	0.4050	31.3478	0.0233		2.0048	2.0048		2.0048	2.0048	169.6597	99.4647	269.1244	0.0287	0.0163	274.6908

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.8120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	23.0058					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	12.6034	0.2043	13.9204	0.0224		1.9081	1.9081		1.9081	1.9081	169.6597	70.9649	240.6246	1.3600e-003	0.0163	245.5074
Landscaping	0.5243	0.2007	17.4274	9.2000e-004		0.0967	0.0967		0.0967	0.0967	0.0000	28.4998	28.4998	0.0274	0.0000	29.1835
<b>Total</b>	<b>39.9454</b>	<b>0.4050</b>	<b>31.3478</b>	<b>0.0233</b>		<b>2.0048</b>	<b>2.0048</b>		<b>2.0048</b>	<b>2.0048</b>	<b>169.6597</b>	<b>99.4647</b>	<b>269.1244</b>	<b>0.0287</b>	<b>0.0163</b>	<b>274.6908</b>

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.8120					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	23.0058					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	12.6034	0.2043	13.9204	0.0224		1.9081	1.9081		1.9081	1.9081	169.6597	70.9649	240.6246	1.3600e-003	0.0163	245.5074
Landscaping	0.5243	0.2007	17.4274	9.2000e-004		0.0967	0.0967		0.0967	0.0967	0.0000	28.4998	28.4998	0.0274	0.0000	29.1835
<b>Total</b>	<b>39.9454</b>	<b>0.4050</b>	<b>31.3478</b>	<b>0.0233</b>		<b>2.0048</b>	<b>2.0048</b>		<b>2.0048</b>	<b>2.0048</b>	<b>169.6597</b>	<b>99.4647</b>	<b>269.1244</b>	<b>0.0287</b>	<b>0.0163</b>	<b>274.6908</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	309.8712	8.5170	0.2047	583.7956
Unmitigated	309.8712	8.5170	0.2047	583.7956

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	11.9232 / 7.51679	12.1862	0.3899	9.3400e-003	24.7160
City Park	0 / 85.3101	27.6262	4.4700e-003	5.4000e-004	27.8994
Government (Civic Center)	13.8267 / 8.47444	14.0532	0.4521	0.0108	28.5826
High School	25.1359 / 64.6352	41.4897	0.8245	0.0200	68.0607
Place of Worship	2.99435 / 4.68347	3.9657	0.0981	2.3600e-003	7.1214
Single Family Housing	140.993 / 88.8871	144.1030	4.6104	0.1104	292.2696
Strip Mall	65.3764 / 40.0694	66.4472	2.1377	0.0512	135.1460
<b>Total</b>		<b>309.8712</b>	<b>8.5170</b>	<b>0.2047</b>	<b>583.7956</b>

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	11.9232 / 7.51679	12.1862	0.3899	9.3400e-003	24.7160
City Park	0 / 85.3101	27.6262	4.4700e-003	5.4000e-004	27.8994
Government (Civic Center)	13.8267 / 8.47444	14.0532	0.4521	0.0108	28.5826
High School	25.1359 / 64.6352	41.4897	0.8245	0.0200	68.0607
Place of Worship	2.99435 / 4.68347	3.9657	0.0981	2.3600e-003	7.1214
Single Family Housing	140.993 / 88.8871	144.1030	4.6104	0.1104	292.2696
Strip Mall	65.3764 / 40.0694	66.4472	2.1377	0.0512	135.1460
<b>Total</b>		<b>309.8712</b>	<b>8.5170</b>	<b>0.2047</b>	<b>583.7956</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,125.130 2	66.4933	0.0000	2,787.462 4
Unmitigated	1,125.130 2	66.4933	0.0000	2,787.462 4

Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	84.18	17.0878	1.0099	0.0000	42.3343
City Park	6.16	1.2504	0.0739	0.0000	3.0979
Government (Civic Center)	396.72	80.5306	4.7592	0.0000	199.5111
High School	984.1	199.7634	11.8057	0.0000	494.9054
Place of Worship	545.49	110.7295	6.5439	0.0000	274.3278
Single Family Housing	2599.38	527.6507	31.1833	0.0000	1,307.232 2
Strip Mall	926.73	188.1178	11.1174	0.0000	466.0539
<b>Total</b>		<b>1,125.130 2</b>	<b>66.4933</b>	<b>0.0000</b>	<b>2,787.462 4</b>



Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	84.18	17.0878	1.0099	0.0000	42.3343
City Park	6.16	1.2504	0.0739	0.0000	3.0979
Government (Civic Center)	396.72	80.5306	4.7592	0.0000	199.5111
High School	984.1	199.7634	11.8057	0.0000	494.9054
Place of Worship	545.49	110.7295	6.5439	0.0000	274.3278
Single Family Housing	2599.38	527.6507	31.1833	0.0000	1,307.2322
Strip Mall	926.73	188.1178	11.1174	0.0000	466.0539
<b>Total</b>		<b>1,125.1302</b>	<b>66.4933</b>	<b>0.0000</b>	<b>2,787.4624</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Ross Proposed Project - Marin County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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# APPENDIX E: TRANSPORTATION VMT ASSESSMENT

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# Memorandum

Date: February 7, 2023  
To: Andrew Hill, Dyett & Bhatia  
From: Bob Grandy and Jess Sandoval, Fehr & Peers  
Subject: **Town of Ross Housing Element Update – CEQA Transportation VMT Assessment**

SF22-1218

The purpose of this revised memorandum is to document a CEQA transportation VMT assessment for the purposes of environmental review for the Town of Ross Housing Element Update. The memo includes a description of the context, the transportation VMT assessment methodology, a VMT impact determination, and mitigation measures needed to address significant impacts.

## Context

### State Regulations

#### *Senate Bill (SB) 743*

With the passage of SB 743 (September 27, 2013) and the subsequent adoption of revised California Environmental Quality Act (CEQA) Guidelines in 2019, level of service (LOS) can no longer be used as a criterion for identifying significant transportation impacts for most projects under CEQA. LOS measures the average amount of delay experienced by vehicle drivers at an intersection during the most congested time of day, while the new CEQA metric (vehicle miles traveled, or VMT) measures the total number of daily miles traveled by vehicles on the roadway network and the impacts on the environment from those miles traveled.

In other words, SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. Land use projects with one or more of the following characteristics would have lesser VMT impacts:

- Higher land use densities
- Mix of project uses



- Support of a citywide jobs-housing balance (i.e., provide housing in a job rich area, or vice versa)
- Proximity to the core of a region
- Proximity to high quality transit service
- Located in highly walkable or bikeable areas

This shift in transportation impact criteria is expected to better align transportation impact analysis and mitigation outcomes with the state's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Specific to SB 743, Section 15064.3(c) of the revised Guidelines states that, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." However, CEQA Statute Section 21099(b)(2) states that, "upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the Guidelines."

Although the State's Governor's Office of Planning and Research (OPR) provides recommendations for adopting new VMT analysis guidelines, lead agencies have the final say in designing their methodology. Lead agencies must select their preferred method of estimating and forecasting VMT, their preferred significance thresholds for baseline and cumulative conditions, and the mitigation strategies they consider feasible. Lead agencies must prove that their selected analysis methodology aligns with SB 743's goals to promote infill development, reduce GHGs, and reduce VMT.

## Methodology

### VMT Forecasts

This section describes the methodology for VMT forecasts developed for this transportation assessment and as supporting data for other assessments in the CEQA document including the GHG assessment. The new CEQA Guidelines Section 15064.3(b)(4) establishes that the lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence.

The VMT forecasts generated for this CEQA assessment were produced using the Transportation Authority of Marin Demand Model (TAMDM). For this CEQA assessment, the 2015 base year for TAMDM was updated and validated for a new 2019 base year for the City of San Rafael General Plan Update. A key reason for applying the updated 2019 base year is that it includes the SMART



rail system that was not in place in 2015. This analysis includes a 2040 No Project scenario that is based on the TAMDM horizon year and reflects land use changes and transportation improvements consistent with the San Rafael General Plan 2040 adopted in 2021. The 2019 base year model developed for the San Rafael General Plan Update was validated based on model confidence thresholds defined in the California Transportation Commission 2017 RTP guidelines. VMT estimates were produced using the updated 2019 TAMDM model for all 1,400 analysis zones within Marin County as well as for the entire Bay Area.

### Housing Element Land Use Forecasts

A breakdown of the number of housing units added with the Ross Housing Element Update, by unit type and income range, is provided below in **Table 1**.

**Table 1: Added Housing Units**

Unit Type	Resident Income Range		Total Units
	Low/Very Low	Average/Moderate	
Single-Family Residential	0	17	17
Multi-Family Residential	18	11	29
Accessory Dwelling Units	88	0	88
<b>Total Units</b>	<b>106</b>	<b>28</b>	<b>134</b>

Source: Dyett & Bhatia.

### Standard of Significance for VMT

For residential projects, OPR indicates that VMT per capita should be used as the metric to determine whether a proposed project may cause a significant transportation impact. OPR identifies the recommended significance threshold for residential projects as the point where a proposed project exceeds a level of 15 percent below existing VMT per capita. Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita. Town of Ross staff have indicated that city VMT per capita shall be used as the existing baseline for residential uses.

For land use plans such as the Housing Element, OPR indicates that the same thresholds described above for individual residential projects may be employed. A plan may have a



significant impact on transportation if proposed new residential uses would in aggregate exceed the respective thresholds.

For the purposes of this assessment, based on the above OPR and Town of Ross guidance, VMT impacts would be significant if the aggregate of new residential development would exceed the following threshold:

- Aggregate Future (2040) Home VMT per resident with new housing units exceeds 15% below baseline (2019) Aggregate Town VMT per resident

## Impact Assessment

The California Air Resources Board, in both its 2030 Scoping Plan and 2018 Progress Report, conclude that reducing VMT is a key objective to meeting California's greenhouse gas (GHG) emission reduction goals. Future potential development under the proposed project would contribute to an increase in VMT in the EIR study area. Buildout of the proposed project is assumed over a 20-year project horizon.

On September 27, 2013, Governor Jerry Brown signed SB 743 into law, which initiated a process to change transportation impact analyses completed in support of CEQA documentation. SB 743 eliminated level of service (LOS) as a basis for determining significant transportation impacts under CEQA and provided a new performance metric, vehicle miles traveled (VMT). To help lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced a *Technical Advisory*.<sup>1</sup>

Implementation of the additional 134 housing units identified in the updated Housing Element by 2032 would result in a total of up to about 470 new residents.

### VMT Impact Assessment

**Table 2** provides a summary of the VMT forecasts for all of the added residential elements included in the Housing Element Update. The threshold recommended by OPR for residential uses involves comparing the project VMT per capita to the baseline Town VMT per capita. A significant impact would occur if a proposed project VMT per capita exceeds a level of 15% below existing baseline Town VMT per capita. The VMT forecasts indicate that the proposed residential uses would result in a Home-Based VMT per capita that is 12 percent below the baseline 2019 Town VMT per capita.

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<sup>1</sup> Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018.





**Table 2: Daily Home-Based Vehicle Miles Traveled (VMT) for Residential Uses**

Scenario	Home-Based VMT	Home VMT Per Resident
BASELINE TOWN VMT METRIC (2019)	33,603	14.1
2040 PLUS HOUSING ELEMENT UNITS	35,442	12.4
<b>PERCENT CHANGE – 2040 Plus Project Home VMT per Resident Rate Compared to Baseline Rate for Ross 2019</b>		
2040 PLUS HOUSING ELEMENT UNITS		-12%

Notes:

1. The VMT shown in the table above is home-based VMT for all residential uses in the project including single family residential, multi-family residential, affordable housing, and the residential care facility.
2. The VMT per resident values are based on 2,385 residents for the baseline (2019) scenario and 2,855 future residents for the 2040 plus Project scenario.

Data for the Bay Area Region is for the full nine-county area.

Source: Fehr & Peers.

The VMT estimates developed using the TAM travel demand model for the 10 new multi-family units on the Branson campus do not reflect the fact that the housing units are dedicated to campus employees. The unaccounted VMT benefit of providing housing on the Branson campus for faculty and staff is that the commute trips made by these employees would be eliminated as they are living on campus. As such, the VMT forecasts presented above slightly overstate the VMT affect associated with the Branson site on aggregate future VMT. The level of unaccounted VMT benefit would depend on where the employees live prior to moving on campus as well as whether they have a partner living with them that has an off-site job. Because data is not available on the existing home location of Branson employees that would relocate to the new campus housing (i.e., to determine a commute VMT adjustment) and whether or not the Branson employees would have partners living with them that have an off-site job, it is not possible to quantify the incremental VMT reduction of the Branson housing.

The cumulative effect of adding 134 housing units on Daily Home-Based VMT for residential uses in the Town of Ross is considered a **significant impact**. This is due to the fact that the Aggregate 2040 Home VMT per Resident with the added housing units is not 15 percent or below the Baseline Aggregate 2019 Home VMT per Resident for the Town of Ross as measured using the Transportation Authority of Marin Demand Model (TAMDM).

**VMT Mitigation Measure**

**MM VMT-1 Implement VMT Reduction Measures for City-Owned Sites**

The following VMT reduction measures would apply to the twelve (12) Civic Center and Post Office housing site units.



- Reduced off-street parking requirement: establish a maximum of 1 parking space per unit
- Town-owned Bikeshare Facility: provide a secure bikeshare facility at or near Town Hall with 10 electric bicycles that would be accessible for use via digital methods to Town employees as well as residents of the Civic Center and Post Office housing units

VMT reduction measures are not available for the other sites as they are very small in scale in terms of number of units, low density, located far from the bus stop on Sir Francis Drake at Lagunitas Road, and/or not located in walkable mixed-use areas.

### **Level of Significance After Mitigation**

The following section provides an initial discussion of project-level VMT screening and the recently approved Branson School TDM Plan on the level of significance after mitigation.

#### *Project-Level VMT Screening*

There are several instances where CEQA statute allows for projects to be “screened” out of more detailed analysis. The screening process refers to a relatively quick assessment of a project based on screening criteria discussed below; if the project passes the screening assessment, it can be presumed to have a less than significant impact on VMT. This type of screening is most appropriate for small- to medium-size land use projects that are consistent with the General Plan, are located in areas with existing low VMT generation rates, and have characteristics conducive to travel by transit, walking, or bicycling. A qualitative discussion would be provided to justify this conclusion, and no mitigations would be required.

The OPR Technical Advisory for VMT identifies several screening thresholds for lead agencies to consider. The three relevant screening thresholds for added units included in the Housing Element Update are discussed below.

#### *Screening Threshold for Small Projects*

OPR indicates that projects that generate or attract fewer than 100 trips per day may provide a basis for the lead agency to find a less-than-significant impact on VMT.

Average trip rates in the 11<sup>th</sup> edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual indicate that single family projects of 10 units or fewer and multi-family projects of 14 units or fewer are likely to generate less than 100 vehicle trips per day. The Bingo (8 single family units) and Branson (10 multi-family units) sites in the Town of Ross Housing Element inventory would be just around the 100 daily vehicle trip threshold. Development of all other sites as well as development of accessory dwelling units would fall well below the 100 daily vehicle trip threshold and thus would be presumed to have a less-than-significant impact on VMT and require no mitigation.



### Map-Based Screening for Residential Projects

OPR indicates that projects located in areas with low VMT, and that incorporate similar features to existing adjacent uses with low VMT, may provide a basis for the lead agency to find a less-than-significant impact on VMT.

A review of the screening map prepared by TAM indicates that none of the Traffic Analysis Zones (TAZs) that the Town of Ross is located within have existing Auto VMT per Resident for Home-Based Trips that are 15 percent below the Bay Area average of 13.3. As such, this screening metric would not be applicable.

### Affordable Residential Development

OPR indicates that adding affordable housing to infill locations generally improves jobs-housing match, in turn shortening commutes and reducing VMT, and that a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

Three of the project sites in the Town of Ross Housing Element inventory have 100 percent of their designated units in the low or very low income category including the Branson site (10 multi-family units), the Civic Center site (3 multi-family units), and the Post Office site (5 multi-family units). If these sites are developed with 100 percent affordable housing, the projects would be presumed to have a less-than-significant impact on VMT and require no mitigation.

### *Branson School TDM Plan<sup>2</sup>*

The following section describes the Branson School TDM Plan and relevance to VMT generated by the 10 added multi-family units on the Branson campus that would be occupied by faculty and staff.

The Branson School TDM Plan (2022) is designed to result in no net increase in traffic when Branson phases in 100 additional students. The Branson campus generates an average of 2.69 total trips per enrolled student on weekdays, so the TDM Plan is designed to reduce up to 270 weekday trips. This trip reduction is measured based on vehicle counts collected at both the Branson main campus and at the St. Anselm's parking lot.

Six broad strategies are identified in the TDM Plan. The Plan does not consider the addition of new on-campus housing. The Plan illustrates the efficacy of the various strategies that will be applied as follows.

- Strategy 2A and 2B (Increased remote drop-off and pick-up) – 75%

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<sup>2</sup> *The Branson School Transportation Demand Management Plan (2022)*, Final Plan - February 15, 2022, Parisi Transportation Consulting.



- Strategy 3 (Investments in bike program) – 14%
- Strategy 4 (Creating employee incentives) – 11%

Strategy 2A involves remote parent drop-off and pick-up while Strategy 2B involves school bus and shuttle plus Marin bus service. These strategies would not reduce VMT associated with new housing on the Branson campus.

Strategies 3 and 4 would provide investments in a bike program and create employee incentives. The bike program would provide up to \$750 to help employees purchase a bike and increase the payment for faculty/staff for giving up their parking spaces from \$600 to \$1,000 annually. The goal is to have 15 more faculty/staff that live in Ross shift to walking or cycling on a daily basis. These strategies would not reduce VMT associated with new housing on the Branson campus.

The Branson School TDM Plan does not discuss new on-campus housing and the above strategies are targeted primarily to off-site students, parents, and employees who would otherwise to campus. The remote parking strategies primarily use parking in or near Ross (i.e., St. Anselm's Church or College of Marin parking lots), which would reduce the number of trips on local resident streets near the Branson School campus but would result in only a limited VMT reduction. The TDM Plan thus does not directly apply to the new on-campus housing project.  
Significance after Mitigation

**Significant and unavoidable.** Even with Mitigation Measure MM VMT-1, the Town may not achieve the overall VMT threshold reduction level due to the fact that VMT reduction measures would not be applied to projects that meet the VMT screening criteria, the uncertainty in the cumulative effectiveness of trip reduction measures, uncertainty relating to the feasibility of on-site TDM measures for individual development projects, the timing that it will take to implement those measures, and the current lack of off-site mitigation options. Because the effectiveness of an individual project's VMT impact to a less than significant level cannot be determined in this analysis, the impact for projects which do not screen out from VMT impact analysis would conservatively remain significant and unavoidable with mitigation. (SU)

# **APPENDIX A**

## **LIST OF HOUSING SITES & ALLOCATION OF UNITS BY TRAVEL MODEL MICRO-ANALYSIS ZONE (MAZ)**

- **Table showing individual housing sites**
- **Figure showing Allocation of projects by TAM Model MAZ**
- **Figure showing ADU allocation by MAZ**

**Town of Ross Housing Element 2023-31**  
**Sites Available for Housing**

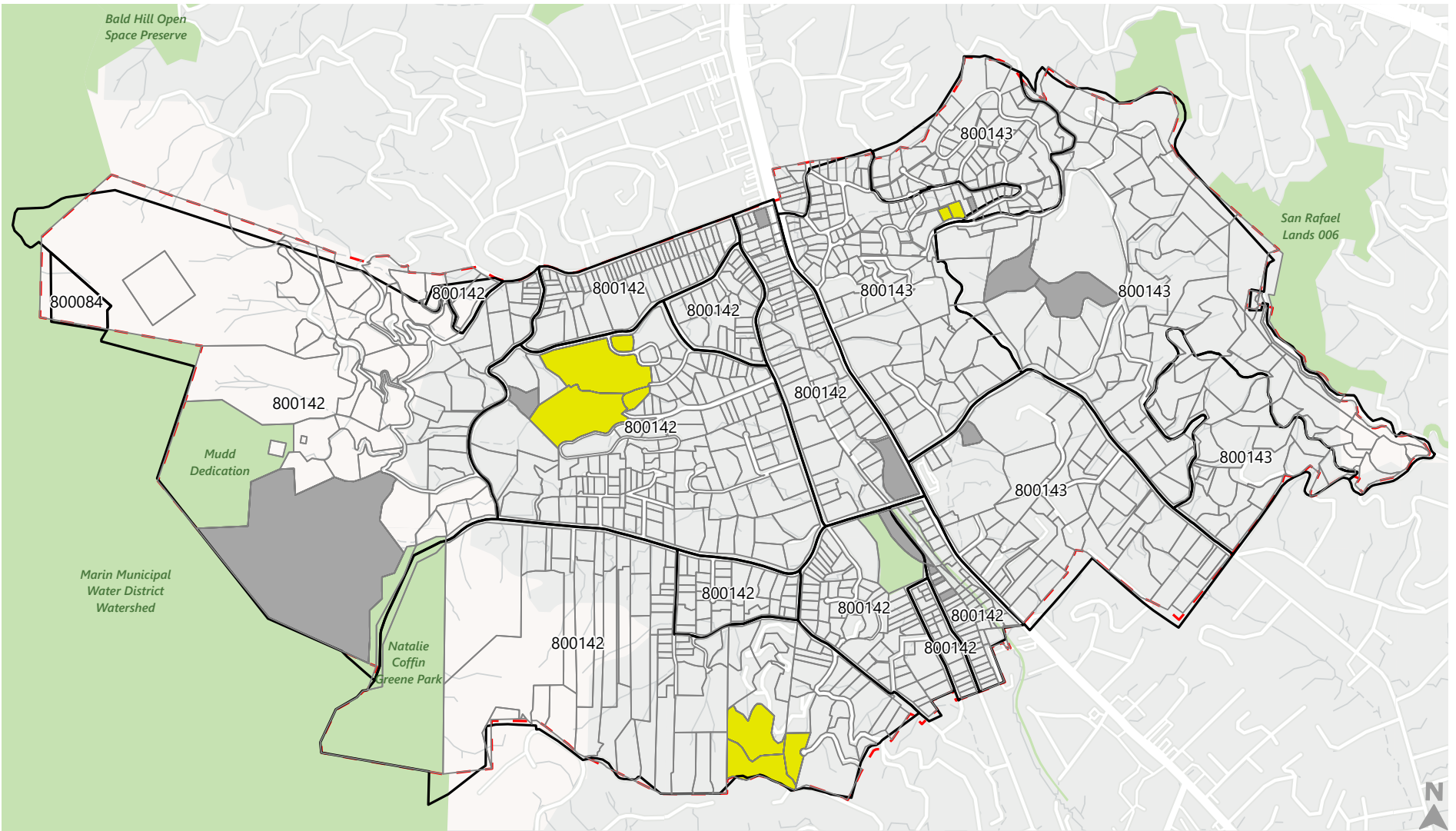
No.	Site Name	APN	Existing Use	Acres	Avg Slope	Capacity				Notes
						Total Units	L/VL	MOD	A-M	
1	Bingo	073-011-26	Vacant	39.98	41.0%	8			8	SFR
2	Branson	073-151-05; 073-082-01; 073-082-12; 073-141-03	School	14.72	0.0%	10	10			MFR
3	11WH	073-291-13; 073-291-14; 073-291-15	Vacant	7.93	59.4%	2			2	SFR
4	Pomeroy	072-031-01	Vacant	2.82	47.2%	1			1	SFR
5	Platforms	072-121-22; 072-121-21	Vacant	0.62	74.7%	1			1	SFR
6	Civic Center	073-191-16	Public	2.40	0.0%	3	3			MFR
7	Post Office	073-242-05	Public	1.56	0.0%	5	5			MFR
8	Saint Anselms	073-052-25	Parking lot	0.39	0.0%	3			3	MFR
9	MAGC	072-191-01	Residential	0.63	0.0%	1			1	SFR
10	Badalamenti	073-273-09	Commercial	0.22	0.0%	4			4	MFR
11	19 Poplar	073-273-11	Vacant	0.11	0.0%	2			2	MFR
12	3 Ross Common	073-273-13	Commercial	0.11	0.0%	2			2	MFR
13	0 Bellagio	072-031-04	Vacant	2.63	35.8%	2			2	Pipeline project: SFR
14	Siebel	073-072-07	Vacant	1.07	0.0%	1			1	SFR
15	Ghirardelli	072-121-33	Vacant	3.87	69.7%	1			1	SFR

<b>SUBTOTAL</b>	<b>46</b>	<b>18</b>	<b>0</b>	<b>28</b>
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Accessory dwelling units (@ 11/year)      88      45      26      17

<b>TOTAL</b>	<b>134</b>	<b>63</b>	<b>26</b>	<b>45</b>
<b>RHNA</b>	<b>111</b>	<b>54</b>	<b>16</b>	<b>41</b>
<b>BUFFER</b>	<b>23</b>	<b>9</b>	<b>10</b>	<b>4</b>

N:\Projects\2022\_Projects\SF22-1218\_Ross Housing Element VMT Forecasts\Analysis\Model\GIS\MXD\Ross\_HE\_VMT\Ross\_HE\_VMT.aprx



- Parcels
- Potential housing sites under common ownership
- Other potential housing sites
- Micro-analysis zones (MAZs)
- Ross Boundary

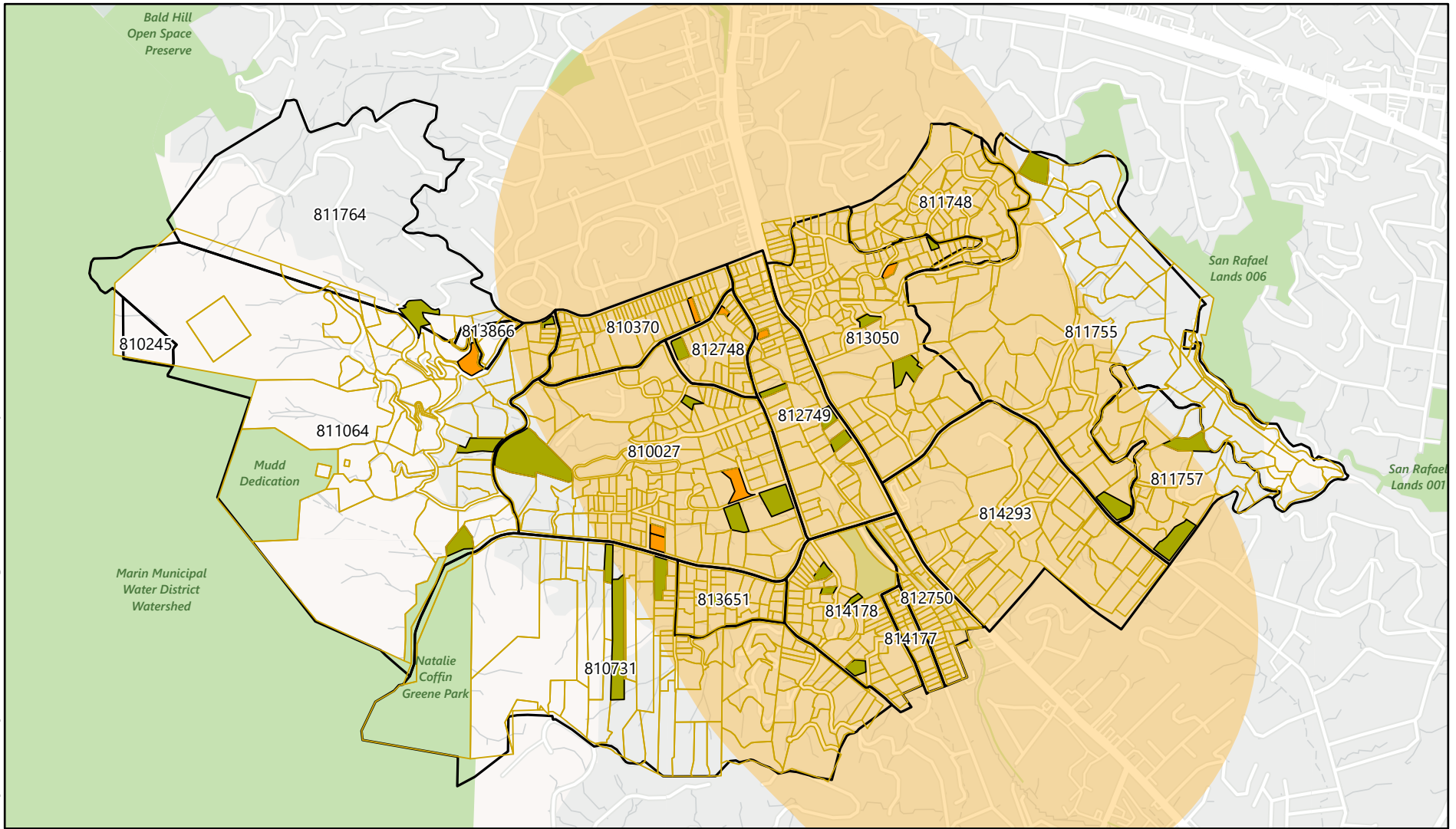
Figure 1

# Potential Housing Sites





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- Approved ADUs
- Proposed ADUs
- Other Parcels
- Sir Francis Drake - 1/2 Mile Buffer

Figure 2



### Approved and Proposed Accessory Dwelling Units (ADUs)



Town of Ross  
**2023-31 Housing Element**

**DYETT & BHATIA**  
Urban and Regional Planners