

Dredging Navigation Channels: Environmental Update

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**US Army Corps of Engineers
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Purpose

- **Environmental Dredging Review:**
 - **ESA Accomplishments**
 - **SF Bay LTMS**
 - **Lessons Learned**
 - **Invasive Species Management**
 - **Climate Change**



Endangered Species Act

- **ESA signed into law forty years ago**
- **Resurgence of many key species**



ESA Successes

- **California least tern**
 - From 225 nesting pairs in California to over 6500
- **California Brown pelican**
 - From 466 pairs in 1978 to 11,695 when **DELISTED**
- **Blue Whale**
 - From 704 in 1980 to 2400 in 2010



Long Term Management Strategy San Francisco Bay

- Accomplishments
- Short-term challenges – long term gain
- Reduced In-Bay disposal
- Increased Beneficial uses

LONG-TERM MANAGEMENT STRATEGY FOR
THE PLACEMENT OF DREDGED MATERIAL
IN THE SAN FRANCISCO BAY REGION

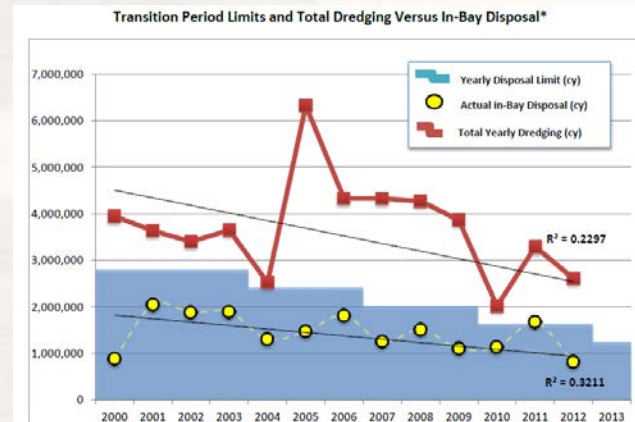
12-YEAR REVIEW FINAL REPORT



Prepared by
San Francisco Bay Conservation and Development Commission
San Francisco Bay Regional Water Quality Control Board
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency

With Assistance from
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Lessons Learned

1. Delayed funding and limited budgets compress schedules and cap implementation budgets, but not requirements or steps.

Way Forward:
Develop regional SOP to balance and prioritize requirements and steps .

2. Environmental windows drive dredging schedules.

Scoping complexity

Function of:

- Species and windows impacted,
- Ability to use ocean, upland and in-bay sites, and
- Funding Predictability.

Complex scopes constrain cost effective bid packages.

Way Forward: All steps to ensure timely funding enable more straight-forward scoping, more responsive bidding; all supporting more clear cut compliance.



Lessons Learned

**3. Success requires
“ready” and informed
resource agencies**

**Way Forward: Open
communication, trust,
and coordination with
briefings/training a
priority to prepare
resource agencies for
compressed timelines.**



Lessons Learned

4. Regional Team Integration through LTMS effective means to identify and achieve long-term restoration.

Way Forward: Strive to make LTMS sustainable.



Lessons Learned



5. Limited availability of down loaders constrains opportunities for timely beneficial uses of dredged material.

Way Forward: Explore opportunities to acquire second down loader for SF Bay.

SPD FUTURE ACTIONS/TASKS

- **Increase understanding of regional Federal resource agencies on USACE authorities and capabilities relative to ESA and other requirements.**
- **Continue regional studies/projects to enhance capabilities and knowledge sharing between districts and resource agencies .**
- **Promote identification of Habitat Suitability Models for key species by ERDC**
- **Work with national community of environmental and dredging specialists to share experience and lessons learned.**

WHERE WE SEEK CMANC SUPPORT?

- **Availability of dredges and off-loaders to support most efficient and cost effective beneficial uses.**
- **FWS alone seeks ca. 100 million cubic yards dredged material for refuges including South Bay, Skaggs Island and Cullinan Marsh refuges.**
- **Oakland alone provides 4 million yards a year.**



COMPLIANCE PROGRESS

BEST PRACTICES/SUCSESSES

- Vertical team alignment.
- Document decisions as made.
- Early alignment with resource agencies promotes early compliance with requirements.
- Predictable funding reduces schedule risk.

LESSONS LEARNED

- Early issue resolution avoids problems later.
- Regional and national teams develop Inter-district capabilities and improve knowledge sharing.
- Strategic planning supports long-term progress(LTMS).

CHALLENGES

- High risk of schedule slips from Resource Agencies (ESA/NEPA/CEQA/RQWB).
- Inadequate scientific information to support risk assessment and windows management.

WAY FORWARD

- Timely and complete funding to effectively execute dredging program.
- Update SPD guidance for consistency with new objectives.
- Watershed and Long-term view vs. Short-term Compliance View.
- Multi-purpose Navigation and Restoration studies vs. Mitigation.



Invasive Species

- **USACE expenditures between \$110 million and \$160 million a year since 2009**
- **International Problem**
 - **Hitchhiking on equipment**
- **USACE Successes:**
 - **Water Hyacinth**
 - **Asian Carp (GLMRIS)**
 - ✓ eDNA



USACE Invasive Species Leadership Team

- Promote invasive spp management as foundation for restoration
- “Come Clean, Leave Clean” rule
- New Technologies:
 - eDNA technology for Carp
 - Now applied to ESA



Sea Level Rise

- **E.O. 13653 released 1 Nov 2013 on “Preparing the U.S. for Impacts of Climate Change”**
- **Names USACE to Council on Climate Preparedness and Resilience**
- **Implications for Coastlines/Harbors and Beneficial Uses**
- **Corps plans:**
 - **Inventory of changes to policies, programs and regulations in 2014**
 - **Adaptive management approach**



THANK YOU



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