

San Francisco District Overview

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**US Army Corps of Engineers
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San Francisco District**



The San Francisco District

Our History: Oldest USACE district on the Pacific Coast, with service to the Nation since 1866.

Our Area: A 40,000 square mile area comprising 900 miles of shoreline, 3 coastal watershed sub-regions, the largest estuary on the Pacific Coast, and a population of over 6.5 million people.

Our Mission: To deliver vital engineering solutions to secure our Nation, energize our economy, and reduce risk from disaster. We are also committed to fiscal responsibility and environmental stewardship.

Our Work: We are a project-funded organization responsible for the delivery of military and civilian Federal projects. In Fiscal Year 2012, we executed a \$100 million program with over 150 active projects.

Our People: We have a talented and diverse workforce of 300 employees, both military and civilian.



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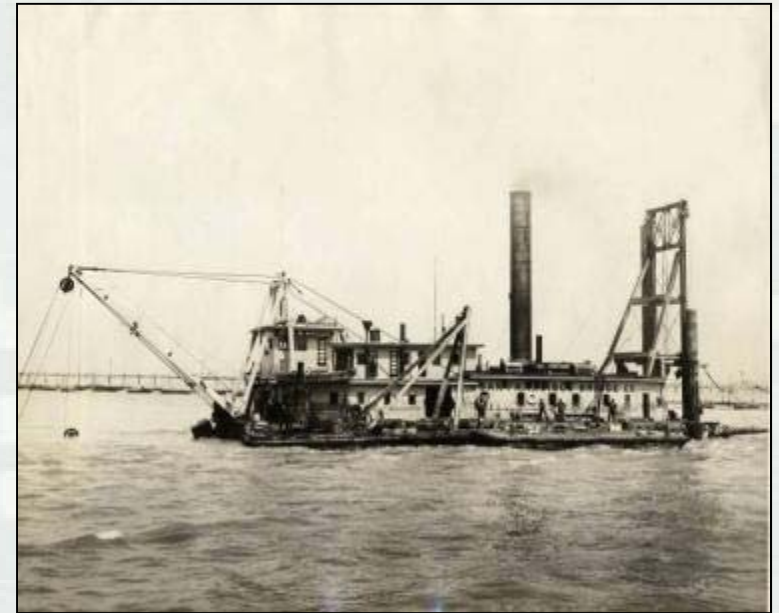
Agenda

- **U.S. Army Corps of Engineers (USACE)**

- ▶ History
- ▶ Mission / Vision / Campaign Plan
- ▶ Organization & Locations
- ▶ Value
- ▶ Research & Development
- ▶ Water Resource Challenges

- **San Francisco District (SPN)**

- ▶ History
- ▶ Area of Responsibility
- ▶ Organization
- ▶ Program
- ▶ Value to the Nation



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Significant Dates in USACE History

1775



Battle of Bunker Hill

Continental Army established and first Chief Engineer appointed. The Corps' motto of "Essayons" ("Let Us Try") comes from contributions of French military engineers.

1802



U.S. Military Academy in 1800s

Corps of Engineers permanently established and US Military Academy founded under Corps control at West Point.

1804

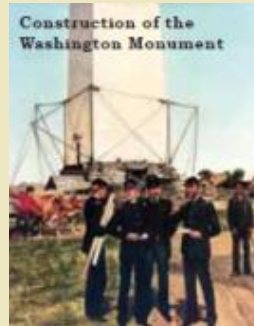
Lewis & Clark Expedition

1819

Stephen H. Long's expedition up the Missouri River began Army engineer involvement in Western exploration.

1824

General Survey Act authorized use of Army engineers to survey roads and canals which authorized a permanent civil works construction mission.



Construction of the Washington Monument

1884

Washington Monument construction completed.

1899

Corps of Engineers tasked to administer & regulate the **1899 Rivers & Harbors Act**, which made it illegal to dam or discharge refuse into navigable waters without a permit.



Panama Canal

Panama Canal completed under supervision of Army engineer officers.

Flood Control Act made flood control a federal policy and officially recognized the Corps as the major federal flood control agency.

Flood Control Act authorized the Corps of Engineers to develop recreation facilities on Corps projects.



Lake Sonoma

The Corps began a hospital construction program for the Veterans Administration.

National Environmental Policy Act established Environmental Impact Statement requirements for executive branch federal agencies including the Corps



Clean Water Act authorized the Corps of Engineers to regulate dredging & dumping activities in U.S. wetlands.

Water Resources Development Act brought major change in financing by requiring nonfederal contributions toward most federal water resources projects.

New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) construction complete (\$11B program in response to Hurricane Katrina in 2005).



HSDRRS

1914

1936

1944

1944

1970

1972

1986

2011

USACE Mission

Deliver vital engineering solutions, in collaboration with our partners, to secure our Nation, energize our economy, and reduce risk from disaster

USACE Vision

Engineering solutions for the Nation's toughest challenges.

USACE Campaign Plan

(DRAFT, as of 21 Dec 2012)

Goal 1: Support the Warfighter.

Deliver innovative, resilient, and sustainable solutions to DoD and the Nation.

Goal 2: Transform Civil Works.

Deliver enduring and essential water resource solutions using effective transformation strategies.

Goal 3: Reduce Disaster Risks.

Deliver support that responds to, recovers from, and mitigates disaster impacts to the Nation.

Goal 4: Prepare for Tomorrow.

Build Great People, Teams, systems, and Processes to sustain a diverse culture of collaboration, innovation, and participation to shape and deliver strategic solutions.

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USACE Organization

- Department of Defense
- A Major Command in the Department of the Army
- ASA(CW) provides Civil Works direction
- 3-Star General Officer Command headquartered in Washington, DC
- 9 Divisions and 45 Districts World-wide
- Geographic areas based on watershed boundaries



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USACE Around the World



43 USACE offices



USACE has presence and/or engagement, as of FY 2011-12, in 132 countries



USACE has no presence and/or engagement, as of FY 2011-12

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Environmental, Infrastructure, and Homeland Security Value



Note: Statistics as of May 2012

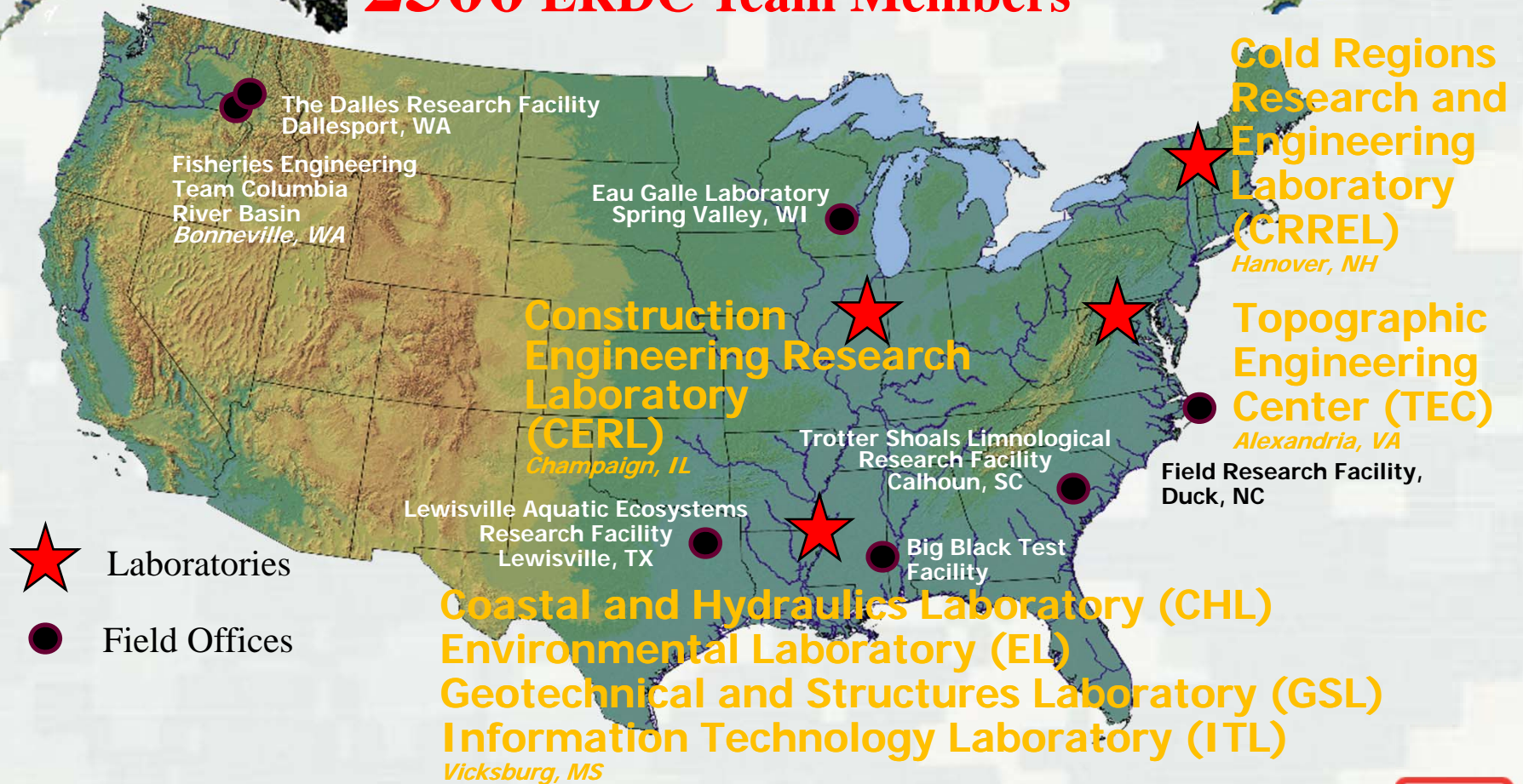
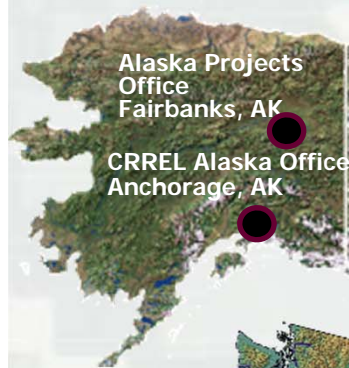
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Engineer Research and Development Center

2500 ERDC Team Members



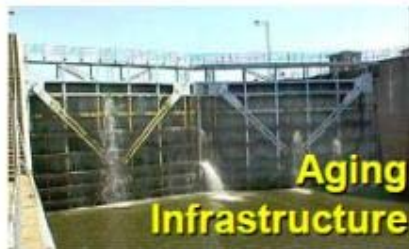
We solve problems to make the world safer and better!

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National Water Resource Challenges



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San Francisco District History

1860

Construction of strategic coastal fortifications in San Francisco Bay began

1863

Port of San Francisco established

1866

District established as Major R.S. Williamson designated "officer in charge" for all river and harbor maintenance along Pacific Coast.



1874

Dredging began in Oakland Harbor

1879

Topographic engineers prepared maps of Western U.S.

1889

District completed harbor improvements in San Francisco, Napa, Petaluma, Redwood City, San Pablo Bay, et al.

1898

Oakland Harbor 19-ft deepening project completed

1906

The Great San Francisco Earthquake destroys 80% of city and kills over 3000 people. Army engineers construct temporary homes as part of response



1907

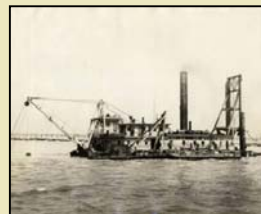
District split into two districts (2nd officially redesignated as Sacramento District in 1929)

1936

San Francisco-Oakland Bay Bridge completed

1937

Golden Gate Bridge completed



Construction of Treasure Island completed through placement of dredged material from in-bay shoaling (29 million CY total of material)

1937

Debris removal mission began following seaplane accident involving Admiral Chester Nimitz.

1943



Bay Model constructed to study the Reber Plan for filling in portions of SF Bay.

1957

District completes report "The Future Development of San Francisco Bay 1960-2020," which gave rise to founding of Save the Bay (1961) organization and state's Bay Conservation and Development Commission (1965).

1959

Coyote Valley Dam (Lake Mendocino) constructed on East Fork of Russian River.

1959

Warm Springs Dam (Lake Sonoma) and Fish Hatchery constructed on Dry Creek of Russian River.

1983



Loma-Prieta Earthquake

1989

Long Term Management Strategy (LTMS) for Beneficial Reuse of Dredged Material implemented.

2001

Oakland Harbor 50-ft deepening project completed with over 6 million CY of material going to Hamilton (Airfield) Wetlands Restoration Project

2009

Area of Responsibility



Area: 40,000 square miles, comprising 900 miles of shoreline, 3 coastal watershed sub-regions and the largest estuary on the Pacific Coast.

Population: Over 6.5 million people, centered around San Francisco, Oakland, and San Jose.

Economy: The region has a GDP of \$535 billion (ranking 17th internationally), with a \$68.1 billion annual maritime industry. The region includes Silicon Valley, Napa and Sonoma Valleys, and Fortune 500 companies from the technology, biotech, energy, and construction industries.

Environment: The region has a Mediterranean to temperate climate; seasonal (Nov-May) rains ranging from 100"/year in north to 20"/year in south causing seasonal floods (prone to forest fires in dry season); large area of seasonal and tidal wetlands; seismic activity (earthquakes); and approx 300 species listed as endangered or threatened.

Federal Government Mission Coordination:

EPA Region 9, FEMA Region X, USFWS, NOAA (Weather, Fisheries, and Oceans), U.S. Coast Guard-San Francisco Sector, et al.

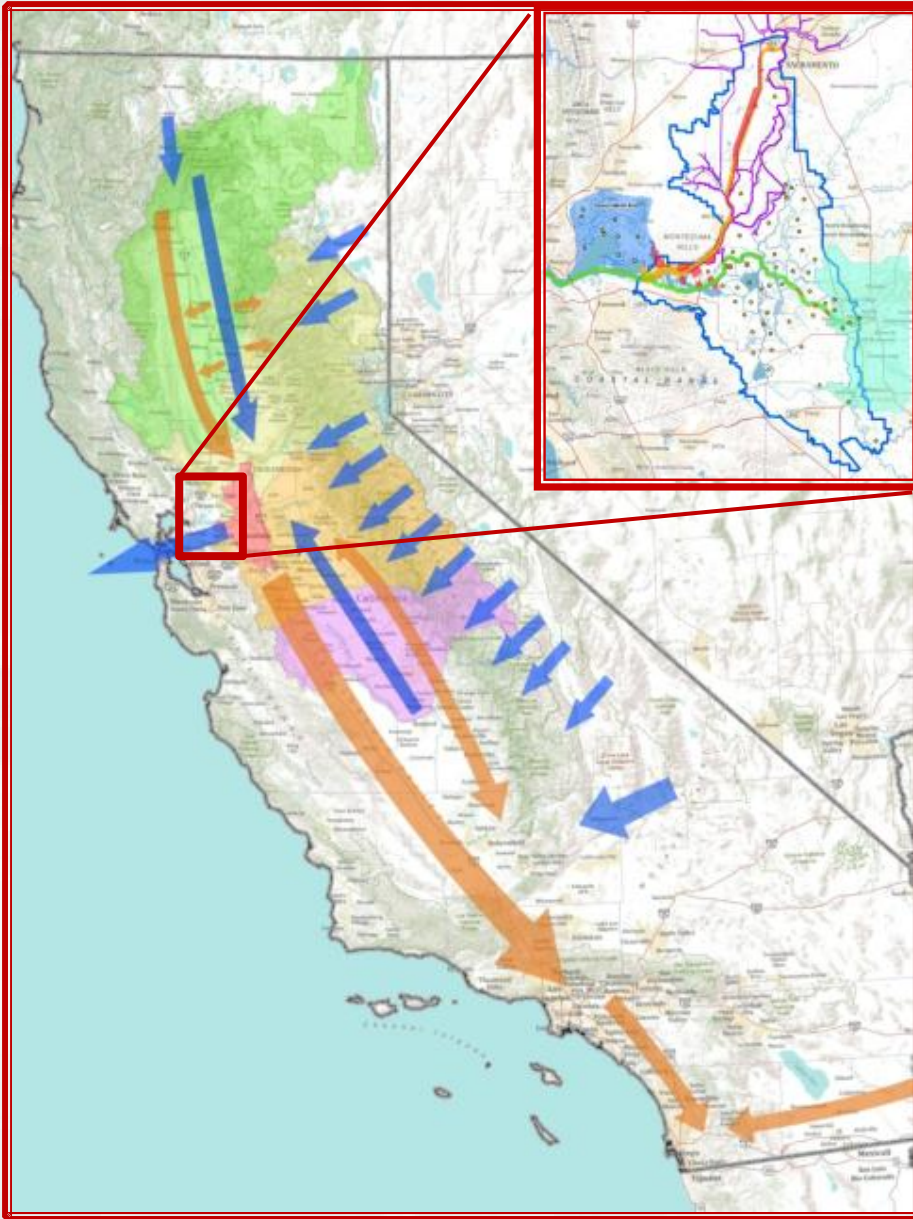
Elected Officials: 25 Members of the U.S. Congress (4 Senators and 21 Representatives)

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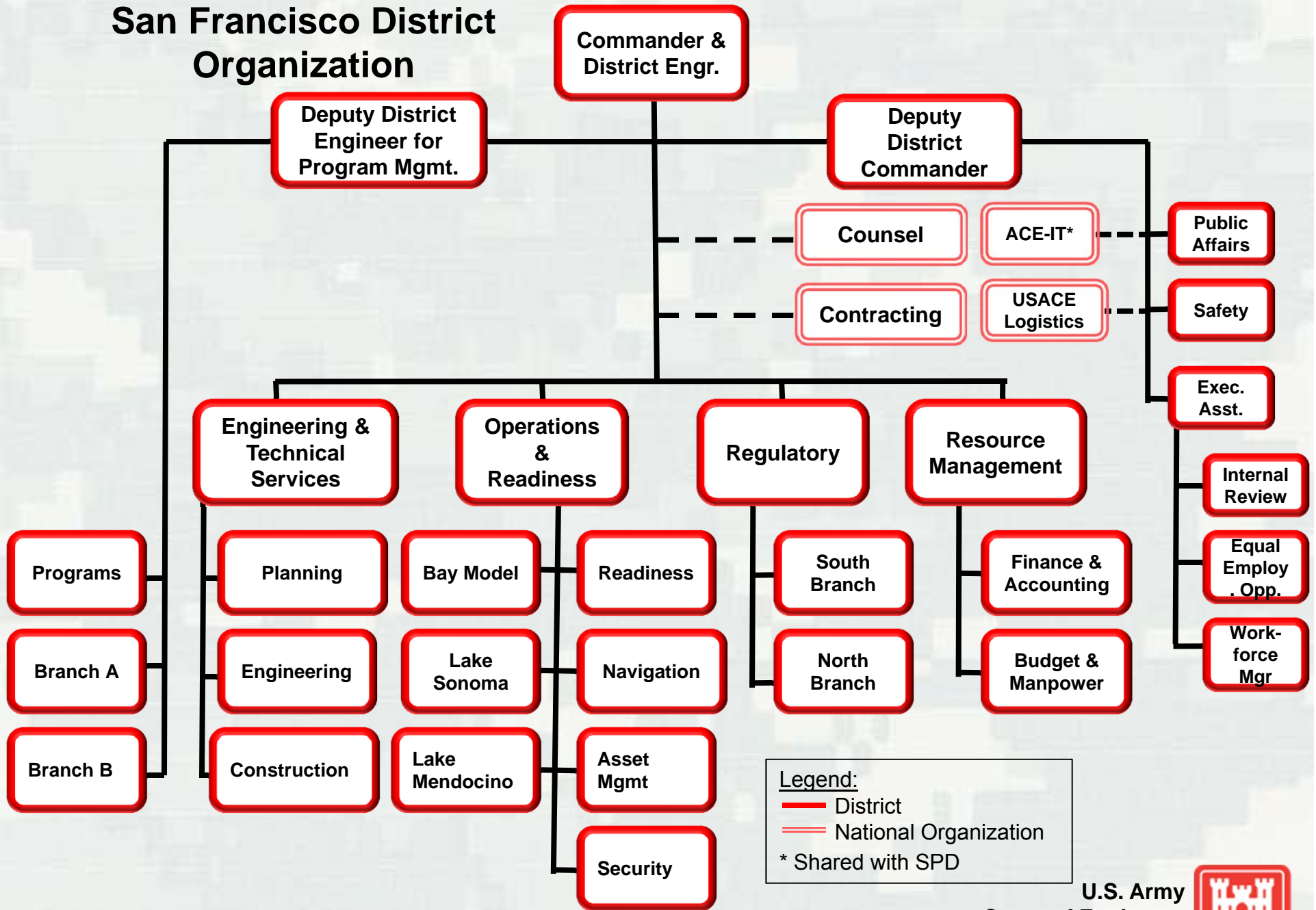
California Water & the Delta



Delta Importance

- Sustains \$400 billion economy
- Largest single drinking water source in the Nation; supplies 25M people
- Irrigation for 7 million acres
- 750 Plant and wildlife species (55 classified under Endangered Species Act)
- Delta outflow controls tidal salt water intrusion from San Francisco Bay

San Francisco District Organization



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District Locations



Supporting the Warfighter



- Over 30 district employees have deployed overseas in support of our Nation's Global War on Terror; 8 employees (3% of our workforce) are currently deployed to Afghanistan.
- Providing design assistance, contract administration, construction management services, and project management services for 6 new and/or renovation projects valued at \$50.8 million for the Veterans Affairs hospitals in the greater Bay Area.
- Partnered with 249th Engineer Battalion (Prime Power) to provide 9 Soldiers with quality assurance and high-voltage electrical training experience through 8 week rotations at our Veterans Affairs Electrical Upgrade Project
- Completed construction of a \$76 million U.S. Army Reserve Center at Moffett Field (near San Jose)
- An employee deployed to Brazil in support of SOUTHCOM to provide technical assistance on that country's riverbank restoration work.
- An employee volunteered on his personal time for a mission to Nepal to build a sustainable drinking water system in the town of Basa.
- Our MV Dillard crew has partnered with Monterey Bay Veterans, Inc to provide Disabled Veterans and Wounded Warriors with maritime-related education events.
- The district's dive team deployed to Okinawa to provide underwater assessments of U.S. Naval port facilities.
- Future employment of Wounded Warriors during their recovery and/or transition phase of rehabilitation treatment

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Value to the Nation: Reducing Flood Risk

- **Region prone to seasonal flooding**
- **Other factors**
 - ▶ Subsidence
 - ▶ Drought (Municipal and agricultural water supply)
 - ▶ Seismic activity
 - ▶ Sea level rise
 - ▶ Endangered Species Act consultations
- **Coyote Valley Dam**
- **Warms Springs Dam**
- **Levee Inspection Program**



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Value to the Nation: Disaster Response

▪ District Capabilities

- ▶ District Emergency Operations Center in Sausalito – 24/7 capability
- ▶ Command and Control Vessel (MV Dillard)
- ▶ Commodities Team (National Asset; 1 of 7 in USACE) – procurement and distribution of ice and water
- ▶ Engineering Assessment Teams (Local Asset) – built as needed for post-disaster levee inspection.



▪ Recent Deployment Support

- ▶ Mar 2011 – Japanese Tsunami (3 employees deployed)
- ▶ Jun - Aug 2011 – Missouri & Alabama Tornadoes (15 employees deployed)
- ▶ Aug 2011 – Lake Cochiti, NM Debris Removal (6 employees & 3 vessels deployed)
- ▶ Nov 2012 – Hurricane Sandy (3 employees deployed)



▪ Emergency Management Training

- ▶ Mar 2012 – Bay Area Community Challenge Table Top Exercise.
- ▶ Oct 2012 – SPN Crisis Management Team Table Top Exercise.
- ▶ 3x Annual Workshops with levee owners.
- ▶ Quarterly Port Readiness Coordination with USCG (lead), ports, and law enforcement.
- ▶ Semi-annual FEMA work shops.

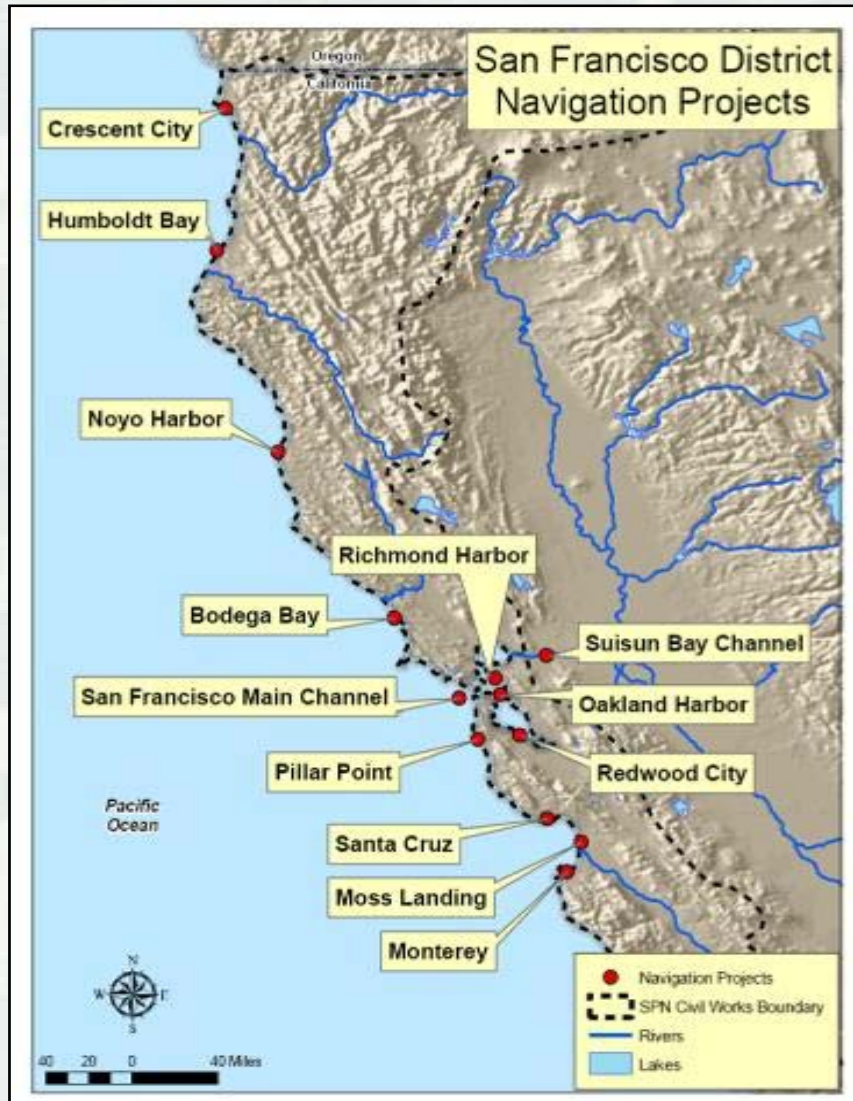


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Value to the Nation: Navigation



- Dredging and debris removal along 22 Federal ship channels
- Supports a \$68.1 billion annual maritime industry
- Comprises approx 2/3 of district's workload
- Remove 1400 tons of debris/year (average) from San Francisco Bay (only agency with mission)
- Challenges: significant environmental restrictions, and what to do with the dirt?



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Value to the Nation: Environmental Restoration

■ Hamilton Wetlands Restoration

- ▶ 998 acre site on former Hamilton Airfield (military base closed under 1995 Base Realignment and Closure)
- ▶ Beneficially reused 6 million CY of material from Oakland Harbor 50-foot deepening project.



■ Bair Island Restoration (Wetlands)

- ▶ Successfully completed with beneficially reused dredged material from Redwood City channel dredging



■ Napa River Salt Marsh Restoration (Wetlands)

- ▶ Project to restore 2500 acres of 9800 acres of former

■ South San Francisco Bay Shoreline Study (Wetlands)

- ▶ Focuses on 2000 acre portion of 15,000 total acres of former commercial salt ponds

■ Russian River Projects (Endangered Fish & Habitat)

- ▶ 2001 – Central California Coast Coho salmon near extinction; last viable population at San Francisco District's Don Clausen Fish Hatchery
- ▶ 2008 – “Jeopardy” Biological Opinion (BiOp) from Endangered Species consultation with NOAA-National Marine Fisheries Service (NMFS)
- ▶ Collaborative Dry Creek Habitat Restoration & Broodstock Program
- ▶ 2012 – Designation by NOAA as a “**Habitat Blueprint for Success**”



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Value to the Nation: Small Businesses

Contract Awards to Small Business

Category	FY12		Goal
	Amount	%	
Total District Awards	\$37,215,420		
Small Business	\$20,672,385	55.5%	32%
Small Disadvantaged Business	\$8,656,383	23.2%	15%
Women Owned SB	\$2,929,916	7.9%	5%
HUB Zone	\$5,105,497	13.7%	6.75%
Service Disabled Veterans	\$2,652,264	7.1%	3%
8(A)	\$7,363,128	19.8%	N/A

Legend
Met USACE Goal
Statutory Met or \geq 80% Goal
Statutory not Met or $<$ 80% Goal



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Value to the Nation: Recreation and Outreach

▪ Lake Facilities

- ▶ Each has visitor centers, camping, boating, fishing, picnic sites, camping, and Native American cultural centers
- ▶ Excellent public safety record
- ▶ Lake Mendocino: 980,000 visitors annually
- ▶ Lake Sonoma: 480,000 visitors annually



▪ Bay Model Visitor Center

- ▶ Former scientific hydraulic tool, now the district's center for public outreach.
- ▶ Solar Power installed using American Recovery and Reinvestment Act funds; now the only USACE "NetZero" Energy facility in the region.
- ▶ Hosts foreign delegation visits, schools, local art festivals, and is a county headquarters for the California Coastal Cleanup each year.
- ▶ 150,000 visitors annually



▪ Special Events

- ▶ Americas Cup 2012-2013
- ▶ Annual San Francisco Fleet Week
- ▶ Golden Gate Bridge 75th Anniversary (2012)
- ▶ Port of San Francisco 150th Anniversary (2013)
- ▶ Wounded Warrior and Veterans Events



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Value to the Nation: Preparing for Tomorrow

▪ Science, Technology, Engineering, and Math (STEM) Outreach

- ▶ Vallejo High School (H.S.) Robotics Team (“Zombots”) – Dam outfall and toe drain inspections
- ▶ Casa Grande High School (Petaluma, CA) – Russian River collaboration at state’s only H.S. fish hatchery



▪ Technical and Leadership Development

- ▶ Professional Licensure
- ▶ Leader Development Program (3 levels)
- ▶ Monthly Technical Brown Bag Lunches
- ▶ “Water Savvy” Book-of-the-Month Club



▪ Teambuilding Activities

- ▶ Mentorship Program
- ▶ Full service gym & “Run/Walk at Work” events
- ▶ Holiday party, annual picnic
- ▶ California Coastal Cleanup
- ▶ Special Events (Americas Cup, Fleet Week, etc.)



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Questions

