

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

BAY DELTA REGION  
2825 CORDELIA ROAD, SUITE 100  
FAIRFIELD, CA 94534  
(707) 428-2002



**STREAMBED ALTERATION AGREEMENT**

NOTIFICATION NO. 1600-2021-0018-R3

NOVATO CREEK, RUSH CREEK, MILLER CREEK, GALLINAS CREEK, CORTE  
MADERA CREEK, WEST CREEK, EAST CREEK, SUTTON MANOR CREEK,  
COYOTE CREEK, EASKOOT CREEK, AND ASSOCIATED TRIBUTARIES

MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT  
MARIN COUNTY FLOOD CONTROL STREAM MAINTENANCE PROGRAM—LONG-  
TERM ROUTINE MAINTENANCE AGREEMENT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and Marin County Flood Control and Water Conservation District (Permittee) as represented by Hannah Lee.

**RECITALS**

WHEREAS, pursuant to Fish and Game Code section 1602, Permittee notified CDFW on July 7, 2021, and provided subsequent documents that Permittee intends to complete the Project described herein.

WHEREAS, pursuant to Fish and Game Code section 1603, CDFW has determined that the Project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the Project in accordance with the Agreement.

**PROJECT LOCATION**

The Project is located within seven geographic areas identified as Zone 1, Zone 3, Zone 4, Zone 5, Zone 7, Zone 9, and County Service Area (CSA) 13, in the County of Marin, State of California (Exhibit A and Exhibit B).

**Zone 1** is located within the Novato Creek Watershed<sup>1</sup> and the Rush Creek Watershed. Project activities may occur at the eleven Project Areas identified below.

1. Novato Baylands, located at approximately Latitude 38.09235°N, Longitude 122.54427°W (Exhibit A, Map 2).
2. Upper Novato Creek Area, located at approximately Latitude 38.10834°N, Longitude 122.58149°W (Exhibit A, Map 1).
3. Novato Creek Tributaries, located at approximately Latitude 38.10811°N, Longitude 122.58672°W (Exhibit A, Map 1, 2, and 4)
4. Rush Creek, located at approximately Latitude 38.11611°N, Longitude 122.56559°W (Exhibit A, Map 1).
5. Arroyo Avichi, located at approximately Latitude 38.09159°N, Longitude 122.57685°W (Exhibit A, Map 1 and 2).
6. Baccaglio Basin, located at approximately Latitude 38.09713°N, Longitude 122.56647°W (Exhibit A, Map 1 and 2).
7. Lynwood Creek, located at approximately Latitude 38.08826°N, Longitude 122.56336°W (Exhibit A, Map 2).
8. Cheda Creek Upland, located at approximately Latitude 38.07766°N, Longitude 122.55531°W (Exhibit A, Map 2).
9. Pacheco Creek Upland Complex, located at approximately Latitude 38.0475°N, Longitude 122.54484°W (Exhibit A, Map 3).
10. Arroyo de San Jose Lower Complex, located at approximately Latitude 38.06615°N, Longitude 122.53008°W (Exhibit A, Map 3).
11. Arroyo de San Jose Upper Complex, located at approximately Latitude 38.06919°N, Longitude 122.55685°W (Exhibit A, Map 3).

**Zone 3** is located within the Richardson Bay Watershed. Project activities may occur at Coyote Creek, Sutton Manor Creek, Ryan Creek, and associated tributaries. Zone 3 is located at approximately Latitude 37.87905°N, Longitude 122.53325°W (Exhibit A, Map 11 and 12).

**Zone 4** is located within the Bel Aire Watershed, east of Zone 3. Project activities may occur at East Creek and West Creek, located at approximately Latitude 37.90044°N, Longitude 122.49733°W (Exhibit A, Map 10).

**Zone 5** is located within the Bolinas Lagoon Watershed. Project activities may occur at Easkoot Creek, located at approximately Latitude 37.89853°N, Longitude 122.64146°W (Exhibit A, Map 13)

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<sup>1</sup> Watershed boundaries referenced in this Agreement are based on the Marin Watershed Program maps: <https://www.marinwatersheds.org/creeks-watersheds/interactive-map>

**Zone 7** is located within the Gallinas Creek Watershed. Project activities may occur at Gallinas Creek South Fork, Gallinas Creek, and associated tributaries. Zone 7 is located at approximately Latitude 38.01449°N, Longitude 122.51035°W (Exhibit A, Map 6).

**Zone 9** is located within the Ross Valley Watershed. Project activities may occur at the three Project Areas identified below.

1. Lower Corte Madera Creek Complex, located at approximately Latitude 37.95937°N, Longitude 122.55347°W (Exhibit A, Map 8 and 9).
2. Upper Corte Madera Creek Complex, located at approximately Latitude 38.01179°N, Longitude 122.59114°W (Exhibit A, Map 7).
3. Fairfax Creek, located at approximately Latitude 38.00187°N, Longitude 122.61071°W. This is the site of the Flood Diversion and Storage Basin permitted under Agreement number 1600-2020-0146-R3 (Exhibit A, Map 7).

**CSA 13** is located within the Miller Creek Watershed. Project activities may occur at Miller Creek, located at approximately Latitude 38.02665°N, Longitude 122.56962°W (Exhibit A, Map 5).

## **PROJECT DESCRIPTION**

The Project is limited to routine maintenance activities which are defined as activities that are periodically scheduled and implemented as necessary to maintain the water transport capacity of stream channels and the structural and functional integrity of existing levees, sediment detention structures, and flood control structures on or affecting streams. Routine maintenance activities were previously permitted under Agreement numbers 1600-2012-0202-R3 and 1600-2012-0207-R3.

Maintenance activities considered to be “routine” are described in **Attachment A**. In summary these activities include:

- 1) vegetation management including limbing and trimming of tree branches, mowing of stream banks, removal of fallen and dead trees as well as cattails (*Typha* sp.) or similar species from the channel, and limited removal of live trees;
- 2) sediment and debris removal from around and within structures;
- 3) erosion control, including planting native vegetation;
- 4) maintenance and repair of flood control structures, including weirs, tide gates, and pumps; and
- 5) repairing and stabilizing levees including grading levee tops, replacing rock riprap, and excavating or filling levee slopes.

Routine maintenance does not include: 1) any activities other than the activities described above, and 2) the removal or damage of riparian vegetation except as described in this Agreement.

For fee purposes, a “project” is defined as a routine maintenance activity performed by the Permittee during a given year in a channel reach or otherwise identified specific

area. Each annual activity shall be considered to be one project. A project does not include minor debris removal such as minor tree trimming or removing a shopping cart or bag of garbage.

This Routine Maintenance Agreement consists of the Agreement, Attachment A (Covered Activities), Attachment B (Definitions), Attachment C (Biologist Resume Form), Exhibit A (location map), and Exhibit B (location table).

## PROJECT IMPACTS

Existing fish or wildlife resources the Project could substantially adversely affect include:

- Northern spotted owl (*Strix occidentalis caurina*), State and Federally listed as threatened
- California Ridgway's rail (formerly California clapper rail; *Rallus obsoletus obsoletus*), State and Federally listed as endangered and Fully Protected species
- California black rail (*Laterallus jamaicensis coturniculus*), State listed as threatened and Fully Protected species
- Salt-marsh harvest mouse (*Reithrodontomys raviventris*), State and Federally listed as endangered and Fully Protected species
- Coho salmon South of Punta Gorda (*Oncorhynchus kisutch* pop. 4), State and Federally listed as endangered
- Longfin smelt (*Spirinchus thaleichthys*), State listed as threatened and candidate for Federal listing
- Santa Cruz tarplant (*Holocarpha macradenia*), State listed as endangered and Federally listed as threatened, CRPR 1B.1
- North coast semaphore grass (*Pleuropogon hooverianus*), State listed as threatened and California Rare Plant Rank (CRPR)<sup>2</sup> 1B.1
- White-rayed pentachaeta (*Pentachaeta bellidiflora*), State and Federally listed as endangered and CRPR 1B.1
- Two-fork clover (*Trifolium amoenum*), Federally listed endangered and CRPR 1B.1
- Central California Coast Steelhead (*Oncorhynchus mykiss irideus* pop. 8), Federally listed as threatened
- Tidewater goby (*Eucyclogobius newberryi*), Federally listed as endangered
- California red-legged frog (*Rana draytonii*), Federally listed as threatened and California Species of Special Concern (SSC)
- Foothill yellow-legged frog, Northwest/North Coast clade (*Rana boylei*), SSC
- California giant salamander (*Dicamptodon ensatus*), SSC
- Western pond turtle (*Emys marmorata*), SSC
- Tomales roach (*Lavinia symmetricus* ssp. 2), SSC
- Pacific lamprey (*Entosphenus tridentatus*), SSC

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<sup>2</sup> CRPR rank definitions are available in CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>) and on the California Native Plant Society website (<https://www.cnps.org/rare-plants/cnps-rare-plant-ranks>).

- Riffle sculpin (*Cottus gulosus*), SSC
- Pallid bat (*Antrozous pallidus*), SSC
- Townsend's big-eared bat (*Corynorhinus townsendii*), SSC
- Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), SSC
- San Pablo song sparrow (*Melospiza melodia samuelis*), SSC
- Burrowing owl (*Athene cunicularia*), SSC
- White-tailed kite (*Elanus leucurus*), Fully Protected species
- Monarch butterfly (*Danaus plexippus* pop. 1), California Terrestrial and Vernal Pool Invertebrate of Conservation Priority (ICP)<sup>3</sup> and candidate for Federal listing
- Western bumble bee (*Bombus occidentalis*), ICP
- Obscure bumble bee (*Bombus caliginosus*), ICP
- Coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*), CRPR 1B.2
- Saline clover (*Trifolium hydrophilum*), CRPR 1B.2
- Thurber's reed grass (*Calamagrostis crassiglumis*), CRPR 2B.1
- Bristly sedge (*Carex comosa*), CRPR 2B.1
- Napa false indigo (*Amorpha californica* var. *napensis*), CRPR 1B.2
- Congested-headed hayfield tarplant (*Hemizonia congesta* spp. *congesta*), CRPR 1B.2
- Tiburon buckwheat (*Eriogonum luteolum* var. *caninum*), CRPR 1B.2
- Thin-lobed horkelia (*Horkelia tenuiloba*), CRPR 1B.2
- Tamalpais lessingia (*Lessingia micradenia* var. *micradenia*), CRPR 1B.2
- Point Reyes salty bird's-beak (*Chloropyron maritimum* ssp. *palustre*), CRPR 1B.2
- Marin knotweed (*Polygonum marinense*), CRPR 3.1
- Marsh microseris (*Microseris paludosa*), CRPR 1B.2
- Diablo helianthella (*Helianthella castanea*), CRPR 1B.2
- Small groundcone (*Kopsiopsis hookeri*), CRPR 2B.3
- Nesting birds
- Roosting bats
- Waterfowl
- Riparian and marsh habitat
- Aquatic habitat
- Common aquatic and terrestrial species
- Water quality
- Fish passage

The adverse effects the Project could have on the fish or wildlife resources identified above include:

- Temporary loss of riparian and emergent marsh/wetland habitat

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<sup>3</sup> The list of California Terrestrial and Vernal Pool Invertebrates of Conservation Priority was collated during CDFW's Scientific Collecting Permit rulemaking process:  
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157415&inline>

- Temporary loss of aquatic habitat
- Change in contour of bed, bank, and channel
- Change in flow depth, width, or velocity
- Change in composition of channel materials
- Change in gradient of bed, channel, or bank
- Change in channel cross-section
- Degradation or aggradation of channel
- Colonization by exotic plant species
- Short term release of contaminants
- Increased turbidity
- Restriction or increase in sediment transport
- Loss of bank stability during Project activities
- Soil compaction or other disturbance to soil layer
- Loss of natural bed or bank
- Increased bank erosion during Project activities
- Loss of aquatic and terrestrial wildlife species
- Temporary impediment to migration of aquatic and terrestrial species
- Dewatering
- Disruption of nesting birds and other wildlife
- Disturbance from Project activities

## **MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES**

### **1. Administrative Measures**

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the Project activity site at all times and shall be presented to CDFW personnel, or personnel from another State, Federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the Project activity at the Project activity site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the Project by another local, State, or Federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.

- 1.4 Project Site Entry. Permittee agrees that CDFW personnel may enter the Project activity site at any time to verify compliance with the Agreement.
- 1.5 Notify CDFW Prior to Work. The Permittee shall notify CDFW by email at least five working days prior to commencement of covered activities. See contact information below.
- 1.6 No Trespass. To the extent that any provisions of this Agreement provide for activities that require the Permittee to traverse another owner's property, such provisions are agreed to with the understanding that the Permittee possesses the legal right to so traverse. In the absence of such right, any such provision is void.
- 1.7 Unauthorized Take. The Permittee is required to comply with all applicable State and Federal laws, including the California Endangered Species Act (CESA) and federal Endangered Species Act. This Agreement does not authorize the take of any State or Federal endangered or threatened species. Liability for any take or incidental take of such listed species remains the responsibility of the Permittee for the duration of the Project. Any unauthorized take of such listed species may result in prosecution and nullification of the Agreement.
- 1.8 Fish Passage. The Project shall comply with Fish and Game Code section 5901 and shall not install or maintain any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream.
- 1.9 Authorized Maintenance Activities. Only those activities specifically mentioned in Attachment A to this Agreement may be conducted under this Routine Maintenance Agreement.
- 1.10 Exceptions to Authorized Activities. Permittee shall submit separate notification pursuant to Section 1602 of the California Fish and Game Code, together with the required fee prescribed in the CDFW Lake and Streambed Alteration Agreement fee schedule, and otherwise follow the normal notification process prior to the commencement of work activities in all cases where one or more of the following conditions apply:
  - The proposed work does not meet the established criteria for routine maintenance activities in the Project Description of this Agreement.
  - The nature of the work is substantially modified from the work described in the Project Description of this Agreement.
  - CDFW advises the Permittee that conditions affecting fish and wildlife resources have substantially changed at a specific work site or that such resources would be adversely affected by the Project activities.
- 1.11 CDFW Field Review. CDFW may review in the field any maintenance work submitted and/or may require that additional conditions be applied to specific

activities and amended into this 1602 Routine Maintenance Agreement, or that certain project activities may require separate notification and development of a separate 1602 notification and Agreement. Permittee shall obtain an amendment to this Agreement if required by CDFW.

- 1.12 Designated Representative. Before initiating ground-disturbing Project activities, Permittee shall designate a representative (Designated Representative) responsible for communications with CDFW and overseeing compliance with this Agreement. The Permittee shall notify CDFW in writing five days prior to commencement of Project activities of the Designated Representative's name, business address, and contact information. Permittee shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this Agreement.
- 1.13 Change of Conditions and Need to Cease Activities. If conditions arise, or an unforeseen change in the environment or regulatory process occurs, such that the Project may result in unanticipated adverse impacts to the stream or fish and wildlife resources, activities shall cease until corrective measures approved by CDFW are implemented. A change of conditions includes new information or published scientific reports that indicate that measures provided in this Agreement are not providing adequate protection of fish and wildlife resources, or to avoid take of State or Federally listed species.

## 2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

### Work Period and Design

- 2.1 Work Period. All work shall begin on or after **June 15** and all work shall be completed by **October 15**, except for mowing of weeds and grasses on stream banks including channel access roads, road shoulders, or levees which may occur on or after April 15 and be completed by October 15. Revegetation work conducted with hand tools is not limited to this work window but must be completed within the same season as Project activities.
- 2.2 Work Period Modification. If a work period modification is needed, the work may be permitted outside of the work period by a CDFW representative who reviewed the Project, or if unavailable, through contact with the Regional Office at (707) 428-2002. Permittee shall submit a written request for a work period variance on a week-by-week basis to CDFW. The work period variance request should consider the effects of noise, increased stream flows, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Work period variances are issued at the discretion of CDFW. CDFW reserves the right to require additional measures to



protect fish and wildlife resources as a condition for granting the variance. At minimum, the work period variance request shall:

- 1) Describe the extent of work already completed.
- 2) Detail the activities that remain to be completed.
- 3) Provide a National Weather Service forecast covering the time needed, up to one week, to complete a phase or activity.
- 4) Detail the time required to complete each of the remaining activities.
- 5) Provide photographs of both the completed and proposed work sites.
- 6) Include an assessment of additional biological impacts as a result of the work extension.

2.3 Conduct Work During Daylight Hours. Work is restricted to daylight hours (one hour after sunrise to sunset).

2.4 Work According to Documents. Except as they are contradicted by measures required by this Agreement, all work shall be conducted in conformance with the Project Description above and the avoidance, minimization, and mitigation measures provided in the notification package, including the *Marin County Stream Maintenance Manual*, prepared by the Marin County Flood Control and Water Conservation District, dated June 2021.

### **Weather Restrictions**

2.5 Work Period in Dry Weather Only. Project activities shall be restricted to dry weather, as allowed during the work period specified in Measure 2.1. The Permittee shall monitor forecasted precipitation. When a 0.25-inch or more of precipitation is forecasted to occur, the Permittee shall stop work before precipitation commences. No Project activity may be started if its associated erosion control measures cannot be completed prior to the onset of precipitation. After any storm event, the Permittee shall inspect all sites currently under construction and all sites scheduled to begin construction within the next 72 hours for erosion and sediment problems and take corrective action as needed. Seventy-two-hour weather forecasts from the National Weather Service shall be consulted and work shall not resume until runoff ceases and there is less than a 30 percent forecast for precipitation for the following 24-hour period. Weather forecasts shall be documented upon request by CDFW.

### **General Wildlife Protection and Prevention**

2.6 CDFW-Approved Qualified Biologist(s) and Monitor(s). At least 30 days prior to the start of Project activities, Permittee shall submit to CDFW for written approval, the names and resumes of all Qualified Biologists and Biological Monitors involved in conducting surveys and/or monitoring work (see definitions in Attachment B). Resumes shall be submitted using the Biologist Resume Form (Attachment C) or another format containing the same information. A Word Document version of

Attachment C is available upon request.

- 2.7 CDFW Approved Qualified Biologist or Biological Monitor On-site. A Qualified Biologist or Biological Monitor shall be on site daily to monitor compliance with all conditions of this Agreement unless otherwise approved in writing by CDFW. Qualified Biologist or Biological Monitor shall have the authority to halt Project activities, through communication with the Project Manager or their on-site designee, to comply with the terms of this Agreement and otherwise avoid impacts to species and or habitats. If the on-site Biologist has requested a work stop due to failure to implement any of the conditions, CDFW shall be contacted within 24 hours.
- 2.8 Special-Status Species Survey. A Qualified Biologist or Biological Monitor with survey experience, approved by CDFW for the Project activities, shall conduct a pre-activity survey **within 24 to 48 hours prior to the start of Project activities**, focusing on the presence of special-status species. If any special-status species are discovered during the survey, Project activities shall not begin until CDFW has been consulted with regarding measures to avoid and minimize impacts to special-status species. Permittee shall implement the avoidance and minimization measures if required by CDFW.
- 2.9 Annual Training Session for Personnel. Permittee shall ensure that a CDFW-approved Qualified Biologist conducts an education program for all persons employed on the Project activities prior to performing covered activities each year, for the life of this Agreement. Instruction shall consist of a presentation by the designated Qualified Biologist that includes a discussion of the biology and general behavior of any sensitive species which may be in the area, how they may be encountered within the work area, and procedures to follow when they are encountered. The status of CESA-listed species, including legal protection, penalties for violations, and Project activity-specific protective measures provided in this Agreement shall be discussed. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to on-site Project activity. Copies of the Agreement for this Project shall be maintained at the worksite with the Project supervisor. Permittee or Qualified Biologist shall prepare and distribute wallet-sized cards or a factsheet handout containing this information for workers to carry on-site. Upon completion of the program, employees shall sign an affidavit stating they attended the program and understand all protection measures. These forms shall be filed at the Permittee's office and be available to CDFW upon request.
- 2.10 Daily Inspections. At the beginning of each workday and prior to Project activities beginning, the work areas, equipment and material left onsite, and any access routes into the work area and nearby vicinity, shall be inspected by a Qualified Biologist, Biological Monitor, or qualified person approved in writing by CDFW for the presence of special-status species, roosting bats, nesting birds, or other wildlife. If any species is detected, CDFW shall be notified and Project activities

shall not begin until the species has left the site of its own volition, or CDFW provides written permission to proceed.

- 2.11 Wildlife Encounters. If any wildlife is encountered during the course of Project activities, all work in the immediate area shall cease and the wildlife shall be allowed to leave the construction area unharmed. If any listed fish and wildlife are encountered, the Permittee shall contact CDFW immediately.
- 2.12 Trenches and Holes. At the end of each workday all trenches and holes greater than one foot deep shall be completely covered with a material flush with the ground to prevent wildlife from entering. When trenches cannot be fully covered, an escape ramp shall be placed at each end of any constructed open trench to allow any wildlife that may have become entrapped in the trench to climb out overnight. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle no greater than 30 degrees.
- 2.13 Pipes, Hoses, and Similar Structures. All pipes, hoses, or similar structures less than 12 inches in diameter shall be closed or covered to prevent animal entry. All construction pipes or similar structures greater than 2 inches in diameter stored at the Project activity site overnight shall be inspected thoroughly for wildlife before the pipe or similar structure is buried, capped, used, or moved.
- 2.14 No Excavation in Live Stream. No excavation shall occur in the portion of the stream bed where flowing water is present or anticipated during the seasonal work period.
- 2.15 No Equipment in Live Stream. No equipment shall be operated within the live stream or within the stream channel below the level of top-of-bank.
- 2.16 Groundwater Encountered. Nuisance groundwater encountered during excavation within the streambed shall be discharged at a location where it will infiltrate into the soil, resulting in no overland flow. Turbid water shall not be allowed to flow downstream.
- 2.17 Consultation for Federally Listed Species. For Project activities that could impact Federally listed species or designated critical habitat, including but not limited to tidewater goby and Central California Coast steelhead, Permittee shall consult with the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS), as appropriate, prior to Project activity commencement.

### **Dewatering and Aquatic Species Capture and Relocation**

- 2.18 Water Diversion and Species Capture and Relocation Plan. Work shall be performed in isolation from the stream. If Project activities will require water diversion, then the Permittee shall develop a Water Diversion and Species Capture and Relocation Plan (Plan) for CDFW review and obtain CDFW written acceptance

of the Plan at least 15 days prior to the start of the activity. The Plan shall consider partial or full stream diversion and dewatering of the Project activity area. The Plan should consider the use of coffer dams upstream and downstream of the work site and divert all flow from upstream of the upstream dam to downstream of the downstream dam, through a suitably sized pipe. If possible, gravity flow is the preferred method of water diversion. If a pump is used, it shall be operated at the rate of flow that passed through the site; pumping rates shall not dewater nor impound water on the upstream side of the coffer dam. Coffers shall be constructed as close as practicable upstream and downstream of the work area using clean gravel bags. The stacked gravel bags may be sealed with plastic sheeting. All coffer dam materials shall be removed from the stream upon Project activity completion. Normal flows shall be restored to the affected creek immediately upon completion of work at that location. If the coffer dams or stream diversion fail, they shall be repaired immediately. Diversion shall be conducted such that water at the downstream end does not scour the channel bed or banks. The Plan shall also address the capture and relocation of species that may be present in the dewatered area. Authorization of any other diversion method shall be at the discretion of CDFW. Water diversion activities shall not occur until aquatic species habitat assessments and surveys have been completed and any special-status species adequately addressed (see aquatic animals measures below).

- 2.18.1 Capture Methods. Capture methods may include dip nets. All nets shall be made of a soft braded nylon material that is non-abrasive. Mesh sizing shall be matched to species and the life stages likely encountered. Electrofishing shall not be used unless recommended by a Qualified Biologist and approved in writing by CDFW. Capture and handling of aquatic animals shall be minimized and the number of animals captured and moved at any one time shall be limited to the number that can be relocated without stress or injury.
- 2.18.2 Aquatic Animal Handling. Prior to handling aquatic animals, all hands and equipment shall be wetted down with stream water and shall be free of any materials including hand sanitizers, sunscreen, or insect repellent. No aquatic animals shall be handled with dry hands or dry equipment.
- 2.18.3 Live Wells or Holding Facilities. If live wells or holding facilities will be used during capture and relocation, the following shall be implemented:
- An aeration system shall be used in any live well or other holding facility. The aerator shall be operating prior to placing animals in it to ensure that sufficient oxygen is present during the adjustment period and to minimize the build-up of toxic carbon dioxide in holding waters. The aeration rate and the number of animals in each holding facility shall be managed such that the dissolved oxygen concentration shall be maintained above 6 parts per million.

- Water from the local collection site shall be used in live wells or other holding facilities during the loading and transport. At no time will chlorinated tap water be used.
- Live wells or other holding facilities shall be sufficiently sized to minimize stress.
- Dotted smartweed (*Persicaria punctata*) shall not be placed or allowed to enter live wells or holding facilities.
- Water temperatures within any live well or other holding facility shall be kept at or below water temperature at the collection site. Temperatures must be managed in such a way as to minimize stress; for example, floating a sealed bag of ice in each container.

2.18.4 Non-native Aquatic Organisms. No non-native animals captured shall be returned to the stream or released alive.

2.18.5 Equipment Sterilization. Before and after each relocation effort all equipment shall be properly sterilized to ensure it is free of aquatic pathogens or invasive species. Equipment sterilization shall follow prevention Best Management Practices such as those prepared by CDFW's Northern Region, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=92821&inline>, or other methodology accepted by CDFW in writing.

2.19 Screen Intake. The pump intake apparatus shall be screened with a fine mesh screen. The screen shall be cleaned as needed. The following NMFS fish screening requirements shall be implemented, unless otherwise approved in writing by CDFW:

- A self-cleaning screen shall have at least 2.5 square feet of submerged screen material for each cubic foot per second (450 gallons per minute) of the maximum diversion rate.
- A screen which is not self-cleaning shall have at least 5 square feet of submerged screen material for each cubic foot per second of the maximum diversion rate.
- Round openings in the screen shall not exceed 3/32-inch diameter, square openings shall not exceed 3/32-inch measured diagonally, and slotted openings shall not exceed 0.069 inches in width.
- The screen may be constructed of any rigid woven, perforated, or slotted material that provides water passage while physically excluding fish. Screen material shall provide a minimum of 27% open area, but more open area is better. Stainless steel is recommended to minimize corrosion problems.
- The screen shall be designed to distribute the flow uniformly over the entire screen area. The screen face generally should be parallel to the flow of the stream.

- The screen shall be cleaned as frequently as necessary to prevent the approach velocity from exceeding 0.4 feet per second. The screen shall be kept in good repair and shall be used whenever water is being pumped. The applicant is advised to consult with NMFS to ensure that all their design criteria are being met.

2.20 Dewater Work Site. Once water has been diverted around the work area, the site shall be dewatered to provide an adequately dry work area. Any muddy or otherwise contaminated water shall be pumped to a settling tank, dewatering filter bag, upland area, or other CDFW-approved location prior to re-entering the creek.

2.21 Qualified Biologist to Check Dewatered Area. The Qualified Biologist shall check daily for stranded aquatic animals as the water level in the dewatering area drops and until dewatering facilities are removed. All stranded native aquatic vertebrates in the dewatered areas shall be immediately relocated to the nearest suitable habitat. Capture and relocation shall be conducted in a manner that minimizes stress and injury to captured animals.

### **Coho Salmon Avoidance and Habitat Protection**

2.22 Coho Salmon Avoidance. For activities in Easkoot Creek, no work shall occur in the wetted portion of the channel.

2.23 Coho Salmon Habitat Protection. Routine maintenance activities in Easkoot Creek are limited to sediment removal and minor vegetation trimming. Minor vegetation trimming along Easkoot Creek shall not reduce the total canopy cover of the channel. Permittee shall obtain CDFW written approval prior to all activities in Easkoot Creek. If CDFW determines that take of Coho may occur, Permittee shall amend this Agreement and obtain a CESA Incidental Take Permit.

### **Salt Marsh Species and Habitat Protection**

2.24 Fully Protected Species. A Qualified Biologist shall be present on sites with salt marsh habitat to survey and monitor for CDFW Fully Protected species, including salt marsh harvest mouse (SMHM), California Ridgway's (formerly California Clapper) rail (CRR), and California black rail (CBR), during: a) all vegetation removal or disturbance, b) the construction of exclusion fencing, and c) all work within 300 feet of tidal or pickleweed habitats. A Biological Monitor, rather than a Qualified Biologist, may monitor for CDFW Fully Protected species after surveys and construction of exclusion fencing are completed. The Qualified Biologist or Biological monitor shall have the authority to stop work if deemed necessary for any reason to protect these species, or any other special-status species. Take or possession of these CDFW Fully Protected species is prohibited (Fish & G. Code, §§ 3511 & 4700).

2.25 High Tide Restrictions. No Project activities shall occur within 50 feet of suitable

SMHM, CRR, or CBR habitat within two hours before and after an extreme high tide event or when adjacent tidal marsh is flooded. If SMHM exclusion fencing has been installed and work is conducted outside of CRR and CBR breeding season (see measures below), or as otherwise approved in writing by CDFW, this restriction is waived.

- 2.26 California Ridgway's Rail & California Black Rail Avoidance and Surveys. Project activities within or adjacent to tidal marsh or suitable CRR or CBR habitat shall be avoided during the breeding season (January 15 – August 31 for CRR, February 1 – August 31 for CBR) each year unless appropriately timed, yearly protocol level surveys are conducted and survey methodology and results are submitted to and accepted by CDFW. Surveys shall focus on suitable habitat that may be disturbed by Project activities during the breeding season to ensure that these species are not nesting in these locations.

If breeding CRR or CBR are determined to be present, no activities, visual disturbance (direct line of sight) and/or an increase in the ambient noise level shall occur within a minimum of 700 feet from areas where CRR and/or CBR have been detected during the breeding season. If surveys have not been conducted, all work shall be conducted a minimum of 700 feet from CRR and/or CBR habitat during breeding season, except as described in Measures 2.27 and 2.28 below.

- 2.27 Noise Attenuating and Visual Barrier. If work must occur within 700 feet of CRR or CBR habitat during the breeding season and surveys for these species have not been conducted per Measure 2.26, the Permittee shall provide a CRR and CBR avoidance plan to CDFW at least 30 days prior to commencing Project activity work and obtain CDFW's written approval of the plan. The plan shall include but not be limited to: 1) ensuring noise levels do not exceed the ambient noise levels, 2) installation of a noise attenuating, visual barrier around the work area, and 3) avoidance of marsh habitat, unless otherwise approved by CDFW in writing.

- 2.28 Noise Monitor and Decibel Restrictions. A Noise Monitor shall be present for all activities that occur within 700 feet of CRR or CBR habitat during the breeding season (see Measure 2.26), unless otherwise approved in writing by CDFW. The Noise Monitor shall record decibel (dB) readings in a Noise Log and submit the Noise Log data to CDFW for written acceptance after each week of work. CDFW may require additional avoidance measures in this Agreement or may halt work based on the Noise Log data. Prior to beginning work each day, the Noise Monitor shall record the ambient noise level of the work site in the Noise Log. Work shall not commence if ambient noise levels are less than or equal to the dB rating of the equipment that will be operated on-site. If ambient noise levels are greater than the dB rating of equipment, work may commence with the Noise Monitor monitoring dB levels throughout the workday. The Noise Monitor shall record dB levels at the start of work, approximately half-way through the workday, and prior to the end of the workday, at minimum. If at any time the noise at the work site exceeds the average ambient dB level of the site, all work shall cease, and a new average ambient dB reading shall be recorded. If the ambient dB reading exceeds

previously recorded average ambient dB levels, then it shall be recorded as a temporary ambient noise baseline level and threshold. Work may proceed at 30-minute intervals at the new higher ambient dB level. After each 30-minute interval, work shall cease and a new ambient dB reading shall be recorded and adhered to as the maximum noise level on-site.

- 2.29 Salt Marsh Harvest Mouse Vegetation. Prior to impacting salt marsh habitat, a CDFW approved Qualified Biologist, familiar with SMHM, shall walk through and inspect suitable habitat prior to vegetation removal and search for signs of harvest mice or other sensitive wildlife and plants. Following inspection, personnel, under the supervision of the Qualified Biologist, shall disturb (e.g., flush) vegetation to cause movement of SMHM into adjacent downstream marsh areas. Flushing of vegetation shall first occur in the center of the site then progress toward the two sides away from the open water areas or away from impacted habitat. Immediately following vegetation flushing, personnel, under the supervision of the Qualified Biologist, shall remove vegetation with hand tools (e.g., weed-eater, hoe, rake, trowel, shovel, grazing) so that vegetation is no taller than 2 inches.
- 2.30 Salt Marsh Harvest Mouse Exclusion Fencing. After vegetation removal, a mouse proof barrier shall be placed along the edge of the area removed of vegetation to further reduce the likelihood of SMHM returning to the area prior to construction, unless otherwise approved in writing by CDFW. The fence shall be made of a heavy plastic sheeting material that does not allow salt marsh harvest mice to pass through or climb, and the bottom shall be buried to a depth of 4 inches so that salt marsh harvest mouse cannot crawl under the fence. Fence height shall be at least 12 inches higher than the highest adjacent vegetation with a maximum height of 4 feet. All supports for the exclusion fencing shall be placed on the inside of the work area. An approximately 2-foot-wide de-vegetated buffer shall be created along the habitat side of the exclusion fence.
- 2.31 Exclusion Fencing Inspections. The SMHM exclusion fencing shall remain in operating condition throughout the duration of the Project activities. The Qualified Biologist or Biological Monitor shall daily inspect the integrity of the exclusion fencing to ensure there are no gaps, tears or damage. Maintenance of the fencing shall be conducted as needed. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of the damage. Any SMHM found along or outside the fence shall be closely monitored until they move away from the Project activity area.

### **Longfin Smelt Avoidance**

- 2.32 Longfin Smelt Avoidance. A Qualified Biologist shall provide a longfin smelt spawning habitat assessment, including salinity and temperature data, to CDFW prior to any in-water activities in Zone 1-Map 2, Zone 7-Map 6, and Zone 9-Map 8 and Map 9 (Exhibit A). If no potential longfin smelt spawning habitat occurs, or longfin smelt are otherwise precluded from Project activity sites, Permittee may



obtain written approval from CDFW that the longfin smelt spawning habitat assessment shall be valid for multiple work seasons. However, if CDFW does not provide this approval, a new habitat assessment shall be provided for each of the above in-water activities. If potential longfin smelt spawning habitat occurs at the Project activity site, then all in-water work shall occur between August 1 and November 30. If CDFW determines that take of longfin smelt may occur, Permittee shall amend this Agreement and obtain a CESA Incidental Take Permit.

### **Northern Spotted Owl Protection**

2.33 Northern Spotted Owl Surveys. No Project activities within 0.25 miles of northern spotted owl nesting habitat shall occur from March 15 to August 31, unless northern spotted owl surveys have been completed by a Qualified Biologist following the USFWS *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*, dated (revised) January 9, 2012. Surveys shall be conducted in accordance with Section 9 of the survey protocol, *Surveys for Disturbance-Only Projects*. If breeding northern spotted owls are detected during surveys, a quarter mile no-disturbance buffer zone shall be implemented around the nest. Survey results shall be provided to CDFW and to the Spotted Owl Observations Database (<https://wildlife.ca.gov/Data/CNDDDB/Spotted-Owl-Info>). No Project activities shall occur within the buffer zone until the end of breeding season, or a Qualified Biologist determines that the nest is no longer active, unless otherwise approved in writing by CDFW.

Alternate buffer zones may be proposed by a Qualified Biologist after conducting an auditory and visual disturbance analysis following the USFWS guidance, *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*, dated October 1, 2020. Alternate buffers must be approved in writing by CDFW.

### **California Red-Legged Frog Protection**

2.34 California Red-legged Frog Habitat Assessment and Surveys. If Project activities will occur within potential California red-legged frog habitat, as identified by a Qualified Biologist, then at least two weeks prior to the commencement of ground-disturbing activities, the Project activity area and nearby vicinity, including a minimum 500-foot radius surrounding the Project activity area, shall be assessed by a Qualified Biologist for the presence of California red-legged frog individuals and habitat features. If the minimum 500-foot survey radius cannot be achieved due to site constraints, the Qualified Biologist may propose a smaller survey radius with a justification to be approved by CDFW in writing. Habitat features include both aquatic habitat such as plunge pools and ponds and terrestrial habitat such as burrows or other refugia. If habitat occurs, then no more than 48 hours prior to ground-disturbing activities the area shall be surveyed by a Qualified Biologist (see Measure 2.8). The results of the habitat feature assessment and survey shall be submitted to CDFW via email (see Contact Information) for written acceptance

prior to starting Project activities, or as part of the annual report if approved by CDFW in writing. Burrows and refugia sites shall be flagged or otherwise marked for avoidance; Project activities shall avoid habitat features to the extent feasible. If California red-legged frogs are encountered during the assessment or Project activities, the Project activity shall not proceed or all work shall cease, and CDFW shall immediately be notified. Work shall not proceed until the frog, through its own volition, moves out of harm's way and CDFW has provided permission in writing to proceed with the Project activity. If California red-legged frog is encountered or the Qualified Biologist determines that impacts to the species are likely to occur, Permittee shall consult with USFWS pursuant to the Federal Endangered Species Act and receive written approval from CDFW prior to the impact. In this case, CDFW may require additional protection measures which shall be implemented by the Permittee.

### **Foothill Yellow-legged Frog Protection**

- 2.35 Foothill Yellow-Legged Frog Survey Methodology. If Project activities will occur within potential foothill yellow-legged frog habitat, as identified by a Qualified Biologist, then Permittee or a Qualified Biologist acting on behalf of Permittee, shall provide a foothill yellow-legged frog survey methodology to CDFW for review and written approval no less than 30 days prior to beginning Project activities, unless CDFW approves otherwise in writing. No Project activities shall begin until foothill yellow-legged frog surveys have been completed using a method approved by CDFW. Survey methodology shall target all life stages and shall have an adaptive management approach based on the stream conditions at the time of surveys (i.e., whether ponded or flowing water is present, or whether the stream has been completely dry for less than 30 days). Surveys within and adjacent to the Project activity area shall include searching suitable habitat including but not limited to cavities under rocks, within vegetation such as sedges and other clumped vegetation, and under undercut banks, no less than 50 feet from the streambed and 500 feet upstream and downstream of the Project activity area. Surveys should be conducted at different times of day and under variable weather conditions if possible.
- 2.36 Foothill Yellow-Legged Frog Surveys for In-channel Activities. If Project activities will occur in-channel within potential foothill yellow-legged frog habitat, as identified by a Qualified Biologist, then prior to starting Project activities, a Qualified Biologist shall conduct surveys for foothill yellow-legged frog using a CDFW-approved methodology (see above Measure). If foothill yellow-legged frogs, their eggs, or any other special-status species, are found, CDFW shall be notified immediately and construction shall not occur without written approval from CDFW allowing the Project activities to proceed. If foothill yellow-legged frog egg masses are observed in a stream that is scheduled for dewatering, dewatering shall not occur until an egg mass relocation plan is approved in writing by CDFW and implemented. In the event adult foothill yellow-legged frogs are observed, a temporary wildlife exclusion fence shall be installed, if requested by CDFW, to prevent frogs and/or other

special-status species from entering the work site. The results of the survey shall be submitted to CDFW via email (see Contact Information) for written acceptance prior to starting Project activities. If the Permittee has collected data that the stream has been completely dry for greater than 30 days prior to starting Project activities, and no water or moist areas within the streambed exist within 500 feet upstream and downstream of the Project activity site, then Permittee may request CDFW written approval that surveys for foothill yellow-legged frogs are not necessary.

- 2.37 Foothill Yellow-legged Frog Habitat Assessment and Surveys for Activities above Top-of-Bank. If Project activities will occur within potential foothill yellow-legged frog habitat, as identified by a Qualified Biologist, and no in-channel activities will occur, then at least two weeks prior to the commencement of ground-disturbing activities, the Project activity area and nearby vicinity, including a minimum of 500 feet upstream and downstream of the Project activity area, shall be surveyed by a Qualified Biologist for the presence of foothill yellow-legged frog habitat, unless otherwise approved in writing by CDFW. If habitat occurs, then no more than 48 hours prior to ground-disturbing activities the area shall be surveyed by a Qualified Biologist, including searching cavities under rocks, within vegetation such as sedges and other clumped vegetation, and under undercut banks. The results of the survey and habitat assessment shall be emailed to CDFW (see Contact Information) for written acceptance prior to starting Project activities. If foothill yellow-legged frogs are encountered during the surveys or Project activities, the Project activity shall not proceed or all work shall cease. In this event, a temporary wildlife exclusion fence shall be installed, if requested by CDFW, to prevent frogs and/or other special-status species from entering the work site. Work shall not commence until CDFW has provided permission in writing to proceed with the Project activity. If the Permittee has collected data that the stream has been completely dry for greater than 30 days prior to starting Project activities, and no water or moist areas within the streambed or banks exist within 500 feet upstream and downstream of the Project activity site, then Permittee may request CDFW written approval that surveys for foothill yellow-legged frogs are not necessary.

### **Western Pond Turtle Protection**

- 2.38 Western Pond Turtle Surveys. If Project activities will occur within potential western pond turtle habitat, as identified by a Qualified Biologist, no more than two weeks prior to the commencement of ground-disturbing activities, a Qualified Biologist shall perform surveys for western pond turtles within aquatic and upland habitat at the Project activity site. Surveys will encompass individual turtles and nest sites. An additional survey shall occur no more than 48 hours prior to Project activities (see Measure 2.8). If a nest site is detected within a Project activity footprint at any time, or an adult turtle is detected within a Project activity footprint and is not leaving of its own volition, CDFW shall be notified immediately. Survey results shall be submitted to CDFW prior to construction activities, or as part of the annual report if approved by CDFW in writing. All western pond turtles observed on-site

shall be avoided and allowed to leave the Project activity area of their own volition or may be relocated with prior written approval from CDFW. Any turtle nest sites shall be avoided with an appropriate buffer identified by a Qualified Biologist and accepted in writing by CDFW.

### **Wintering Burrowing Owl Protection**

2.39 Burrowing Owl Surveys. To protect wintering burrowing owl, a Qualified Biologist shall conduct a habitat assessment, and surveys if warranted based on the habitat assessment, pursuant to the *Department of Fish and Game Staff Report on Burrowing Owl Mitigation* (2012) survey methodology prior to Project activities beginning during the burrowing owl non-breeding wintering season (September 1 to January 31), unless otherwise approved in writing by CDFW. Any deviations from the survey methodology must be approved in writing by CDFW. If burrowing owl is detected, a Qualified Biologist shall establish suitable buffers to ensure the owl is not disturbed by the Project activity. To prevent encroachment, the established buffers shall be clearly marked by high visibility material. If wintering burrowing owl exclusion is necessary, Permittee shall submit an exclusion plan to CDFW and receive approval in writing. The exclusion plan shall include permanent protection of occupied wintering burrowing owl habitat, including sufficient foraging habitat, through a conservation easement and funding for habitat management in perpetuity, unless otherwise approved in writing by CDFW. Permanent habitat protection and habitat management funding shall be completed prior to the Project activity, unless otherwise approved in writing by CDFW. CDFW reserves the right to require additional avoidance and minimization measures if burrowing owl is found, which shall be implemented by the Permittee.

### **Overwintering Monarch Butterfly Protection**

2.40 Overwintering Monarch Butterfly Protection. If overwintering habitat for monarch butterflies is potentially present, as identified by a Qualified Biologist, such as at Easkoot Creek, then either: 1) no Project activities shall occur within 0.5 miles of the habitat during the monarch butterfly overwintering period of September 15 to March 15, or 2) a Qualified Biologist shall conduct surveys identifying that no monarch butterflies are present; survey methodology and results shall be submitted to CDFW for review and written approval. If monarch butterflies are observed overwintering, then no activities shall occur within 0.5 miles of the overwintering site until monarchs have migrated away from the site, unless otherwise approved by CDFW in writing.

### **Roosting Bat Protection**

2.41 Bat Roost Structure Survey. No structure potentially suitable for roosting bats shall be removed. If suitable bat habitat structures (bridges, culverts, barns and other structures, etc.) identified by a Qualified Biologist exist within the Project activity area, then a Qualified Biologist shall survey for bats 30 to 90 days prior to the

beginning of Project-related activities, unless otherwise approved in writing by CDFW. Survey results shall be submitted to CDFW prior to commencing ground-disturbing, vegetation removal, or structure-disturbing activities. Work operations shall not begin or shall cease if bats are found roosting within the Project activity area. Bats shall not be disturbed without specific notice to and written approval from CDFW.

- 2.42 Bat Tree Habitat Assessment and Surveys. Prior to any tree removal, a Qualified Biologist shall conduct a habitat assessment for bats, unless otherwise approved in writing by CDFW. The habitat assessment shall be conducted a minimum of 30 to 90 days prior to tree removal and shall include a visual inspection of potential roosting features (e.g., cavities, crevices in wood and bark, exfoliating bark for colonial species, suitable canopy for foliage roosting species). If suitable habitat trees are found, they shall be flagged or otherwise clearly marked, CDFW shall be notified immediately, and tree trimming or removal shall not proceed without approval in writing from CDFW. Trees may be removed only if: a) presence of bats is presumed, or documented during the surveys described below, in trees with suitable habitat, and removal using the two-step removal process detailed below occurs only during seasonal periods of bat activity, as described in the previous measure, from approximately March 1 through April 15 and September 1 through October 15, or b) after a Qualified Biologist, under prior written approval of the proposed survey methods by CDFW, conducts night emergence surveys or completes visual examination of roost features that establish absence of roosting bats. Two-step tree removal shall be conducted over two consecutive days, as follows: 1) the first day (in the afternoon), under the direct supervision and instruction by a Qualified Biologist with experience conducting two-step tree removal, limbs and branches shall be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices or deep bark fissures shall be avoided, and 2) the second day the entire tree shall be removed.

### **Nesting Bird Surveys, Prohibitions, and Buffers**

- 2.43 Breeding Bird Nest Take Prohibition. Permittee shall avoid active nests occurring at or near the Project activity site. Permittee is responsible for complying with Fish and Game Code section 3503 et seq. and the Migratory Bird Treaty Act of 1918.
- 2.44 Nesting Bird Surveys. If construction, grading, vegetation removal, or other Project-related activities are scheduled during the nesting season, February 1 to August 31, a focused survey for active nests shall be conducted by a Qualified Biologist within 7 days prior to the beginning of Project-related activities. The results of the survey shall be sent to CDFW by email prior to the start of Project activities, for review and acceptance (see Contact Information), or as part of the annual report if approved by CDFW in writing. Refer to Notification Number 1600-2021-0018-R3 when submitting the survey to CDFW. If an active nest is found, Permittee shall consult with CDFW regarding appropriate action to comply with Fish and Game Code, or incorporate buffers approved by CDFW in writing. If a lapse in Project-

related activities of 7 days or longer occurs, another focused survey and, if needed, consultation with CDFW, shall be required before Project activities can be reinitiated.

2.45 Active Nest Buffers. If an active nest is found during surveys, Permittee or the Qualified Biologist shall consult with CDFW regarding appropriate action to comply with State and Federal laws, or incorporate buffers approved by CDFW in writing. Active nest sites shall be designated as “Ecologically Sensitive Areas” (ESA) and protected (while occupied) during Project activities by demarking a “No Work Zone” around each nest site.

- Buffer distances for bird nests shall be site specific and an appropriate distance, as determined by a Qualified Biologist. The buffer distances shall be specified to protect the bird’s normal behavior to prevent nesting failure or abandonment. The buffer distance recommendation shall be developed after field investigations that evaluate the bird(s) apparent distress in the presence of people or equipment at various distances. Abnormal nesting behaviors which may cause reproductive harm include, but are not limited to, defensive flights/vocalizations directed towards Project activity personnel, standing up from a brooding position, and flying away from the nest. The Qualified Biologist and Biological Monitor shall have authority to order the cessation of all nearby Project activities if the nesting birds exhibit abnormal behavior which may cause reproductive failure (nest abandonment and loss of eggs and/or young) until an appropriate buffer is established.
- The Qualified Biologist shall monitor the behavior of the birds (adults and young, when present) at the nest site to ensure that they are not disturbed by Project activities. Nest monitoring shall continue during Project activities until the young have fully fledged (have completely left the nest site and are no longer being fed by the parents), as determined by the Qualified Biologist. Any reduction in monitoring active nests must be approved in writing by CDFW.

2.46 Nesting Habitat Removal or Modification. No habitat removal or modification shall occur within the ESA-marked nest zone (see above measure) until the young have fully fledged and will no longer be adversely affected by the Project activity, as determined by a Qualified Biologist or Biological Monitor. Any trees or shrubs that are removed shall be “downed” in such a manner as to minimize disturbance to stable soil conditions.

### **Special-Status Plant Protection**

2.47 Pre-Project Activity Special-Status Plant Surveys. A Qualified Biologist shall identify any potentially suitable habitat for special-status plants within the Project activity site and a minimum 100-foot buffer area around the Project activity site, and provide a habitat suitability report to CDFW for review at least 30 days prior to commencement of ground-disturbing activities, unless otherwise approved by

CDFW in writing. If potentially suitable habitat exists and cannot be avoided, a Qualified Biologist shall conduct botanical surveys during the appropriate blooming period and conditions for all special-status plants that have the potential to occur prior to the start of construction. More than one year of surveys may be necessary. Surveys shall be conducted following CDFW's *Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (<https://wildlife.ca.gov/Conservation/Survey-Protocols#377281280-plants>). Survey reports shall be submitted to CDFW for written approval prior to the start of construction. If State or Federally listed species such as north coast semaphore grass, white-rayed pentachaeta, Santa Cruz tarplant, or two-fork clover, or any other special-status plant species, are observed, the Project activity shall fully avoid direct and indirect impacts to all individuals and prepare and implement a CDFW-approved avoidance plan prior to Project activities. If full avoidance is not possible, Project activities may not commence until the Permittee has consulted with CDFW and obtained CDFW's written approval, which may include authorization pursuant to CESA and additional mitigation, including but not limited to compensatory habitat mitigation. Additional approval from the USFWS may be necessary pursuant to the ESA.

## **Vegetation Protection and Prevention**

- 2.48 Habitat Protection. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete the Project activity. Vegetation outside the Project activity corridor shall not be removed or damaged without prior consultation and approval of a CDFW representative.
- 2.49 Retain Large Woody Debris. Large woody debris that does not obstruct the flow of water shall be left in place. If flow is unobstructed by the large woody debris but the Permittee would still like to remove it, then a hydrologist shall assess whether the debris is likely to inhibit flows or damage infrastructure in the next year. If the hydrologist determines that the debris poses an imminent threat to infrastructure and that no alternative methods will remove that threat (e.g., notching to allow large pieces to break during storms, or selectively cutting pieces and leaving in place), then CDW shall be contacted to determine whether removal of the large woody debris is covered by this Agreement.
- 2.50 Tree Drip Line. Construction materials, equipment storage, and parking areas shall be located outside the drip line of any preserved tree. Construction equipment shall not cause root compaction.
- 2.51 Tree Removal. No live trees with a diameter at breast height (DBH) greater than 4 inches shall be removed or damaged without prior consultation and written approval from CDFW. Preserved trees may only be trimmed with hand tools to the extent necessary to gain access to work sites or restore stream flow. Tree replacement shall be conducted according to Measure 3.1.

- 2.52 Treat Exposed Areas. All exposed/disturbed areas and access points within the riparian zone left barren of vegetation as a result of the construction activities shall be restored by seeding with a blend of native erosion control grass seed. Locally native wildflower and/or shrub seeds may also be included in the seed mix. Seeded areas shall be mulched. Landscape fabric shall not be used. Revegetation shall be completed as soon as possible after construction activities in those areas cease. Seeding placed after October 15 must be covered with broadcast straw, jute netting, coconut fiber blanket or similar erosion control blanket.
- 2.53 Phytophthora. Permittee shall ensure that all plantings come from local nurseries implementing best management practices to avoid and minimize the spread of *Phytophthora*.
- 2.54 Irrigation. When supplemental watering is used to establish and maintain plant growth to meet success criteria, irrigation shall be done in the most water efficient manner possible, such as using hand watering, drip/microirrigation or through the use of a time release system.
- 2.55 Exotic Plants. Permittee shall not plant, seed or otherwise introduce invasive exotic plant species. Prohibited exotic plant species include those identified in the California Invasive Plant Council's database, which is accessible at: <https://www.cal-ipc.org/plants/inventory/>.
- 2.56 Control Invasive Species. Permittee is responsible for monitoring and if needed, eradication of invasive exotic species that may occur within the Project activity area for a minimum of two years following construction. All revegetation efforts shall include local plant materials native to the Project activity area.
- 2.57 Allowable Herbicide. The Permittee currently does not use pesticides or herbicides during routine maintenance activities. However, if herbicide use becomes necessary, only herbicides registered with the California Department of Pesticide Regulation shall be used. All herbicides shall be applied in accordance with regulations set forth by the California Department of Pesticide Regulation and according to label instructions. Only herbicides approved for use in aquatic environments are permitted. Care shall be taken to avoid herbicide contact with native vegetation, and it shall only be applied on calm days (wind speed less than 5 miles per hour) to prevent airborne transfer of herbicide. No herbicides shall be used where threatened or endangered species occur, unless otherwise approved in writing by CDFW.
- 2.58 Disposal of Vegetation and Debris. All removed vegetation and debris shall be moved outside the ordinary high-water mark prior to inundation by water. All removed vegetation and debris shall be disposed of according to State and local laws and ordinances.



2.59 Compensatory Mitigation. The Permittee shall mitigate any temporary and permanent impacts to stream habitat from the Project activities, as per Measure 3 below, inclusive.

### **Concrete and Cement-based Products**

2.60 Cement Based Products. All cement-based products (concrete, mortar, etc.) poured or applied wet onsite shall be excluded from the wetted channel or areas where they may come into contact with water for a period of 30 days after application. During that time the product shall be kept moist and runoff from the product shall not be allowed to enter the stream. Commercial sealants may be applied to the product surface or mixture where difficulty in excluding flow for a long period may occur. If sealant is used, water shall be excluded from the site until the sealant is cured.

2.61 Concrete – Primary Containment. The Permittee shall install the necessary containment structures to control the placement of wet concrete and to prevent it from entering the channel outside of those structures. No concrete shall be poured within the high flow line if the 15-day weather forecast indicates any day with a greater than 20% chance of rain.

2.62 Concrete – Designated Monitor. At all times when the Permittee is pouring or working with wet concrete there shall be a designated monitor to inspect the containment structures and ensure that no concrete or other debris enters into the channel outside of those structures.

### **Rock Armoring**

2.63 Replacement of Rock Slope Protection. Where bioengineering is infeasible, in-kind replacement of rock slope protection may only occur in areas with previous rock slope protection or hardened surfaces intended to stabilize banks and prevent erosion. At the discretion of CDFW, modifications to rock slope protection that increase the footprint of existing bank stabilization may be subject to an amendment to this Agreement or a separate notification.

2.64 Rock Slope Protection - Limitations. Rock slope protection (i.e., RSP or riprap) shall not be used for armoring/protecting the bank if any of the following criteria apply:

- The bank has not been previously armored or rock slope protection would be a new feature on-site;
- Rock slope protection could transfer erosive forces to the opposite bank or another area downstream;

- Rock slope protection would narrow or otherwise constrain the stream channel, limiting passage of peak flows and debris; or
- Installation of the rock would require removal of woody vegetation and/or trees over 4-inch DBH, unless otherwise permitted in this Agreement.

2.65 Rock Slope Protection. Permittee shall install angular, energy dissipating rock slope protection that is properly sized to withstand washout during peak flows. Permittee shall use the least amount and smallest size rock necessary to stabilize the banks and withstand washout. Only clean material such as rock riprap that is free of trash, debris and deleterious material shall be used as bank stabilization. Asphalt shall not be considered an acceptable material.

2.66 Fill Voids in Rock Slope Protection. Permittee shall ensure that all voids and spaces within the riprap are filled with smaller rock, gravels, and native soil material, and/or willow cuttings. Cementitious grouts shall not be used.

2.67 Geotextile Linings. If non-biodegradable geotextile linings must be used to ensure the engineered stability of the rock slope protection, it shall be monitored for the life of the Project to ensure that it is never exposed to the stream. If the geotextile fabric is exposed to the stream, CDFW shall be notified and an amendment to this Agreement or a new notification may be required, as determined by CDFW.

### **Erosion and Sediment Control**

2.68 Erosion Control. At no time shall silt laden runoff be allowed to enter a river, stream, or lake or directed to where it may enter a river, stream, or lake. Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from exposed slopes threatens to enter a river, stream, or lake. Erosion control measures, such as, silt fences, straw hay bales, gravel or rock lined ditches, water check bars, and broadcasted straw shall be used wherever sediment has the potential to leave the work site and enter the river, stream, or lake.

2.69 Monofilament. Permittee shall not use erosion control materials containing plastic monofilament netting (erosion control matting) or similar material containing netting within the Project area due to documented evidence of amphibians and reptiles becoming entangled or trapped in such material. Acceptable substitutes include coconut coir matting or similar.

2.70 Excavation. No spoil from the excavation shall be placed on the bed or bank of the stream. Excavated spoil shall be removed to an area where the sediment will not deliver to a watercourse.

- 2.71 Erosion Control Monitoring. Permittee shall monitor erosion control measures during and after each storm event and repair and/or replace ineffective measures immediately.
- 2.72 Disposal and Removal of Materials. All removed spoils and construction debris shall be moved outside the work area prior to inundation by water. Spoil sites shall not be located within the stream channel or areas that may be subjected to stream flows, where spoil may be washed back into a stream, or where it may impact streambed habitat, aquatic or riparian vegetation. All removed material shall be disposed of according to State and local laws and ordinances.

### **Equipment and Vehicles**

- 2.73 Operating Equipment and Vehicle Leaks. Any equipment or vehicles driven and/or operated adjacent to the stream shall be checked and maintained daily to prevent leaks of materials that could be deleterious to aquatic and terrestrial life or riparian habitat.
- 2.74 Stationary Equipment Leaks. Stationary equipment such as motors, pumps, generators, and welders, located within or adjacent to the stream shall be positioned over drip pans. Stationary heavy equipment shall have suitable containment to handle a catastrophic spill/leak.
- 2.75 Equipment Storage. Staging and storage areas for equipment, materials, fuels, lubricants, and solvents, shall be located outside of the stream channel and banks.
- 2.76 Refueling of Equipment. Refueling of construction equipment and vehicles may not occur within 175 feet of any water body, or anywhere that spilled fuel could drain to a water body, unless otherwise approved in writing by CDFW as further specified in this measure. Permittee may submit a request to CDFW for refueling to occur within at least 100 feet of a water body where there is existing gravel, asphalt, or pavement at the refueling site and Permittee provides CDFW with additional protection measures that will be employed to ensure fuel does not drain into the water body. CDFW written approval must be obtained for any refueling occurring within 175 feet of a water body. Tarps or similar material shall be placed underneath the construction equipment and vehicles, when refueling, to capture incidental spillage of fuels. Equipment and vehicles operating in the Project area shall be checked and maintained daily to prevent leaks of fuels, lubricants, or other liquids.

### **Material Handling, Debris, and Waste**

- 2.77 Stockpiled Materials. Building materials and/or construction equipment shall not be stockpiled or stored where they may be washed into the water or cover aquatic or riparian vegetation. Stockpiles shall be covered when measurable rain is forecasted.

- 2.78 No Dumping. Permittee and all contractors, subcontractors, and employees shall not dump any litter or construction debris within the stream, or where it may pass into the stream.
- 2.79 Pick Up Debris. Permittee shall pick up all debris and waste daily.
- 2.80 Wash Water. Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.

### **Toxic and Hazardous Material**

- 2.81 Toxic Materials. Any hazardous or toxic materials that could be deleterious to aquatic life that could be washed into the stream or its tributaries shall be contained in watertight containers or removed from the Project site.
- 2.82 Hazardous Materials. Debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, wildlife, or riparian habitat resulting from the Project related activities shall be prevented from contaminating the soil and/or entering the Waters of the State.

### **Spills and Emergencies**

- 2.83 Spill Kits. Prior to entering the work site, all field personnel shall know the location of spill kits and trained in their appropriate use.
- 2.84 Spill of Material Deleterious to Fish and Wildlife. In the event of a hazardous materials spill into a stream (e.g., concrete or bentonite), Permittee shall immediately notify the California Office of Emergency Services State Warning Center by calling 1-800-852-7550 and immediately provide written notification to CDFW by email at [AskBDR@wildlife.ca.gov](mailto:AskBDR@wildlife.ca.gov). Permittee shall take all reasonable measures to document the extent of the impacts and affected areas including photographic documentation of affected areas, injured fish and wildlife. If dead fish or wildlife are found in the affected area, Permittee shall collect carcasses and immediately deliver them to CDFW. Permittee shall meet with CDFW within ten days of the reported spill in order to develop a resolution including: site clean-up, site remediation and compensatory mitigation for the harm caused to fish, wildlife and the habitats on which they depend as a result of the spill. The Permittee shall be responsible for all spill clean-up, site remediation and compensatory mitigation costs. Spill of materials to waters of the State that are deleterious to fish and wildlife are in violation of Fish and Game Code section 5650 et seq. and are subject to civil penalties for each person responsible. CDFW reserves the right to refer the matter to the District Attorney's Office if a resolution cannot be agreed

upon and achieved within a specified timeframe, generally six months from the date of the incident.

- 2.85 Spill Containment. All activities performed in or near a river, stream, or lake shall have absorbent materials designated for spill containment and cleanup activities on-site for use in an accidental spill. The Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the cleanup activities. CDFW shall be notified by the Permittee and consulted regarding clean-up procedures.

### 3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1 Tree Replacement. Any live trees that were within the channel or riparian zone removed as a result of the Project shall be replaced pursuant to the below ratios, unless otherwise approved in writing by CDFW. The Riparian Revegetation, Mitigation, and Monitoring plan described in Measure 3.2 shall include a table with the following information for each tree removed: the species, diameter at breast height, replacement ratio, and number and species of trees planted pursuant to the below ratios.

Oak trees:

- 3:1 replacement for trees greater than 4 inches to 8 inches DBH
- 5:1 replacement for trees greater than 8 inches to 16 inches DBH
- 10:1 replacement for trees greater than 16-inch DBH, which are considered old growth oaks

Replacement oaks shall come from nursery stock grown from locally sourced acorns, or from acorns gathered locally, preferably from the same watershed in which they are planted. The trees should be able to survive the last two years of the minimum five-year monitoring period without irrigation.

Any other trees shall be mitigated at the following ratios:

- 1:1 replacement for non-native trees greater than 4-inch DBH
- 3:1 replacement for native trees greater than 4 inches to 6 inches DBH
- 6:1 replacement for native trees greater than 6-inch DBH

- 3.2 Riparian Revegetation, Mitigation, and Monitoring Plan. A Riparian Revegetation, Mitigation, and Monitoring Plan (RMMP) shall be submitted to CDFW for each Project activity with live tree removal and/or temporary impacts to stream habitat for written acceptance at least 30 days prior to the activities, unless otherwise approved in writing by CDFW. The RMMP shall describe the acreage and linear feet of stream habitat impacted, the number of live trees removed and replacement ratios pursuant to Measure 3.1, and onsite restoration of impacted areas or within-

watershed restoration and enhancement if temporary impacts cannot be fully addressed onsite. The mitigation site shall be revegetated in the same calendar year as the Project following the RMMP approved in writing by CDFW, and include a combination of understory and overstory vegetation. If planting occurs in a later year, a higher replacement ratio may be required by CDFW to offset the temporal loss of habitat, and an amendment to this or another associated Agreement may be required. More than one RMMP may be necessary for restoration activities in different locations.

The RMMP shall include a detailed native plant species palette and map showing plant spacing, and specific performance criteria, monitoring, adaptive management, and invasive species removal to allow for successful habitat creation and maintenance. To ensure a successful revegetation effort, all plantings shall be monitored and maintained as necessary for a minimum of five years. Each category of plantings (i.e., oaks, other native trees, understory vegetation) shall each have a minimum of 80% survival at the end of the minimum monitoring period and a minimum of 70% cover after three years and 75% cover after five years. Survival and cover criteria shall both be required unless the herbaceous or spreading plants cannot be differentiated by individual, in which case only cover success criteria are required. If the survival and cover requirements are not meeting these goals, the Permittee is responsible for replacement planting, additional watering, invasive exotic eradication, or any other practice, to achieve these requirements. Replacement plants shall be monitored with the same survival requirements for five years after planting.

Other compensatory mitigation than that described above shall only be used with prior written approval from CDFW and may require an amendment to this Agreement.

#### **4. Reporting Measures**

Permittee shall meet each reporting requirement described below.

- 4.1 Notification Prior to Work. Per Measure 1.5, Notify CDFW Prior to Work, at least five days prior to the start of Project activities, Permittee shall notify CDFW that work will commence.
- 4.2 Notification of Designated Representative. Per Measure 1.12, Designated Representative, at least five days prior to the start of Project activities, Permittee shall submit to CDFW the name, business address, and contact information of the Designated Representative.
- 4.3 Qualified Biologist Approval. Per Measure 2.6, CDFW-Approved Qualified Biologist(s) and Monitor(s), no later than 30 days prior to Project activities Permittee shall submit to CDFW, for review and approval, the qualifications for the biologist(s) that shall oversee the implementation of the conditions in this

Agreement and conduct surveys or monitoring work.

- 4.4 Water Diversion and Species Capture and Relocation Plan. Per Measure 2.18, a water diversion and species capture and relocation plan shall be submitted to CDFW for review and written acceptance at least 15 days prior to the start of the Project activity.
- 4.5 Survey Reports. Per Measures 2.8, 2.26, 2.32, 2.33, 2.34, 2.35, 2.36, 2.37, 2.38, 2.39, 2.40, 2.41, 2.42, 2.44, and 2.47 survey results for nesting birds and all other sensitive species shall be submitted to CDFW for review and written acceptance prior to the start of work, unless otherwise approved by CDFW in writing.
- 4.6 Noise Log. Per Measure 2.28, Noise Monitor and Decibel Restrictions, the Noise Monitor shall record dB readings at Project activity sites within 700 feet of CRR/CBR habitat in a Noise Log, unless otherwise approved in writing by CDFW. The Noise Log data shall be submitted to CDFW for written acceptance after each week of work.
- 4.7 Notification of Proposed Activities. The Permittee shall provide to CDFW Bay Delta Region written notification of proposed routine maintenance activities to be performed that year by **May 1** of each year. The written notification of proposed routine maintenance activities shall be clearly organized by Project activity and include:
- 1) A list and map of the covered activities, and the name of the waterbody affected, if applicable.
  - 2) Work plans describing the type and scope of work planned, including the volume, area, disposal sites(s), and the equipment to be used. The plans shall clearly show the location of permanent and temporary storage areas for equipment, materials, and spoils; any important fish or wildlife habitat features in the area of disturbance such as snags, nests, large woody debris, deep pools, and undercut banks; and access routes. The work plans shall also include estimates of the area (square feet or acres) of temporary impacts.
  - 3) Estimated volume of material that will be placed or removed from the site, associated with sediment maintenance activities.
  - 4) Estimated area, acreage or square feet, estimated linear feet, and species of vegetation that will be removed or vegetation community that will be treated.
  - 5) An assessment from a Qualified Biologist of all potential special-status species that may be impacted by each activity, including identification of all sites within 700 feet of any salt marsh habitat.
  - 6) Proposed avoidance, minimization, and mitigation measures from this Agreement for each activity.

- 7) Proposed work window for each site and estimated commencement and termination dates.
- 8) Riparian Revegetation, Mitigation, and Monitoring Plan (RMMP) where activities will temporarily impact riparian and stream habitat; in addition to the standard information outlined above, any activity that will result in revegetation shall include a revegetation plan (Measure 3.2) detailing the quantity, species, size, location, and type of replacement planting as well as installation methodology and irrigation specifications. RMMPs are subject to the monitoring success criteria outlined in Measure 3.2 and the reporting requirements identified in Measure 4.8.

4.8 Annual Reports and Fees for Completed Work. The Permittee shall provide CDFW Bay Delta Region written notification of maintenance work completed each year. Each annual report shall include the appropriate fee determined from the CDFW Streambed Alteration Agreement Fee Schedule for work completed under this Agreement based on the number of activities completed in the reporting period. For fee purposes, a "project" is defined as a routine maintenance activity performed by the Permittee during a given year in a channel reach or other specific area. Each annual activity shall be considered to be one project. Permittee shall pay fees either in the form of a check mailed to CDFW's Bay Delta Region office (i.e., 2825 Cordelia Road, Suite 100, Fairfield, CA 94534), or online with credit card (<https://www.ca.wildlifelicense.com/InternetSales/>). If fees are paid online, a copy of the receipt shall be emailed to CDFW along with the annual report. Reports and annual fees are due by December 31. CDFW may terminate this Agreement if late reports and fees are not submitted. Annual reports shall be clearly organized by activity and include:

- 1) Agreement No. 1600-2021-0018-R3.
- 2) Project activity location.
- 3) Project activity description.
- 4) Estimated volume of material placed or removed from each site.
- 5) Estimated area, acreage or square feet, linear feet, and species of vegetation removed, or vegetation community treated or maintained, including area of temporary impacts.
- 6) All completed avoidance, minimization, and mitigation measures required in this Agreement.
- 7) Fish and wildlife resources observed during the Project activity.
- 8) Photographic documentation as further described in Measure 4.10.
- 9) Riparian Revegetation, Mitigation, and Monitoring Plan (RMMP) monitoring reports. Permittee shall submit to CDFW a status report every year until restoration goals identified in Measure 3.2 are accomplished. This report shall include the survival and percent cover of species planted and native species that have colonized the area. The number by species of plants



replaced, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. The report shall include photos from designated photo stations and other relevant information such as a summary of invasive species control and methods used to remove non-native plants. After CDFW's review of the fifth-year monitoring report, if plantings have achieved the required success criteria, CDFW shall email Permittee stating that the monitoring requirements have been satisfied for that activity. **Monitoring requirements will not be deemed complete until CDFW emails Permittee stating so.**

4.9 Four-Year Status Report. The Permittee shall provide a status report to CDFW every four years. The Permittee shall deliver the report to CDFW **no later than 90 days prior** to the end of each four-year period and shall include all of the following information:

- 1) A copy of the original Agreement.
- 2) The status of the activity covered by the Agreement.
- 3) An evaluation of the success or failure of the measures in the Agreement to protect the fish and wildlife resources that the activity may substantially adversely affect.
- 4) A discussion of any factors that could increase the predicted adverse impacts on fish and wildlife resources.
- 5) A description of the resources that may be adversely affected.

CDFW shall review the status report and conduct an onsite inspection to confirm that the entity is in compliance with the Agreement and that the measures continue to protect fish and wildlife resources. If CDFW determines that the measures no longer adequately protect fish and wildlife resources, then CDFW shall consult with the entity within 45 days of receipt of the report to impose one or more new measures to protect fish and wildlife resources affected by the activity.

4.10 Photographic Documentation of Work and Project Completion Report. Prior to commencement of work for each project or Broad Project Area for vegetation treatment activities (as defined in Attachment B), a minimum of one (1) vantage point that offers representative views of the project site and work areas, or Broad Project Area for vegetation treatment, shall be identified. The Permittee shall photograph the project areas from the identified vantage points, noting the direction and magnification of each photo. Upon completion of work, the Permittee shall photograph post-project conditions from the vantage points using the same direction and magnification as pre-project photos. A Project Completion Report shall be submitted to CDFW with the photos and a reference key describing the location of the photo, the direction of the view, and whether the photo is pre- or post-construction. **The Project Completion Reports shall be submitted as part**

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**of the Annual Reports for Completed Work (Measure 4.8).**

- 4.11 Notification to the California Natural Diversity Database. If any listed, rare, or special-status species are detected during Project surveys or on or around the Project site during Project activities, the Permittee shall submit CNDDDB Field Survey Forms to CDFW in the manner described at the CNDDDB website (<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>) within five working days of the sightings. Copies of such submittals shall also be submitted to the CDFW regional office as specified below.

**CONTACT INFORMATION**

Any communication that Permittee or CDFW submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail or email, or to such other address as Permittee or CDFW specifies by written notice to the other.

To Permittee:

Hannah Lee  
Marin County Flood Control and Water Conservation District  
3501 Civic Center Drive, Suite 304  
San Rafael, CA 94903  
[hlee@marincounty.org](mailto:hlee@marincounty.org)

To Contact Person:

Lisa Michl  
Marin County Flood Control and Water Conservation District  
3501 Civic Center Drive, Suite 304  
San Rafael, CA 94903  
[lmichl@marincounty.org](mailto:lmichl@marincounty.org)

To CDFW:

Department of Fish and Wildlife  
Bay Delta Region  
2825 Cordelia Road, Suite 100  
Fairfield, California 94534  
Attn: Lake and Streambed Alteration Program – Melanie Day  
Notification #1600-2021-0018-R3  
[melanie.day@wildlife.ca.gov](mailto:melanie.day@wildlife.ca.gov); [askbdr@wildlife.ca.gov](mailto:askbdr@wildlife.ca.gov)

**LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed

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by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the Project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute CDFW's endorsement of, or require Permittee to proceed with the Project. The decision to proceed with the Project is Permittee's alone.

## **SUSPENSION AND REVOCATION**

CDFW may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before CDFW suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

## **ENFORCEMENT**

Nothing in the Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects CDFW's enforcement authority or that of its enforcement personnel.

## **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with, or obtaining any other permits or authorizations that might be required under, other Federal, State, or local laws or regulations before beginning the Project or an activity related to it. For example, if the Project causes take of a species listed as threatened or endangered under the Endangered Species Act (ESA), such take will be unlawful under the ESA absent a permit or other form of authorization from the USFWS or NMFS.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the Fish and Game Code including, but not limited to, Fish and Game Code sections 2050 *et seq.* (threatened and endangered species), section 3503 (bird nests and eggs), section

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3503.5 (birds of prey), section 5650 (water pollution), section 5652 (refuse disposal into water), section 5901 (fish passage), section 5937 (sufficient water for fish), and section 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

## **AMENDMENT**

CDFW may amend the Agreement at any time during its term if CDFW determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). Submit the form and fee to the CDFW regional office that serves the area where the Project is located.

## **TRANSFER AND ASSIGNMENT**

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to CDFW a completed CDFW "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). Submit the form and fee to the CDFW regional office that serves the area where the Project is located.

## **EXTENSIONS**

In accordance with Fish and Game Code section 1605, subdivision (b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to CDFW a completed CDFW "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in CDFW's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with Fish and Game Code section 1605, subdivisions (b) through (e).

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If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the Project the Agreement covers (Fish & G. Code, § 1605, subd. (f)). Submit the form and fee to the CDFW regional office that serves the area where the Project is located.

## **EFFECTIVE DATE**

The Agreement becomes effective on the date of CDFW's signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable Fish and Game Code section 711.4 filing fee listed at <https://www.wildlife.ca.gov/Conservation/CEQA/Fees>.

## **TERM**

This Agreement shall expire on **December 31, 2041**, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as Fish and Game Code section 1605, subdivision (a)(2) requires.

## **EXHIBITS**

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

- A. Exhibit A. *Marin County Flood Control and Water Conservation District Stream Maintenance Program*, prepared by Marin County Flood Control and Water Conservation District, dated June 2021.
- B. Exhibit B. *Project Location & Channel Reaches Table – Vegetation Maintenance*, prepared by Marin County Flood Control and Water Conservation District, dated June 2021 and modified by CDFW June 2022.

## **AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

## **AUTHORIZATION**

This Agreement authorizes only the Project described herein. If Permittee begins or completes a Project different from the Project the Agreement authorizes, Permittee may

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be subject to civil or criminal prosecution for failing to notify CDFW in accordance with Fish and Game Code section 1602.

## CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

### FOR MARIN COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DocuSigned by:

*Hannah J. Lee*

467D8B6CEB0E498...

Hannah Lee

Senior Civil Engineer

6/29/2022

Date

### FOR DEPARTMENT OF FISH AND WILDLIFE

DocuSigned by:

*Melanie Day for*

F29D8B7B30B54A...

Craig J. Weightman

Environmental Program Manager

7/1/2022

Date

Prepared by: Amanda Culpepper, Environmental Scientist

Date Sent: March 3, 2022

Date Revised: June 10, 2022

Date of Second Revision: June 23, 2022

## **ATTACHMENT A COVERED ACTIVITIES**

### **1. Vegetation Management:**

- a. Limbing and/or trimming of branches and tree limbs. Trimming of trees is limited to no greater than approximately 1/3 of the canopy of the tree. Trimming or limbing greater than 1/3 of the canopy of any tree is considered tree removal.
- b. Removal of dead and dying trees and shrubs, and live trees that are less than four inches diameter at breast height (DBH), from creek channels if they are below ordinary high water and are restricting the capacity of the channel, causing erosion, or causing flooding. Stumps shall be left intact, except when removal is necessary for bank stability.
- c. Removal of aquatic vegetation such as algae or smartweed (*Polygonum* spp.) with hand tools. No heavy equipment shall be operated in the streambed.
- d. Removal of non-woody vegetation (e.g., grass, bulrush, and cattails) from stream channel bed with hand tools.
- e. Control of weeds and grasses on channel access roads, shoulders, or levees by mowing may take place between April 15 and October 15 of each year.
- f. Removal of non-native vegetation such as giant reed (*Arundo donax*), Scotch broom (*Genista monspessulana*), French broom (*Cytisus scoparius*), and pampas grass (*Cortaderia selloana*) in order to maintain channel capacity and improve native riparian habitat. Non-native trees such as Eucalyptus (*Eucalyptus* spp.) and tree-of-heaven (*Ailanthus altissima*) that are less than four inches DBH may also be removed. The root mass of any tree or shrub removed shall be left in place to maintain bank stability.
- g. Removal of vegetation from the stream bank with non-motorized hand tools, mechanical vegetation cutters, shredder, string trimmers (i.e., weed-whacker), mowers, and chainsaws. If small trees and shrubs less than four inches DBH are removed along a stream channel, removal shall be conducted in an alternating pattern by cutting on one side of the stream channel one year and the other side of the stream channel the following year. Each vegetation maintenance reach shall not exceed 1,000 linear feet. Vegetation can only be trimmed intermittently along the reaches on an as needed basis, with most reaches needing only minor trimming. Patches of riparian vegetation shall be left intact to serve as wildlife habitat.
- h. Removal of parts of flood-deposited woody and herbaceous plants, fallen trees, or trunks or limbs lodged in the bed or bank causing flow restrictions. Fallen trees and limbs shall be removed by cutting off at the bed or bank invert with hand tools. Root structures shall not be disturbed and debris shall be disposed of

where it cannot re-enter the stream.

- i. Removal of live trees if they are blocking flow, restricting the capacity of the channel, or growing within 30 feet of a structure or flood control structures. Any trees removed from the stream banks shall be cut at ground level, leaving the root mass in place to maintain bank stability, unless otherwise approved in writing by CDFW. Any trees removed that are greater than 4-inch DBH shall be replaced in accordance with measure 3.1.
- j. Vegetation enhancement activities associated with other routine maintenance activities including replanting, new planting, and maintenance of plantings.

## 2. Sediment and Debris Removal

- a. Removal of debris and sediment in and around structures, not including sediment basins or sediment traps, shall not exceed 20 cubic yards and 50 linear feet per project. Sediment and debris removal from sediment basins or sediment traps shall not exceed 150 cubic yards and 150 linear feet per project.
- b. Removal of debris and sediment from natural and flood control channels. The maximum length within a concrete-lined channel shall be 2,885 linear feet; the maximum length within an earthen channel requiring a coffer dam shall be 600 linear feet; and the maximum volume of debris or sediment removed from any channel reach shall be 2,100 cubic yards.
- c. Removal of sediment and debris from waterways shall not exceed a cumulative annual total of 7,500 linear feet of creek channel and 11,000 cubic yards of sediment and debris.

## 3. Erosion Control

- a. New erosion control may only occur where failing banks are composed of earthen materials and biotechnical stabilization techniques such as brush mattresses and willow walls are implemented.

## 4. Structure Maintenance and Repair

- a. In-kind replacement of rock slope protection at sites previously rock ripped using existing material or clean imported rocks and boulders. No broken concrete, asphalt or other construction waste materials shall be used as rock slope protection. Existing broken concrete, asphalt or other construction waste materials shall be removed from the site and properly disposed of.
- b. Repair, replacement in kind, or maintenance of drainage and erosion control structures including but not limited to, storm drain outfalls, bank protection, energy dissipaters, grade structures, road embankments, and access ramps.
- c. Repair, maintain or resurface existing roads and paths within the riparian corridor



or stream zone so long as the width of the paved or treated surface is not increased.

#### 5. Levee Maintenance and Repair

- a. Levee maintenance includes stabilizing levees by placing fill on the levee tops and controlling burrowing rodent populations. Levee vegetation maintenance is included above under item 1.e.
- b. Fill placed on levee tops shall not result in the widening of the levee. Fill amounts shall be minimal and maintain design elevation which may have changed as a result of settling. Any fill amounts that widen the surface or footprint of an existing levee are not authorized under the Routine Maintenance Agreement.
- c. Gopher infestations may be controlled by trapping gophers and filling burrows with an earth and concrete mix or bentonite, following FEMA guidelines and provided that burrowing owls are absent. No rodenticides or other pesticides or poisons shall be used for rodent control, levee maintenance, or in any other Routine Maintenance Agreement activity.

#### 6. Temporary Water Diversions

- a. Temporary water diversions and species capture and relocation associated with sediment removal shall be planned, designed, and implemented based on conditions detailed in Section 2: Avoidance and Minimization Measures.

#### 7. Exempt Activities

The following routine maintenance activities are not subject to the provisions of the Routine Maintenance Agreement between CDFW and the Permittee. This activity is also not subject to the provisions of Section 1600 of the Fish and Game Code if performed within the parameters stated below.

- a. Trash and debris removal (not including silt removal) when conducted without heavy equipment being operated within the bed, bank, and channel (e.g., baby diapers, shopping carts, metal, wood, plastic, etc.)
- b. Removal of trash and vegetation from trash racks, pilings, and piers when conducted without heavy equipment being operated within the bed, bank, and channel. For example, vegetation that has flowed down the channel and collected on the trash rack, pilings, or piers and would impede channel flow leading to potential flooding upstream.
- c. Servicing of water quality monitoring stations, stream gages, and other similar monitoring equipment. For example, replacing damaged sensors, uncovering intake tubes, replacing samplers, or repairing damaged equipment housing.

Note: Materials embedded in the bottom of the channel are subject to the provisions of Fish and Game Code section 1600 et seq.

## **ATTACHMENT B DEFINITION OF TERMS**

As used herein and for purposes of the Agreement

Aquatic animals: animals associated with streams, rivers, lakes, ponds, or other water bodies for some or all of their life cycle; generally refers to fish, amphibians, and reptiles including but not limited to steelhead, foothill yellow-legged frog, California red-legged frog, western pond turtle, and California giant salamander.

Bioengineering: the application of the principles of engineering and natural sciences to flood control maintenance and erosion control. Bioengineering applications may be used to reduce the impacts on the natural and urban environment. Methods that may be used include but are not limited to: willow wattling, post and wire revetment, revegetation with native plants, seeding, installation of rootballs, brush layering, brush matting, trench packing, inter-planting existing or replaced riprap, plantings, and combinations of the above methods.

Biological Monitor: an individual who shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this Project, experience with construction-level biological monitoring, be able to recognize species that may be present within the Project area, and be familiar with the habitats and behavior of those species.

Broad Project Area: the general location within a Zone where vegetation maintenance activities will occur; the Broad Project Area may include multiple channel reaches (see Exhibit B).

Channel reach: a section of stream defined by uniform habitat features, such as a particular type of substrate, geomorphologic channel characteristics, and riparian vegetation. In urban environments, reaches may be defined by upstream and downstream barriers, such as bridge footings or weirs. Channel reaches in the Project area are described in Exhibit B.

Concrete-lined channel: flood control channels with concrete sides and bottom.

Debris: non-living vegetative or woody matter, trash, concrete rubble, etc. This definition does not include living vegetation.

Emergency project: is defined in the California Fish and Game Code section 1600 et seq. as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate the loss of, or damage to, life, health, property, or essential public services. "Emergency" includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

Extreme high tide events: are defined as a tide forecast of 6.5 feet or higher measured at the Golden Gate Bridge and adjusted to the timing of local high tides.

Fish: as defined in Fish and Game Code section 45, means a wild fish, mollusk,

crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals.

Flood control or engineered channel: an artificially constructed open channel for drainage or flood control purposes.

Flood control structures: levees, dams, or artificially constructed channels for flood control purposes.

Heavy equipment: any equipment used that is larger than a pick-up truck, including but not limited to, rubber tired backhoes/loaders, rubber tired skip loaders, rubber tracked or tired bobcat loaders, rubber tired flail mowers, drag lines with buckets, hydro-vacuum machines operated from top-of-bank.

Large woody debris: includes stumps (alive or dead), root-wads, or logs with a minimum 12-inch-diameter and 6-foot-length.

Project: a routine maintenance activity performed by the Permittee during a given year and assigned the individual fee identified in CDFW's Lake and Streambed Alteration fee schedule (Cal. Code Regs., tit. 14, § 699.5, subd. (e)(2)(B)). An example of such a project, as listed in Attachment A, is one that is limited to the removal of riparian vegetation in one channel reach, or at one location along the bank of a river, lake, or stream; or removal of sediment from one location or channel reach as established in this Agreement (also see Exhibit A and Exhibit B). The Permittee may request during annual notification of proposed activities that vegetation treatment in multiple channel reaches within a single Broad Project Area, as identified in Exhibit B, be considered a single project. CDFW may approve or deny these annual requests and CDFW's determination will only apply to the activities covered in each annual request. Vegetation treatment and sediment removal in the same reach shall be considered two separate projects. A project does not include minor debris removal such as minor tree trimming, removing a shopping cart or a bag of garbage.

Qualified biologist: a Qualified Biologist is an individual who holds a bachelor degree from an accredited university and 1) is knowledgeable in relevant species' life histories and ecology, 2) can correctly identify relevant species, 3) has conducted field surveys for relevant species, 4) is familiar with relevant survey protocols, and 5) is knowledgeable of State and Federal laws regarding the protection of sensitive species.

Routine maintenance activity: an activity, that is periodically scheduled and implemented as necessary to maintain the water transport capacity of stream channels and maintain the structural and functional integrity of existing levees, sediment detention structures, and flood control structures on or affecting streams.

Special-status species: any species identified as a candidate, threatened, endangered, or sensitive species in local or regional plans, policies or regulations, or by CDFW, the USFWS, or NMFS. This includes California Species of Special Concern, Fully Protected Species, and species that are locally rare. Plants with a California Rare Plant Rank are also considered special-status species for the purposes of this Agreement.

Structure: storm drain outfalls, tide gates, slide gates, culverts, revetments, energy

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Streambed Alteration Agreement  
Page 44 of 44

dissipaters, bank protection, sediment basins, weirs, diversion structures, trash racks, stream gages, fish ladders, fish screens, utility line crossings, bridge piers, bridge abutments, or grade structures.

Take: as defined in Section 86 of the California Fish and Game Code, means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. Take, as defined in title 16 of U.S. Code section 1532 subsection 19, means harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt any of those activities.

Vegetation community: a description of the plant species that co-exist in a shared environment; communities should be described at the alliance level per the Manual of California Vegetation (available at <https://vegetation.cnps.org/>).



Attachment C  
Department of Fish and Wildlife  
**BIOLOGIST RESUME COVER SHEET**

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**SUBMIT EACH RESUME AS A SEPARATE DOCUMENT**

**Number of Resumes Included in Transmittal: \_\_\_\_\_**

Name	Requested Role(s) <sup>1</sup>	Species/Resource(s)

---

<sup>1</sup> Requested roles correspond to the biological staffing requirements indicated in the Lake and Streambed Alteration (LSA) Agreement or California Endangered Species Act Incidental Take Permit (ITP). Roles may include a "Qualified Biologist" or "Designated Biologist" with the necessary experience to survey for special status species, or a "Biological Monitor" with the necessary experience to monitor construction activities for special status species. An individual may request more than one role.



Department of Fish and Wildlife

**BIOLOGIST RESUME FORM**

*This form requests information about the qualifications of the Qualified Biologist, Designated Biologist and Biological Monitor specified in California Endangered Species Act Incidental Take Permits (ITP) and Lake or Streambed Alteration (LSA) Agreements issued by California Department of Fish and Wildlife (CDFW).*

**Completing this form will ensure the receipt of adequate information and expedite CDFW review of qualifications.**

**SECTION I. NAME AND CONTACT INFORMATION**

Name:		Title:	
Company Name & Address:		Phone:	
		Email:	

**SECTION II. EDUCATION**

College/University & Degree Type Related to Natural Resource Science:	
Other Relevant Workshops & Training:	

**SECTION III. ROLE(S) AND PERMIT REQUIREMENTS**

Requested Role(s):	
Relevant LSA Agreement Measures or ITP Conditions <sup>2</sup> :	

**SECTION IV. SPECIES AND RESOURCE EXPERIENCE – SUMMARY**

*This section summarizes experience by special status species and other resource. Use one row for each species or other resource where surveys or special protections are required in the CESA ITP or LSA Agreement for which biologist approval is requested.<sup>3</sup> If more space is needed, add rows to this table. Provide details in Section 5.*

Species or Resource	Number of Field Seasons & Hours, Life Stages Observed <i>Provide project details in Section 5</i>	Life History Knowledge <i>Describe formal workshops &amp; training with dates, or informal training details</i>	CDFW SCP, MOU, & USFWS 10a1a Authorization Number & Authorized Activities <i>This form does not fulfill SCP, MOU, &amp; USFWS 10a1a reporting requirements</i>
Insert Species or Resource 1	Field seasons: Hours: Life Stages:		Issued to: Expiration: Agency contact:
Insert Species or Resource 2	Field seasons: Hours: Life Stages:		Issued to: Expiration: Agency contact:
Insert Species or Resource 3	Field seasons: Hours: Life Stages:		Issued to: Expiration: Agency contact:

<sup>2</sup> List all measures and conditions from the LSA Agreement or ITP requiring biological staff (i.e., Qualified Biologist, Designated Biologist, or Biological Monitor).

<sup>3</sup> Often LSA Agreements/ITPs require surveys and other protections for multiple species and other resources. Include only those for which the biologist has experience and is requesting approval.

**SECTION V. SPECIES AND RESOURCE EXPERIENCE – DETAILS**

*This section details experience from the three most recent and relevant projects for each species and resource identified in Section 4. If more space is needed, attach additional pages in the same table format (i.e., copy/paste format).*

<b>A. Species or Resource:</b>			
Project 1 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s) <sup>4</sup> :	
Survey Type(s) <sup>5</sup> :		Construction Monitoring <sup>6</sup> :	Days: Activities:
Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB <sup>7</sup> (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Project 2 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:
Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Project 3 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:

<sup>4</sup> Insert the role as described in the associated LSA Agreement, ITP or other agency permit. If these permits were not issued, describe the role based on the duties, e.g., “lead biologist with handling authorization” or “biological monitor.”

<sup>5</sup> For example, pre-construction survey or description of the protocol or guideline followed.

<sup>6</sup> Include the number of days and describe the types of activities monitored (e.g., heavy equipment operation).

<sup>7</sup> CNDDDB is the abbreviation for California Natural Diversity Database.

**Project Name:**  
**LSA Agreement/ITP Number(s):**

Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Additional Information:			

<b>B. Species or Resource:</b>			
Project 1 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:
Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Project 2 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:
Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Project 3 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:



**Project Name:**  
**LSA Agreement/ITP Number(s):**

Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Additional Information:			

<b>C. Species or Resource:</b>			
Project 1 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:
Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Project 2 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:
Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Project 3 Name & Location:		Project Start & End Dates:	
LSA Agreement, ITP, or Other Agency Permit Number:		Role(s):	
Survey Type(s):		Construction Monitoring:	Days: Activities:

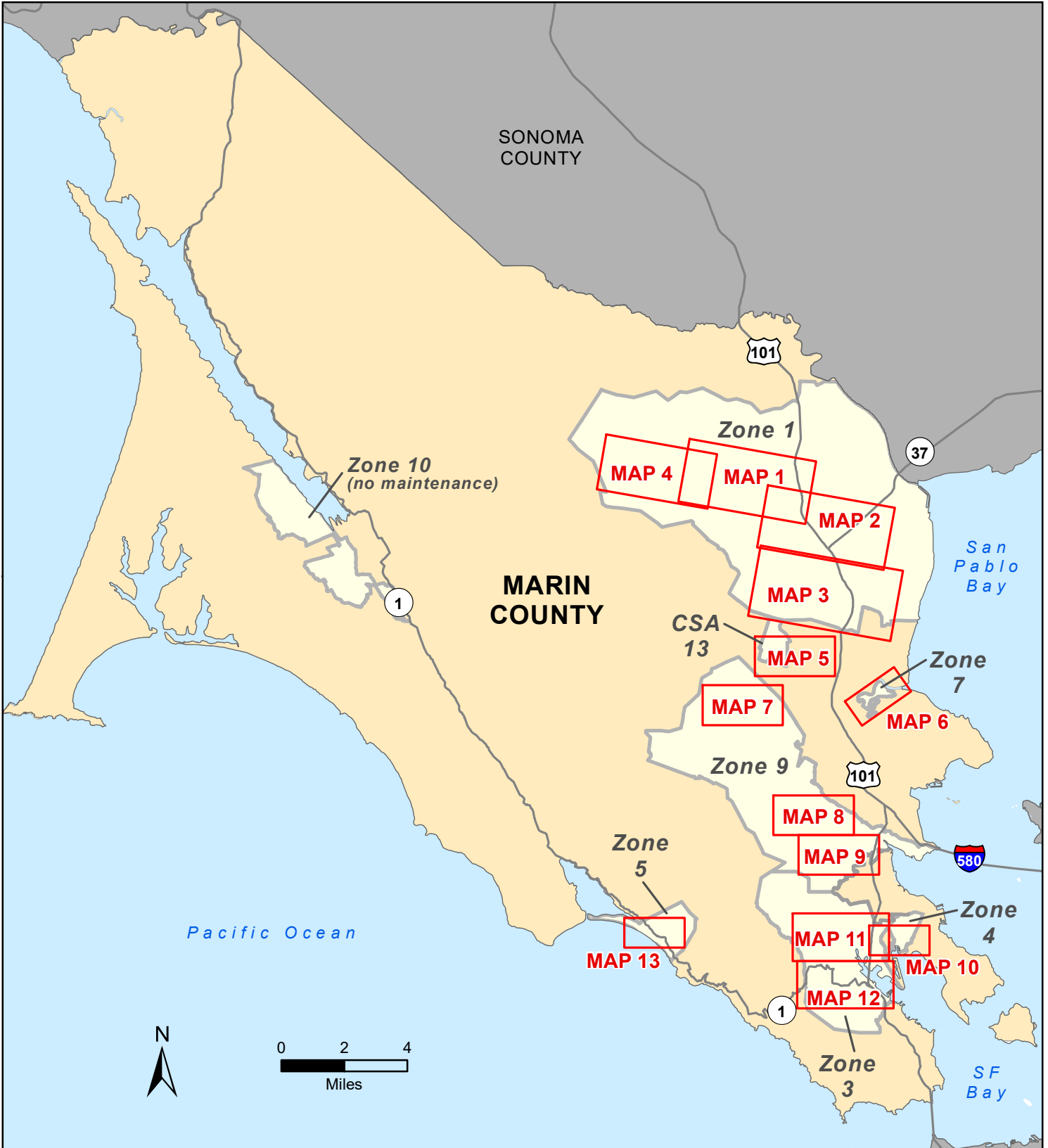
**Project Name:**  
**LSA Agreement/ITP Number(s):**

Species Life Stages Observed & Handled, Number of Each:	Life Stage: Number Observed: Number Handled: Reported to CNDDDB (Y/N):	Company Name, Professional Reference Name, Phone, Email:	
If <u>not</u> reported to CNDDDB, why:			
CDFW and Other Agency Email:			
Additional Information:			

# EXHIBIT A



# Marin County Flood Control and Water Conservation District

# Stream Maintenance Program (SMP)



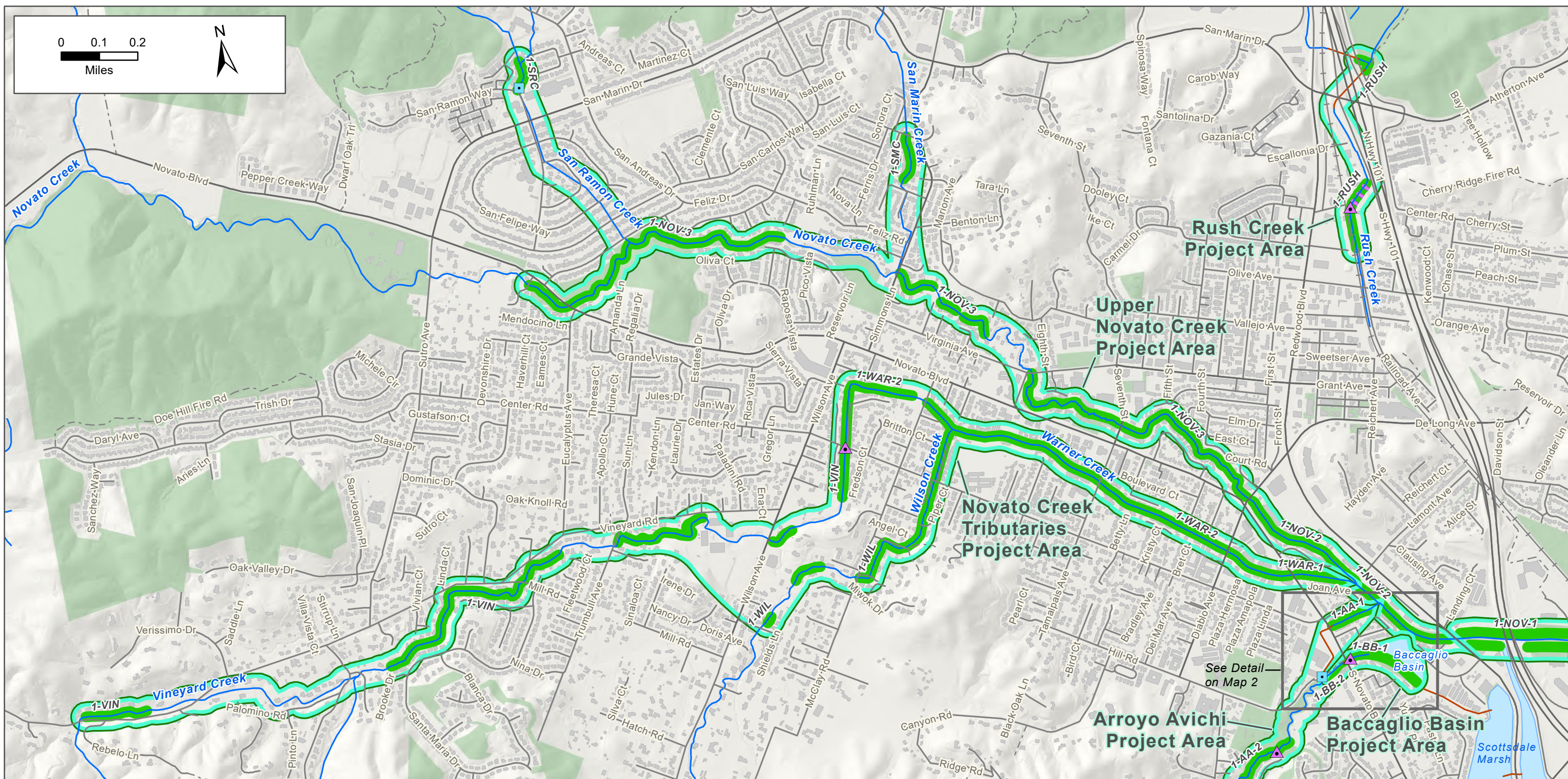
## Flood Control District County Overview and Map Index

Marin County Flood Control and Water Conservation District - June 2021

-  Map Extents
-  District Administrative Areas: Flood Zones and County Service Area 13

# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



**Flood Control Zone 1 - Central**

**MAP 1**

Marin County Flood Control and Water Conservation District - June 2021

**Vegetation Project Area**

**Creek Maintenance**

- Vegetation
- Sediment

**Stream**

- Channel
- Culvert

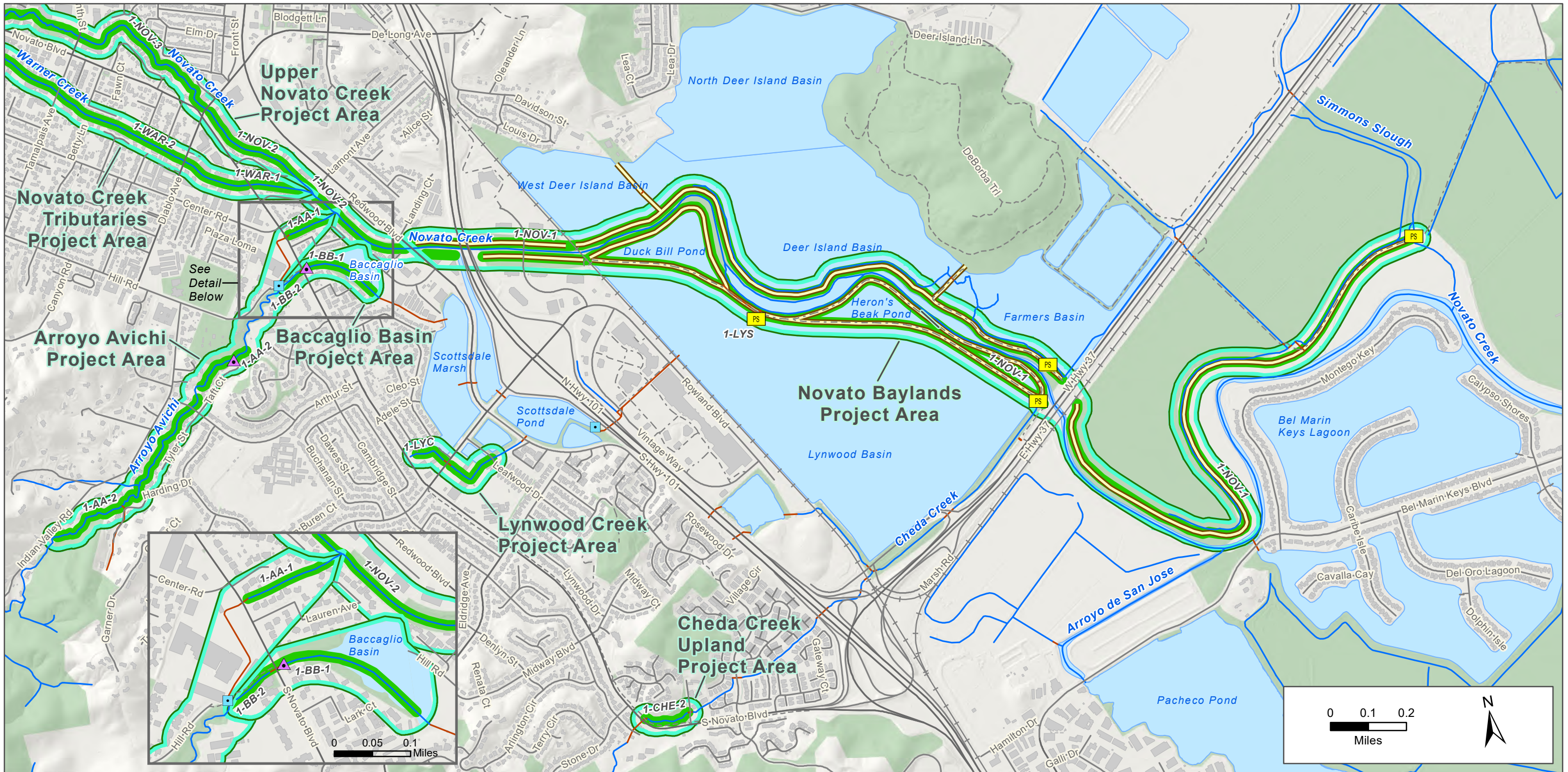
- Trash Rack
- Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 1 Administrative Boundary



# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



**Flood Control Zone 1 - East**  
**MAP 2**  
 Marin County Flood Control and Water Conservation District - June 2021

**Vegetation Project Area**

**Creek Maintenance**

- Vegetation
- Sediment

**Stream**

- Channel
- Culvert

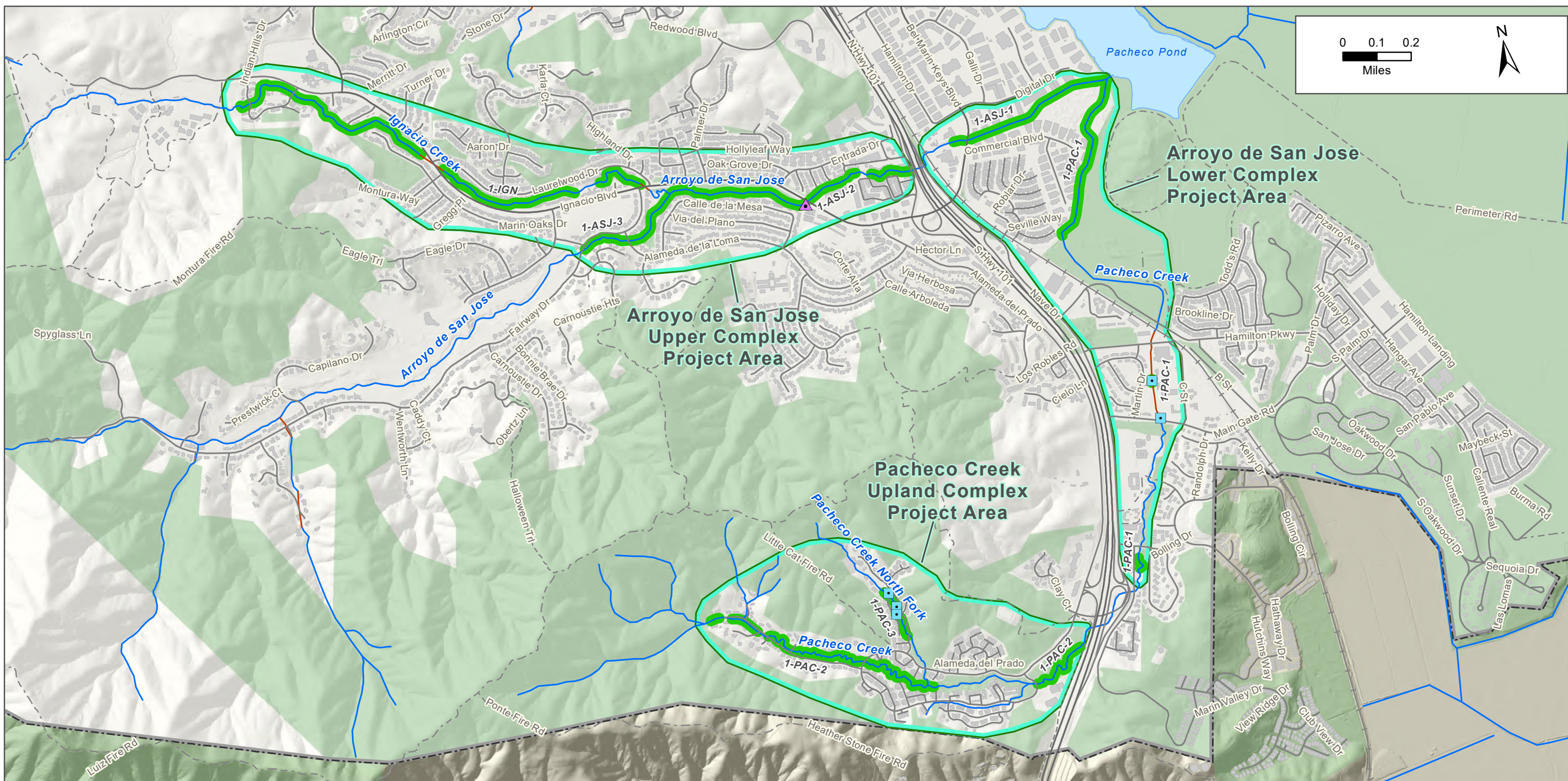
- Trash Rack
- Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 1 Administrative Boundary



# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



### Flood Control Zone 1 - South

### MAP 3

Marin County Flood Control and Water Conservation District - June 2021



- Creek Maintenance**
- Vegetation
  - Sediment

- Stream**
- Channel
  - Culvert

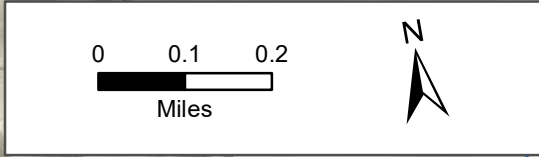
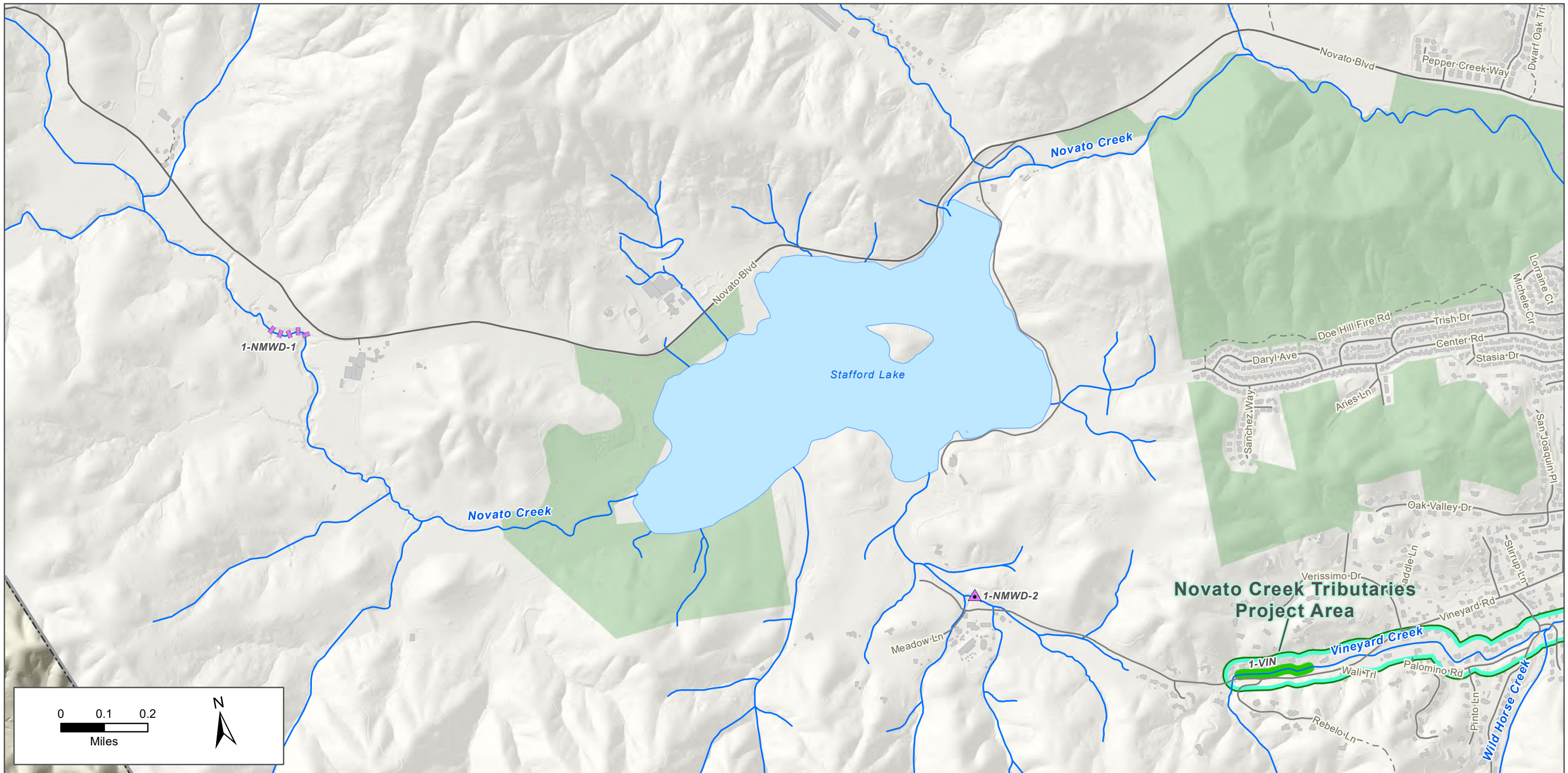
- Trash Rack
- PS Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 1 Administrative Boundary



# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



**Flood Control Zone 1 - West**  
**MAP 4**  
 Marin County Flood Control and Water Conservation District - June 2021

**Vegetation Project Area**

**Creek Maintenance**

- Green line: Vegetation
- Purple triangle: Sediment
- Purple dashed line: Sediment

**Stream**

- Blue line: Channel
- Red line: Culvert

- Blue square: Trash Rack
- Yellow square with 'PS': Pump Station
- Yellow double line: Levee Maintenance

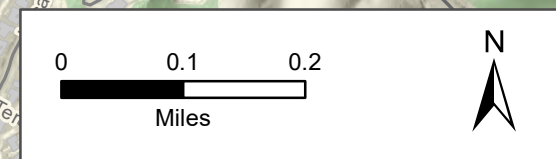
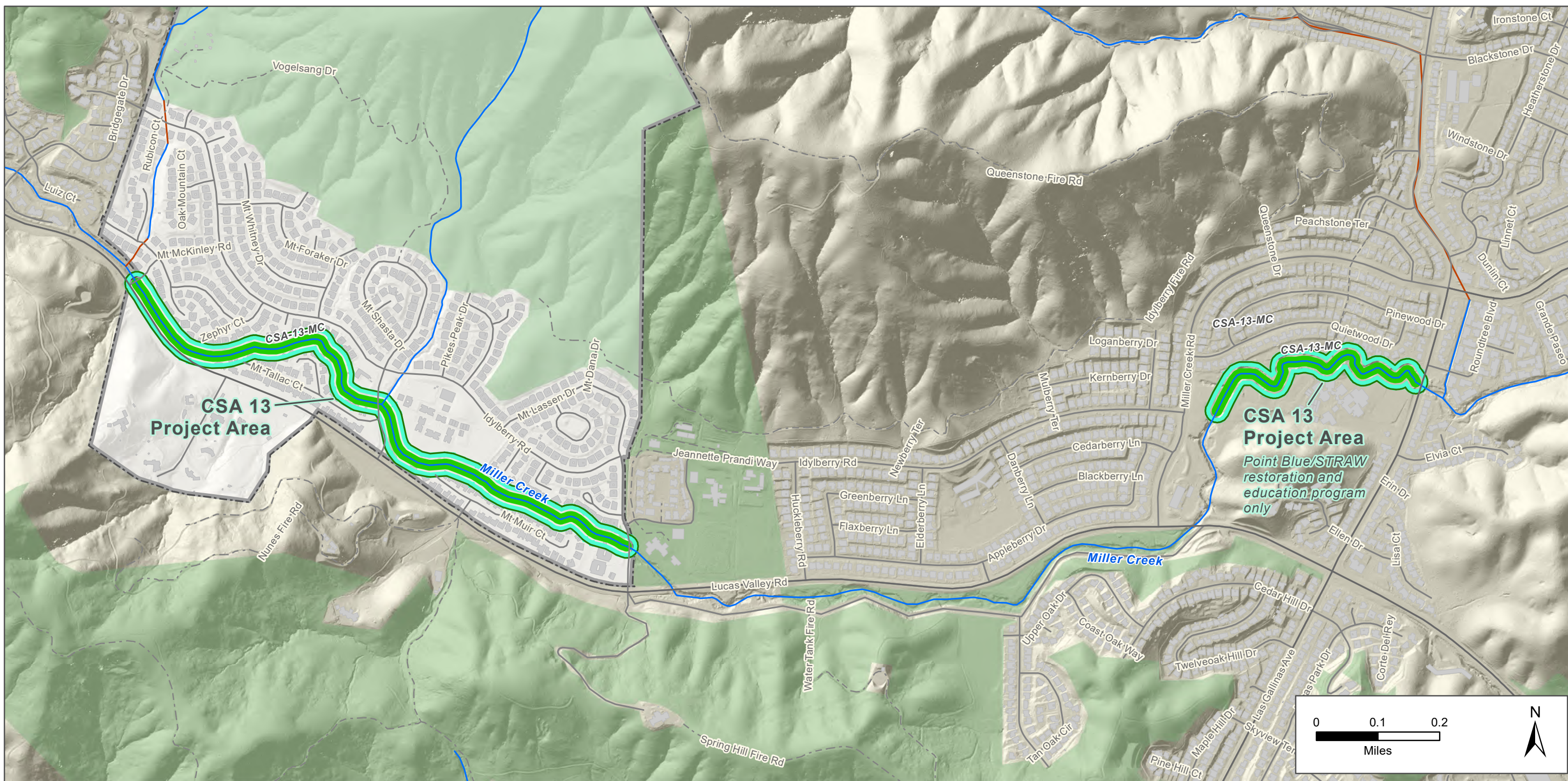
- Grey square: Building Footprint
- Green square: Public Land
- Grey dashed line: Flood Control Zone 1 Administrative Boundary





# Marin County Flood Control and Water Conservation District

# Stream Maintenance Program (SMP)



**County Service Area 13 and adjacent**  
**MAP 5**  
 Marin County Flood Control and Water Conservation District - June 2021

**Vegetation Project Area**

**Creek Maintenance**

- Vegetation
- Sediment

**Stream**

- Channel
- Culvert

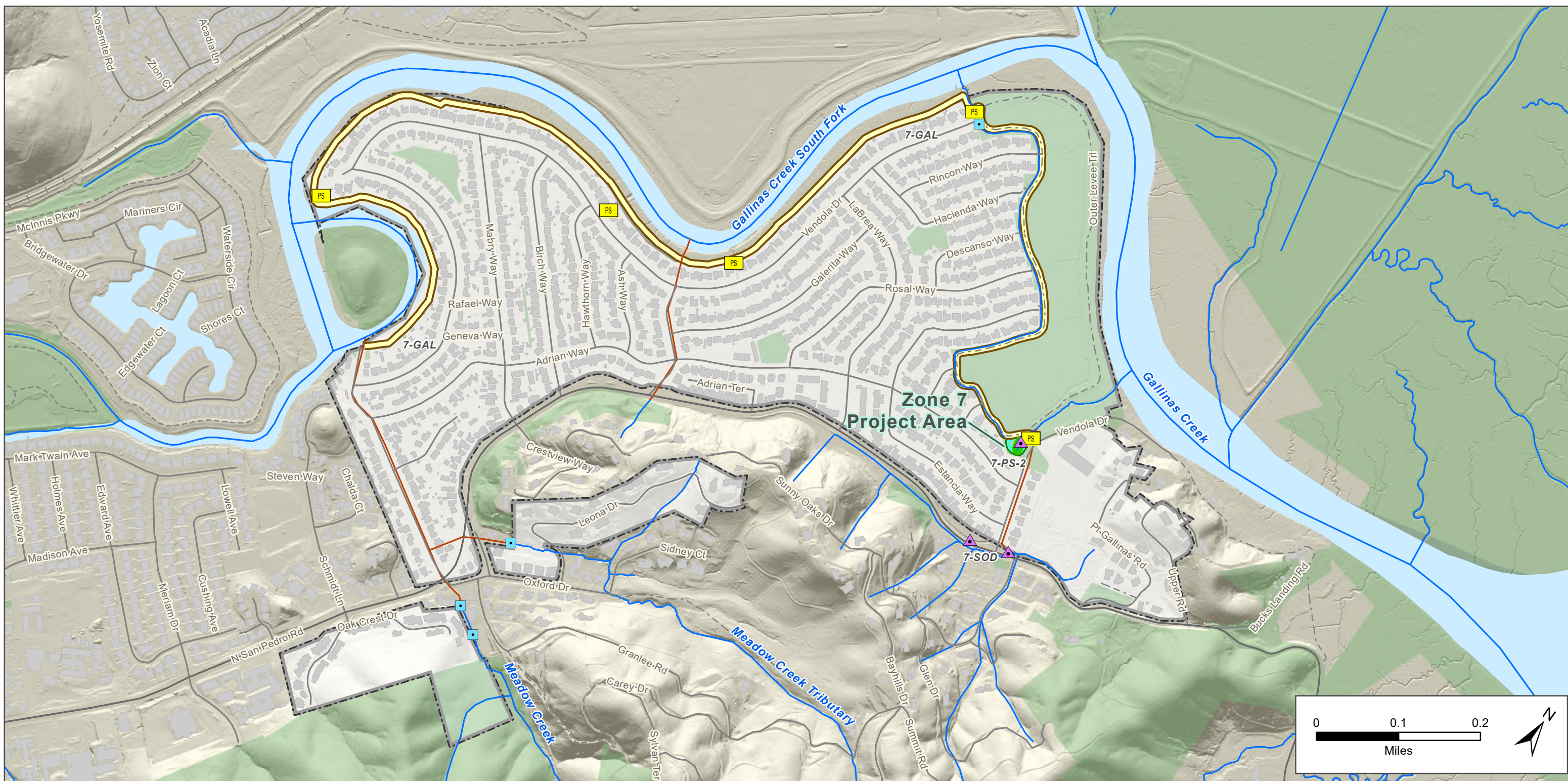
- Trash Rack
- Pump Station
- Levee Maintenance


- Building Footprint
- Public Land
- County Service Area 13 Administrative Boundary



# Marin County Flood Control and Water Conservation District


## Stream Maintenance Program (SMP)







**Flood Control Zone 7**  
**MAP 6**  
Marin County Flood Control and Water Conservation District - June 2021



**Vegetation Project Area**









**Creek Maintenance**


-  Vegetation
-  Sediment

**Stream**

-  Channel
-  Culvert

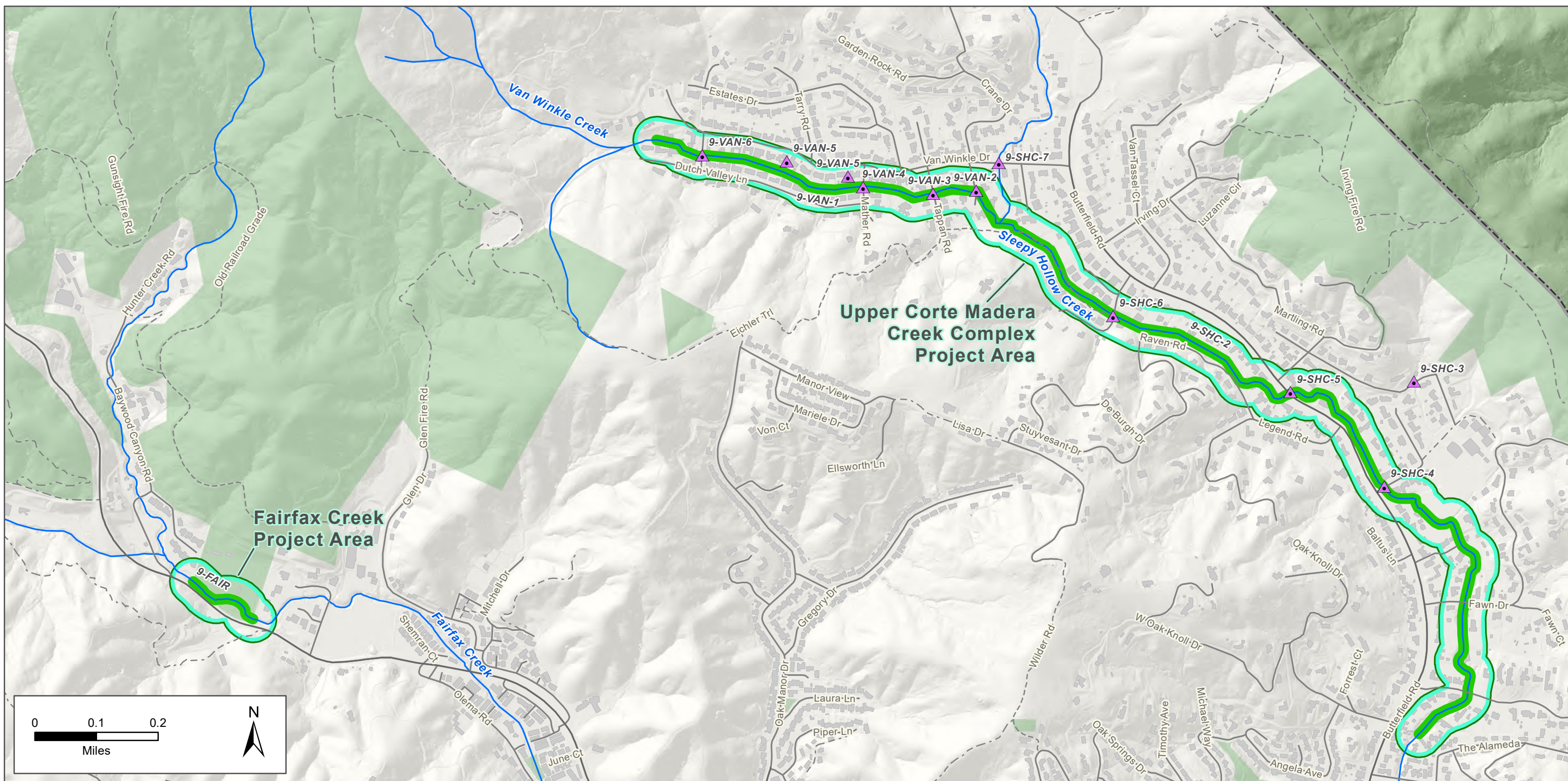
-  Trash Rack
-  Pump Station
-  Levee Maintenance

-  Building Footprint
-  Public Land
-  Flood Control Zone 7 Administrative Boundary



# Marin County Flood Control and Water Conservation District

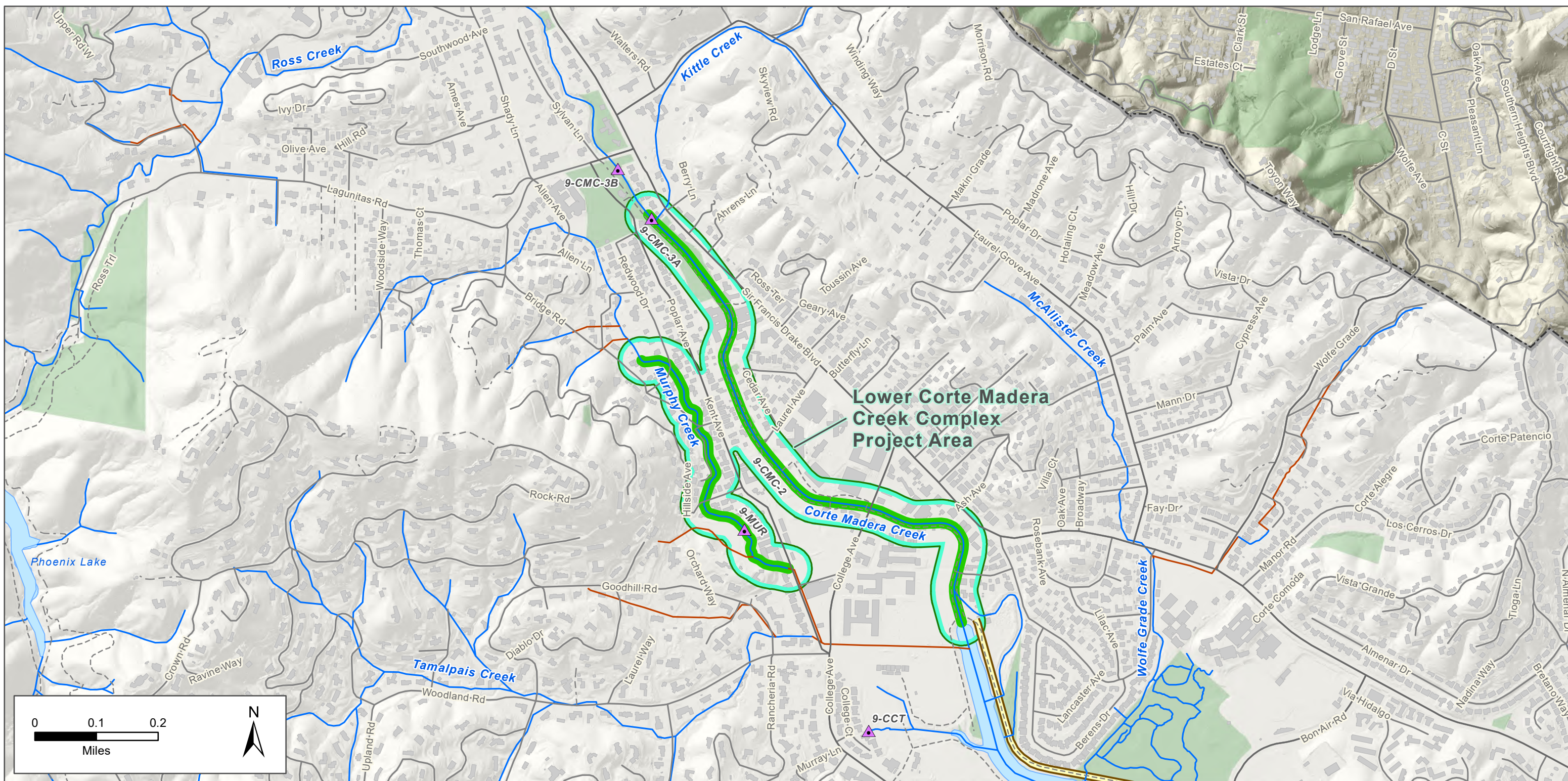
## Stream Maintenance Program (SMP)



<p><b>Flood Control Zone 9 - Upper</b> <b>MAP 7</b> Marin County Flood Control and Water Conservation District - June 2021</p>	<p><b>Vegetation Project Area</b></p>	<p><b>Creek Maintenance</b></p> <p> Vegetation</p> <p> Sediment</p>	<p><b>Stream</b></p> <p> Channel</p> <p> Culvert</p>	<p> Trash Rack</p> <p> Pump Station</p> <p> Levee Maintenance</p>	<p> Building Footprint</p> <p> Public Land</p> <p> Flood Control Zone 9 Administrative Boundary</p>	<p>MARIN COUNTY Pacific Ocean</p>
	<p>0 0.1 0.2 Miles</p> <p>N</p>					

# Marin County Flood Control and Water Conservation District

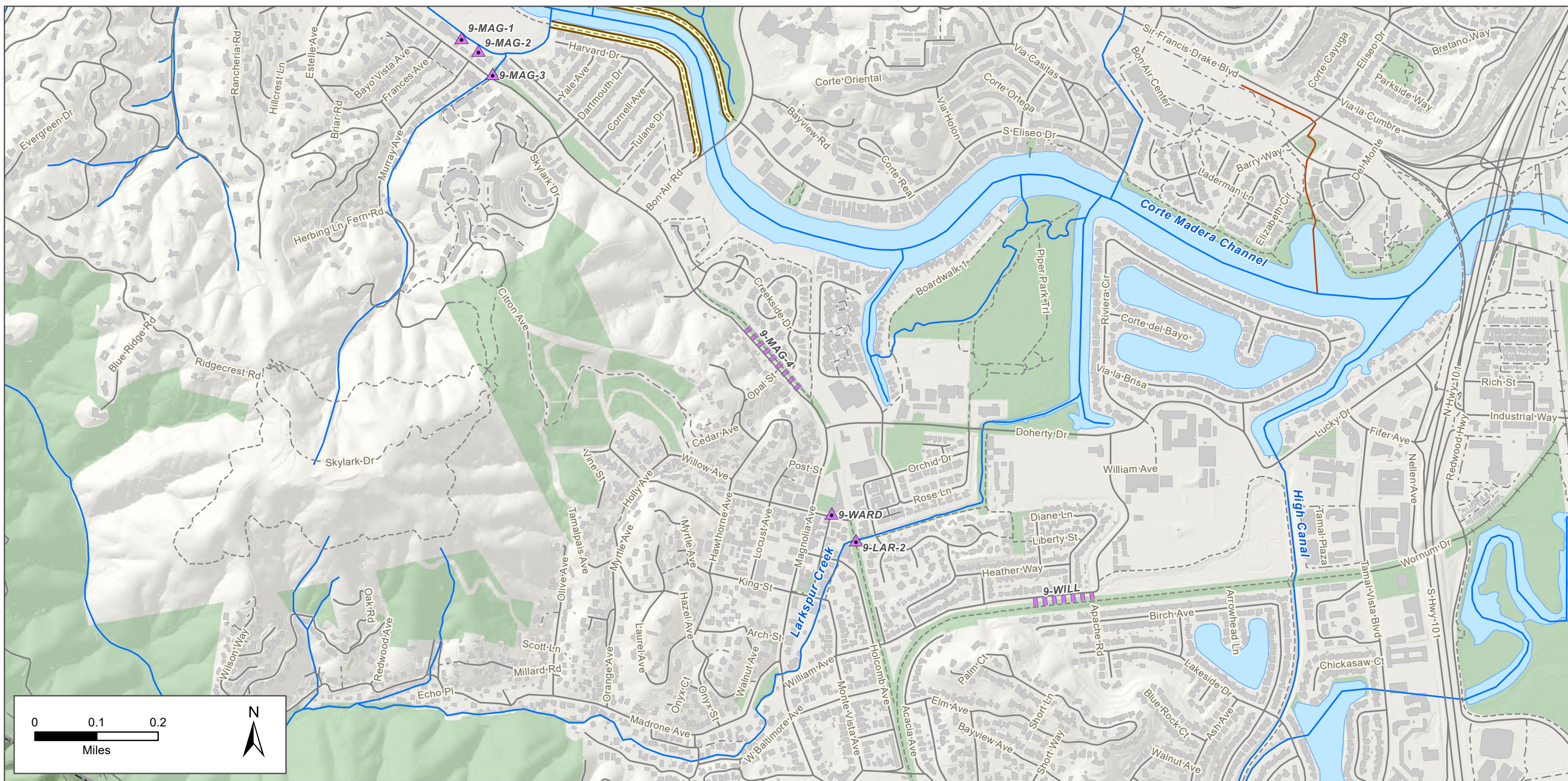
## Stream Maintenance Program (SMP)




<p><b>Flood Control Zone 9 - Lower - North</b> <b>MAP 8</b> Marin County Flood Control and Water Conservation District - June 2021</p>	<p><b>Vegetation Project Area</b></p>	<p><b>Creek Maintenance</b></p> <ul style="list-style-type: none"> <li> Vegetation</li> <li> Sediment</li> </ul>	<p><b>Stream</b></p> <ul style="list-style-type: none"> <li> Channel</li> <li> Culvert</li> </ul>	<ul style="list-style-type: none"> <li> Trash Rack</li> <li> Pump Station</li> <li> Levee Maintenance</li> </ul>	<ul style="list-style-type: none"> <li> Building Footprint</li> <li> Public Land</li> <li> Flood Control Zone 9 Administrative Boundary</li> </ul>	
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# Marin County Flood Control and Water Conservation District


## Stream Maintenance Program (SMP)







**Flood Control Zone 9 - Lower - South**  
**MAP 9**  
Marin County Flood Control and Water Conservation District - June 2021



**Vegetation Project Area**









**Creek Maintenance**


-  Vegetation
-  Sediment

**Stream**

-  Channel
-  Culvert

-  Trash Rack
-  Pump Station
-  Levee Maintenance

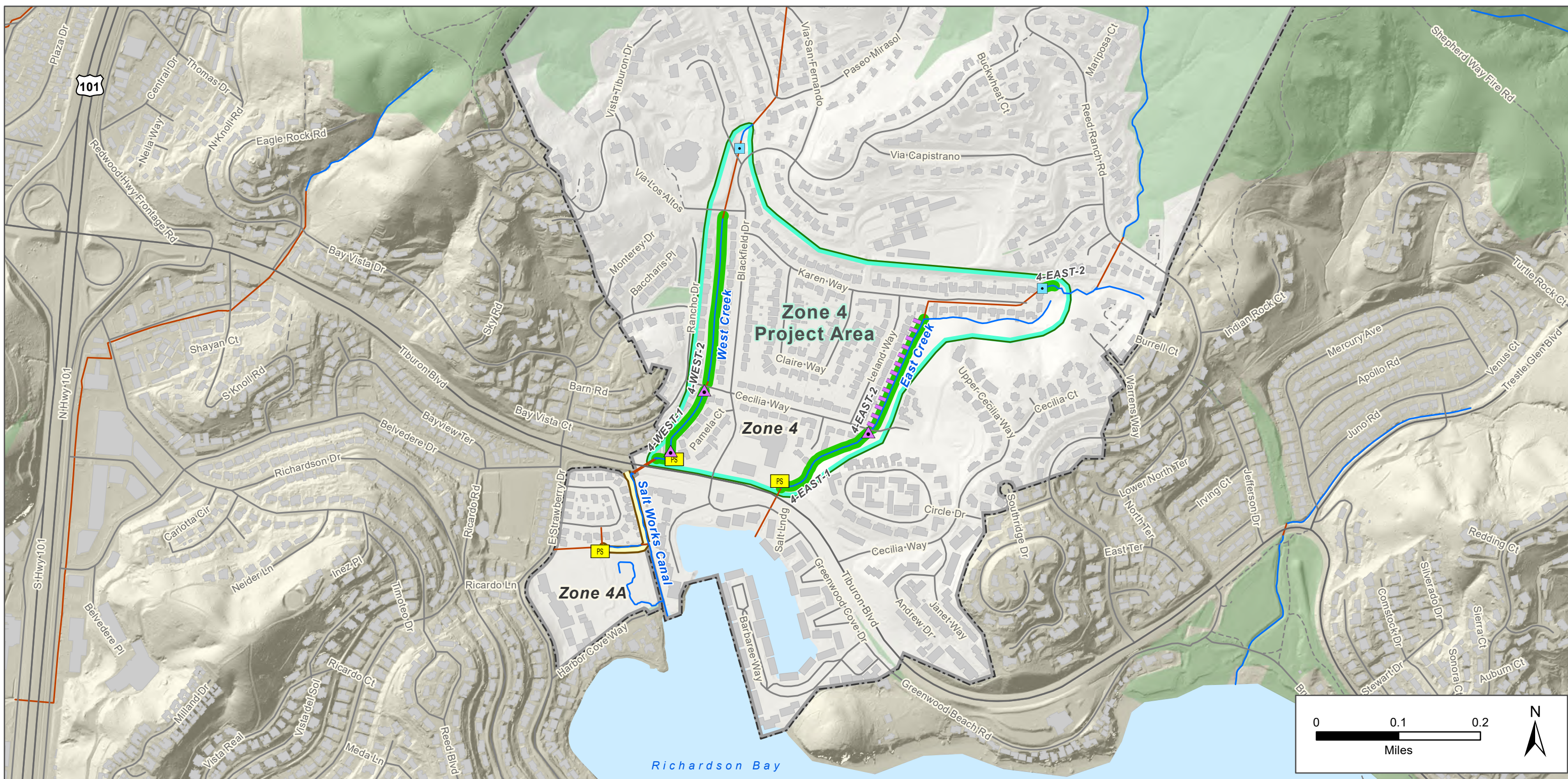
-  Building Footprint
-  Public Land
-  Flood Control Zone 9 Administrative Boundary



MARIN COUNTY  
Pacific Ocean

# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



### Flood Control Zone 4 and 4A

### MAP 10

Marin County Flood Control and Water Conservation District - June 2021

#### Vegetation Project Area



#### Creek Maintenance

- Vegetation
- Sediment

#### Stream

- Channel
- Culvert

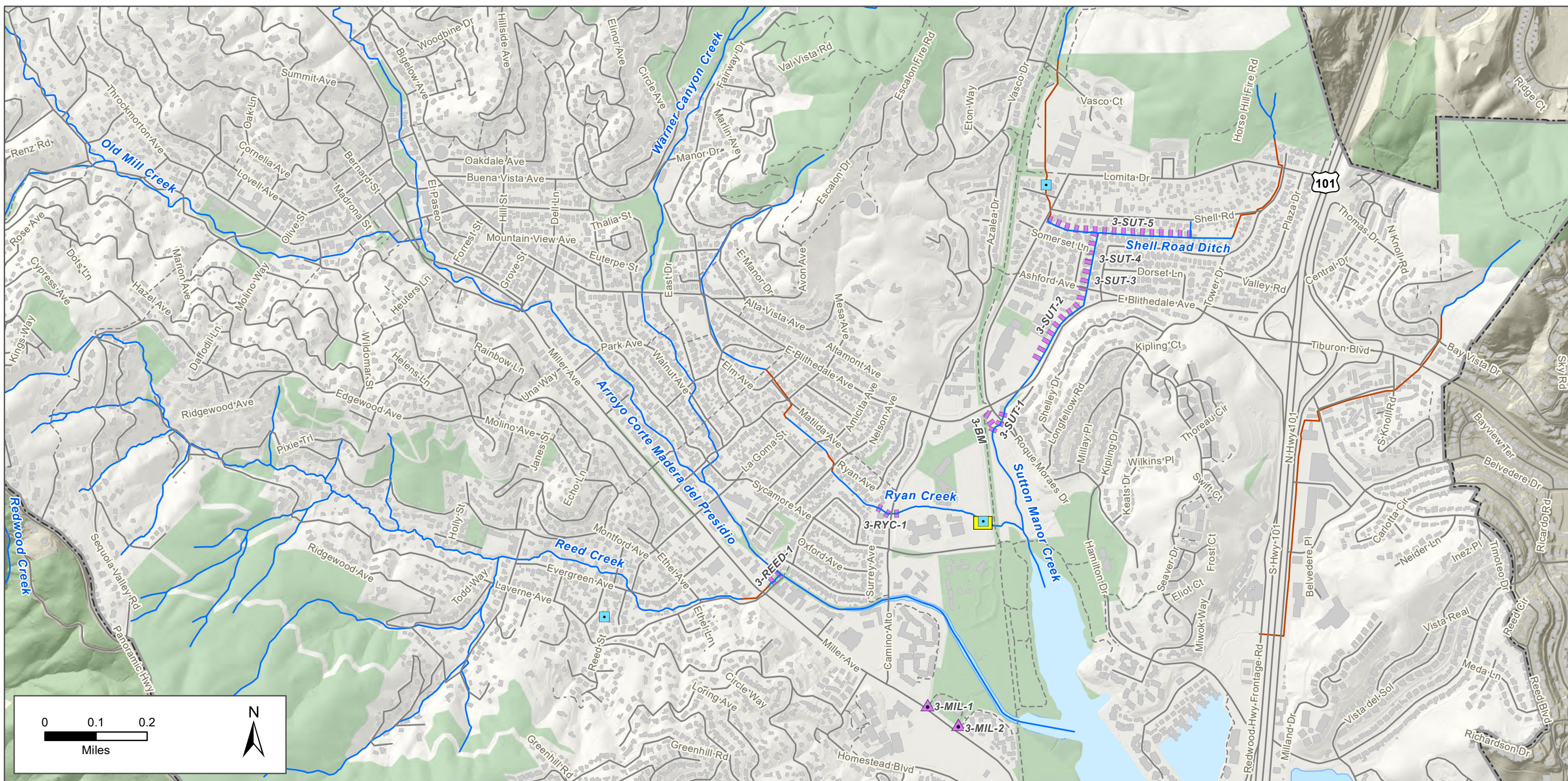
- Trash Rack
- Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 4 and 4A Administrative Boundary



# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



**Flood Control Zone 3 - North**  
**MAP 11**  
 Marin County Flood Control and Water Conservation District - June 2021

**Vegetation Project Area**

**Creek Maintenance**

- Vegetation
- Sediment

**Stream**

- Channel
- Culvert

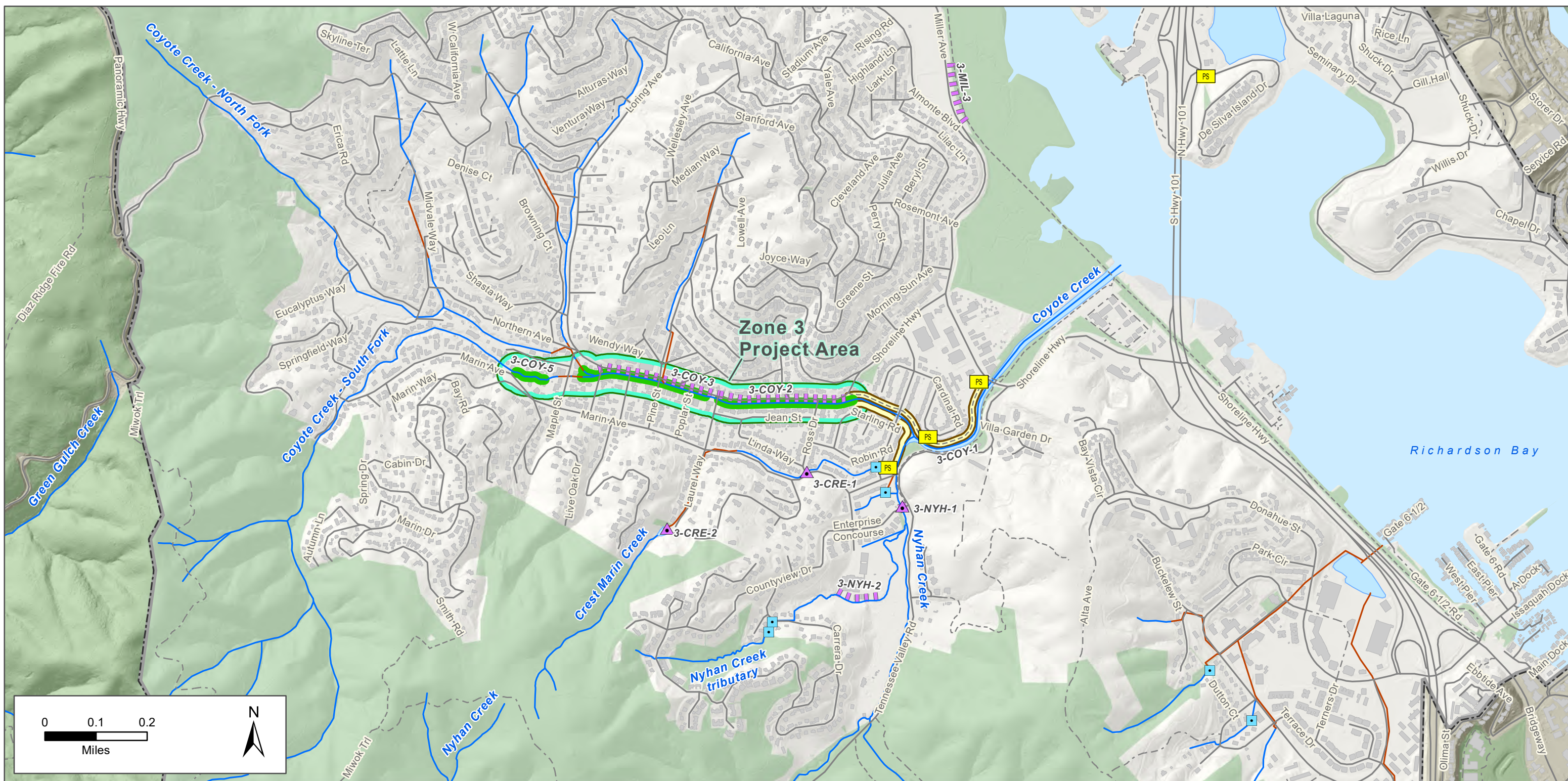
- Trash Rack
- Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 3 Administrative Boundary



# Marin County Flood Control and Water Conservation District

## Stream Maintenance Program (SMP)



**Flood Control Zone 3 - South**

**MAP 12**

Marin County Flood Control and Water Conservation District - June 2021

**Vegetation Project Area**

**Creek Maintenance**

- Vegetation
- Sediment

**Stream**

- Channel
- Culvert

- Trash Rack
- Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 3 Administrative Boundary





# Marin County Flood Control and Water Conservation District

# Stream Maintenance Program (SMP)



## Flood Control Zone 5

## MAP 13

Marin County Flood Control and Water Conservation District - June 2021

### Vegetation Project Area



### Creek Maintenance

- Vegetation
- Sediment

### Stream

- Channel
- Culvert

- Trash Rack
- Pump Station
- Levee Maintenance

- Building Footprint
- Public Land
- Flood Control Zone 5 Administrative Boundary



# EXHIBIT B

**Exhibit B. Project Location & Channel Reaches Table - Vegetation Maintenance**

<b>SMP Vegetation Maintenance</b>				
<b>Zone</b>	<b>Broad Project Area</b>	<b>Channel Reaches*</b>	<b>Site (Old Project Area)</b>	<b>Notes &amp; Justification for Combining Sites</b>
1	Novato Baylands	Novato Creek	1-NOV-1;	N/A
1	Upper Novato Creek Area	Novato Creek-2 (100 LF); Novato Creek-3 (123 LF); San Marin Creek (20 LF); San Ramon Creek (20 LF);	1-NOV-2; 1-NOV-3; 1-SRC; 1-SMC;	Riparian Area and connected (County does not have jurisdiction over whole creek)
1	Novato Creek Tributaries	Vineyard Creek (175 LF); Wilson Creek (32 LF); Warner Creek (328 LF);	1-VIN; 1-WIL; 1-WAR-2; 1-WAR-1;	Riparian Area and connected (County does not have jurisdiction over whole creek)
1	Rush Creek	Rush Creek (55 LF)	1-RUSH	Riparian Area and connected (County does not have jurisdiction over whole creek);
1	Arroyo Avichi	Arroyo Avichi (78 LF)	1-AA-2; 1-AA-1	Riparian Area but we don't have jurisdiction over whole area; similar species (i.e. no special status species (SSS))
1	Baccaglio Basin	Baccaglio Basin (3 LF)	1-BB-1; 1-BB-2	Similar species in area (i.e. no SSS)
1	Lynwood Creek	Lynwood Creek (145 LF)	1-LYC	N/A
1	Cheda Creek Upland	Cheda Creek (18 LF)	1-CHE-2	N/A
1	Pacheco Creek Upland Complex	Pacheco Creek (42 LF)	1-PAC-2; 1-PAC-3	Riparian Area and connected (County does not have jurisdiction over whole creek); similar species (i.e. no SSS)
1	Arroyo de San Jose Lower Complex	Pacheco Creek (69 LF); Arroyo de San Jose Creek (144 LF)	1-PAC-1; 1-ASJ-1;	Similar habitat (riparian); similar species
1	Arroyo de San Jose Upper Complex	Ignacio Creek (90 LF); Arroyo de San Jose (221 LF)	1-IGN; 1-ASJ-2; 1-ASJ-3	Riparian area and connected (County does not have jurisdiction over whole creek)
3	Zone 3	Coyote Creek	3-COY-2; 3-COY-3; 3-COY-5	No vegetation maintenance has occurred here in the last 2 years; similar habitat (riparian) and no SSS
4	Zone 4	East Creek (39 LF); West Creek (29 LF)	4-WEST-1; 4-WEST-2; 4-EAST-1; 4-EAST-2	Small amount of work in Zone; both creeks similar in varying habitats and species; creeks near each other
5	Zone 5	Easkoot Creek (188 LF)	5-EAS-1; 5-EAS-2; 5-EAS-3	One creek and similar habitat and species

Zone	Broad Project Area	Channel Reaches	Site (Old Project Area)	Notes & Justification for Combining Sites
7	Zone 7	Gallinas Creek**	7-PS-2;	Vegetation maintenance only occurs near the pump station, which will not impact the channel.
9	Lower Corte Madera Creek Complex	Corte Madera Creek; Murphy Creek	9-CMC-2; 9-CMC-3; 9-MUR;	No vegetation maintenance has occurred here in the last 2 years; one creek (Corte Madera Creek) and one tributary (Murphy Creek) that eventually flows into Corte Madera Creek; similar habitat
9	Upper Corte Madera Creek Complex	Sleepy Hollow Creek; Van Winkle Creek (May be treated as one project reach)	9-SHC-2; 9-VAN-1;	Similar habitat (riparian); connected as one creek or tributaries to Corte Madera Creek; besides Fairfax Creek, no vegetation maintenance has occurred here in the last 2 years
9	Fairfax Creek	Fairfax Creek (18 LF)	9-FAIR	N/A
CSA 13	CSA 13	Miller Creek (192.5 LF)	CSA-13-MC	N/A

\* = Linear Feet is 2 year average of actual work

\*\*= Added by CDFW

**This table, in conjunction with the maps in Exhibit A, identifies broad project areas that have similar vegetative communities and habitat functions, and channel reaches within each area. Generally, vegetation maintenance in each channel reach shall be considered one project, unless otherwise approved in writing by CDFW.**