

San Francisco Bay Conservation and Development Commission

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State of California | Gavin Newsom – Governor | info@bcdc.ca.gov | www.bcdc.ca.gov

BCDC ORIGINAL

PERMIT NO. M2020.001.00

January 26, 2021

City of Petaluma
202 N. McDowell Blvd.
Petaluma, California 94954

I. Authorization

A. Authorized Project

Subject to the conditions stated below, the permittee, the City of Petaluma, is hereby authorized to do the following.

Location: In the Bay, at the state and federally authorized San Pablo Bay (SF-10) dredged sediment disposal site, in the County of Marin, (Exhibit A).

Description: Place up to 250,000 cubic yards (cy) of dredged sediment at the San Pablo Bay (SF-10) disposal site, Cullinan Ranch Restoration Project, other authorized beneficial reuse site, or an upland site outside of the Commission's jurisdiction over a ten-year period. The sediment authorized for disposal shall be dredged from the Petaluma Marina Entrance Channel and Berths, and potentially the Petaluma River Federal Navigation Channel and Turning Basin when the US Army Corps of Engineers (USACE) fails to complete necessary dredging of the federal channel and turning basin only. The marina entrance channel shall be dredged to minus 10 feet Mean Lower Low Water (MLLW) and the marina berths and the federal channel and turning basin shall be dredged to minus 8 feet MLLW, with two feet of over-depth allowance throughout (Exhibit B). The dredging activity is outside the Commission's jurisdiction.

B. Based on Application Dated

This authority is generally pursuant to and limited by your application received on January 23, 2020, including its accompanying and subsequent submissions, exhibits, correspondence and all conditions of this permit.



C. Deadlines for Commencing and Completing Authorized Work

Work authorized herein must commence prior to January 2023 or this permit will lapse and become null and void. Such work must also be diligently pursued to completion and must be completed within ten years of the issuance of this permit, or by January 31, 2031, whichever is earlier, unless an extension of time is granted by amendment of the permit.

II. Special Conditions

The authorization made herein shall be subject to the following special conditions, in addition to the standard conditions in Part IV:

A. Water Quality Approval

At least 45 days prior to the commencement of any disposal episode authorized herein, the permittee shall submit to the Executive Director water quality certification, waste discharge requirements, or any other required approvals from the San Francisco Bay Regional Water Quality Control Board. Failure to obtain such certification prior to the commencement of any dredging episode shall terminate the Commission's authorization for that episode. The Executive Director may, upon review of the Regional Board approval, either: (1) approve the sediment disposal consistent with this authorization; or (2) amend this authorization, as necessary, related to water quality issues. Unless the permittee agrees to amend this authorization in a manner specified by or on behalf of the Commission, this permit shall become null and void.

B. Ten-Year Permit for the Disposal of Dredged Sediment

The authorized disposal of 250,000 cy or less of dredged sediment originating from the maintenance dredging of the Petaluma Marina and the Petaluma River Federal Navigation Channel and Turning Basin, shall be completed within ten years of the date of issuance of this permit. No further disposal is authorized.

C. Limits on Placement

This permit authorizes the placement of maintenance dredged sediment only from the area(s) as shown on Exhibits B-1, 2, 3 dredged to an authorized project depth of minus 10 feet MLLW in the Petaluma Marina entrance channel and of minus 8 feet MLLW in the Petaluma Marina fairways and berths and the Petaluma River Federal Navigation Channel and Turning Basin, with 2 feet of allowable over-dredge depth throughout. The sediment dredged from the Petaluma Marina is authorized to be placed at the San Pablo Bay (SF-10) disposal site, Cullinan Ranch Restoration Project, or other approved upland or beneficial reuse locations. In the event that the City of Petaluma dredges the Petaluma River Federal Navigation Channel on behalf of the USACE, the sediment shall be placed at Schollenberger Dredged Sediment Placement Site. If the City of Petaluma determines it is not feasible to do so, then it shall provide an alternative disposal site feasibility analysis and provide it to the LTMS agencies for review and approval. No other placement in other areas is authorized.

D. Dredging and Disposal Activity

1. Pre- Dredging and Placement Report and Notice

At least 45 days before the commencement of any placement episode authorized herein, the permittee shall submit to the Commission's Executive Director:

- a. a bathymetric map showing the location of all areas authorized to be dredged, the authorized depth including over-dredge depth based on MLLW, the volume of sediment proposed to be dredged, and the approximate date of project commencement. At least two (2) weeks prior to any placement episode, the permittee shall notify the Commission staff of the commencement date by telephone or in writing. If the date of commencement changes, the permittee shall provide an updated schedule as soon as it is available.
 - b. a written statement to the Executive Director that contains: (1) the proposed placement site and quantity of sediment to be placed, and dates within which the placement episode is proposed; (2) if applicable, a discussion as to how the volume proposed for placement is consistent with in-Bay disposal allocations and disposal site limits; (3) the results of chemical and biological testing of sediment proposed for placement; and (4) an alternatives analysis or integrated alternatives analysis to explain why ocean disposal, upland disposal or beneficial reuse of dredged sediment is infeasible or a signed Small Dredger Programmatic Alternatives Analysis agreement form if the permittee fits the criteria of a small dredger.
- 2. Authorization of Placement.** The authorization for the proposed in-Bay disposal shall become effective only if the Commission staff: (1) informs the permittee in writing via letter or email that the episode is consistent with the authorization provided herein, alternative disposal and beneficial reuse options are infeasible, the volume proposed for disposal is consistent with both in-Bay disposal allocations, if applicable, and the disposal site limits, and the sediment is suitable for in-Bay disposal; or (2) does not respond to the permittee's pre-disposal report within 30 days of its receipt. The permittees' dredging and disposal activities are bound by all the conditions herein and language contained in the episode approval letter. If the Commission staff determines that: (a) ocean disposal, upland disposal, or beneficial reuse of the sediment is feasible; (b) the sediment proposed for disposal is unsuitable for the Bay; or (c) the proposed disposal is inconsistent with in-Bay allocations and disposal site limits, the Commission's authorization for in-Bay disposal shall be terminated.
- ### **3. Post-Dredging Requirements**
- a. Within 30 days of completion of each disposal/placement episode authorized by this permit, the permittee shall submit to the Commission a bathymetric map showing the actual area(s) and depths dredged including over-dredge depth

based on MLLW, any dredging that occurred outside the area or below the depths authorized herein, and a written statement indicating the total volume of sediment dredged and disposed and the disposal/placement location.

- b. If a dredging and disposal episode stops for longer than six consecutive months, the permittee must submit, before the dredging episode has resumed, notification to the Commission that dredging and disposal/placement will begin again. If a dredging episode is suspended for more than six months, the Commission may require the permittee to complete: (1) new sediment characterization; (2) a re-survey of the dredge area; and/or (3) a revised alternative disposal/placement option analysis.
- c. If the dredging and disposal/placement episode continues longer than one year, whether dredging and disposal/placement is continual throughout the year or is fragmented within the episode, the permittee must provide the Commission with the following dredging report: (1) the actual areas and the depth dredged based on MLLW, and any dredging that occurred outside the area dredged; (2) the actual volume of the sediment dredged; and (3) the volume and location of the sediment disposed/placed. The dredging report must be submitted no later than one year after the commencement of the episode and must be submitted every six months thereafter throughout the life of the permit or until the episode is complete. The Commission may require additional sediment characterization, bathymetric surveys, and/or alternative disposal analyses at the commencement of the next episode. Within 30 days of the completion of the episode, the permittee must submit a dredging report as described in Special Condition 3a.

E. Seasonal Limitations

Except as provided below, all dredging and disposal/placement activities shall be confined to the work window, between June 1 and November 30 of any year, to minimize disturbance to the following endangered and special status species:

Species of Concern	Work Window Period	Consulting Agency
<i>Chinook Salmon</i>	June 1 - November 30	NMFS, CDFW
<i>Steelhead Trout</i>	June 1 - November 30	NMFS

CDFW-California Department of Fish and Wildlife; NMFS-National Marine Fisheries Service

This work window between June 1 and November 30 is established by Tables F-1 and F-2 of Appendix F, "In-Bay Disposal and Dredging", and Figures 3.2 and 3.3 of the Long-Term Management Strategy (LTMS) Management Plan (2001) as amended by U.S. Fish and Wildlife Service (USFWS) on May 28, 2004, and NOAA National Marine Fisheries Service's (NMFS) amended LTMS Programmatic Biological Opinion (July 9, 2015).

No work inconsistent with the time and location limits contained in these figures may be conducted without the approval of the Executive Director, provided that such approval

may only be issued after (1) consultation with California Department of Fish and Wildlife (CDFW) has occurred; (2) the proposed dredging outside the salmonid work window has been discussed with the LTMS Program Managers and a beneficial reuse disposal site benefitting fish habitat has been identified; and (3) the Executive Director has determined that disposal outside of the work window is consistent with the Commission's laws and policies.

F. Streambed Alternation Permit

If CDFW Lake and Streambed Alterations Agreement (1600 permit) expires or requires amendment prior to a dredging episode, the permittee shall provide an updated/amended 1600 permit to Commission staff along with the request for episode approval prior to the Commission's approval of the proposed episode.

G. Property Interest

If State Lands Commission lease expires, or other property documents are needed, such as permission to dredge the federal navigation channel, the permittee shall provide the documents to the Commission staff along with the request for episode approval for review prior to the Commission's approval of the proposed episode.

H. Longfin Smelt

If, at any time during the life of this permit, any new laws, policies or regulations require measures to protect longfin smelt from potential adverse impacts of dredging, dredged sediment disposal, and/or beneficial reuse of dredged sediment, this permit shall become null and void unless the permittee agrees to amend this authorization to comply with the new laws, policies, or regulations in a manner specified by or on behalf of the Commission. For example, if CDFW requires an incidental take permit under the California Endangered Species Act, the permittee must obtain the CDFW take permit, provide the take permit to the Commission and amend the Commission's permit or the Commission's permit will become null and void.

I. Barge Overflow Sampling and Testing

Results of any effluent water quality or other testing required by the California Regional Water Quality Control Board, San Francisco Bay Region shall be submitted in writing to Commission staff at the same time such testing is submitted to the Regional Board.

J. Best Management Practices

1. Debris Removal

All debris dredged as part of the project shall be separated through the use of a 12"x12" grizzly and disposed at an authorized location outside the Commission's jurisdiction prior to sediment disposal or placement. In the event that any such debris is placed in any area within the Commission's jurisdiction, the permittee, its assignees, or successors in interest, or the owner of the improvements, shall remove such debris, at their expense, within ten days of being notified by the Executive Director of such placement.

2. Dredging Operations

All dredging and disposal/placement operations shall be performed to prevent materials from falling, washing or blowing into the Bay. In the event that such material escapes or is placed in an area subject to tidal action of the Bay, the permittee shall immediately retrieve and remove such material at its expense.

K. Monitoring and Enforcement

The permittee shall allow the Commission staff or representatives of other state or federal agencies to come aboard the dredge or barge associated with any dredging or disposal/placement episode subject to reasonable safety and operational considerations and observe the operation(s) to ensure that these activities are consistent with pre-dredging reports required herein and other terms and conditions of this permit. Further, the Commission reserves the right to have post-dredging reports inspected by a reliable third party familiar with bathymetric mapping in order to verify the contents of these reports. If a third party selected by or on behalf of the Commission indicates that a post-dredging report is inaccurate, the Commission reserves the right to require the permittee to submit a revised report that meets the conditions of this permit. If the Commission determines that the post-dredging report indicates that work has occurred beyond that authorized by this permit such violation may result in the initiation of enforcement action by or on behalf of the Commission.

L. Long-Term Management Strategy Program

If, at any time during the effective life of this permit, the Commission's laws, Bay Plan policies, or regulations are changed and are in effect regarding dredging, dredged sediment disposal, and beneficial reuse consistent with the multi-agency Long-Term Management Strategy Program (LTMS), this permit shall become null and void unless the permittee agrees to amend this authorization to meet the new laws, policies, or regulations in a manner specified by or on behalf of the Commission.

III. Findings and Declarations

On behalf of the Commission, I find and declare that:

A. Minor Repair or Improvement

The project authorized by this permit involves the disposal/placement of up to 250,000 cy of sediment originating from the maintenance dredging of the Petaluma Marina and the Petaluma River Federal Navigation Channel and Turning Basin at the state and federally-designated San Pablo Bay (SF-10) disposal site, at Cullinan Ranch Restoration Project, other authorized beneficial reuse sites, and upland locations outside of the Commission's jurisdiction over a ten year period; a project consistent with Regulation Section 10602(e)(1)(B) as disposal of sediment originating from maintenance dredging completed within a period of ten years at an approved in-bay disposal site, with annual target volumes consistent with Regulation Sections 10713.5(b) and 10721(e), and/or at a non-aquatic location, and thus qualifies as a "minor repair or improvement" for which the Executive Director may issue a permit as consistent with Regulation Section

10622(a) and pursuant to Government Code Section 66632(f). Additional dredging episodes may be authorized by amendment or by granted time extension of the original permit.

B. McAteer-Petris Act and San Francisco Bay Plan

The project authorized by this permit is consistent with the McAteer-Petris Act and with the San Francisco Bay Plan (Bay Plan) in that it will not adversely affect the Bay nor public access to and enjoyment of the Bay. The Special Conditions have been included to ensure that the project minimizes potential adverse impact to native, endangered, and/or special status species, and Bay water quality. The project also adheres to the Bay Plan's dredging policies in that dredged sediment disposal/placement will not cause further sedimentation or harmful effects to the ecology of the Bay.

Special Conditions II - A through D set forth the special permit conditions specific to water quality and the disposal of dredged sediment and the monitoring of dredging and disposal activities. The project is consistent with Bay Plan's Water Quality Policy 2 in that the Water Board issued a water quality certification (May 12, 2020) authorizing the 2021 dredging episode for the City of Petaluma at the Petaluma Marina and/or the Petaluma River Federal Navigation Channel and Turning Basin. Future water quality certifications are required by required by Special Condition II A. prior to episode approval. Special Condition II D. describes the pre- and post-disposal reporting required by the permittees that ensure that the sediment dredged for navigational safety is the minimum volume necessary and disposed of in an environmentally sound manner as defined in the Bay Plan's Dredging Policies 1 and 2.

Special Conditions II - E and F have been included to ensure that the project minimizes potential adverse impacts to native, endangered, and/or special status species through limiting the timing of dredging and disposal of dredged sediments to the period of time when special status species are not present as consistent with the amended LTMS programmatic biological opinions for dredging projects in the Bay.

The permittees obtained a Streambed Alterations Agreement (September 17, 2020) from CDFW, further reinforcing the protection of native species. In addition, because a mechanical dredge will be used, the take of state-listed longfin smelt is not anticipated as part of this project. Through these conditions, the project is consistent with the Bay Plan's Fish, Other Aquatic Organisms and Wildlife Policy 4 that considers the recommendations of resources agencies protective of endangered or threatened fish and habitat when authorizing projects.

C. Federal Coastal Zone Management Act

The Commission further finds, declares, and certifies that the activity or activities authorized herein are consistent with the Commission's Amended Management Program for San Francisco Bay, as approved by the Department of Commerce under the Federal Coastal Zone Management Act of 1972, as amended.

D. Environmental Impact

Pursuant to Regulation Section 11501 and Article 19, Section 15304(g) of the California Environmental Quality Act (CEQA), the project authorized by this amended permit, is categorically exempt from the requirement to prepare an environmental impact report unless the project will result in take of a listed species that is not covered by the LTMS Policy Environmental Impact Statement/Programmatic Environmental Impact Report and will require a take permit. If a take permit is required, additional CEQA documentation will be required.

E. Commission Listing Date

Pursuant to Regulation Section 10620, this project was listed with the Commission on January 21, 2021.

IV. Standard Conditions

A. Permit Execution

This permit shall not take effect unless the permittee executes the original of this permit and returns it to the Commission within ten days after the date of the issuance of the permit. No work shall be done until the acknowledgment is duly executed and returned to the Commission.

B. Notice of Completion

The attached Notice of Completion and Declaration of Compliance form shall be returned to the Commission within 30 days following completion of the work.

C. Permit Assignment

The rights, duties, and obligations contained in this permit are assignable. When the permittee transfers any interest in any property either on which the activity is authorized to occur or which is necessary to achieve full compliance of one or more conditions to this permit, the permittee/transferrors and the transferees shall execute and submit to the Commission a permit assignment form acceptable to the Executive Director. An assignment shall not be effective until the assignee executes and the Executive Director receives an acknowledgment that the assignee has read and understands the permit and agrees to be bound by the terms and conditions of the permit, and the assignee is accepted by the Executive Director as being reasonably capable of complying with the terms and conditions of the permit.

D. Permit Runs with the Land

Unless otherwise provided in this permit, the terms and conditions of this permit shall bind all future owners and future possessors of any legal interest in the land and shall run with the land.

E. Other Government Approvals

All required permissions from governmental bodies must be obtained before the commencement of work; these bodies include, but are not limited to, the U. S. Army Corps of Engineers, the State Lands Commission, the Regional Water Quality Control

Board, and the city or county in which the work is to be performed, whenever any of these may be required. This amended permit does not relieve the permittee of any obligations imposed by State or Federal law, either statutory or otherwise.

F. Built Project must be Consistent with Application

Work must be performed in the precise manner and at the precise locations indicated in your application, as such may have been modified by the terms of the amended permit and any plans approved in writing by or on behalf of the Commission.

G. Life of Authorization

Unless otherwise provided in this permit, all the terms and conditions of this amended permit shall remain effective for so long as the permit remains in effect or for so long as any use or construction authorized by this permit exists, whichever is longer.

H. Commission Jurisdiction

Any area subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission under either the McAteer-Petris Act or the Suisun Marsh Preservation Act at the time the permit is granted or thereafter shall remain subject to that jurisdiction notwithstanding the placement of any fill or the implementation of any substantial change in use authorized by this permit. Any area not subject to the jurisdiction of the San Francisco Bay Conservation and Development Commission that becomes, as a result of any work or project authorized in this permit, subject to tidal action shall become subject to the Commission's "bay" jurisdiction.

I. Changes to the Commission's Jurisdiction as a Result of Natural Processes

This permit reflects the location of the shoreline of San Francisco Bay when the permit was issued. Over time, erosion, avulsion, accretion, subsidence, relative sea level change, and other factors may change the location of the shoreline, which may, in turn, change the extent of the Commission's regulatory jurisdiction. Therefore, the issuance of this permit does not guarantee that the Commission's jurisdiction will not change in the future.

J. Violation of Permit May Lead to Permit Revocation

Except as otherwise noted, violation of any of the terms of this permit shall be grounds for revocation of the permit. The Commission may revoke the permit for such violation after a public hearing held on reasonable notice to the permittees or their assignees if the permit has been effectively assigned. If the permit is revoked, the Commission may determine, if it deems appropriate, that all or part of any fill or structure placed pursuant to this permit shall be removed by the permittee or their assignees if the permit has been assigned.

K. Should Permit Conditions be Found to be Illegal or Unenforceable

Unless the Commission directs otherwise, this amended permit shall become null and void if any term, standard condition, or special condition of this amended permit shall be found illegal or unenforceable through the application of statute, administrative ruling, or court determination. If this amended permit becomes null and void, any fill or

structures placed in reliance on this amended permit shall be subject to removal by the permittee or their assignees if the amended permit has been assigned to the extent that the Commission determines that such removal is appropriate. Any uses authorized shall be terminated to the extent that the Commission determines that such uses should be terminated.

L. Permission to Conduct Site Visit

The permittee shall grant permission to any member of the Commission’s staff to conduct a site visit at the subject property during and after dredging to verify that the project was dredged in compliance with the disposal/placement authorization and conditions contained herein. Site visits may occur during business hours without prior notice and after business hours with 24-hour notice.

Executed at San Francisco, California, on behalf of the San Francisco Bay Conservation and Development Commission on the date first above written.

DocuSigned by:
Larry Goldzband
FD166E908010417...

LAWRENCE J. GOLDZBAND
Executive Director
San Francisco Bay Conservation and
Development Commission

* * * * *

Receipt acknowledged, contents understood and agreed to:

Executed at City of Petaluma

City of Petaluma
Permittee

On 2/1/2021 | 3:58:07 PM PST

By: *Jason Beatty*
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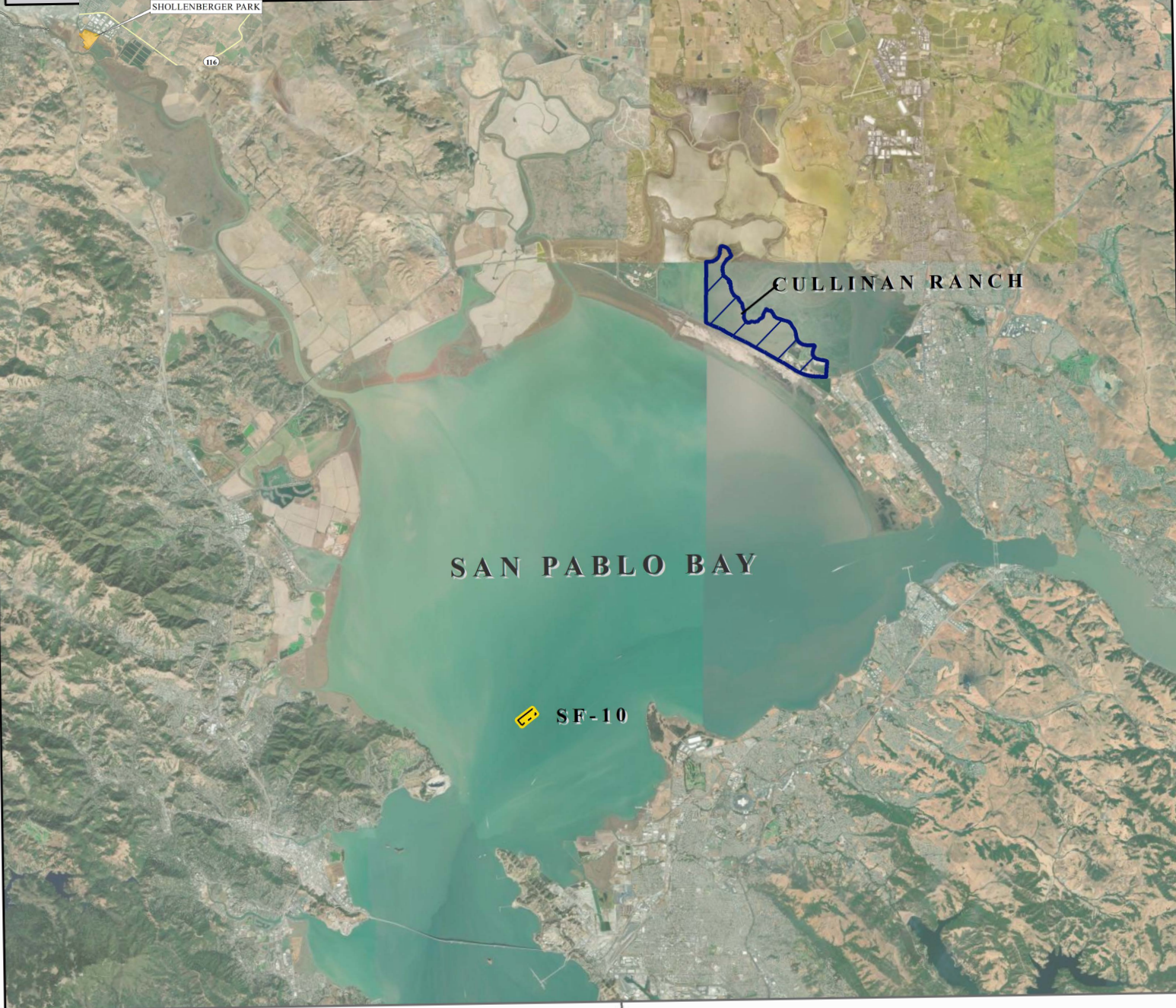
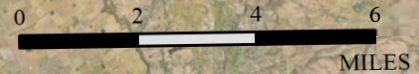
JASON BEATTY Director, Public Works & Utilities

Print Name and Title

LIG/PS/ra

- cc: U.S. Army Corps of Engineers, Attn: Debra O’Leary, Debra.A.Oleary@usace.army.mil
- U.S. Environmental Protection Agency, Attn: Sam Ziegler, ziegler.sam@epa.gov
- S.F. Bay Regional Water Quality Control Board, Attn: Selina Louie, selina.louie@waterboards.ca.gov
- California State Lands Commission, Attn: Al Franzoia, Al.Franzoia@slc.ca.gov
- California Department of Fish and Wildlife, Attn: James Hansen, james.hansen@wildlife.ca.gov
- National Marine Fisheries Service, Attn: Sara Azat, sara.azat@noaa.gov
- U.S. Fish and Wildlife Service, Attn: Kim Squires, kim_squires@fws.gov





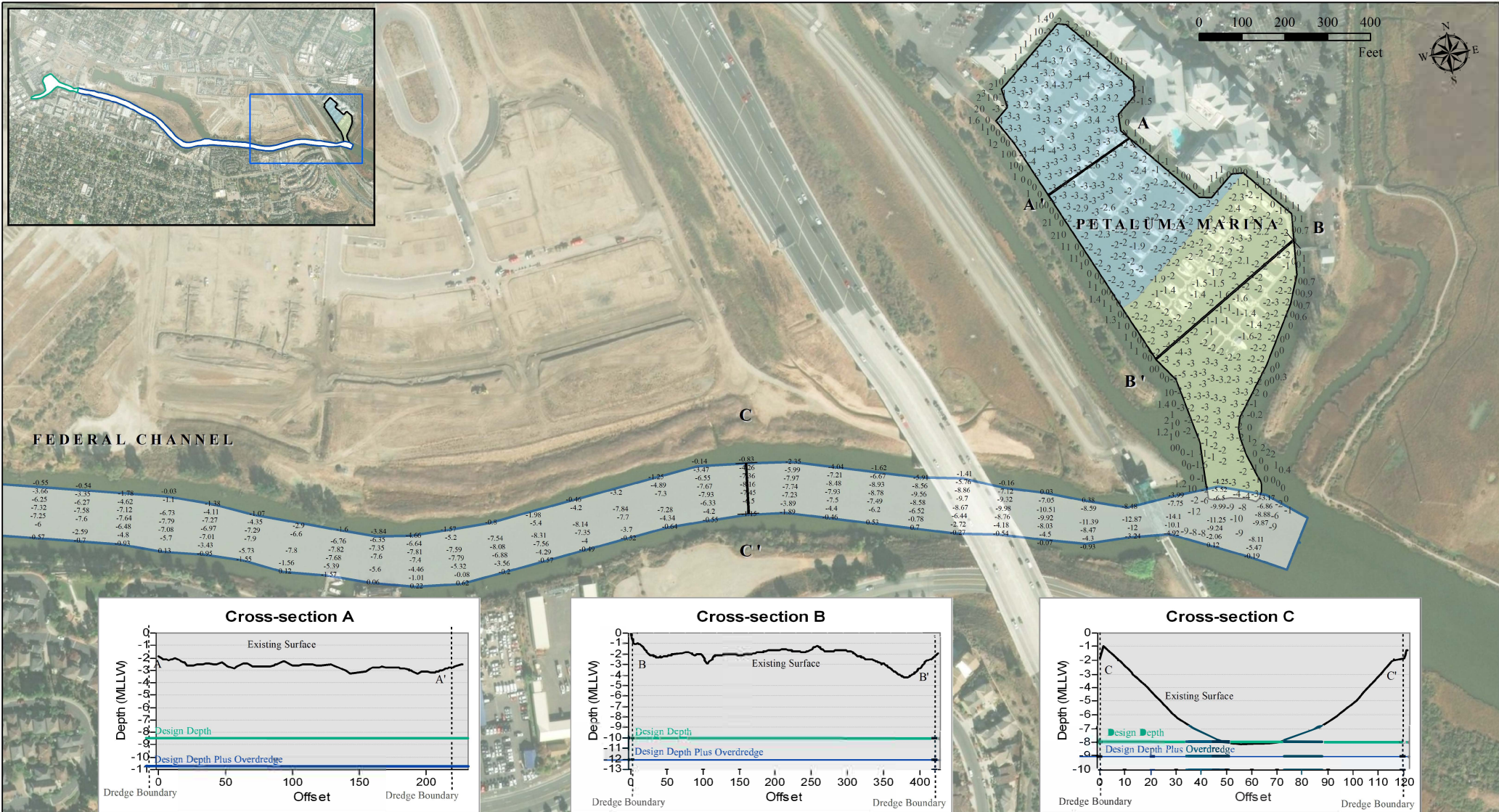
LEGEND

-  CULLINAN RANCH RESTORATION PROJECT
-  SF-10

**BCDC Permit No. M2020.001.00
Exhibit A**

San Pablo Bay Disposal Site (SF-10), Cullinan Ranch Restoration Project, Schollenberger Dredged Sediment Disposal Site





LEGEND

	PERMITTED DREDGE BOUNDARY 7.2 Acres
	DREDGE UNIT 1: ENTRANCE CHANNEL AREA 3.6 Acres, Dredge Depth -10 + 2ft Overdredge
	DREDGE UNIT 2: DOCKING AREA 3.6 Acres, Dredge Depth -8 + 2ft Overdredge
	FEDERAL CHANNEL 20.5 Acres, Dredge Depth -8 + 1ft Overdredge

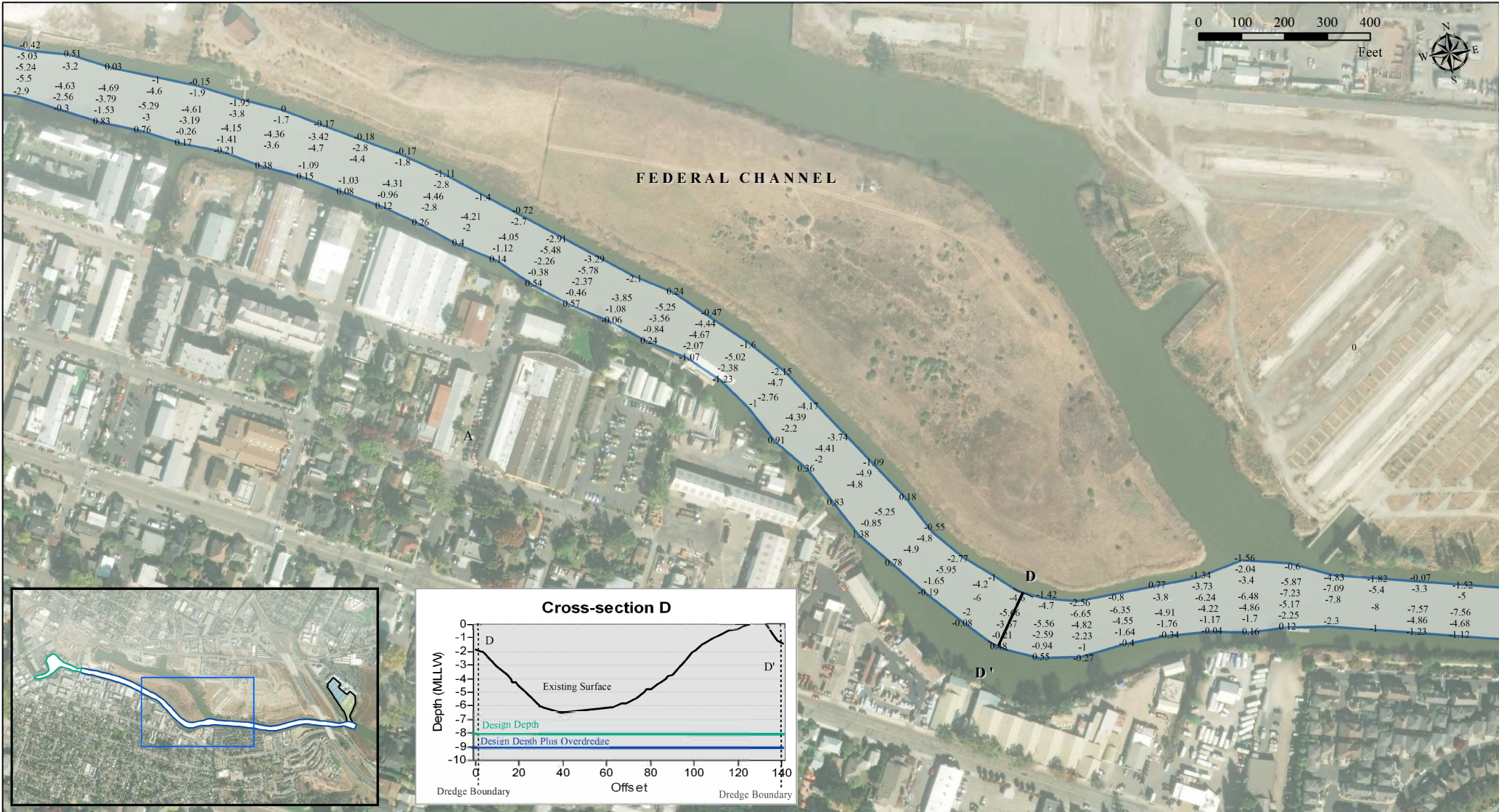
- NOTES**
1. SURVEY DATA COLLECTED ON DECEMBER 06, 2017
 2. HORIZONTAL DATUM/PROJECTION: NAD83 (2011) (EPOCH 2010.00), SPCS CALIFORNIA ZONE 02 - U.S. SURVEY FEET
 3. HORIZONTAL CONTROL: 941 5584 F TIDAL, N 1,846,607.61' E 6,385,054.23'
 4. VERTICAL DATUM: MLLW, U.S. SURVEY FEET VERTICAL 5. CONTROL: 941 5584 F TIDAL, ELEVATION 9.46'
 6. THIS SURVEY REPRESENTS GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
 7. POSITIONING AND MOTION DATA WAS COLLECTED USING AN APPLANIX POS MV V5.
 8. SOUNDINGS WERE COLLECTED USING AN R2SONIC 2022 OPERATING AT 200 KHZ.
 9. SOUNDINGS ARE NEGATIVE UNLESS OTHERWISE NOTED.
 10. MAP CREATED BY PACIFIC ECORISK 4/9/20.

BCDC Permit No. M2020.001.00

Exhibit B1

PETALUMA MARINA AND
THE PETALUMA RIVER FEDERAL NAVIGATION CHANNEL

PACIFIC ECORISK ENVIRONMENTAL CONSULTING & TESTING

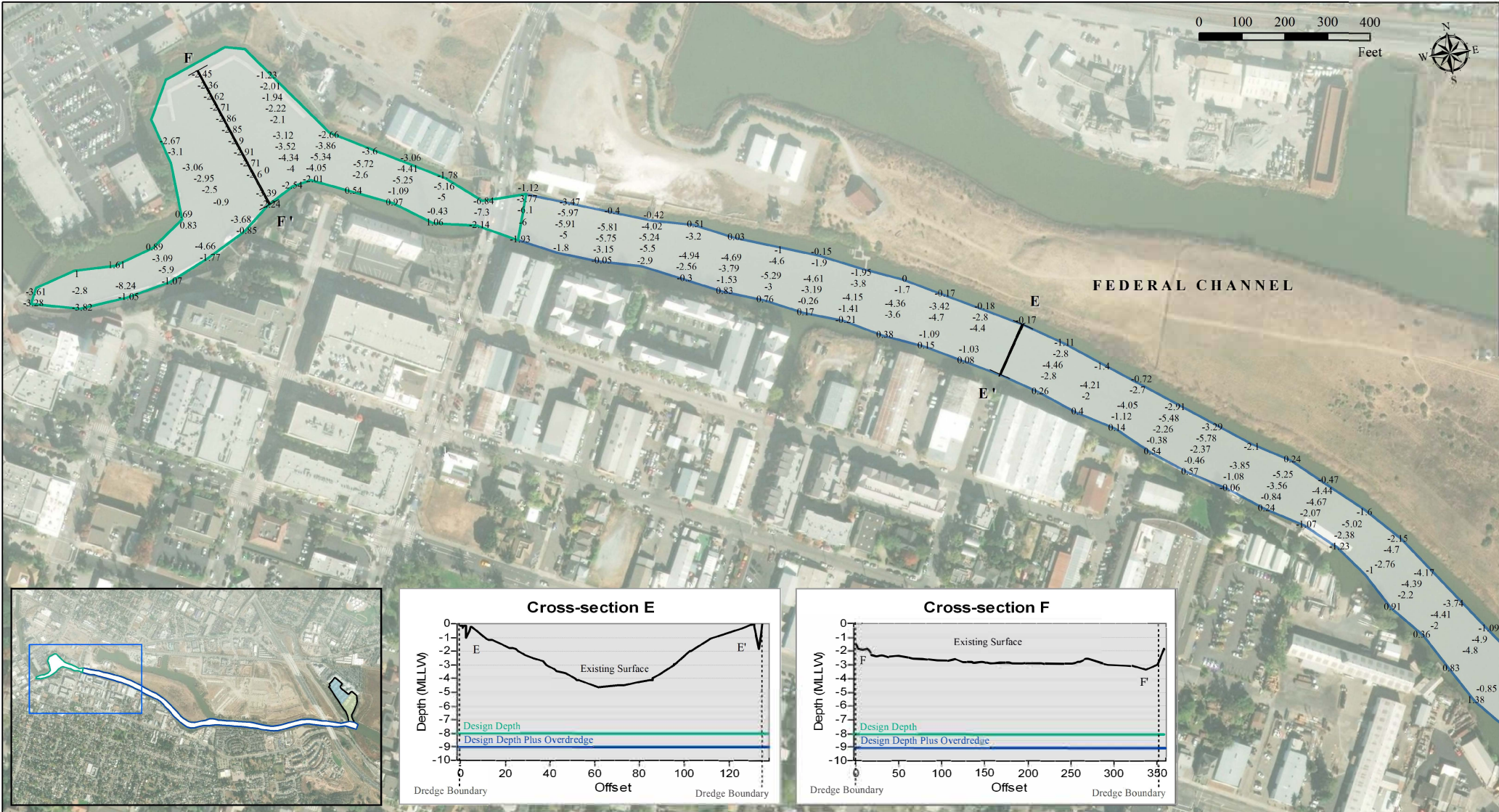


LEGEND
 FEDERAL CHANNEL 20.5 Acres, Dredge Depth -8' 1ft Overdredge

- NOTES**
1. SURVEY DATA COLLECTED ON DECEMBER 06, 2017
 2. HORIZONTAL DATUM/PROJECTION: NAD83 (2011) (EPOCH 201000), SPCS CALIFORNIA ZONE 02 - U.S. SURVEY FEET
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 9. SOUNDINGS ARE NEGATIVE UNLESS OTHERWISE NOTED.
 10. MAP CREATED BY PACIFIC ECORISK 4/9/20.

BCDC Permit No. M2020.001.00
Exhibit B2
 PETALUMA RIVER FEDERAL NAVIGATION CHANNEL

PACIFIC ECORISK ENVIRONMENTAL CONSULTING & TESTING



LEGEND

	FEDERAL CHANNEL 20.5 Acres, Dredge Depth -8 + 1ft Overdredge
	TURNING BASIN 4.8 Acres, Dredge Depth -8 + 1ft Overdredge

- NOTES**
1. SURVEY DATA COLLECTED ON DECEMBER 06, 2017
 2. HORIZONTAL DATUM/PROJECTION: NAD83 (2011) (EPOCH 2010000), SPCS CALIFORNIA ZONE 02 - U.S. SURVEY FEET
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 9. SOUNDINGS ARE NEGATIVE UNLESS OTHERWISE NOTED.
 10. MAP CREATED BY PACIFIC ECORISK 4/9/20.

BCDC Permit No. M2020.001.00
Exhibit B3
 PETALUMA RIVER FEDERAL NAVIGATION CHANNEL
 AND TURNING BASIN

PACIFIC ECORISK ENVIRONMENTAL CONSULTING & TESTING