

# U.S. ARMY CORPS OF ENGINEERS

## OPERATION AND MAINTENANCE DREDGING 2020-2024

*"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."*



**US Army Corps of Engineers®**





# SAN FRANCISCO DREDGING MISSION



Maintain safe, efficient, and effective navigation transportation systems on a limited navigation budget

- 10 Federally-Authorized Projects (6 deep draft channels and 7 shallow-draft channels)
- 14.395 MCY(12.145 MCY in Bay)
- In Bay Disposal: SF-11, SF-10, SF-9, & SF-16
- Ocean Disposal: SF-8, OBDS (part of SF-17), SF-DODS
- Upland Disposal: Montezuma Wetlands, Cullinan Wetlands, Schollenberger Park, Imola/Napa Pipe





# THE MARITIME HIGHWAY





# 5 YEAR QUANTITIES



Project	Maximum Dredge Volume Cubic Yards (per episode)	Maximum Dredge Volume (five-year total)	Dredge Type	Placement	Frequency (over five-year period)
Napa River (Lower)	13,000	13,000	Clamshell/ Cutterhead	Imola/Napa Pipe	Once
Napa River (Upper)	55,000	55,000	Clamshell	Imola/Napa Pipe	Once
Oakland Harbor	950,000	4,750,000	Clamshell	SF-DODS/ Beneficial Use	Annual
Petaluma Channel (Across the Flats)	250,000	250,000	Clamshell	SF-10	Once
Petaluma Channel (River)	350,000	350,000	Cutterhead	Schollenberger Park	Once
Pinole Shoal Channel	300,000	600,000	Hopper	SF-11/SF-10	Deferred (Bi-Annual)
Redwood City Harbor	300,000	600,000	Clamshell	SF-11/ SF-DODS	Bi-Annual
Richmond Inner Harbor	350,000	1,750,000	Clamshell	SF-DODS/ Beneficial Use	Annual
Richmond Outer Harbor	350,000	1,050,000	Hopper	SF-11/SF-10	Deferred (Bi-Annual)
San Bruno Shoal	16,000	16,000	Hopper/ Clamshell	SF-11	Once
San Francisco Main Ship Channel	450,000	2,250,000	Hopper	OBDS/SF-8	Annual
San Rafael Creek	87,000	87,000	Clamshell/ Cutterhead	SF-10/SF-11	Once
San Rafael Creek (Across the Flats)	175,000	175,000	Clamshell	SF-10/SF-11	Once
Sea Trials	12,000	60,000	Hopper	SF-11/SF-8	Up to Five
Suisun Bay Channel/New York Slough	200,000	1,000,000	Clamshell	SF-16/SF-9	Annual





# ENVIRONMENTAL COMPLIANCE



- **NEPA:** 10-year (2015-2024) EA
- **Endangered Species Act (ESA):** Programmatic Biological Opinions
- **Clean Water Act (CWA):** Section 401 Water Quality Certification (Multi-year)
- **Coastal Zone Management Act (CZMA):** Consistency Letter of Agreement from BCDC (Multi-year)
- **Long Term Management Strategy:** Framework for placement in the bay with a target of no more than 20% in Bay
- **Federal Standard (next slide)**





# FEDERAL STANDARD



- The **least costly** dredged material disposal or placement alternative (or alternatives)
- That is consistent with **sound engineering** practices, and
- Meets all **federal environmental requirements (Environmentally Acceptable)**, including those established under the Clean Water Act (CWA) and the Marine Protection, Research, and Sanctuaries Act



# ALTERNATE DREDGING

- Accommodating the Water Board and BCDC's concern with longfin smelt entrainment
- Alternating Hopper Dredge use between Pinole Shoal and Richmond Outer
- Complies with the Federal Standard





# BENEFICIAL USE



- Beneficially use material when it is the Federal Standard or with incremental cost share
- 4.6 MCYs of beneficial use completed in the last 5 years



# REQUEST FOR CONCURRENCE

USACE requests concurrence with its submitted Consistency Determination

