SAN ANSELMO FLOOD RISK REDUCTION PROJECT

Final Environmental Impact Report Volume 1 – Revisions to the Draft Environmental Impact Report State Clearinghouse No. 2017042041

Prepared for Marin County Flood Control and Water Conservation District August 2018





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CHAPTER 1

Introduction

1.1 Marin County Planning and Project Review Process

This Draft Environmental Impact Report (EIR) evaluates the potential for the proposed San Anselmo Flood Risk Reduction Project (Project) to result in adverse effects on the environment.

The Marin County Flood Control and Water Conservation District (Flood Control District), a political subdivision of the state of California, is the California Environmental Quality Act (CEQA) Lead Agency for the Project. A Lead Agency is defined by Section 15367 of the State CEQA *Guidelines* as the public agency that has the principal responsibility for carrying out or approving a Project. The Flood Control District intends to use this EIR in a decision process that also involves the Marin County Board of Supervisors, acting as the Flood Control District Board, and Responsible Agencies, to approve the Project and its elements, issue applicable permits, and comply with various agency requirements. The Flood Control District's planning and approval process involves two main steps including (1) circulation of the Draft EIR, and (2) certification of the Final EIR and adoption of findings prior to approval of the Project. Multiple opportunities for the public to comment on the Project will be available during the review process.

On April 6, 2017, the Flood Control District issued a Notice of Preparation (NOP) of a Draft EIR for the Project pursuant to Section 15082 of the State CEQA *Guidelines* to seek comments from responsible and trustee agencies and the public about the scope of the EIR. The 30-day NOP comment period closed on May 8, 2017. During the comment period, on April 20, 2017, the Flood Control District held a public scoping session (meeting) regarding the Project to solicit agency and public input on the range of environmental effects that should be analyzed in the EIR. Oral comments were received at the scoping meeting, and additional written comments were received at and following the meeting. A scoping report containing the NOP and scoping comments received are included in **Appendix A**. The scoping report also identifies the Draft EIR sections that address the scoping issues raised in the comments received.

The Flood Control District is now circulating this Draft EIR to public agencies and members of the public for a 45-day public review period in accordance with State CEQA *Guidelines* Section 15087. Comments should address the adequacy of the Draft EIR. Written comments will be accepted by the Marin County Community Development Agency until 4 p.m. on the closing day of the review period (July 2, 2018). Written comments should be submitted to Rachel Reid,

¹ The State CEOA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

Environmental Planning Manager, Marin County Community Development Agency, 3501 Civic Center Drive, Suite 308, San Rafael, California, 94903 or via e-mail to EnvPlanning@marincounty.org. Oral and written comments will be accepted at a hearing on the Draft EIR by the Flood Control District's Board of Supervisors (Board), to be scheduled prior to the close of the review period.

After the close of the Draft EIR review period, the Flood Control District will assemble all comments received prior to and during the public review period, including oral comments received at the public hearing on the Draft EIR. As required by State CEQA *Guidelines* Section 15088, the Flood Control District will evaluate comments received on the environmental issues, and prepare written responses. The comments and responses will be included in the Final EIR as a separate chapter, as will any revised EIR text.

The Flood Control District will circulate the Final EIR to Responsible and Trustee Agencies that commented on the Draft EIR and all interested parties for a minimum of 10 days to review the responses to comments. The Flood Control District Board will hold a public hearing, at which time it will consider whether the Final EIR complies with CEQA, including reviewing written responses to comments on the adequacy of the Draft EIR. Notice of the public hearing will be provided in compliance with State law and the County's procedures.

Upon the conclusion of the review, the Flood Control District Board will meet to consider whether to certify the EIR. In certifying the EIR, the Flood Control District Board would be affirming that the EIR is adequate and complete pursuant to CEQA requirements. In conjunction with a decision on the project, the Flood Control District Board would also find that it reviewed and considered the information contained in the Final EIR and exercised its independent judgment prior to taking action on the Project or any of the Project elements (State CEQA *Guidelines* Section 15090).

No action can be taken to approve the Project or any of its elements until the Final EIR has been certified. However, certification of the EIR neither requires nor ensures approval of the Project and its elements as evaluated in the EIR. Once the EIR is certified, the Flood Control District Board may consider approval of the Project. At that time, the Flood Control District Board may decide to approve the Project, with mitigation measures specified in the Final EIR incorporated into the Project, to disapprove the Project, or to approve an alternative to the Project or elements of alternatives that have been evaluated in the Final EIR.

1.2 Project Approvals

Although the Flood Control District is the Lead Agency, other agencies will be involved in the ongoing design, planning, environmental review, permitting, and implementation of the Project. Before specific Project elements can be constructed, the Project may require the following approvals and discretionary actions from the Flood Control District and, as appropriate, from responsible agencies or project partners such as the Towns of San Anselmo, Fairfax, and/or Ross:

1. Project element design approval

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- 2. Applicable permits
- 3. Contract(s) to design and construct the Project elements

Examples of the federal, state and local agencies that could have jurisdiction over Project elements and the various permits and agreements that could be required are listed below. Note that this is not an exhaustive list of all possible permits that could be needed.

1.2.1 Federal Agencies

1.2.1.1 U.S. Army Corps of Engineers (USACE)

Under Section 404 of the Clean Water Act, the USACE regulates discharges of dredged or fill material in waters of the United States, and adjacent wetlands. If any jurisdictional wetlands or other waters of the U.S. would be adversely affected by the Project, a Section 404 authorization from the USACE would be required.

1.2.1.2 U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NOAA Fisheries)

Because the Project would affect federally-protected wildlife species and/or associated protected habitats (e.g., nesting or spawning areas, migration corridors) that fall under USFWS or NOAA Fisheries jurisdiction under the federal Endangered Species Act, one or more Biological Opinions containing Incidental Take Permits are expected to be required. The USFWS and NOAA Fisheries would comment on the USACE permits to recommend actions that avoid or mitigate such disturbance.

1.2.1.3 Federal Emergency Management Agency (FEMA)

Because the Project would occur in a FEMA designated floodway, a No-Rise Certification may be required. To obtain this certification, a hydraulic analysis may be required to demonstrate that the project does not increase flood heights.

1.2.2 State and Local Responsible and Trustee Agencies

1.2.2.1 California Department of Fish and Wildlife (CDFW)

Because the Project would affect fish and wildlife and/or their habitats that are under the jurisdiction of CDFW, as a Trustee Agency, a California Endangered Species Act Incidental Take Permit would be required.² In addition, because the Project would substantially alter a stream, it is expected to require a CDFG Section 1600 Lake and Streambed Authorization Agreement (LSAA). CDFW would comment on the EIR and on the USACE permits to seek actions that avoid or mitigate impacts to resources under its jurisdiction.

Pursuant to California Fish and Game Code Section 2081 et seg.

1.2.2.2 San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay Regional Water Quality Control Board (RWQCB) administers the National Pollutant Discharge Elimination System (NPDES) Permit Program, authorized by the federal Clean Water Act, as well as State laws to protect water quality. The Project or its elements may require compliance with the NPDES Permit Program through preparation and approval of a Stormwater Pollution Prevention Plan, and would also require a federal Clean Water Act Section 401 Water Quality Certification from the RWQCB.

1.2.2.3 Local Municipalities

The Town of San Anselmo may be a Responsible Agency in the review of Project elements under CEQA.

1.3 Project EIR

The Flood Control District has determined that an EIR is the appropriate environmental document to evaluate the effects of the overall Project, pursuant to the requirements of CEQA. A Project EIR enables the Flood Control District, as the CEQA Lead Agency, to examine and disclose the significant environmental effects of the proposed course of action of developing the Project, to identify significant cumulative effects, and to take steps to reduce or avoid significant adverse environmental effects. The EIR also fulfills the legal requirement imposed by CEQA to conduct environmental review prior to taking discretionary action. In this case, the initial discretionary action is approval of the Project by the Flood Control District Board.

The timing of the preparation of this project-level Draft EIR does not allow it to tier from the program-level EIR that is currently underway for the Ross Valley Flood Protection and Watershed Program (Program). Instead, the full, project-level assessment of the Project elements in this Project EIR will inform the cumulative impacts analysis of the Program, of which this Project is a part, in the Program EIR. Similarly, the preparation of the Program EIR has involved developing basin-wide information and analysis for the Ross Valley Watershed as a whole that informs the project-level analysis in this Project EIR and has assisted in the environmental documentation of the project-level effects. The Program and Project EIRs will use the pertinent aspects of the same hydraulic modeling, baseline environmental conditions, regulatory settings, source documents, and other background information, because the San Anselmo Flood Risk Reduction Project is within the geographic area of the Ross Valley Flood Program.

The analysis included in this Draft EIR is at a project level of detail. This level of detail is required to identify and evaluate the range of elements and other actions needed to fulfill the Flood Control

^{3 &}quot;Tiering" under CEQA "refers to the analysis of general matters contained in a broader EIR with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR: and concentrating the later EIR or negative declaration solely on the issues specific to the later project" (CEQA Guidelines Section 15152). CEQA encourages agencies to tier environmental analyses as a means to eliminate repetitive discussions of the same issues and focus the later EIR on the actual issues ripe for discussion.

District's objectives for the Project, as described in Section 3-3. The analysis evaluates all reasonably foreseeable impacts of the Project as currently designed.

1.4 Approach to Analysis

The fundamental purpose of an EIR is to inform the public and decision-makers of the potential effects of a proposed project on the physical environment. An EIR must therefore include a description of the "environmental setting" of a project (State CEQA *Guidelines*, Section 15125(a)). The "environmental setting" is defined as "the physical environmental conditions in the vicinity of the project, as they exist at the time the NOP is published...This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant" (*ibid*). Therefore, the physical conditions of the Project area, the various proposed elements, and the surrounding areas at the time that the NOP was issued constitute the baseline, or point of departure, for the environmental analysis.

1.5 Documents Incorporated by Reference in the EIR

An EIR may, "...incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public" (State CEQA *Guidelines* Section 15150). Portions of the documents that are relevant to the environmental analysis for the Project have been summarized in various sections throughout this Draft EIR, and are described below. All referenced documents are available at the Marin County Department of Public Works, 3501 Civic Center Drive, Suite 304, San Rafael, California, 94903, and on the Project website: http://www.marinwatersheds.org/resources/projects/san-anselmo-flood-risk-reduction-project. Since approval in 2007 of the storm drainage fee for those parcels that drain into the Ross Valley Watershed, the District has done extensive technical and planning studies in the watershed to inform the best approach to reducing the risk of flooding in Flood Zone 9. The findings of those studies have led to the overall Ross Valley Program as well as the San Anselmo Flood Risk Reduction Project that is under evaluation in this Draft EIR. A partial list of the completed and ongoing studies is provided below.

- 1. Ross Valley Flood Protection and Watershed Program Environmental Impact Report (Draft), ongoing.
- 2. Phoenix Lake Preliminary Geotechnical Report, Miller-Pacific Inc., May 2010.
- 3. Corte Madera Creek Flood Study Baseline Report, USACE, December 2010.
- 4. Capital Improvement Plan Study for Flood Damage Reduction and Creek Management for Flood Zone 9/Ross Valley, Stetson Engineers Inc., May 2011.
- 5. 10 Year Work Plan Technical Memo, Stetson Engineers Inc., March 2012.
- 6. Flow Reduction Study, CH2M-HILL, November 2015

1.6 Organization of the EIR

The Draft EIR is organized into seven chapters, preceded by the Table of Contents. A brief summary of the contents of the Draft EIR is presented below.

Chapter 1 – Introduction: The Introduction describes the Marin County Planning and Program review process as it pertains to the Project, presents the technical documents that are incorporated by reference into the Draft EIR (in accordance with State CEQA *Guidelines* Section 15150), and describes the organization of the Draft EIR. The Introduction also includes a glossary of terms and list of acronyms used in this Draft EIR.

Chapter 2 – Summary: The Draft EIR Summary, prepared in accordance with State CEQA *Guidelines* Section 15123, contains an overview of key elements of the Draft EIR, and a summary of the Project description and characteristics. An overview of Project objectives, with reference to the full text version, is provided pursuant to State CEQA *Guidelines* Section 15124. This chapter also presents a comprehensive table of all significant environmental impacts and mitigation measures, along with the level of significance before and after mitigation. This chapter also summarizes impacts of the CEQA alternatives as they compare to the proposed Project. Descriptions of growth-inducing impacts, irreversible environmental changes, and significant and unavoidable impacts are also provided in this chapter. Also discussed are major conclusions, areas of controversy, and issues to be resolved in the Draft EIR. Finally, the Project's s consistency with County plans and policies is summarized.

Chapter 3 – Project Description: The Project Description is prepared pursuant to State CEQA *Guidelines* Section 15124 and contains text, figures, and tables conveying Project attributes. Specifically, this chapter includes the Project objectives, a description of the Project elements and locations, and a description of Project construction, operation, and maintenance.

Chapter 4 – Environmental Setting, Impacts, and Mitigation Measures: Chapter 4 contains the majority of the environmental impact evaluation for the Project. A description of the physical and regulatory setting for each environmental issue is provided, along with disclosure of the anticipated changes to physical conditions after Project implementation. The "environmental setting," for purposes of this Draft EIR, consists of the existing physical conditions of the area affected by the project, including specific sites identified for Project elements and their surroundings.⁴ The impact analysis focuses on the potential changes to the physical environment that may result from the Project. Feasible mitigation measures are identified for significant impacts that would result from implementation of the Project, as appropriate.

Environmental impacts are numbered throughout this portion of the Draft EIR, beginning with the chapter section number, followed by sequentially numbered impacts. For example, the first impact in Section 4.3 (Air Quality and Greenhouse Gases) is impact number 4.3-1, and the second impact in this section is 4.3-2. Mitigation measures are numbered to correspond to

State CEOA Guidelines Section 15125(a).

impacts; therefore, mitigation measures to address Impacts 4.3-1 and 4.3-2 would be Mitigation Measures 4.3-1 and 4.3-2, respectively.

Chapter 5 – Growth-Inducing and Cumulative Effects: Chapter 5 includes CEQA-mandated sections examining the potential growth-inducing effects of the Project and the Project's significant cumulative impacts. Cumulative impacts refer to two or more individual effects that, when considered together, are considerable or compound other environmental impacts. In accordance with State CEQA *Guidelines* Section 15130, the analysis in Chapter 5 examines the Project's potential impacts in connection with the effects of other related past, present, and probable future projects.

Chapter 6 – Alternatives: In accordance with State CEQA *Guidelines* Section 15126.6, Chapter 6 of the Draft EIR presents a range of reasonable alternatives designed to feasibly attain most of the basic objectives of the Project and avoid or substantially reduce one or more of the Project's significant environmental effects. The potential environmental impacts of the alternatives are discussed in comparison to the impacts that would result from the Project, and the ability of the alternatives to meet the project objectives is presented.

Chapter 7 – Draft EIR Authors, Persons and Organizations Contacted: This chapter identifies the individuals who were involved in the preparation of the Draft EIR.

Appendices: The Draft EIR contains several appendices of technical or procedural materials that are pertinent to the analysis contained in the body of the document. See the Table of Contents for the full list of appendices.

1.7 Acronyms, Abbreviations, and Glossary

The following acronyms, abbreviations, and technical terms are used in the text of the Draft EIR.

1.7.1 Acronyms and Abbreviations

μPa micro-Pascals

1600 Agreement Streambed/Lake Alteration Agreement

634-636 San Anselmo Avenue (formerly known as Bridge Building #2)

AB Assembly Bill

ABAG Association of Bay Area Governments

ACM asbestos-containing materials

AR4 Fourth Assessment Report

ASBS Area of Special Biological Significance

ASF Age Sensitivity Factor

BAAQMD Bay Area Air Quality Management District

Basin Plan Water Quality Control Plan for the San Francisco Bay Basin

BASMAA Bay Area Stormwater Management Agencies Association

Bay Area San Francisco Bay Area

Bay WAVE Bay Waterfront Adaptation Vulnerability Evaluation

BMPs Best Management Practices

CAAQS California Ambient Air Quality Standards

CAL FIRE California Department of Forestry and Fire Protection

Cal OSHA California Occupational Safety and Health Administration

CalEEMod California Emissions Estimator Model

California Register

California Register

California Register of Historical Resources

Caltrans California Department of Transportation

CARB California Air Resources Board

CBC California Building Code

CCR California Code of Regulations
CEC California Energy Commission

CEQA California Environmental Quality Act
CESA California Endangered Species Act

CFCP California Farmland Conservancy Program

CFR Code of Federal Regulations

CFS cubic feet per second

CGP Construction General Permit
CGS California Geological Survey

CHRIS California Historical Resources Information System

CMSA Central Marin Sanitation Agency

CNDDB California Nautral Diversity Database
CNEL Community Noise Equivalent Level

CNPS California Native Plants Society

CO carbon monoxide
CON Conservation

CoSMoS Coastal Storm Modeling System

CPUC California Public Utilities Commission

CRLF California red-legged frog

CRPR California Rare Plant Ranking

CUPA Certified Unified Program Agency

CWA Clean Water Act

dB decibels

dBA A-weighted sound levels

DOC Department of Conservation

DPM diesel particulate matter

DWR California Department of Water Resources

EAP Energy Action Plan

EIR environmental impact report

Environmental Checklist State CEQA Guidelines, Appendix G

EPA Environmental Protection Agency
ESA Environmental Science Associates
ESCP Erosion and Sediment Control Plan

FDS basin flood diversion and storage basin

FEMA Federal Emergency Management Agency

FESA Federal Endangered Species Act
FHWA Federal Highway Administration

FIRMs Flood Insurance Rate Maps
FIS Flood Insurance Studies

Flood Control District Marin County Flood Control and Water Conservation District

FMMP Farmland Mapping and Monitoring Program

FTA Federal Transit Administration

g gravity

GHG greenhouse gas

GWP global warming potential

HFC hydrofluorocarbons

HHW household hazardous waste

HMBD Hazardous Materials Business Plan

HRA health risk assessment

HSWA Hazardous and Solid Waste Amendments

Hz Hertz

IPCC International Panel on Climate Change

LBP lead-based paint

Ldn Day-Night Average Level
Leq Equivalent Sound Level
LID Low Impact Development
Lmax Maximum Sound Level
Lmin Minimum Sound Level

LOS Level of Service

LU Land Use

MALT Marin Agricultural Land Trust

Marin County FCD Marin County Flood Control District

MBTA Migratory Bird Treaty Act

MCEP Marin Climate and Energy Partnership

MCOSD Marin County Parks and Open Space Department

MCSTOPPP Marin County Stormwater Pollution Prevention Program

ML Richter magnitude

MMWD Marin Municipal Water District

MS4s Small Municipal Separate Storm Sewer Systems

MTBE methyl tertiary butyl ether

MTC Metropolitan Transportation Commission

Mw Moment Magnitude

N2O nitrous oxide

NAAQS National Ambient Air Quality Standards
NAHC Native American Heritage Commission

NALs Numeric Action Limits

NFIP National Flood Insurance Program
NGVD National Geodetic Vertical Datum
NHPA National Historic Preservation Act
NMFS National Marine Fisheries Service

NO nitric oxide

NO2 nitrogen dioxide

NOAA National Oceanic and Atmospheric Administration

NOI notice of intent
NOX nitrogen oxides

NPDES National Pollutant Discharge Elimination System Program

NSO Northern spotted owl

NTU Nephelometric Turbidity Units

Nursery Basin flood diversion and storage basin at the former Sunnyside

Nursery site

Nursery Basin site former Sunnyside Nursery site

O&M Plan Operation and Maintenance Plan

OEHHA Office of Environmental Health Hazards Assessment

OEMS Office of Emergency Medical Services

OSHA Occupational Safety and Health Administration

PCB polychlorinated biphenyls

PFC perfluorocarbons

PFS Public Facilities and Services

PG&E Pacific Gas and Electric Company

PGA peak ground acceleration

PM10 particulate matter less than 10 microns in diameter
PM2.5 particulate matter less than 2.5 microns in diameter

ppm parts per million

PPV peak particle velocity
PRC Public Resources Code

PRDs permit registration documents

Project San Anselmo Flood Risk Reduction Project
PSHA probabilistic seismic hazard assessment
RCRA Resource Conservation and Recovery Act

Region 2 San Francisco Bay Basin
ROG reactive organic gases

Ross Valley Watershed also called the Corte Madera Creek Watershed

RWQCB Regional Water Quality Control Board

SAR Second Assessment Report

SARA Superfund Amendments and Reauthorization Act

SB Senate Bill

SCA Stream Conservation Area

SCAQMD South Coast Air Quality Management District

SF6 sulfur hexaflouride

SFBAAB San Francisco Bay Area Air Basin

SHPO State Historic Preservation Officer

SIP State Implementation Plan

sea level rise **SLR** SO₂ sulfur dioxide

SPCC Spill Prevention, Control, and Countermeasure

SPL sound pressure level

STLC Soluble Threshold Limit Concentrations **SWPPP** Stormwater Pollution Prevention Plan **SWRCB** State Water Resources Control Board

TAC toxic air contaminant

TAM Marin County Congestion Management Agency

TAM Transportation Authority of Marin

TMDL Total Maximum Daily Load **TMP** Traffic Management Plan

TSCA Toxic Substances Control Act U.S. 101 United States Highway 101

Unified Program Unified Hazardous Waste and Hazardous Materials

Management Regulatory Program

Update 2017 Climate Change Scoping Plan Update

USACE U.S. Army Corps of Engineers

USDOT U.S. Department of Transportation

USEPA United States Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geological Survey

UST underground storage tank VdB Root mean square velocity

WDRs Waste Discharge Requirements

WPT western pond turtle

Zero Waste Marin Marin Hazardous and Solid Waste Management Joint Powers

Authority

ZEV zero-emission vehicles

 $\mu g/m3$ micrograms of lead per cubic meter

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1.7.2 Glossary

100-year flood event: A flood that statistically has a 1-percent chance of occurring in any given year.

Aggradation: The act of raising the grade or level of a stream bed by depositing detritus, sediment, or the like.

Alluvial strata: Consists of unconsolidated mixtures of gravel, sand, clay, and silt typically deposited by streams.

Anadromous: Characterizes the life cycle of a fish that spawns in fresh water and spends a significant portion of its adult life in the ocean. Salmon and steelhead are anadromous.

A-weighted decibel (dBA): Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, human response is factored into sound descriptions in a process called "A-weighting," expressed as "dBA." The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies.

Backwater flooding: Upstream flooding caused by downstream conditions such as channel restriction and/or high flow in a downstream confluence stream.

Beneficial reuse: The use of byproducts or waste materials rather than discarding them.

Coarse sediment load: Particulate sediment, varying in size from sand to gravel, that is carried in the body of the flow.

Cofferdam: A watertight enclosure pumped dry to permit construction work below the waterline.

Dam inundation area: The specific areas of land that would become flooded and covered with water if a particular dam were to break or fail.

Emergent groundwater: Groundwater that emerges to the surface of the ground naturally, by an increase in infiltration from stormwater or other water source.

Flood diversion and storage basin: An above-ground, off-channel reservoir for storing diverted floodwaters from a stream.

Floodplain: An area of low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding.

Floodwalls: A primarily vertical artificial barrier designed to temporarily contain the waters of a river or other waterway which may rise to unusual levels during seasonal or extreme weather events.

Hydraulic capacity: The amount of water that can pass through a structure or watercourse.

Hydraulic constriction: A short reach of a creek where the cross-section is reduced.

Groundwater basin: An area underlain by permeable materials capable of furnishing a significant supply of groundwater to wells or storing a significant amount of water.

Landscape levees or berms: an earthen embankment built to prevent the overflow of a river.

Level of service (LOS): A qualitative description of a facility's performance based on average delay per vehicle, vehicle density, or volume-to-capacity ratios. Levels of service range from LOS A, which indicates free-flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays.

Regulatory floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Riparian: The land adjacent to a natural watercourse such as a river or stream. Riparian areas support vegetation that provides important wildlife habitat, as well as important fish habitat when sufficient to overhang the bank.

Scour protection: Rock, riprap, or similar materials added to edge of a waterway to protect the banks.

Sediment deposition: The process by which sediment, including soil and rocks, are deposited on the creek bottom due to a loss of kinetic energy in the water.

Shallow seepage cutoff wall: a wall constructed below grade as part of a levee to prevent water from seeping out from below or the sides of the levee.

Sheetflow flooding: Floodwater flows that spread out over a large area at a uniform depth.

Side-weir: A flood control structure used to divert flow from the main channel to another location, such as a FDS basin.

Special-status species: Several species known to occur within the general region of the program area are accorded "special status" because of their recognized rarity or vulnerability to habitat loss or population decline. Some of these species receive specific protection in federal and/or state endangered species legislation. Others have been designated as "sensitive species" or "species of special concern" on the basis of adopted policies of federal, state, or local resource agencies. These species are referred to collectively as "special-status species."

Streamflow gage: A tool to measure stream water height, and thereby measure the amount of water in the stream.

Threshold conveyance capacity: The flow a creek channel can contain before overtopping its banks.

Watershed: The region or area drained by a river, stream, etc.; drainage area.

CHAPTER 2

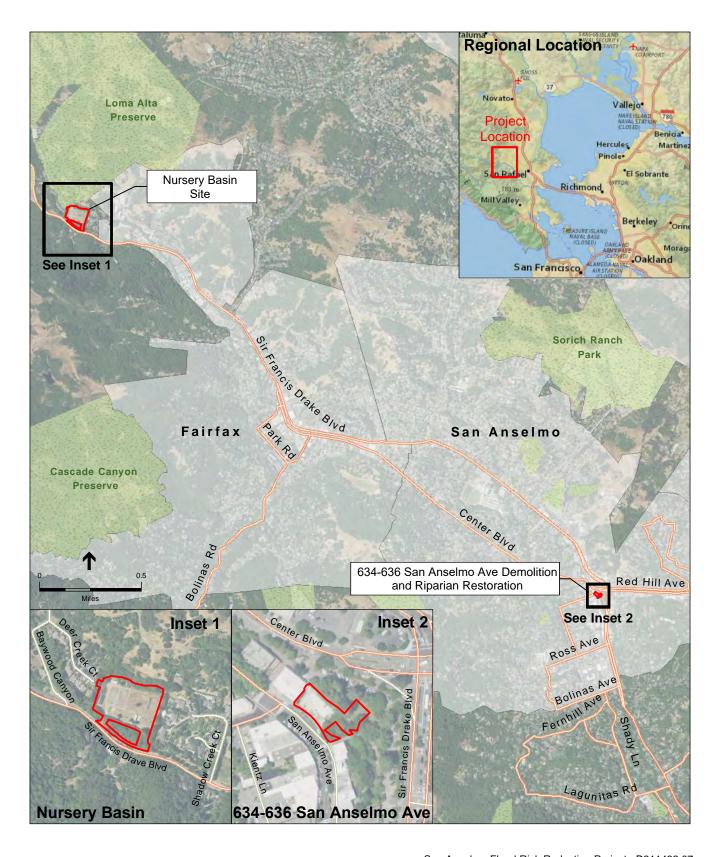
Summary

This summary chapter is provided in accordance with State CEQA *Guidelines* Section 15123. As stated in State CEQA *Guidelines* Section 15123(a), "[a]n EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical." State CEQA *Guidelines* Section 15123(b) states, "[t]he summary shall identify: (1) Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) Areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects." Accordingly, this summary includes a brief synopsis of the proposed Project and project alternatives, environmental impacts and mitigation measures, cumulative effects and mitigation measures, areas of known controversy, and issues to be resolved in the Environmental Impact Report (EIR). **Table 2-1**, at the end of this chapter, presents the summary of potential environmental impacts, their level of significance before mitigation, mitigation measures, and levels of significance with mitigation.

2.1 Summary of Project

The Marin County Flood Control and Water Conservation District (Flood Control District) proposes the San Anselmo Flood Risk Reduction Project (Project). The primary purpose of the Project is to substantially reduce the frequency and severity of flooding within portions of the San Anselmo Creek and Fairfax Creek subwatersheds in Ross Valley, which is another name for the watershed drained by Corte Madera Creek. As described in full in Chapter 3, *Project Description*, the Project would be built and operated in two locations (see **Figure 2-1**). The first (shown in **Figure 2-2**) is at the former site of the Sunnyside Nursery in unincorporated Marin County, adjacent to the western border of the Town of Fairfax. The second location (shown in **Figure 2-3**) is at 634-636 San Anselmo Avenue in downtown San Anselmo along San Anselmo Creek. The Flood Control District would implement this Project to reduce flood risk by (1) reducing peak discharge by attenuating flows through use of a flood diversion and storage (FDS) basin at the former Nursery site along Fairfax Creek, and (2) increasing creek capacity by removing existing obstructions to creek flow (a "building bridge" that spans San Anselmo Creek and has its foundations in the channel) and then regrading and improving the creek channel.

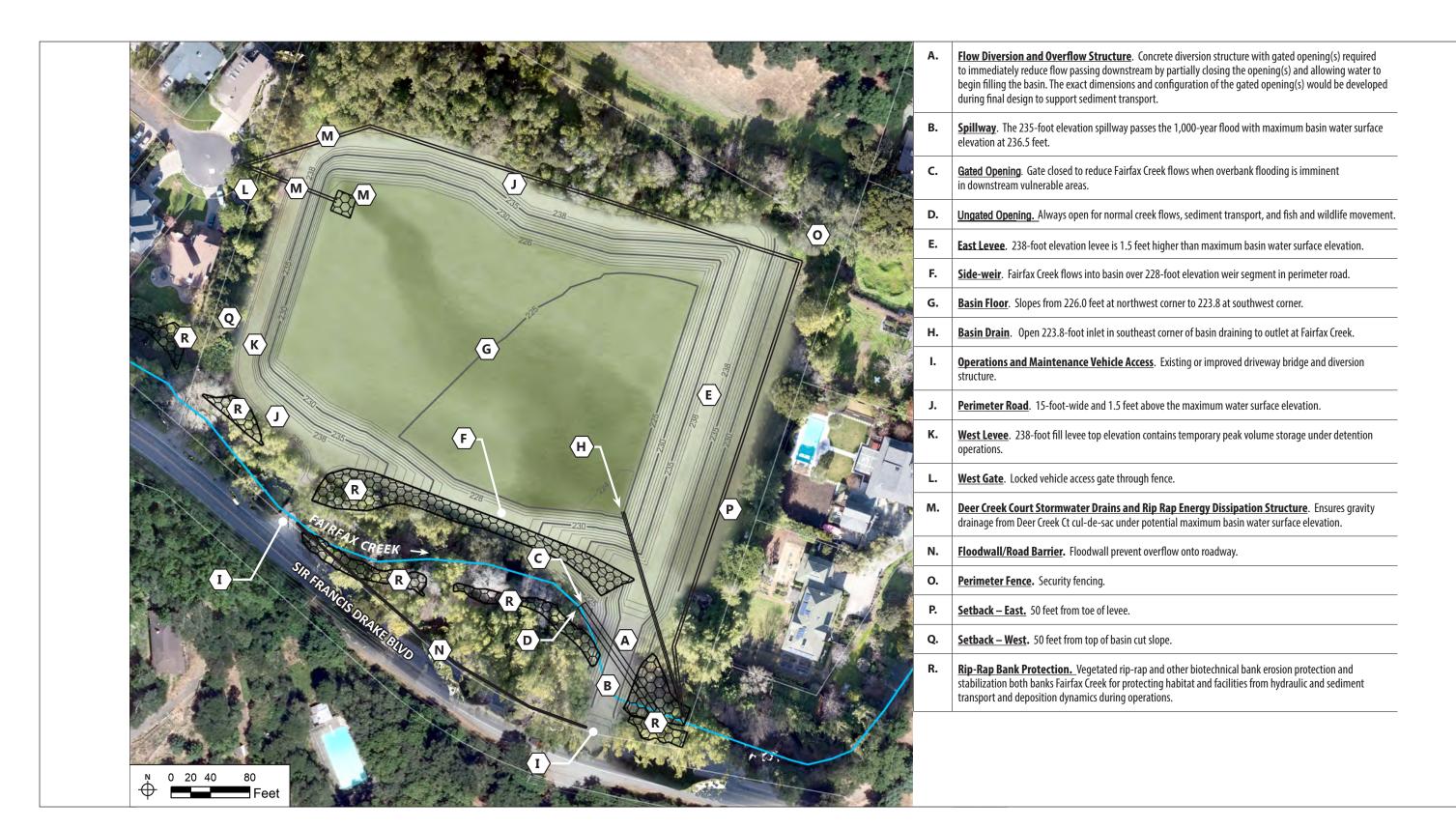
This Project's FDS basin would be located immediately adjacent to Fairfax Creek. It would be built below the existing grade by excavating the site to create a space for storing diverted flows. A diversion structure in Fairfax Creek would have openings to allow normal flows to pass but would detain higher flows, causing them to pond in the channel and spill over a side-weir into the basin. When peak flows have passed, the diverted water would drain from the basin back into



SOURCE: CH2M

San Anselmo Flood Risk Reduction Project . D211432.07 Figure 2-1

Project Location

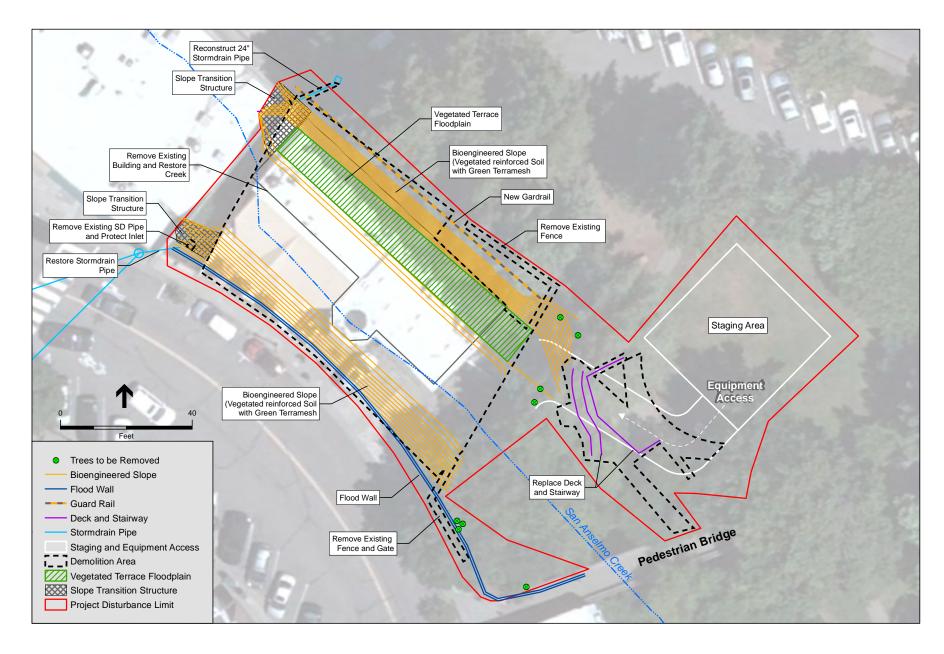


San Anselmo Flood Risk Reduction Project . D211432.07

Figure 2-2 Nursery Basin Site Plan

SOURCE: Marin County Flood Control District, Geomorph Design, Walls Land+Water, and Stetson Engineers

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San Anselmo Flood Risk Reduction Project . D211432.07

Figure 2-3 634-636 San Anselmo Avenue (Downtown San Anselmo Site) Plan

Fairfax Creek, downstream of the diversion structure. This temporary diversion and storage would reduce the risk of downstream flooding by taking that water out of the creek system until peak flows had passed.

Creek capacity improvements are typically made by widening and/or deepening certain sections of creeks and/or by modifying or removing bridges, culverts, buildings, or bank protection structures that encroach into the creek. These structures often encroach into the creek, restrict flows, and cause water to back up and overtop creek banks during large flood events. In downtown San Anselmo, there are several of these constrictions; the building at 634-636 San Anselmo Avenue has a deck that extends two feet below the other buildings. That building and its footings and foundations would be removed, and the creek channel would be sloped back and bioengineered using bio-stabilization slope protection methods to restore the creek banks. This would allow flows to pass downstream and thus reduce flooding in downtown San Anselmo.

2.2 Summary of Impacts and Mitigation Measures

Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, describes in detail the environmental impacts that would result from implementation of the proposed Project. Impacts of a proposed project may be classified as either (1) less than significant (adverse effects that are not substantial according to CEQA); (2) significant (substantial or potentially substantial adverse changes in the environment, for which feasible mitigation measures must be identified to reduce those impacts to less-than-significant levels); or (3) significant and unavoidable (substantial or potentially substantial adverse changes in the environment that cannot feasibly be reduced with mitigation measures to a less-than-significant level). Significant unavoidable adverse impacts, growth-inducing impacts, and significant irreversible environmental changes that would occur with implementation of the proposed Project are discussed below. Growth-inducing and cumulative impacts of the Project are discussed in Chapter 5.

Table 2-1, at the end of this chapter, summarizes the Project's environmental impacts (including cumulative impacts), the level of significance before mitigation, mitigation measures, and the level of significance after mitigation. Please refer to Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, and Chapter 5, *Growth-Inducing and Cumulative Effects*, for a detailed discussion of these issues.

2.3 Summary of Significant Unavoidable, Growth-Inducing, and Cumulative Impacts

This section summarizes the significant unavoidable adverse impacts, growth-inducing impacts, and cumulative impacts of the Project.

2.3.1 Significant Unavoidable Impacts

State CEQA *Guidelines* Section 15126.2(b) requires that an EIR describe the significant impacts of a proposed project, including those that cannot be fully mitigated. In some cases, no feasible

2. Summary

mitigation measures are available to reduce the environmental impacts to a less-than-significant level. In other cases, mitigation measures may be available in connection with the project, but they would not reduce an impact to a less-than-significant level or would substantially alter the basic project characteristics. In both cases, impacts are considered to be significant and unavoidable. This EIR finds that the following significant unavoidable impact would occur if the project were to be implemented:

Hydrology and Water Quality

Impact 4.9-4: Removal of the building at 634-636 San Anselmo Avenue in downtown San Anselmo would lead to small increases in inundation depths and/or small increases in the extent of flooding from San Anselmo Creek in the 25-year event and the 100-year event (Significant), but would also reduce localized flooding by adding more creek capacity upstream and downstream (Beneficial). As noted in Table 2-1, these adverse effects would take place on a small number of parcels, compared to the several hundred on which flooding would decrease. A similar effect would occur upstream of the proposed FDS basin at the former Sunnyside Nursery site adjacent to Fairfax Creek. As explained in Section 4.9, *Hydrology and Water Quality*, of the EIR, this element of the proposed Project would cause sediment deposition in the Fairfax Creek channel, which could cause occasional increases in the extent of flooding on one or two parcels there (Significant).

The Flood Control District has identified a potential mitigation measure to reduce this adverse effect (in both of those locations) to a less-than-significant level, but it would require the cooperation of those private property owners to allow the installation of a flood barrier on their properties. Because this measure cannot be required by the Flood Control District, this impact must be considered significant and unavoidable.

However, in the expected future condition, as discussed in Chapter 5, *Growth-Inducing and Cumulative Impacts*, this significant and unavoidable impact would be avoided in the San Anselmo Creek location by the removal of several other flow-constraining bridges over San Anselmo Creek and associated tributaries. Removal of those bridges would allow flows to pass safely downstream within the creek channel. Because those are separate projects within the responsibility and jurisdictions of other agencies, not the Flood Control District, their implementation cannot be assumed, and the impact remains significant and unavoidable.

2.3.2 Growth-Inducing Impacts

Chapter 5, *Growth-Inducing and Cumulative Impacts*, discusses the growth-inducement potential of the Project. It explains that the Project would not involve any housing construction, road extension, permanent or temporary employment opportunities, or any infrastructure improvements that could directly or indirectly induce growth. The Project would reduce flood risk in existing developed areas and in areas already anticipated for growth in the Marin Countywide Plan. Consequently, implementation of the proposed project would not affect current and/or projected population growth patterns within Marin County as already evaluated and planned for in the Countywide Plan and, therefore, would not have a growth-inducing impact.

2.3.3 Cumulative Impacts

Chapter 5, *Growth-Inducing and Cumulative Impacts*, of this EIR discusses the analysis of cumulative impacts from the Project. Cumulative impacts, as defined in Section 15355 of the State CEQA *Guidelines*, refer to two or more individual effects that, when taken together, are "considerable" or that compound or increase other environmental impacts. Cumulative impacts were analyzed based on a list of past, present, and probable future projects producing related or cumulative impacts. These impacts were analyzed for whether they were "cumulatively considerable" (i.e., whether the incremental effects of this individual project are considerable when viewed in connection with the effects of past, current, and probable future projects, including those outside the control of the agency,).

That analysis found that the Project would not cause a new cumulative impact or make a considerable contribution to an existing cumulative impact. That determination was made in some cases because there is no cumulative impact to which the Project could contribute. In other cases, the Project's impacts, either on their own or after implementation of project-level mitigation measures, would not make a considerable contribution to a cumulative impact.

2.4 Summary of Plan and Policy Consistency

Section 4.10, *Land Use and Planning*, of this EIR evaluates whether the Project would conflict with the Marin Countywide Plan, the Marin County Development Code (Zoning and Subdivision Regulations), the Town of San Anselmo General Plan, or the Town of Fairfax General Plan. That analysis concludes that the Project would not conflict with applicable policies and regulations (see Section 4.10 for details). Appropriate decision makers in the Flood Control District (the CEQA lead agency), Marin County, and the Town of San Anselmo (expected to be a responsible agency under CEQA) will review the Project to make final determinations about the Project's consistency with all policies.

2.5 Summary of Alternatives to the Project

This EIR examines the following four alternatives to the Project. These alternatives are summarized below, and Chapter 6, *Alternatives* presents a complete description of them. In that chapter, **Figures 6-1** and **6-2** show Alternative 2 and its changes in design or location in relation to the Project. **Figure 6-3** shows Alternative 3 and the bridge structure's reinforced concrete decks. **Figure 6-4** shows the larger FDS basin associated with Alternative 4.

2.5.1 Alternative 1: No Project Alternative

Inclusion and evaluation of the No Project Alternative in an EIR is required by CEQA This alternative would avoid the adverse environmental impacts of the Project's construction and operation. In the No Project Alternative, there would be no construction actions taken or changes to the existing flood risk management system or its current operations, maintenance, or management practices. There would be no FDS basin at the former Sunnyside Nursery site to temporarily detain peak stormwater runoff. The building at 634-636 San Anselmo Avenue would

2. Summary

remain. The Flood Control District and the Town of San Anselmo's Public Works Department would continue to maintain creek channels, bridges, culverts, and other parts of the existing system as they do now. Because none of the flood risk hazard reduction benefits of the proposed Project would occur under the No Project Alternative, existing flood risk in San Anselmo would persist.

2.5.2 Alternative 2: Morningside Neighborhood/Passive Basin Alternative

The Morningside/Passive Basin Alternative would have a smaller capacity FDS basin without a diversion structure built in Fairfax Creek. Filling of the basin would thus be "passive". This basin design would involve placement of less fill and reduced construction and maintenance actions within the creek channel, as compared to the proposed Project. Also, instead of removing the building at 634-636 San Anselmo Avenue, this alternative would remove or replace two flowconstraining bridges on Sleepy Hollow Creek, a tributary to San Anselmo Creek, in the Morningside Neighborhood. Compared to the proposed Project, this project would decrease many impacts related to aesthetics, biological resources, hydrology and water quality, and some aspects of noise. However, this alternative would have greater impacts than the proposed Project related to daily air quality and greenhouse gas emissions, land use, noise and vibration, and transportation and circulation. Importantly, because there would not be a diversion structure in Fairfax Creek, the proposed Project's significant and unavoidable impact associated with upstream flooding following sediment deposition in the creek channel would be avoided. However, downstream, in the Towns of Fairfax and San Anselmo, it would not reduce existing flood risk as much as the proposed Project would, and it would increase flood risk in some places more than the proposed Project would.

2.5.3 Alternative 3: Raised Building Alternative

The Raised Building Alternative would have the same design for the FDS basin as the proposed Project would, but instead of removing the building at 634-636 San Anselmo Avenue, it would raise it, retain it in place, and remove its foundation from the creek channel. This alternative was developed in response to community interest in preserving rather than removing that building. Because this alternative would preserve and replace the building supports, it would not include the restoration improvements to San Anselmo Creek described in Chapter 3, *Project Description* (i.e., regrading and sloping portions of both banks of the channel with bio-stabilization protection methods and vegetating the slopes with riparian woodland shrubs). This alternative would reduce the Project's impacts related to aesthetics, land use (community character portion), biological resources, geology and soils, and hazardous building materials by retaining the building and diminishing the degree of change. However, the alternative would cause slight increases in impacts related to longer construction periods, including total air quality and greenhouse gas emissions, and transportation and circulation. This alternative would have the same changes to flood risk (both beneficial and adverse) as the proposed Project would.

2.5.4 Alternative 4: Increased Capacity Basin Alternative

The Increased Capacity Basin Alternative would make the same changes to San Anselmo Creek in downtown San Anselmo as the proposed Project (i.e., removing the building at 634-636 San Anselmo Avenue and making other creek capacity and channel improvements), but it would construct a larger capacity FDS basin at the former Sunnyside Nursery site. A pump would be installed to fully drain the deeper basin when needed. Implementation of the Increased Capacity Basin Alternative would remove more area from the 10-year floodplain and would reduce the depth of inundation more than the proposed Project. During the 25-year event, it would reduce the depth of inundation over a larger area in Fairfax and much of downtown San Anselmo than the proposed Project. In the vicinity of the Winship Bridge, it would result in increased inundation depth and extent, as would the proposed Project, but compared to the proposed Project, this increase in inundation could be slightly lessened. During the 100-year event, similar to the proposed Project, this alternative would not substantially reduce the extent of inundation in Fairfax or San Anselmo. This alternative would result in greater impacts than the proposed Project related to air quality and greenhouse gas emissions, biological resources, energy, hydrology and water quality, noise, public services, and transportation and circulation related to construction and operation of the increased capacity basin.

2.5.5 Comparison and Conclusion Regarding Alternatives to the Project

The environmental impacts of the action alternatives vary; as a result, there are trade-offs in the environmental impacts of each, summarized below.

Flood Risk. Reduction in flood risk (extent and inundation depth) in the Fairfax-San Anselmo area is the fundamental purpose and key environmental benefit, in terms of avoided impacts, of the proposed Project. Most of the alternatives provide similar flood risk reduction except for the Morningside/Passive Basin Alternative, due to the reduced capacity provided by the FDS basin in that alternative and because of the different hydrologic effects of shifting the creek capacity improvements into Sleepy Hollow Creek. Also, some of the benefits in reduced flood risk would occur in a portion of the Morningside neighborhood instead of in downtown San Anselmo. As discussed in Section 4.9, Hydrology and Water Quality (Impact 4.9-4), the only significant and unavoidable impact of the proposed Project is that it could increase flood risk in two locations. This impact could be avoided in one of these locations (the San Anselmo area) if removal of the Winship Bridge from San Anselmo Creek (described in Chapter 5) were to be completed prior to removal of 634-636 San Anselmo Avenue. This is expected to happen in time to avoid this potential effect, but that is not certain. That external project would not affect the potential for backwater flooding along Fairfax Creek upstream of the FDS basin site, and so Mitigation Measure 4.9-4 is the only option to reduce this impact to a less-than-significant level.

FDS Basin Elements. Among the FDS basin elements considered, the severity and magnitude of many construction- and operational-phase impacts at and in the vicinity of the FDS basin site would generally be less with the passive basin than with either the proposed Project or the Increased Capacity Basin Alternative because construction of the diversion structure would not

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occur, resulting in less extensive conversion and disturbance of aquatic and riparian habitat and associated special-status species within Fairfax Creek, as well as less tree removal. The passive basin would also reduce operational impacts associated with the need to periodically remove deposited sediment from behind the diversion structure; this annual removal of deposited material would be a recurring impact to the stream channel, water quality, and aquatic and amphibian wildlife species. The different basin designs are otherwise quite similar in both the proposed Project and the action alternatives with regard to increases in scour/erosion potential and other hydraulic impacts.

Creek Capacity Elements. The severity and magnitude of impacts to the natural (as opposed to human) environment would be somewhat less in the Morningside/Passive Basin Alternative than with either the proposed Project or the Increased Capacity Basin Alternative because the extent of disturbance to stream habitat would be less. However, implementing creek capacity improvements on Sleepy Hollow Creek instead of on San Anselmo Creek at the downtown location would shift impacts to a location surrounded by residences, which are more sensitive to construction-phase disturbance (e.g., noise and vibration, transportation, land use) than commercial uses are. Under the Raised Building Alternative, almost all of the impacts attributable to the Downtown San Anselmo Element of the proposed Project also would occur; consequently, this alternative offers little environmental advantage, though it would have somewhat reduced impacts due to changes in community function and character and visual impacts (both of which would be less than significant in the proposed Project) from retaining the existing building.

Environmentally Superior Alternative. Pursuant to the State CEQA *Guidelines*, this EIR identifies the "Environmentally Superior Alternative". Based on a comparison of impacts discussed in Chapter 6, *Alternatives*, the EIR finds that – of the alternatives described in Chapter 6, Alternatives – the Morningside/Passive Basin Alternative would be environmentally superior to the proposed Project and the other alternatives because it would eliminate one of the two small areas where the Project would have a significant and unavoidable impact (i.e., the backwater flooding from Fairfax Creek upstream of the project site). Because the Morningside/Passive Basin Alternative is the only alternative that does not include the diversion structure in Fairfax Creek, it is the only alternative that would avoid that impact. Therefore, it is the environmentally superior alternative among those developed for the alternatives analysis in Chapter 6. However, the Morningside/Passive Basin Alternative would also increase flood risk in portions of downtown San Anselmo that would not be adversely affected by the proposed Project, and it would not wholly avoid the significant and unavoidable impact of increased flood risk near the Winship Bridge.

A more environmentally superior alternative could be formed from combining the passive basin component of the Morningside/Passive Basin Alternative with the Downtown San Anselmo Element of the proposed Project. Based on the environmental trade-offs described above, this combined alternative would reduce construction impacts on biological, water quality, and most hydrologic impacts, including the sediment deposition and backwater flooding upstream of the project site on Fairfax Creek, compared to the proposed Project. It would also reduce flood risk compared to existing conditions, although not be as much as the proposed Project. This combination was not one of the initial alternatives because the modeling of all of the combinations of different design elements was not completed when this alternatives analysis began.

2.6 Significant Irreversible Environmental Changes

Construction activities associated with the proposed Project would result in an irretrievable and irreversible commitment of natural resources though direct consumption of fossil fuels and use of materials. However, the energy consumption for construction would not result in long-term depletion of non-renewable energy resources and would not permanently increase reliance on energy resources that are not renewable. Construction activities would not reduce or interrupt existing electrical or natural gas services such that existing supplies would be constrained.

Project operations that would affect irretrievable resources would be limited to annual maintenance activities. Maintenance activities would result in irreversible and irretrievable use of energy and material resources, and conversion of land use from commercial uses to flood management uses.

The use of nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. Similarly, the conversion of one parcel of land from its former commercial land use to a flood management facility would not affect the availability of commercially zoned parcels in Marin County, Ross Valley as a whole, or in the adjacent Town of Fairfax.

2.7 Areas of Known Controversy

On April 6, 2017, the Flood Control District issued a Notice of Preparation (NOP) of a Draft EIR for the Project pursuant to Section 15082 of the State CEQA *Guidelines* to seek comments from responsible and trustee agencies and the public about the scope of the EIR. The 30-day NOP comment period closed on May 8, 2017. During the comment period, on April 20, 2017, the Flood Control District held a public scoping session (meeting) regarding the Project to solicit agency and public input on the range of environmental effects that should be analyzed in the EIR. Oral comments were received at the scoping meeting, and additional written comments were received at and following the meeting. The topics commented on – and thus the main areas of potential controversy – were these:

- 1. Increased flood risk downstream of project sites
- 2. Liquefaction from a potentially-raised water table due to the FDS basin at the Nursery site
- 3. Loss of business revenue along San Anselmo Avenue due to construction and removal of the building at 634-636 San Anselmo Avenue.
- 4. Impacts to creek ecosystem and water quality from the project, including both in-stream structures and increased flows causing erosion
- 5. Opposition to FDS basins due to safety, recreation, and aesthetic concerns

A scoping report containing the NOP and scoping comments received are included in **Appendix A**. The scoping report also identifies the Draft EIR sections that address the scoping issues raised in the comments received.

2.8 Major Conclusions and Issues to be Resolved

The following major conclusions and issues to be resolved are derived from the analysis in the EIR. The major conclusions of the EIR are presented first, followed by the issues to be resolved. The issues are presented to highlight the topics on which the decision-makers may want to focus special attention.

2.8.1 Major EIR Conclusions

The EIR evaluates a total of 62 project-based potential adverse environmental impacts. Of these, 24 are identified as significant impacts. Feasible mitigation measures are available to reduce all but one of the Project's significant project-based effects to a less-than-significant level. The EIR also evaluates cumulative impacts of the Project in combination with other related past, present, and probable future projects, and identifies one significant cumulative impact. The Project's contribution to this impact would not be cumulatively considerable with implementation of mitigation.

Although the Project would result in a net reduction in flooding for the 10-year and 25-year storms, the Project would result in some new flooding downstream of the Project area, north of the Sir Francis Drake Bridge and east of Sir Francis Drake Boulevard, and upstream of the Nursery Basin site, during the 25-year flood event. This impact can be mitigated to less than significant with the installation of flood barriers, and for areas in Ross and San Anselmo, could be avoided in the cumulative scenario. However, because the Flood Control District cannot fully control implementation of the flood barriers (on private property) and because the cumulative scenario bridge replacement projects are within the responsibility and jurisdiction of other agencies, not the Flood Control District, the Project's impact related to flooding remains significant.

2.8.2 Issues to be Resolved

Draft EIR Section 4.9, Hydrology and Water Quality, identified a significant and unavoidable flooding impact on select parcels in unincorporated Marin County (east of the Town of Fairfax), the Town of San Anselmo, and the Town of Ross. Implementation of the passive basin (as evaluated in Alternative 2) would avoid this impact in unincorporated Marin County because the diversion structure would not be included in the basin design. However, the passive basin design would not retain as much water as the proposed Project basin design; therefore, fewer areas downstream would experience reduced flood risk compared with the Project if the passive basin is selected.

Further, in the proposed Project or any alternative to it analyzed in the EIR, there are small areas along San Anselmo Creek in the Town of San Anselmo and the Town of Ross that would have slightly higher peak flood elevations in large flood events (e.g., the 25-year event). While adequate mitigation measures (the flood barriers described in Section 2.8.1) are available to reduce this impact to less-than-significant levels, the Flood Control District cannot enforce those measures on private property owners without their permission.

The Flood Control District's Board of Supervisors will need to consider whether to adopt a statement of overriding considerations, prior to approving the Project, stating the reasons why the benefits of the Project outweigh its significant unavoidable impacts as identified in this EIR and/or adopt feature of one or more of the alternatives that would further reduce this impact.

2.9 Effects Found Not to be Significant

The impact analysis determined that in six of the 14 resource areas, impacts would be either less than significant or have no impact, generally due to the project's required compliance with applicable regulations protecting these resources, incorporation of project-specific control measures, and/or the limited extent that the existing resource would be affected by the project. These resource areas are:

- 1. Aesthetics and Visual Resources
- 2. Cultural Resources
- 3. Geology, Soils, and Seismic Hazard
- 4. Land Use and Planning
- 5. Population and Housing
- 6. Public Services and Utilities

The remaining eight resource area impacts would be mitigated to a less-than-significant level with implementation of identified mitigation measures. The EIR identified significant impacts that could be mitigated to a less-than-significant level with implementation of mitigation measures in the following areas:

- 1. Air Quality and Greenhouse Gas Emissions
- 2. Energy, Mineral, Forest, and Agricultural Resources
- 3. Biological Resources
- 4. Hazards and Hazardous Materials
- 5. Hydrology and Water Quality
- 6. Noise and Vibration
- 7. Parks and Recreation
- 8. Transportation and Circulation

Table 2-1 at the end of this chapter includes summary discussions of these impacts and their mitigation measures.

2.10 Other Social and Economic Impacts Found Not to Be Significant

State CEQA *Guidelines* Section 15382 provides that "[a]n economic or social change by itself shall not be considered a significant effect on the environment." However, physical impacts associated with social or economic changes may be considered significant. Pursuant to State CEQA *Guidelines* Section 15382, purely economic or social impacts would not be considered significant impacts of the proposed Project, and are not, therefore, addressed in this EIR. This EIR evaluates all physical impacts that would result from the proposed Project and has not identified any physical impacts associated with substantial social or economic changes. The Flood Control District has an option to purchase the building at 634-636 San Anselmo Avenue from its owner and is committed to providing relocation assistance for the current tenant businesses at that location. The removal of a single commercial building from the downtown San Anselmo area would not be sufficient to cause a significant social or economic change that would lead to a significant environmental effect that was not analyzed in the EIR.

2.11 Mitigation Monitoring and Reporting Program

In conformance with California Resources Code Section 21081.6, a Mitigation Monitoring and Reporting Program has been prepared for the Project, if approved. The purpose of the program would be to ensure compliance with the mitigation measures incorporated into the Project and set forth in this EIR. The Mitigation Monitoring and Reporting Program is presented in **Appendix E**.

TABLE 2-1 SUMMARY OF IMPACTS AND MITIGATION MEASURES

IMPACT	Significance Determination	Mitigation Measure
Aesthetics and Visual Resources		
Impact 4.2-1: The Project would not have a substantial adverse effect on a publicly-accessible scenic vista.	LTS	No mitigation required.
Impact 4.2-2: The Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view of a designated scenic public highway.	LTS	No mitigation required.
Impact 4.2-3: The Project would not substantially degrade the existing visual character or quality of the site and its surroundings, including alteration of the built environment or land use patterns.	LTS	No mitigation required.
Impact 4.2-4: The Project would not create a new source of substantial light, glare, or shadow which would adversely affect day or nighttime views in the area.	LTS	No mitigation required.
Air Quality and Greenhouse Gas Emission	าร	
Impact 4.3-1: Construction of the Project would generate criteria pollutant emissions	LSM	Mitigation Measure 4.3-1: BAAQMD Basic Construction Measures.
that could exceed air quality standards or contribute substantially to an existing or		To limit dust, criteria pollutants, and precursor emissions associated with construction, the following BAAQMD-recommended Basic Construction Measures shall be implemented and included in all contract specifications for components constructed under the Project:
projected air quality violation.		1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
		2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
		3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
		4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
		5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
		6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

IMPACT	Significance Determination	Mitigation Measure		
Air Quality and Greenhouse Gas Emission	s			
Impact 4.3-1 (cont.)		7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.		
		Post a publicly visible sign with the telephone number and person to contact at the Flood Control District regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.		
Impact 4.3-2: Construction of the Project would result in emissions that could conflict with the 2017 Clean Air Plan.	LSM	Mitigation Measure 4.3-1: BAAQMD Basic Construction Measures (refer to Impact 4.3-1 above)		
Impact 4.3-3: Operational activities proposed under the Project would generate criteria pollutant emissions that would not exceed air quality standards and conflict with the 2017 Clean Air Plan.	NI	No mitigation required.		
Impact 4.3-4: Construction of the Project could expose sensitive receptors to toxic air contaminants, including diesel particulate matter emissions.	LSM	Mitigation Measure 4.3-4: Tier 4 Engines for Construction Equipment. All off-road equipment greater than 25 horsepower that operates for more than 20 total hours over the entire duration of construction activities shall have engines that meet the USEPA or CARB Tier 4 interim or Tier 4 Final off-road emission standards.		
Impact 4.3-5: Construction of the Project would not result in objectionable odors.	LTS	No mitigation required.		
Impact 4.3-6: Construction and operation of the Project would result in GHG emissions that would not have a significant impact on the environment or conflict with applicable plans and policies in place to reduce GHG emissions.	LTS	No mitigation required.		
Energy, Mineral, Forest and Agricultural R	Energy, Mineral, Forest and Agricultural Resources			
Impact 4.4-1: Implementation of the Project could use energy, oil, or natural gas in an inefficient manner; encourage activities that would result in the use of large amounts of energy, oil, or natural gas; result in the energy supplier not having the capacity to supply the Project's energy needs with existing or planned supplies; or require the development of new energy resources.	LSM	Mitigation Measure 4.3-1: BAAQMD Basic Construction Measures (refer to Impact 4.3-1 above)		

IMPACT	Significance Determination	Mitigation Measure
Biological Resources		
Impact 4.5-1: Project implementation could	LSM	Mitigation Measure 4.5-1a: Seasonal Avoidance of Sensitive Aquatic Species.
have substantial adverse effects on special- status aquatic species or habitats.		In-water construction work, including activities on the banks that are expected to create turbidity or disturb the streambed, shall be conducted within resource agency-approved work windows intended to reduce potential impacts on salmonids (generally limiting work to the period between June 15 and October 15) with resource agency concurrence for the following exceptions:
		1. Removal of debris, foundations or other manmade materials from the creek bed may continue year-round, in areas of the stream which are dry and where such activity shall not create turbidity.
		2. Tree removal and invasive species removal may take place year-round, providing the area is free of nesting birds and roosting bats as provided under Mitigation Measure 4.5-4 .
		3. Revegetation activities may occur year-round.
		Mitigation Measure 4.5-1b: Relocation of Special-Status Fish.
		If in-channel work requires dewatering, including for sediment removal maintenance activities, fish shall be captured and relocated downstream of the Project areas to avoid injury and mortality and minimize disturbance. The Flood Control District shall implement the measures below, or whatever more stringent species preservation and avoidance measures are imposed by resource agencies, including NMFS and CDFW, with jurisdiction over aquatic special-status species.
		The name(s) and credentials of qualified biologist(s) to act as construction monitors shall be submitted to CDFW and NMFS for approval at least 15 days before construction work begins.
		2. Prior to and during the initiation of construction activities, qualified fisheries biologist (i.e., approved by CDFW and/or NMFS) shall be present during installation and removal of creek diversion structures.
		3. For sites that require flow diversion and exclusion, the work area shall be blocked by placing fine-meshed nets or screens above and below the work area to prevent salmonids from re-entering the work area. To minimize the potential for re-entry, mesh diameter shall not exceed 1/8 inch. The bottom edge of the net or screen shall be secured to the channel bed to prevent fish from passing under the screen. Exclusion screening shall be placed in low velocity areas to minimize fish impingement against the mesh. Screens shall be checked periodically and cleaned of debris to permit free flow of water.
		4. Before removal and relocation on individual fish begins, a qualified fisheries biologist shall identify the most appropriate release location(s). In general, release locations should have water temperatures similar to (<3.6°F difference) the capture location and offer ample habitat (e.g., depth, velocity, cover, connectivity) for released fish, and should be selected to minimize the likelihood of reentering the work area or becoming impinged on exclusion nets or screens.
		5. The means of capture shall depend on the nature of the work site, and shall be selected by a qualified fisheries biologist as authorized by CDFW and NMFS. Complex stream habitat may require the use of electrofishing equipment, whereas in outlet pools, fish and other aquatic species may be captured by pumping down the pool and then seining or dip netting. Electrofishing, if necessary, shall be conducted only by properly trained personnel holding current permits from CDFW and NMFS and following the most recent NMFS electrofishing guidelines (NMFS, 2000).
		6. Initial fish relocation efforts shall be performed several days prior to the scheduled start of construction. Flow diversions and species relocation shall be performed during morning periods. The fisheries biologist shall survey the exclusion screening throughout the diversion effort to verify that no special-status fish, amphibians, or aquatic invertebrates are present. Afternoon pumping activities

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IMPACT	Significance Determination	Mitigation Measure
Biological Resources (cont.)		
Impact 4.5-1 (cont.)		shall be limited and pumping shall be suspended when water temperatures exceed 18 degrees Celsius (64.5° F). Water temperatures shall be measured periodically, and flow diversion and species relocation shall be suspended if temperatures exceed the 18-degree limit under NMFS guidelines. Handling of fish shall be minimized. When handling is necessary, personnel shall wet hands or nets before touching them.
		7. Prior to translocation, fish that are collected during surveys shall be temporarily held in cool, aerated, shaded water using a five-gallon container with a lid. Overcrowding in containers shall be avoided; at least two containers shall be used and no more than 25 fish shall be kept in each bucket. Aeration shall be provided with a battery-powered external bubbler. Fish shall be protected from jostling and noise, and shall not be removed from the container until the time of release. A thermometer shall be placed in each holding container and partial water changes shall be conducted as necessary to maintain a stable water temperature. Special-status fish shall not be held more than 30 minutes. If water temperature reaches or exceeds 18 degrees Celsius (USFWS 2012), the fish shall be released and relocation operations shall cease.
		8. If fish are abundant, capture shall cease periodically to allow release and minimize the time fish spend in holding containers.
		9. Fish shall not be anesthetized or measured. However, they shall be visually identified to species level, and year classes shall be estimated and recorded.
		10. Reports on fish relocation activities shall be submitted to CDFW and NMFS in within one week.
		Mitigation Measure 4.5-1c: Contractor Environmental Awareness Training and Site Protection.
		All construction personnel that are working in areas of potential endangered species habitat shall attend an environmental education program delivered by a qualified biologist prior to working on either Project site. The training shall include an explanation as how to best avoid the accidental take of special-status species, including salmonids and other fish species, western pond turtle, California redlegged frog, and listed birds.
		The training session shall be mandatory for contractors and all construction personnel. The field meeting shall include topics on species identification, life history, descriptions, and habitat requirements during various life stages. Emphasis shall be placed on the importance of the habitat and life stage requirements within the context of maps showing areas where minimization and avoidance measures are being implemented. The program shall include an explanation of appropriate federal and state laws protecting endangered species.
		The contractor shall provide closed garbage containers for the disposal of all trash items (e.g., wrappers, cans, bottles, food scraps). Work sites shall be cleaned of litter before closure each day, and placed in wildlife-proof garbage receptacles. Construction personnel shall not feed or otherwise attract any wildlife. No pets, excluding service animals, shall be allowed in construction areas.
Impact 4.5-2: Project implementation could	LSM	Mitigation Measure 4.5-2: Avoid Impacts to Rare Plants.
have substantial adverse effects on special- status plants.		A qualified biologist shall conduct a pre-construction survey of each Project site for special-status plant species with the potential to occur within the area of disturbance. The survey shall be floristic in nature and shall follow the procedures outlined in the CDFW Publication <i>Protocols for Surveying and Evaluating Impacts to Special-status Native Plant Populations and Natural Commu</i> nities (CDFW, 2009). The survey shall be conducted between April and July in conjunction with the blooming seasons of those rare plants with moderate potential to occur in the Project area.
		If no special-status plants are observed during appropriately timed surveys by a qualified botanist, it is assumed the construction activity will have no impact on special-status plants and no further action is required.

IMPACT	Significance Determination	Mitigation Measure
Biological Resources (cont.)		
Impact 4.5-2 (cont.)		If special-status plants are identified within the Project area, the individuals or populations shall be mapped and quantified and reported to the CNDDB, and the project manager shall be notified so that potential impacts to these known occurrences shall be avoided, when feasible. Coordination with CDFW and/or USFWS staff shall be conducted to establish appropriate avoidance and minimization measures if the species is federally or State listed. Avoidance and minimization measures may include:
		No-disturbance buffers.
		2. Work windows for low impact activities that are compatible with the dormant phase of a special-status plant life cycle but that may kill living plants or severely alter their ability to reproduce.
		3. Silt fencing or construction fencing to prevent vehicles, equipment, and personnel from accessing the occupied habitat.
		4. Erosion control BMPs such as straw wattles made of rice straw, erosion control blankets, or hydroseeding with a native plant seed mix to prevent sedimentation from upslope construction activities.
		5. Before the construction activity commences, special-status plant occurrences shall be marked with pin flags in the field, and all maintenance personnel shall be instructed as to the location and extent of the special-status plants or populations and the importance of avoiding impacts to the species and its habitat.
		6. If needed a qualified biologist shall be present or on-call during construction activities to provide guidance on avoiding special-status plants, ensure that other avoidance measures (buffers, fencing, etc.) are observed, and to document the total impact of the maintenance activity, particularly if it is greater or less than anticipated.
		7. In consultation with, and as authorized by, CDFW or USFWS, a qualified botanist may collect and spread seeds or relocate plants to appropriate locations.
	LSM	Mitigation Measure 4.5-3a: Install Wildlife Exclusion Fencing.
have substantial adverse effects on special- status amphibians.		The Flood Control District shall implement the measures below, or whatever more stringent California red-legged frogs (CRLF) and western pond turtle (WPT) preservation and avoidance measures are imposed by resource agencies with primary jurisdiction over special-status wildlife species, including USFWS and CDFW.
		1. Before ground-disturbing activity occurs, the contractor shall install temporary exclusion/silt barrier fencing around the perimeter of the construction site. Fencing shall be installed to the extent necessary to exclude CRLF from the construction area (in areas with habitat), and minimize impacts to natural habitat. Fencing material shall provide for wildlife exclusion as well as maintenance of water quality. Construction personnel and construction activity shall avoid areas outside the fencing. The need for and exact location of the fencing shall be determined by a qualified biologist, with the goal of protecting sensitive biological habitat and water quality. The fencing shall be checked at regular intervals (e.g., weekly) and maintained until construction is complete at individual work sites. The fence shall contain exit funnels to allow any wildlife within the construction area to leave without human intervention while preventing entry into the construction zone. Exit funnels shall be placed at ground level no more than 100 feet apart along the fence, or as modified by a qualified biologist or as directed by resource agencies with primary jurisdiction over special-status wildlife species.
		2. The fencing shall be monitored as prescribed in Mitigation Measure 4.5-6 .

IMPACT	Significance Determination	Mitigation Measure
Biological Resources (cont.)		
Impact 4.5-3 (cont.)		Mitigation Measure 4.5-3b: Avoid Impacts to California Red-legged Frog and Western Pond Turtle.
		The name(s) and credentials of the qualified biologist(s) to act as construction monitors shall be submitted to the USFWS for approval at least 15 days before construction work begins.
		Prior to commencing work, an approved biologist shall survey the entire construction footprint for California red-legged frog and other special-status species with potential to be present, such as western pond turtle.
		At the beginning of each workday that includes initial ground disturbance, including grading, excavation, and vegetation-removal activities, an approved biologist shall conduct on-site monitoring for the presence of these species in the area where ground disturbance or vegetation removal is planned. If required by the USFWS or CDFW, perimeter fences shall be inspected to ensure they do not have any tears or holes, that the bottoms of the fences are still buried, and that no individuals have been trapped in the fence.
		All excavated or deep-walled holes or trenches greater than 2 feet deep shall be covered at the end of each workday using plywood, steel plates, or similar materials, or escape ramps shall be constructed of earth fill or wooden planks to allow animals to exit. Before such holes are filled, they shall be thoroughly inspected for trapped animals.
		If a special-status species is present within the exclusion fence area during construction, work shall cease in the vicinity of the animal, and the animal shall be allowed to relocate of its own volition unless relocation is permitted by state and/or federal regulatory agencies.
		The contractor shall maintain the temporary fencing—both exclusion fencing and protective fencing (if installed)—until all construction activities are completed. No construction activities, parking, or staging shall occur beyond the fenced exclusion areas.
Impact 4.5-4: Project implementation could	LSM	Mitigation Measure 4.5-4: Avoid Impacts to Special-status and Nesting Birds, including Raptors and Northern Spotted Owls.
have substantial adverse effects on nesting birds.		Tree removal activities shall be avoided during the nesting season (February 1 to August 31). Prior to any tree removal or construction in nesting season, a qualified biologist shall conduct a spotted owl and general nesting bird survey in each Project site and areas within 1/2-mile. Any identified spotted owl nesting areas or activity centers shall be flagged and avoided with a buffer of 1/4-mile throughout the active nesting season. Other nesting birds with active nests in the vicinity of the construction area shall be avoided by a buffer of 50 feet, or as determined in coordination with USFWS and CDFW. Construction work may continue outside of the no-work buffer. Northern spotted owl nesting surveys shall be conducted in coordination with Marin County Parks and Point Blue Conservation Science (Point Blue, 2017).
Impact 4.5-5: Project implementation could have substantial adverse effects on Northern spotted owls.	LSM	Mitigation Measure 4.5-4: Avoid Impacts to Special-status and Nesting Birds, including Raptors and Northern Spotted Owls (refer to Impact 4.5-4 above)
Impact 4.5-6: Project implementation could	LSM	Mitigation Measure 4.5-6: Avoid Impacts to Special-status Bats.
have substantial adverse effects on special- status bats.		Prior to any construction, a qualified bat biologist shall conduct a pre-construction survey for roosting bats in trees to be removed or pruned and structures to be demolished. If no roosting bats are found, no further action is required. If a bat roost is found, the following measures shall be implemented to avoid impacts on roosting bats.
		If active maternity roosts are found in trees or structures that shall be removed or demolished as part of construction, tree removal or demolition of that structure shall commence before maternity colonies form (generally before March 1) or after young are flying (generally by July 31). Active maternal roosts shall not be disturbed.

IMPACT	Significance Determination	Mitigation Measure
Biological Resources (cont.)		
Impact 4.5-6 (cont.)		If a non-maternal roost of bats is found in a tree or structure to be removed or demolished as part of construction, the individuals shall be safely evicted, under the direction of a qualified bat biologist and with approval from CDFW. Removal of the tree or demolition of the structure should occur no sooner than two nights after the initial minor site modification (to alter airflow), under guidance of the qualified bat biologist. The modifications shall alter the bat habitat, causing bats to seek shelter elsewhere after they emerge for the night. On the following day, the tree or structure may be removed, in presence of the bat biologist. If any bat habitat is not removed, departure of bats from the construction area shall be confirmed with a follow-up survey prior to start of construction.
Impact 4.5-7: Project implementation could		Mitigation Measure 4.5-7a: Vegetation Protection for Sensitive Natural Communities.
adversely affect sensitive natural communities.		Prior to start of construction of any Project element, the extent of sensitive natural communities within the work area shall be identified by a qualified botanist experienced in the definition and recognition of these communities. The area of impact in sensitive natural communities shall be minimized by siting construction staging and access areas outside the limits of riparian vegetation (as determined during pre-construction surveys) and by utilizing previously-disturbed areas. Before construction begins, the Project engineer and a qualified biologist shall identify locations for equipment and personnel access and materials staging that will minimize riparian vegetation disturbance. When heavy equipment is required, unintentional soil compaction shall be minimized by using equipment with a greater reach, or using low-pressure equipment. Temporary impacts on sensitive natural communities shall be mitigated by revegetation with native species, as required by Mitigation Measure 4.5-7b.
		Mitigation Measure 4.5-7b: Habitat Restoration and Monitoring Plan.
		The Flood Control District shall prepare a Habitat Restoration and Monitoring Plan for restoration following construction activities at both Project sites. The plan shall describe required salvage and replanting protocols prior to and after construction is complete and shall thereby reduce the long-term amount of losses of these natural communities. This plan shall include, but not be limited to, protocols for replanting of vegetation removed prior to or during construction, and management and monitoring of the plants to ensure replanting success pursuant to Marin County's Countywide Plan, Marin County Code, or Code requirements of the Town of San Anselmo, or by any more stringent requirements included in other permits issued for the Project.
		The plan shall specify monitoring and performance criteria for the species planted, invasive species control criteria, as well as the best time of year for seeding to occur, pursuant to requirements of permits from the various resource agencies with regulatory purview over the Project. Revegetated areas shall be monitored for a five-year period to track progress toward performance criteria.
		Native riparian vegetation within the Project sites shall be salvaged prior to construction and replanted after construction is completed. Areas impacted by construction-related activity shall be replanted or reseeded with native trees, shrubs, and herbaceous perennials and annuals from the watershed under guidance from a qualified biologist. Local plant materials shall be used for revegetation of the disturbed area. The plant materials shall include local cuttings from the local watershed or from adjacent watersheds. This shall ensure that the seeds can be collected during the appropriate season and the container plants shall be of an appropriate size for out-planting. Using local cuttings can reduce the length of this phase.
		The Habitat Restoration and Monitoring Plan would also address restoration of jurisdictional wetlands and waters. Temporary impacts to wetlands shall be restored onsite with native wetland species under guidance from a qualified biologist. Permanent impacts to jurisdictional wetlands shall be mitigated for by replacement on- or off-site at an equal ratio or whatever more stringent requirements are included in the permits to be issued for the Project.
		The monitoring plan shall include annual monitoring of restored areas for at least 5 years. The plan shall contain vegetation management protocols, protocols for monitoring replanting success, and an adaptive management plan if success criteria are not being met. The adaptive management plan would include interim thresholds for replanting success and alternative management approaches, such as weed control or additional replanting, to undertake if thresholds are not met.

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IMPACT	Significance Determination	Mitigation Measure
Biological Resources (cont.)		
Impact 4.5-7 (cont.)		Mitigation Measure 4.5-7c: Avoid Spread of Invasive Species and Pathogens.
		All vehicles and equipment entering each Project site shall be clean of noxious weeds. Noxious weeds could spread between sites as well as from outside the Project sites. All construction equipment shall be washed thoroughly to remove all dirt, plant, and other foreign material prior to entering the Project sites. Particular attention shall be shown to the under-carriage and any surface where soil containing exotic seeds may exist. Arrangements shall be made for inspections of each piece of equipment before entering each Project site to ensure all equipment has been properly washed. Equipment found operating on the Project that has not been i.e., properly washed shall be shut down and may be subject to citation.
		 Certified weed-free permanent and temporary erosion control measures shall be implemented to minimize erosion and sedimentation during and after construction.
		2. The contractor shall conform to applicable federal, state, and local seed and noxious weed laws.
		3. Nursery operations where plants are stored, propagated, or purchased must certify implementation of best management practices to reduce pest and pathogen contamination within their nursery.
		4. Disturbed and decompacted areas outside the restoration area shall be revegetated with locally native vegetation. Revegetated areas shall be protected and tended, including watering when needed, until restoration criteria specified by regulatory agency-issued permits is complete.
		5. All tree removal and pruning activities shall include measures to avoid the spread of the Sudden Oak Death (SOD) pathogen. Such measures may include, but are not limited to the following:
		a. As a precaution against spreading the pathogen, clean and disinfect pruning tools after use on confirmed or suspected infested trees or in known infested areas. Sanitize tools before pruning healthy trees or working in pathogen-free areas. Clean chippers and other vehicles of mud, dirt, leaves, organic material, and woody debris before leaving a site known to have SOD and before entering a site with susceptible hosts.
		b. Inform crews about the arboricultural implications of SOD and sanitation practices when they are working in infested areas.
		c. Provide crews with sanitation kits containing chlorine bleach, scrub brush, metal scraper, boot brush, and plastic gloves.
		d. Sanitize shoes, pruning gear, and other equipment before working in an area with susceptible species.
		 When possible, work on SOD-infected and susceptible species during the dry season (June-October). When working in wet conditions, keep equipment on paved, graveled, or dry surfaces and avoid mud. Work in disease-free areas before proceeding to infested areas.
		f. If possible, do not collect soil or plant material (wood, brush, leaves, and litter) from host trees in the quarantine area. Within the quarantine area, host material (e.g., wood, bark, brush, chips, leaves, or firewood) from tree removals or pruning of symptomatic or non-symptomatic host plants should remain onsite to minimize pathogen spread.
		g. Use all reasonable methods to sanitize personal gear and crew equipment before leaving a SOD infested site. Scrape, brush, and/or hose off accumulated soil and mud from clothing, gloves, boots, and shoes. Remove mud and plant debris by blowing out or power washing chipper trucks, chippers, bucket trucks, fertilization and soil aeration equipment, cranes, and other vehicles. Restrict the movement of soil and leaf litter under and around infected trees as spores may be found there.
		h. Tools used in tree removal/pruning may become contaminated and should be disinfected with alcohol or chlorine bleach.

IMPACT	Significance Determination	Mitigation Measure
Biological Resources (cont.)		
Impact 4.5-8: Project activities could adversely affect wetlands and other waters.		See Mitigation Measures 4.5-7a and 4.57b, above.
Impact 4.5-9: Project construction could adversely affect riparian wildlife movement corridors.		See Mitigation Measures 4.5-1a, 4.5-3b, 4.5-4, and 4.5-6, above.
Impact 4.5-10: Project construction would		Mitigation Measure 4.5-10: Mitigation for Removal of Heritage or Protected Trees.
require tree removal.		During construction, as much understory brush and as many native trees as possible shall be retained, to maintain shade-producing and bank-stabilizing vegetation for the creeks. All trees to remain during construction within the grading area shall be protected and trimmed if necessary to ensure their trunks and/or limbs are not disturbed during construction.
		To mitigate for tree removal: For each tree to be removed, the Flood Control District shall plant a replacement tree of the same species or a suitable native species substitute, at a rate of one planting per tree removed or such other mitigation ratio requirements included in the LSAA to be obtained from CDFW (for riparian trees) or any applicable County and/or town recommendations (for heritage trees), and ensure that replacement trees are planted within or in the vicinity of the Project sites to the maximum extent practicable, as follows:
		Trees shall be replaced within the first year after the completion of construction or as soon as possible after construction is completed.
		2. Selection of replacement sites and installation of replacement plantings shall be supervised by an arborist or biologist with experience in restoration. Irrigation of tree plantings during the initial establishment period shall be provided as deemed necessary by an arborist or biologist, consistent with the site Habitat Restoration and Monitoring Plan (Mitigation Measure 4.5-7b) .
Cultural Resources		
Impact 4.6-1: The Project would not cause a substantial adverse change in the significance of a historical resource or a landmark of local cultural or historical importance.	NI	No mitigation required.
Impact 4.6-2: The Project would not cause a substantial adverse change in the significance of an archaeological resource.	LS	No mitigation required.
Impact 4.6-3: The Project would not disturb human remains, including those interred outside of dedicated cemeteries.	LS	No mitigation required.
Impact 4.6-4: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource.	LS	No mitigation required.

IMPACT	Significance Determination	Mitigation Measure
Geology, Soils, and Seismic Hazard		
Impact 4.7-1: The Project would not expose people or structures to potential substantial adverse effects from hazards including the risk of loss, injury, or death involving 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, strong seismic ground shaking, seismic-related ground failure, including liquefaction, landslides.	LTS	No mitigation required.
Impact 4.7-2: The Project would not result in substantial soil erosion or the loss of topsoil due to water forces and attendant siltation from excavation, grading, or fill.	LTS	No mitigation required.
Impact 4.7-3: The Project would not cause adverse effects from being 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse, or slope instability.	LTS	No mitigation required.
Impact 4.7-4: The Project would not cause adverse effects from being located on expansive soil, as defined in Section 1803.5.3 of the CBC, creating substantial risks to life or property, including deformation of foundations or damage to structures.	LTS	No mitigation required.
Impact 4.7-5: The Project would not cause substantial changes in topography from excavation, grading, or fill, including but not limited to ground surface relief features, geologic structures or unstable conditions, or unique geologic or physical features.	LTS	No mitigation required.
Impact 4.7-6: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	NI	No mitigation required.

IMPACT	Significance Determination	Mitigation Measure
Hazards and Hazardous Materials		
Impact 4.8-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials or substances into the environment or create or increase exposure to an actual or potential human or public health hazard.	LTS	No mitigation required.
Impact 4.8-2: The Project could create a significant hazard to the public or the	LSM	Mitigation Measure 4.8-2a: Check 700/750 Sir Francis Drake Boulevard investigation status.
environment from the Project's location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.		Prior to beginning construction activities, the contractor shall check the status of the 700/750 Sir Francis Drake Boulevard investigation available at the SWRCB GeoTracker website at: http://geotracker.waterboards.ca.gov/. Relevant information from the GeoTracker shall be used to inform the Health and Safety Plan and Soil Management Plan, described in subsequent mitigation measures. Mitigation Measure 4.8-2b: Health and Safety Plan.
		The construction contractor(s) shall prepare and implement a site-specific Health and Safety Plan in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. The Health and Safety Plan shall include, but is not limited to, the following elements:
		 Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site health and safety plan;
		2. A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals based on the most recent reporting of the investigation at 700/750 Sir Francis Drake Boulevard site overseen by the Regional Water Quality Control Board;
		3. Specified personal protective equipment and decontamination procedures, if needed;
		4. Emergency procedures, including route to the nearest hospital; and
		5. Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered.
		These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of unknown discovered or suspected hazardous materials release and notifying the Marin County CUPA (415-473-7085).
		Mitigation Measure 4.8-2b applies to both the Nursery Basin and the Downtown San Anselmo sites.
		Mitigation Measure 4.8-2c: Soil Management Plan.
		For the Downtown San Anselmo site, the Flood Control District or its contractor shall develop and implement a Soil Management Plan that includes a materials disposal plan specifying how the construction contractor shall remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan shall identify protocols for training workers to recognize potential soil contamination (such as soil staining, noxious odors, debris or buried storage containers), soil testing and disposal by a qualified

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IMPACT	Significance Determination	Mitigation Measure
Hazards and Hazardous Materials (cont.)		
Impact 4.8-2 (cont.)		contractor in the event that contamination is identified, and identification of approved disposal sites (e.g., Redwood Landfill in Novato). Contract specifications shall mandate approval of the Soil Management Plan by the Flood Control District as well as full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials.
Impact 4.8-3: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	No mitigation required.
Impact 4.8-C: Cumulative Impacts	NI	No mitigation required.
Hydrology and Water Quality		
Impact 4.9-1: Project construction could violate water quality standards and/or waste discharge requirements, provide substantial additional sources of polluted runoff, or otherwise substantially degrade water quality.	LSM	Mitigation Measure 4.9-1: Implement Dewatering BMPs for In-Water Work. If dewatering discharge produced during construction of the project elements is not discharged to the sewer system, the construction specifications shall require that the construction contractor(s) implement standard BMPs developed and approved by Marin County for the treatment of sediment-laden water produced during cofferdam dewatering activities. BMPs could include discharging water through filtration media, such as filter bags or a similar filtration device, or allowing the cofferdam dewatering discharge to infiltrate into the soil. If infiltration is used, application of the dewatering discharge shall be conducted at a rate and location that does not allow runoff into San Anselmo or Fairfax Creeks or drainage conveyances, such as storm drains, and does not cause flooding or runoff to adjacent properties. The dewatering discharge shall also be conducted at a rate that does not allow ponding, unless the ponding is a result of implementing BMPs to reduce the velocity of the flow and occurs within constructed containment, such as an excavation or berm with no outlet. The discharge must also be applied at a sufficient distance from building foundations or other areas that could be damaged from ground settling or swelling. Alternatively, if the filtered dewatering effluent is sufficiently clean to comply with applicable federal and state regulation, that water could be reused for construction dust suppression, which would reduce the need for water use for that purpose. Any BMPs developed and implemented shall remove sediment in a manner sufficient to meet the Water Quality Objective for turbidity as specified in the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). Specifically, receiving waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity related to dewatering discharges shall not be greater than 10 percent in areas where natural turbidity is gre
Impact 4.9-2. The Project would not substantially deplete groundwater supplies, interfere substantially with groundwater recharge or absorption, or intersect groundwater by cuts or excavations such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	LTS	No mitigation required.

IMPACT	Significance Determination	Mitigation Measure
Hydrology and Water Quality (cont.)		
Impact 4.9-3: The Project could alter existing drainage patterns, potentially causing new erosion or siltation.	LSM	Mitigation Measure 4.9-3a. Prioritize Nursery Basin Reach for Stream Maintenance.
		The SMP imposes limits on the total volume of material allowed to be removed from all of the streams covered by that permit. In order to retain the design capacity of the Nursery Basin and the associated storage within the Fairfax Creek channel behind the diversion structure, the Flood Control District shall prioritize sediment removal at this site over other sites covered by the SMP and shall remove all deposited sediment up to the maximum volume allowed under the existing permit (2,100 cubic yards). If deposited sediment still remains after removing the maximum volume, then this site shall be prioritized in subsequent years to remove the remaining sediment and any newly accumulated material, again up to the maximum allowed.
		Mitigation Measure 4.9-3b. Scour Analysis and Protection Measures.
		Due to the dependence of erosion and sedimentation patterns on the bed-scale morphology of the new structures, measures to counter scour and sedimentation issues must be based on more advanced project design. To reduce project impacts on erosion and sedimentation, the Flood Control District shall conduct a scour analysis and then develop and implement appropriate scour countermeasures from the analysis into project design and operations. The analysis shall be based on at least 30 percent design and must evaluate the potential for scour and channel bank erosion including specifying the expected depth and lateral extent both upstream and downstream of the project site. The analysis shall recommend foundation designs and scour protection measures that protect structures to depths below potential scour, estimated using standard engineering methods. The Flood Control District shall implement the foundation designs and scour protection measures in final project design. Foundation design and scour protection measures commonly used to protect existing in-channel structures and banks and that could be implemented in this project include but are not limited to:
		Adding new rock revetment or extending the depth of existing rock revetments
		2. Extending the foundations of vertical retaining walls using sheet pile or concrete.
Impact 4.9-4: The Project would	SU	Mitigation Measure 4.9-4: Provide Flood Protection to Substantially Affected Areas.
substantially alter the existing drainage pattern of the watershed, altering patterns of flooding onsite and offsite.		For areas upstream and downstream of the Winship Bridge (between Barber Avenue and the Sir Francis Drake Bridge): If the Winship Bridge Replacement Project is not completed prior to construction of the Project, tene Flood Control District shall develop, fund, and implement flood barriers on properties where existing habitable structures would experience new inundation in a 25-year event. The flood barriers shall be designed based on hydraulic modeling demonstrating that the flood barriers would protect existing habitable structures on any properties upstream of the Sir Francis Drake Bridge from new inundation during the 25-year event, or to any higher degree of protection required for that particular type of measure by applicable building codes. Flood barriers include but are not limited to the following measures:
		Elevation of structures above the 100-year flood elevations
		Basement removal and construction of an addition to contain utilities removed from the basement
		Wet flood proofing of structures, in which, with use of water resistant materials, floodwaters are allowed to enter a structure during a flood event
		Dry flood proofing of structures
		Berms or flood walls

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IMPACT	Significance Determination	Mitigation Measure
Hydrology and Water Quality (cont.)		
Impact 4.9-4 (cont.)		For areas immediately upstream of the Nursery Basin site: The Flood Control District shall develop, fund, and implement flood barriers on properties where existing habitable structures would experience new inundation in a 25-year event.
		For both of those locations: The flood barriers would ensure that existing habitable structures would not be inundated by the 25-year event. Upon confirmation of permission by the property owners, the Flood Control District shall implement this measure, including implementing any measures identified in permits required from the California Department of Fish and Wildlife, Regional Water Quality Control Board, or other regulatory agencies. However, the potentially adversely affected parcels are privately owned, and the Flood Control District eannet necessarily is not proposing to require the installation or implementation of flood barriers because without the consent of the property owner(s), who may specifically request that such measures not be implemented. In that case, this Mitigation Measure shall would not be implemented, and the affected parcels may experience an increased level of flood inundation in a 25-year event or larger.
		The degree of flood protection provided to an individual property will vary depending on the specifics of the flood barrier selected. For most of the flood barriers, the Flood Control District shall provide protection from the 25-year event. However, pursuant to Marin County building code and associated permitting requirements, any increase in structure elevation must be to an elevation sufficient to raise the finished first floor above the elevation of the 100-year flood event. Therefore, property owners who accept that form of flood barrier would receive assistance to implement 100-year protection.
		Funding and Implementation Responsibility (Both Locations): For flood walls or berms at the top-of-bank of San Anselmo Creek or Fairfax Creek on privately owned parcels and with the property owners' permission, the Flood Control District shall fund, design, build, and maintain all aspects of those measures, including their possible future removal if implementation of other flood risk reduction projects renders these flood walls or berms unnecessary as determined by the Flood Control District. For a flood barrier that involves improvements or modifications to privately owned habitable structures covered by Mitigation Measure 4.9-4 (structure elevation, wet proofing, dry proofing, basement removal and construction of an addition to house water heaters, furnaces, and similar home appliances, etc.), the Flood Control District shall fully fund the design and provide funding to the property owner for implementation—that is proportional to the increased flood depth with the project. The funding would be provided to the property owner to implement these modifications or improvements. The property owner would be responsible for construction, implementation, and future maintenance of the structure and any associated flood mitigation measures or improvements.
Impact 4.9-5: The Project would not place within a 100-year flood hazard area structures which would impede or redirect flood flows.	LTS	No mitigation required.
Impact 4.9-6: The Project would not directly or indirectly expose people or structures to a significant risk of loss, injury or death involving flooding and other water-related hazards, including flooding as a result of the failure of a levee or dam, or from increased debris deposition.	LTS	No mitigation required.
Impact 4.9-7: The Project would not directly or indirectly cause inundation by seiche, tsunami, or mudflow.	LTS	No mitigation required.

IMPACT	Significance Determination	Mitigation Measure
Land Use and Planning		
Impact 4.10-1: The Project would not physically divide an established community.	NI	No mitigation required.
Impact 4.10-2: The Project would not conflict with local land use plans.	LTS	No mitigation required.
Impact 4.10-3: The Project would not substantially alter the character or functioning of a community, or present or planned use of an area.	LTS	No mitigation required.
Noise		
Impact 4.11-1: Project construction would not result in substantial temporary or periodic increase in ambient noise levels in the Project vicinity.	LTS	No mitigation required.
Impact 4.11-2: Project construction would not generate noise that would expose people to noise levels in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies during construction.	LTS	No mitigation required.
Impact 4.11-3: Project construction would not expose people to or generate excessive groundborne vibration during construction.	LTS	No mitigation required.
Impact 4.11-4: The Project would not cause substantial permanent increases in ambient noise levels in the Project vicinity above levels existing without the Project during operations.	LTS	No mitigation required.
4.10.4.5 Cumulative Impacts	LSM	
Population and Housing		
Impact 4.12-1. The Project would not induce substantial population growth.	NI	No mitigation required.
Impact 4.12-2. The Project would not displace substantial numbers of existing housing units or people.	NI	No mitigation required.

IMPACT	Significance Determination	Mitigation Measure
Population and Housing (cont.)		
Impact 4.12-3. The Project would not conflict with housing and population projections and policies as set forth in the Countywide Plan.	NI	No mitigation required.
Public Services and Utilities		
Impact 4.13-1. The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or increase the demand for new or increased staff and/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 public services including, fire protection, police protection, schools or other public facilities.	LTS	No mitigation required.
Impact 4.13-2. The Project's demand for solid waste disposal would not exceed the permitted capacity of a suitable landfill.	LTS	No mitigation required.
Impact 4.13-3. The Project would comply with federal, state, and local statutes and regulations related to solid waste.	LTS	No mitigation required.
Impact 4.13-4. The Project would not require or result in the construction of new power, natural gas, or communications system facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.	LTS	No mitigation required.
Parks and Recreation		
Impact 4.14-1: Construction and operation of the Project would not 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.	LTS	No mitigation required.

IMPACT	Significance Determination	Mitigation Measure			
Parks and Recreation (cont.)					
Impact 4.14-2: Construction and operation of the Project could include public access and recreational facilities or could require the construction or expansion of recreational facilities which could have an adverse physical effect on the environment.	LSM	Mitigation Measure 4.3-1: BAAQMD Basic Construction Measures (refer to Impact 4.3-1 above) Mitigation Measure 4.9-1: Implement Dewatering BMPs for In-Water Work (refer to Impact 4.9-1 above)			
Impact 4.14-3: Construction and operation of the Project would not require the designation of additional parkland to remain in conformance with locally acceptable or adopted park standards.	NI	No mitigation required.			
Transportation and Circulation	Transportation and Circulation				
Impact 4.15-1: Construction activity associated with the Project could temporarily generate increased traffic volumes in relation to the existing traffic load and capacity of the road system (potentially resulting in a substantial increase in traffic congestion affecting vehicle or transit circulation), and could conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system.	LSM	 Mitigation Measure 4.15-1: Traffic Management Plan. Prior to initiation of construction, the Project contractor(s) shall use a qualified traffic engineer to prepare a TMP. The TMP shall be developed during the design phase on the basis of detailed design plans for the approved Project. The TMP shall be reviewed and approved by the Flood Control District and agencies with jurisdiction over roadways affected by Project construction activities, prior to construction. Once approved, the TMP shall be incorporated into the contract documents specifications. The TMP shall include, but not necessarily be limited to, the elements listed below: 1. Develop truck access routes to minimize impacts on local street circulation. The route selection for movement of heavy equipment and truck traffic shall be coordinated with the Marin County Department of Public Works, Marin County Sheriff's Department, and Police Departments for applicable towns, cities and unincorporated communities. Truck drivers shall be notified of, and required to use, the most direct route between the Project work sites and U.S. 101. 2. As needed to avoid unacceptably adverse impacts on traffic flow, schedule truck trips outside of peak morning and afternoon/evening traffic hours. 3. Control and monitor construction vehicle movements by enforcing standard construction specifications through periodic on-site inspections. 4. Install traffic control devices where traffic conditions warrant, as specified in the applicable jurisdiction's standards (e.g., the California Manual on Uniform Traffic Control Devices; Part 6: Temporary Traffic Control); flaggers would be used, when warranted, to control vehicle movements. 5. Implement a public information program to notify interested parties of the impending construction activities using means such as print media, radio, and/or web-based messages and information. 6. Comply with roadside safety protocols to reduce the risk of accidents. 7			

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IMPACT	Significance Determination	Mitigation Measure
Transportation and Circulation (cont.)		
Impact 4.15-1 (cont.)		8. Store all equipment and materials in designated contractor staging areas on or adjacent to the worksite, in such a manner to minimize obstruction to traffic.
		9. Identify locations for parking by construction workers (within the construction work site or at the designated construction staging areas, or, if needed, at a nearby location with transport provided between the parking location and the worksite).
		10. Prior to Project construction, document road conditions for all routes that shall be used by Project-related vehicles. Roads damaged by construction shall be repaired to a structural condition equal to that which existed prior to construction activity.
		11. Maintaining pedestrian and bicycle access and circulation during Project construction where safe to do so. If construction activities encroach on bicycle routes or multi-use paths, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted that indicate the presence of such users.
		During construction, an environmental compliance manager shall monitor and complete a construction monitor environmental inspection report checklist to ensure that the contractor implements the TMP measures included in the contract documents. Any noncompliance shall be documented and reported to the Flood Control District to ensure corrective action. A final compliance report shall be prepared post-construction.
Impact 4.15-2: Implementation of the Project could impede access to local streets or adjacent uses, including access for emergency vehicles.	LSM	Mitigation Measure 4.15-1: Traffic Management Plan. (refer to Impact 4.15-1 above)
Impact 4.15-3: Implementation of the Project could have an adverse effect on pedestrian and bicycle accessibility and safety.	LSM	Mitigation Measure 4.15-1: Traffic Management Plan. (refer to Impact 4.15-1 above)
Impact 4.15-4: Construction activity associated with the Project could temporarily increase traffic safety hazards due to incompatible uses (e.g., heavy truck traffic, and roadway wear-and-tear).	LSM	Mitigation Measure 4.15-1: Traffic Management Plan. (refer to Impact 4.15-1 above)
NOTES: LSM = Less than Significant with Mitigation LTS = Less than Significant NI = NI NI NI NI NI NI NI	ı	,

NI = No Impact SU = Significant and Unavoidable

2. Summary

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