

**Harbor Safety Committee
Of the San Francisco Bay Region**

**Report of the
U.S. Army Corps of Engineers, San Francisco District
February 9, 2023**

1. CORPS O&M DREDGING PROGRAM

The following report covers both the FY 2022 and FY 2023 dredging programs for San Francisco Bay. The FY 2022 program will wrap up with the completion of the Oakland Harbor and San Rafael Creek maintenance dredging projects by early March. The attached FY 2022 O&M Dredging Plan shows the current state of dredging projects as of February 7.

Planning for the FY23 dredging program is currently underway based on funding provided in the FY 2023 Consolidated Appropriations Act, Public Law 117-328, signed into law on December 29, 2022. The new FY23 project schedules are included in this report following the FY 2022 O&M Dredging Plan. Adjustments may be made to these schedules as circumstances warrant.

FY 2022 DREDGING

- a. **Richmond Inner Harbor** – Bid opening for the dredging contract solicitation was held on May 13. The contract was awarded to Pacific Dredge on May 27. Dredging commenced on July 15. On October 16, the contractor demobilized to dredge another project. **The contractor returned to work on December 29 and completed work on January 18.** Material dredged after November 30 has been placed at a beneficial reuse site.
- b. **San Joaquin River (Port of Stockton)** – A dredging contract was awarded to Ross Island Sand & Gravel on June 10. Notice to Proceed was issued on June 16. Dredging commenced on September 15 and completed on December 15 following an environmental work window extension.
- c. **Sacramento River Deep Water Ship Channel** – A dredging contract was awarded to The Dutra Group on June 21. Notice to Proceed was issued on June 28. However, the contractor submitted a proposal to change from cutterhead/pipeline dredging to a clamshell operation with beneficial reuse. Consultation with resource agencies completed in October, dredging commenced on October 21 and completed on October 31.
- d. **Suisun Bay Channel (and New York Slough)** – A dredging contract was awarded to Camenzind Dutra JV on June 24. Notice to Proceed was issued on June 30. Dredging commenced on August 9 and was completed on September 18.
- e. **San Rafael Creek** – A dredging contract was awarded to Camenzind Dutra JV on July 7. Notice to Proceed was issued on July 13. Dredging commenced on September 22. **Production dredging has been completed and an after-dredge survey of the last reach is underway. Some clean-up dredging remains. Completion is still anticipated by end of February.**
- f. **Oakland Harbor** – A dredging contract was awarded to Manson Construction on July 14, Notice to Proceed issued on July 19. Dredging commenced on July 15. On September 8, the contractor demobilized to dredge another project. **The contractor returned to Oakland Harbor following completion of the Richmond Inner Harbor dredging and is expected to be completed by the**

second week of March. Half of the dredged material is planned for in-bay disposal while the other half will be beneficially reused at a site of the contractor's choosing.

- g. Napa River** – A dredging contract was awarded to Pacific Dredge on July 22 with Notice to Proceed issued on August 1. Dredging commenced on September 26 and completed on November 23.
- h. SF Main Ship Channel** – The Government Hopper Dredge Essayons arrived on station and began dredging at the Main Ship Channel on June 2. The Essayons completed work on June 14 and was diverted to Bulls Head Reach of the Suisun Bay Channel to conduct emergency dredging operations in that location.
- i. Richmond Outer Harbor (and Richmond Long Wharf)** – Following completion of the Main Ship Channel and emergency dredging at Bulls Head, the Essayons moved on to Richmond Outer Harbor and started dredging there on June 16 and finished on July 1.
- j. San Pablo Bay (Pinole Shoal)** – Dredging is deferred to FY23 to remain in compliance with the Water Quality Certification for SF Bay Area Dredging.
- k. Redwood City Harbor** – This project is currently on a 2-year cycle and dredging last occurred in FY21. An assessment was recently done comparing advance maintenance to annual dredging. The result of the analysis supports switching to annual dredging beginning in FY23.

FY 2023 DREDGING

- a. Richmond Inner Harbor** – Planning for the FY23 dredging episode is currently underway with contract award tentatively scheduled for early May and dredging estimated to start end of June.
- b. Oakland Harbor** – Planning for the FY23 dredging episode is currently underway with contract award tentatively scheduled for early mid-May and dredging estimated to start early July.
- c. San Joaquin River (Port of Stockton)** – Planning for the FY23 dredging episode is currently underway with contract award tentatively scheduled for mid-July and dredging estimated to start late August.
- d. Sacramento River Deep Water Ship Channel** – Planning for the FY23 dredging episode is currently underway with contract award tentatively scheduled for late July and dredging estimated to start early September.
- e. Redwood City Harbor** – Planning for the FY23 dredging episode is currently underway with contract award tentatively scheduled for late July and dredging estimated to start mid-September. This project is switching to an annual cycle following conclusions based on a recently completed advance maintenance study.
- f. Maritime Administration (MARAD) Suisun Bay Reserve Fleet (SBRF)** – Planning for this unique dredging event is currently underway with contract award tentatively scheduled for early August and dredging estimated to start mid-September. The Maritime Administration has requested Corps support in dredging areas at their small boat slips.

- g. **Suisun Bay Channel (and New York Slough) – Planning for the FY23 dredging episode is currently underway with contract award tentatively scheduled for mid-August and dredging estimated to start late September.**
- h. **SF Main Ship Channel – The Government Hopper Dredge Essayons is scheduled to dredge the Main Ship Channel from the end of May until early June. The dredged material placement will be at the near-shore Ocean Beach Demonstration Site (OBDS), as in previous years.**
- i. **San Pablo Bay (Pinole Shoal) – Following completion of the Main Ship Channel, the Essayons will move to Pinole Shoal in mid-June and complete maintenance dredging there. Upon completion of Pinole Shoal, Essayons will depart the Bay Area.**
- j. **Richmond Outer Harbor (and Richmond Long Wharf) –Dredging is deferred to FY24 to remain in compliance with the Water Quality Certification for SF Bay Area Dredging.**

2. EMERGENCY (URGENT & COMPELLING) DREDGING: In early June 2022, hydrosurveys revealed the presence of hazardous shoaling at Bulls Head Reach of Suisun Bay Channel. Emergency dredging procedures were activated leading to the diversion of the Essayons to remove the hazard as mentioned earlier.

3. DEBRIS REMOVAL – Debris removal for January was 199 tons. Dillard: 112 tons, including 4 abandoned vessels; Raccoon: 87 tons. Average debris removal for January from 2013 to 2022 is 152 tons (Range: 35-374).

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2023	TONS	TONS	TONS	TONS
JAN	87	112	0	199
FEB				
MAR				
APR				
MAY				
JUN				
JUL				
AUG				
SEP				
OCT				
NOV				
DEC				

YR TOTAL
199

4. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

Oakland Harbor Turning Basins Widening Study: This study will investigate and determine if there is a technically feasible, economically justifiable, and environmentally acceptable recommendation for federal participation in a navigation improvement project to the existing - 50-foot Oakland Harbor Federal Navigation Project. The scope of the tentatively selected plan includes expansion of both inner and outer basins for a 1,310-foot design vessel. This expansion is expected to meet the needs of the future fleet. A NED waiver to continue with a Comprehensive Benefits Plan (CBP), which includes electric dredging, was submitted to the Assistant Secretary of the Army (ASA) by USACE Headquarters. NED Exemption Request response letter was received on September 14, 2022. The letter stated that the request to cost share the beneficial use (BU) was approved, however cost sharing electric dredging was not approved. The Draft Integrated Feasibility Report (IFR) was released on 17 December 2021 for public comment. The Draft IFR is on track to be re-released in early 2023 with revisions based on received comments.

5. OTHER WORK

Regional Dredge Material Management Plan: Following virtual charrettes with the public and stakeholders in July 2020, SFEI was contracted to perform a data gap analysis and develop scopes to address the gaps with advice from an Interagency Working Group (IWG). Sediment Transport Modeling (ERDC) and the Regional Analysis have begun. Outreach for Ecological Modeling will start shortly. A Sediment Monitoring Framework will be drafted based on data outputs from current efforts. A new Benefits and Decision Support scope is being developed with ERDC. Information on the RDMMP and draft final PMP can be found on our website:

<https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Regional-Dredge-Material-Management-Plan/>

USACE Work Plan Web Address: <http://www.usace.army.mil/Missions/Civil-Works/Budget/>

6. HYDROGRAPHIC SURVEY UPDATE

Address of Corps' web site for completed hydrographic surveys:

<http://www.spn.usace.army.mil/Missions/Surveys,StudiesStrategy/HydroSurvey.aspx>

The following surveys are posted:

Alameda Naval Navigation Channel: Condition survey of November 1 and 2, 2022.

Berkeley Marina (Entrance Channel): Condition survey of April 22, 2021.

Islais Creek Channel: Condition survey of September 23, 2022.

Larkspur Ferry Channel: Condition survey of April 8, 2020.

Mare Island Strait: Condition survey of September 29, 2021.

Marinship Channel (Richardson Bay): Condition survey of November 7, 2022.

Napa River: Condition survey of August 8-9, 2022.

Northship Channel: Condition survey of September 27 and November 4, 2022.

Oakland Inner Harbor: Condition survey of July 20, 2022.
Oakland Inner Harbor (Brooklyn Basin): Condition survey of 15-20 January 2021.
Oakland Outer Harbor: Condition survey of July 20, 2022.
Petaluma River (Across-the-Flats): Condition survey of November 2-4, 2022.
Petaluma River (Main Channel): Condition survey of November 2-4, 2022.
Petaluma River (Extended Channel): Condition survey of November 2-4, 2022.
Pinole Shoal Channel: Condition survey of October 20-24, 2022.
Redwood City Harbor: Condition survey of October 5, 2022.
Richmond Inner Harbor: Condition survey of January 18, 2023.
Richmond Inner Harbor (Santa Fe Channel): Condition survey of November 28, 2022.
Richmond Outer Harbor (Longwharf): Condition survey of October 26-27, 2022.
Richmond Outer Harbor (Southampton Shoal): Condition survey of October 26-27, 2022.
Sacramento River Deep Water Ship Channel: Condition survey of December 28, 2022 - January 1, 2023.
San Bruno Shoal: Condition survey of October 13, 2022.
San Francisco Main Ship Channel: Condition survey of December 6-8, 2022.
San Leandro Marina (and Channel): Condition survey of March 30 and April 1, 2015.
San Rafael (Across-the-Flats): Condition survey of June 24 and July 11, 2022.
San Rafael (Creek): Condition survey of June 24, 2022.
Stockton Ship Channel: Condition survey of December 13-17, 2022.
Suisun Bay Channel: Condition survey of January 17-18, 2023.
Suisun Bay Channel (Bullshead Reach): Condition survey of January 17-18, 2023
Suisun Bay Channel (New York Slough): Condition survey of January 17-18, 2023
Suisun Slough: Condition survey of November 30 and December 1, 2022.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of May 24, 2022.
SF-09 (Carquinez): Condition survey of January 12, 2023.
SF-10 (San Pablo Bay): Condition survey of October 26, 2022.
SF-11 (Alcatraz Island): Condition survey of January 11, 2023.
SF-16 (Suisun Bay Disposal Site): Condition survey of October 27, 2022.
SF-17 (Ocean Beach Disposal Site): Condition survey of May 24, 2022.



































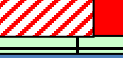












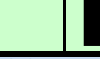






















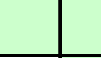

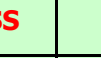










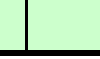











Requested Surveys:

Pre/Post-dredge and condition surveys have been completed for all of San Francisco District's in-bay projects dredged in FY21.

Channel Condition Report (CCR):

Attached is the Channel Condition Report (CCR) for all Corps maintained channels dated **2 FEB 2023**. The CCR is generated by the USACE eHydro database and is not a substitute for the controlling depths set by the SF Bar Pilots. Please see the respective bathymetric plots for locations (highlighted in red) of the shoaliest soundings reports in the CCR.





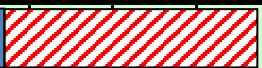






































































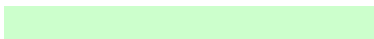


FY 2022 O&M DREDGING PLAN*

Project	Bid Open	Award	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	Estimated CY	Dredge Type	Placement Site
			FY2022									FY2023						
CONTRACT CLAMSHELL OR CUTTERHEAD/PIPELINE																		
Richmond Inner Harbor	13-May (A)	27-May (A)														410 Kcy	Contract Clam Shell	SF-DODS Cullinan
San Joaquin River (Port of Stockton)	31-May (A)	10-Jun (A)														180 Kcy	Contract Pipeline	Various Upland
Sacramento River (30 Foot Project)	6-Jun (A)	21-Jun (A)														33 Kcy	Contract Pipeline	MWRP
Suisun Bay Channel	13-Jun (A)	24-Jun (A)														120 Kcy	Contract Clam Shell	MWRP
San Rafael Creek	23-Jun (A)	7-Jul (A)														260 Kcy 30 Kcy	Contract Clam Shell	SF-10 SF-DODS
Oakland Harbor	30-Jun (A)	14-Jul (A)														375 Kcy 375 Kcy	Contract Clam Shell	SF-11 Cullinan
Napa River	11-Jul (A)	22-Jul (A)														55 Kcy	Contract Clam Shell	Coombs
WEST COAST HOPPER CONTRACT																		
Humboldt Bar & Entrance Channels	9-Mar (A)	28-Mar (A)							WCH							1100 Kcy	WCHC (Portland)	HOODS
GOVERNMENT HOPPER																		
Humboldt Interior Channels	N/A	N/A														150 Kcy	Govt Hopper	HOODS
SF Main Ship Channel	N/A	N/A						ESS								350 Kcy	Govt Hopper	OBDS/SF-8
Bulls Head Emergency Dredging	N/A	N/A						ESS								15 Kcy	Govt Hopper	SF-16
Richmond Outer Harbor	N/A	N/A						ESS								300 Kcy	Govt Hopper	SF-11/SF-10
<div><div>   </div><div>Solicitation Bid Opening Contract Award Hopper Dredging</div><div>WCH West Coast Hopper Contract YAQ Gov't Dredge Yaquina ESS Gov't Dredge Essayons</div><div>Environmental Window Mobilization Physical Dredging Period of No Dredging</div><div>   </div></div>																		

* Program execution is based on the FY22 President's Budget and Work Plan.

Date of Last Update: 2/7/2023

FY 2023 O&M DREDGING PLAN*

Project	Baseline Bid Open	Baseline Award	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	Estimated CY	Dredge Type	Placement Site	
			FY2023									FY2024							
CONTRACT CLAMSHELL OR CUTTERHEAD PIPELINE																			
Richmond Inner Harbor	21-Apr	5-May														350 Kcy	Contract Clam Shell	BU	
Oakland Harbor	5-May	19-May															700 Kcy	Contract Clam Shell	BU
San Joaquin River (Port of Stockton)	27-Jun	12-Jul														175 Kcy	Contract Pipeline	Various Upland	
Sacramento River (30 Foot Project)	7-Jul	21-Jul														150 Kcy	Contract Pipeline	Various Upland	
Redwood City Harbor	14-Jul	28-Jul															300 Kcy 100 Kcy	Contract Clam Shell	BU & 1122 Pilot
MARAD SBRF Dredging	21-Jul	4-Aug															80 Kcy	Contract Clam Shell	Upland
Suisun Bay Channel	10-Aug	24-Aug															75 Kcy 50 Kcy	Contract Clam Shell	SF-16 BU
WEST COAST HOPPER CONTRACT																			
Humboldt Bar & Entrance Channels	Jan	Feb							WCH								300 Kcy	WCHC (Portland)	HOODS
GOVERNMENT HOPPER																			
Humboldt Interior Channels	N/A	N/A														150 Kcy	Govt Hopper	HOODS	
Humboldt Bar & Entrance Channels	N/A	N/A														600 Kcy	Govt Hopper	HOODS	
SF Main Ship Channel	N/A	N/A					ESS									350 Kcy	Govt Hopper	OBDS SF-8	
Pinole Shoal	N/A	N/A						ESS								250 Kcy	Govt Hopper	SF-10 SF-11	
<div><div>   </div><div>Solicitation Bid Opening Contract Award Hopper Dredging</div></div> <div><div>WCH YAQ ESS</div><div>West Coast Hopper Contract Gov't Dredge Yaquina Gov't Dredge Essayons</div></div> <div><div>Environmental Window Mobilization Physical Dredging</div><div>  </div></div>																			

* Program execution is based on the FY23 President's Budget plus carryover funds.

Date of Last Update: 2/7/2023

REPORT OF CHANNEL CONDITIONS

400 FEET WIDE OR GREATER

Page 1 of 2
Date 2/2/2023

To: Navigation Interests		From: US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE SUISUN BAY CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
San Francisco Mainship San Francisco Mainship	12-06-2022	2000	4.96	55	51.4	54.2	54.6	53.6
Redwood City Harbor Redwood City Harbor	10-05-2022	300 943	3.94	30	24.7	27.4	26.2	23.9
Richmond Inner Harbor Entrance Channel	01-13-2023	809 1021	0.96	38	35.6	36.8	36.9	36.9
Richmond Inner Harbor Approach Channel	01-13-2023	809 1201	3.09	38	33.7	34.9	35.7	34.7
Richmond Inner Harbor Santa Fe Channel	11-28-2022	195 509	0.37	38	25.6	27.4	27.1	21.2
Richmond Outer Harbor Richmond Outer Harbor	10-25-2022	600 1291	3.25	45	41.5	45.0	44.3	42.7
Richmond Outer Harbor Longwharf Turning Basin	10-26-2022	2188 5598	0.88	45	26.3	No Data	No Data	No Data
San Rafael ATF Across the Flats	06-24-2022	100	2.25	8	No Data	3.1	2.9	2.5
San Rafael River Inner Canal Channel	06-24-2022	60 160	1.55	6	0.9	1.1	0.5	0.5
Petaluma River Main Channel	11-02-2022	100 361	4.06	8	3.7	4.3	0.5	3.0
Petaluma River ATF Across the Flats	12-15-2020	200 206	5.68	8	6.3	8.8	8.3	8.2
Mare Island Strait Causeway to Asylum Slough	08-09-2022	75 245	3.19	15	3.8	No Data	No Data	7.1
Napa River Asylum Slough to Napa City	11-23-2022	102 183	9.92	10	+0.5	7.5	6.7	2.5
Brooklyn Basin Brooklyn Basin	01-15-2021	147 1501	0.94	35	6.2	8.0	17.3	7.2
Brooklyn Basin Brooklyn Basin	01-15-2021	250 1010	2.74	35	8.4	3.9	3.0	3.0
Oakland Harbor Oakland Inner Harbor	09-21-2022	544 1997	4.62	50	46.2	50.1	50.0	48.8

REPORT OF CHANNEL CONDITIONS

400 FEET WIDE OR GREATER

Page 2 of 2
Date 2/2/2023

To: Navigation Interests		From: US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE SUISUN BAY CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
Oakland Harbor		296						
Oakland Outer Channel	09-21-2022	1761	2.52	50	50.0	50.0	50.0	50.0
Humboldt Bay		500						
Bar and Entrance Channel	07-15-2022	2113	2.60	48	36.3	46.2	46.5	28.5
Humboldt Bay		400						
Eureka Channel	01-11-2023	416	1.69	26	2.4	3.7	12.2	7.0
Humboldt Bay		300						
Fields Landing Channel	01-13-2023	770	2.35	26	13.8	26.9	25.5	20.4
Humboldt Bay		400						
North Bay Channel	06-02-2022	657	3.04	38	32.7	34.6	33.0	15.1
Humboldt Bay		400						
Samoa Channel	01-11-2023	1000	1.83	38	32.6	35.4	34.2	17.4
Pinole Shoal Channel		600						
Pinole Shoal Channel	10-20-2022	1644	10.40	35	29.5	34.6	36.1	32.5
Suisun Bay Channel								
Suisun Bay (0+00 to 150+00)	01-17-2023	300	2.84	35	36.0	35.8	35.3	35.2
Suisun Bay Channel								
Suisun Bay (150+00 to 733+45)	01-17-2023	300	11.10	35	33.7	34.4	34.1	30.8
Suisun Bay Channel Anchorage						No	No	No
Suisun Bay Channel Anchorage	01-17-2023	400	0.90	35	34.4	Data	Data	Data
New York Slough		400						
New York Slough (0+00 to 232+03)	12-13-2022	411	4.42	35	34.4	35.0	35.5	34.5

REPORT OF CHANNEL CONDITIONS

400 FEET WIDE OR GREATER

Page 1 of 2
Date 2/2/2023

To: Navigation Interests		From: US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE SAN LEANDRO CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
San Bruno Shoal San Bruno Shoal	10-13-2022	500	5.66	30	28.4	30.7	31.5	29.8
Richardson Bay/Marinship Richardson Bay/Marinship	11-07-2022	300 1069	2.11	20	4.7	5.2	5.3	4.8
Islais Creek Islais Creek	09-23-2022	500 1424	1.71	40	30.8	37.8	37.7	23.8
Alameda Naval Air Alameda Naval Air	11-01-2022	1000 4178	2.90	37	11.6	12.2	18.6	16.3
Mare Island Strait Mare Island Strait	09-16-2022	400 606	3.37	30	27.4	29.1	31.9	32.4
Larkspur Channel Larkspur Channel	07-11-2019	231 542	2.37	13	6.5	10.0	9.7	8.0
Northship Channel Northship Channel	09-27-2022	3576 4769	5.97	45	23.2	37.2	37.2	35.4
Berkeley Marina Berkeley Marina	05-26-2022	100 142	1.36	15	6.0	4.0	3.9	3.9
Bodega Bay Bodega Bay	09-29-2022	100 400	3.46	12	3.1	9.5	9.7	7.1
Moss Landing Moss Landing	01-24-2023	120 405	0.98	15	8.6	7.4	7.6	8.5
Noyo River Entrance Channel	08-04-2022	97 150	0.67	10	6.7	10.1	10.9	7.6
Noyo River Channel	08-04-2022	97 150	0.67	10	5.4	10.5	10.8	3.9
Crescent City Entrance Channel	08-06-2022	200 320	0.42	20	17.2	18.3	16.9	15.5
Crescent City Inner Harbor Basin Channel	08-06-2022	200 300	0.39	15	14.6	14.8	14.7	13.2
Crescent City Marina Access Channel	08-06-2022	228 170	0.22	15	5.7	10.6	11.7	8.1
SAN LEANDRO MARINA Approach Channel	03-30-2015	200	3.50	7	2.8	3.6	3.4	3.2

REPORT OF CHANNEL CONDITIONS

400 FEET WIDE OR GREATER

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Date 2/2/2023

To: Navigation Interests		From: US Army Corps of Engineers San Francisco District 450 Golden Gate Ave San Francisco, CA 94102						
RIVER/HARBOR NAME AND STATE SAN LEANDRO CALIFORNIA					MINIMUM DEPTHS IN EACH 1/4 WIDTH OF CHANNEL ENTERING FROM SEAWARD			
NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (miles)	DEPTH (feet)				
SAN LEANDRO MARINA North Arm	03-15-2010	170	0.30	7	2.7	3.6	3.8	3.9
SAN LEANDRO MARINA South Arm	03-15-2010	150	0.30	7	3.3	4.7	4.6	4.8