

Managing Long Term Maintenance Dredging Needs



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Managing Long Term Maintenance Dredging Needs



Discussion Outline



- Chevron Richmond

- Long Wharf

- San Francisco Bay Dredging
 - Challenges
 - Solutions

Chevron Richmond



Processes an average of **247,000** barrels of oil daily

Fuels **65%** of jets at Bay Area airports

Powers **20%** of cars on Bay Area roads

Produces **100%** of base oils on the West Coast

Economy:

2,193 employees /900 contractors

\$186 million spent with Richmond businesses since 2009

More than \$33 million tax revenue to Richmond (FY2012)

Community:

\$15.6 million spent to support education and economic development since 2009

Since 2009, Chevron employees dedicated nearly 8,000 hours of volunteer time in Richmond.



Chevron Richmond Long Wharf



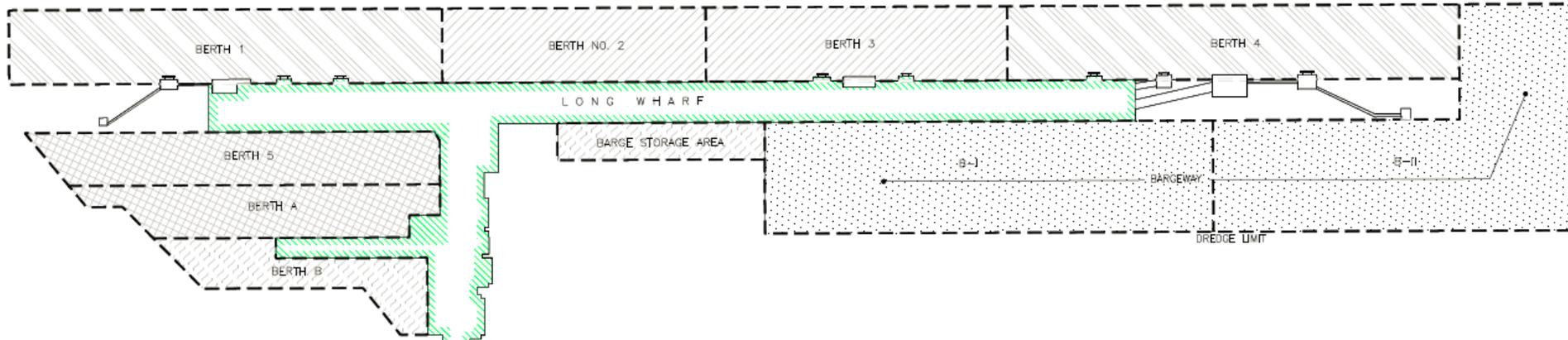
- RLW is the largest marine oil terminal in California
 - >247,000 MM bbl/day
- Supplies:
 - 65% of fuel to SF Bay Area airports
 - 20% of fuel to SF Bay Area cars
 - 100% of base oils to West Coast
- 2008-2010 volume transfers –

The structure you see below, which comprises the majority of the modern RLW structure, was constructed in 1945-1947.



Totals	2008	2009	2010	Average
Volume (MM bbl)	151.9	143.6	138.7	144.7
Transfers (#)	1,930	1,738	1,701	1,790
Vessel Calls (#)	783	736	641	720

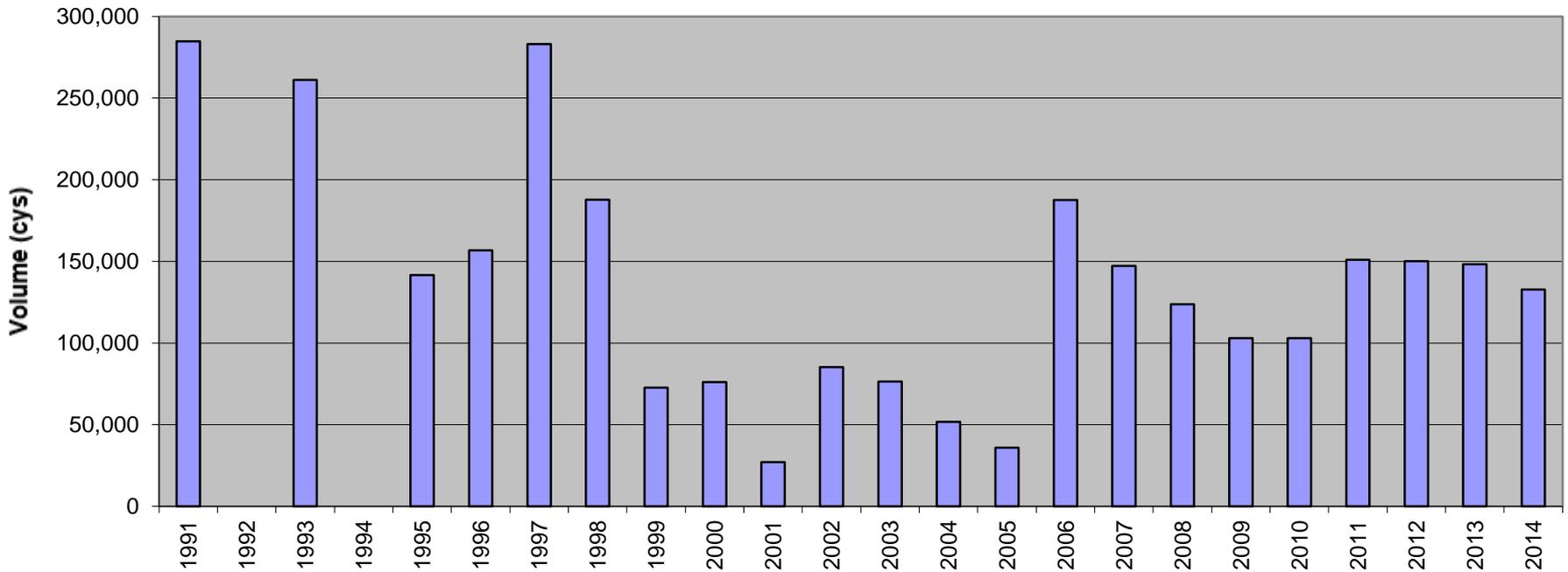
Chevron Richmond Long Wharf



Chevron Richmond Long Wharf Average Dredging



Annual Dredge Volume (cys)

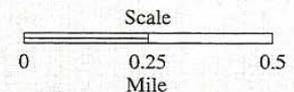
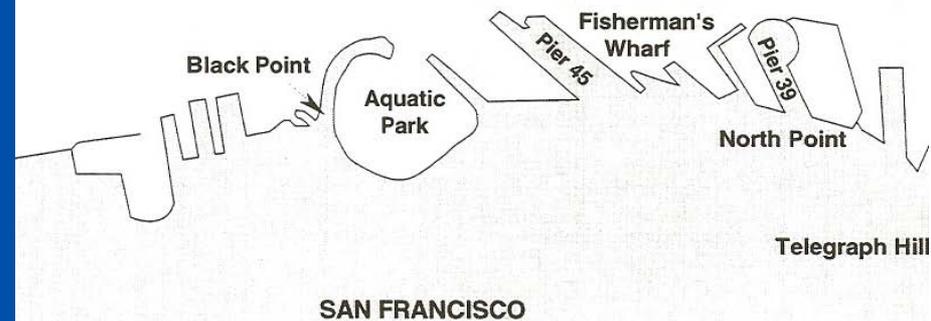
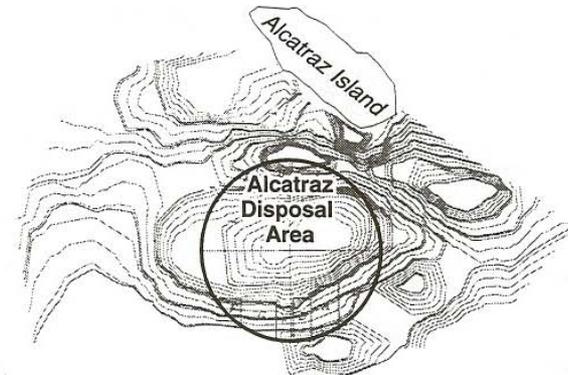


A total of 2.99 million cys dredged since 1991.

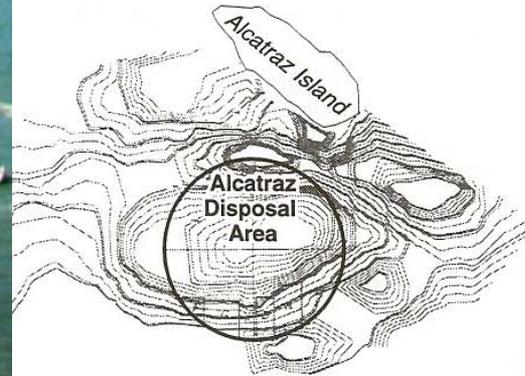
Chevron Richmond Long Wharf Alcatraz Disposal Site



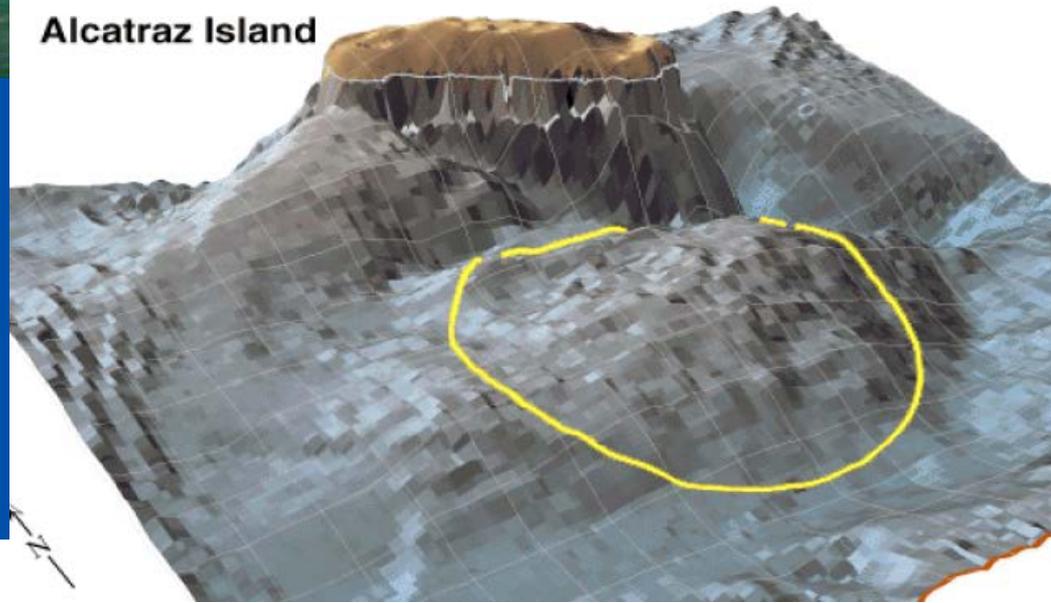
- Dispersive site
- Over 100' deep
- Closest (22 miles from Long Wharf)
- Most Cost Effective
- Disposal exceeding capacity
- Mounding



Chevron Richmond Long Wharf Alcatraz Disposal Site

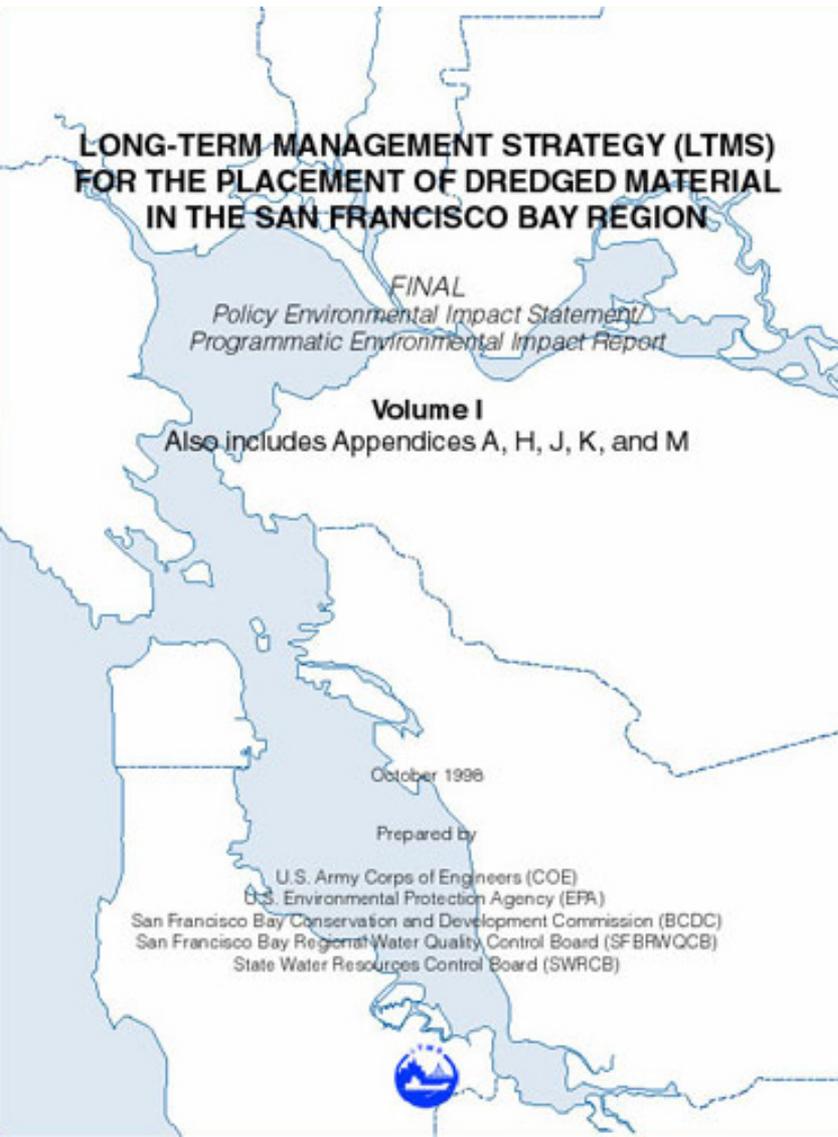


Alcatraz Island



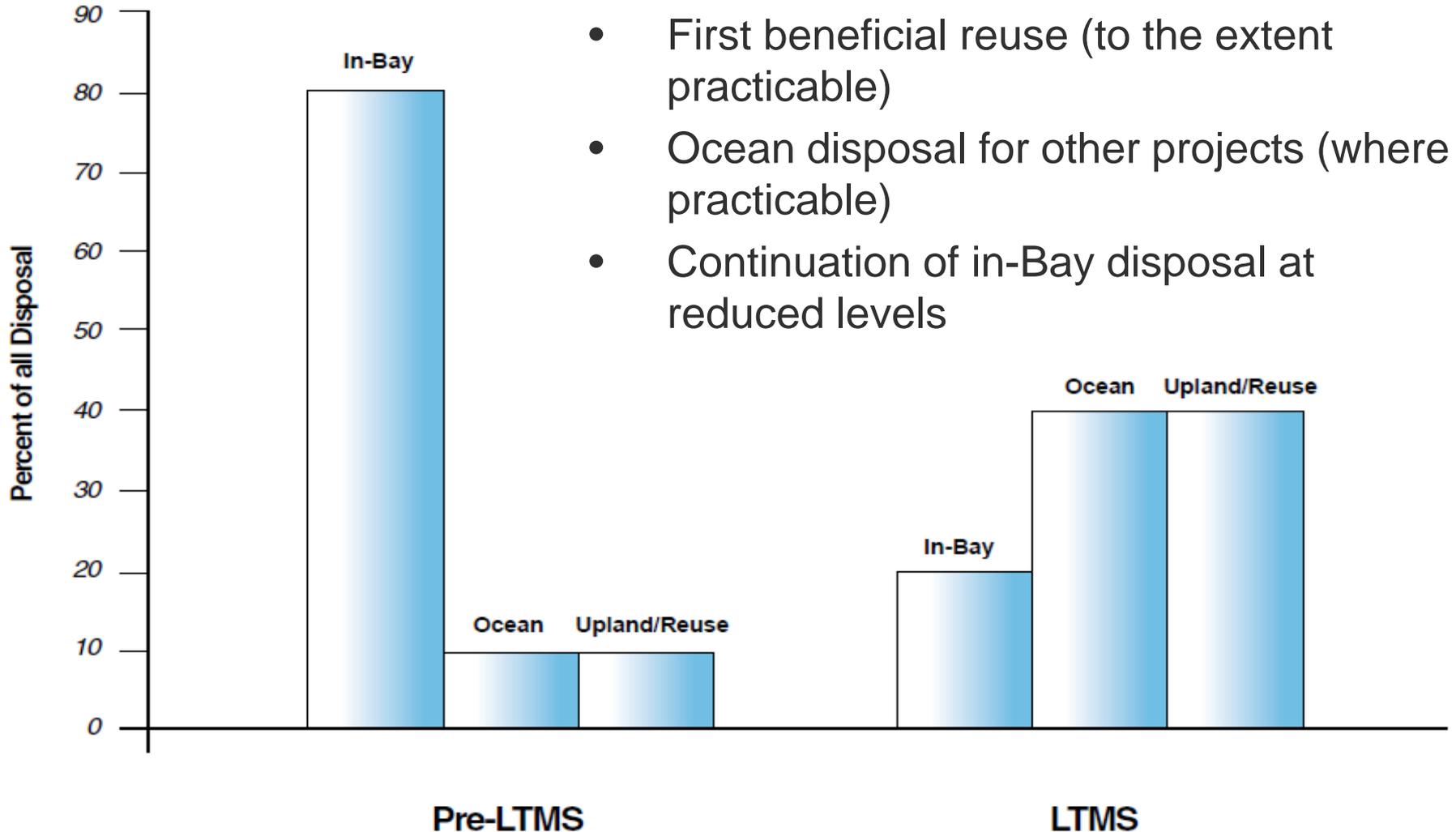
- Long Term Management Strategy Needed

Chevron Richmond Long Wharf LTMS Goals



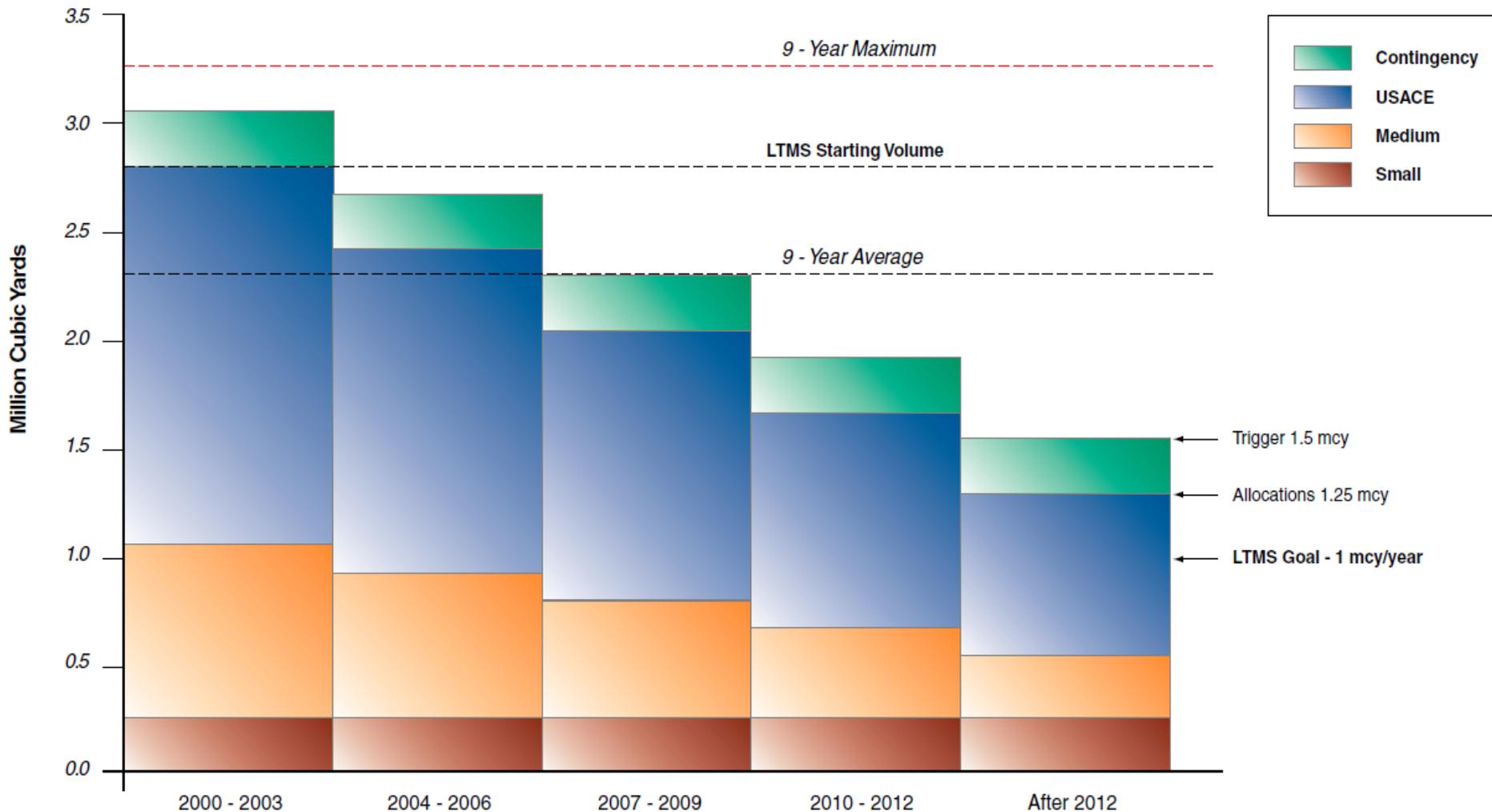
- Approved in 2001
- Manage dredging in an economically and environmentally sound manner
 - Environmental Work Windows
 - Reduced In-Bay Disposal Volume
- Maximize beneficial reuse
- Establish one stop permit shop

Chevron Richmond Long Wharf LTMS Goals



- First beneficial reuse (to the extent practicable)
- Ocean disposal for other projects (where practicable)
- Continuation of in-Bay disposal at reduced levels

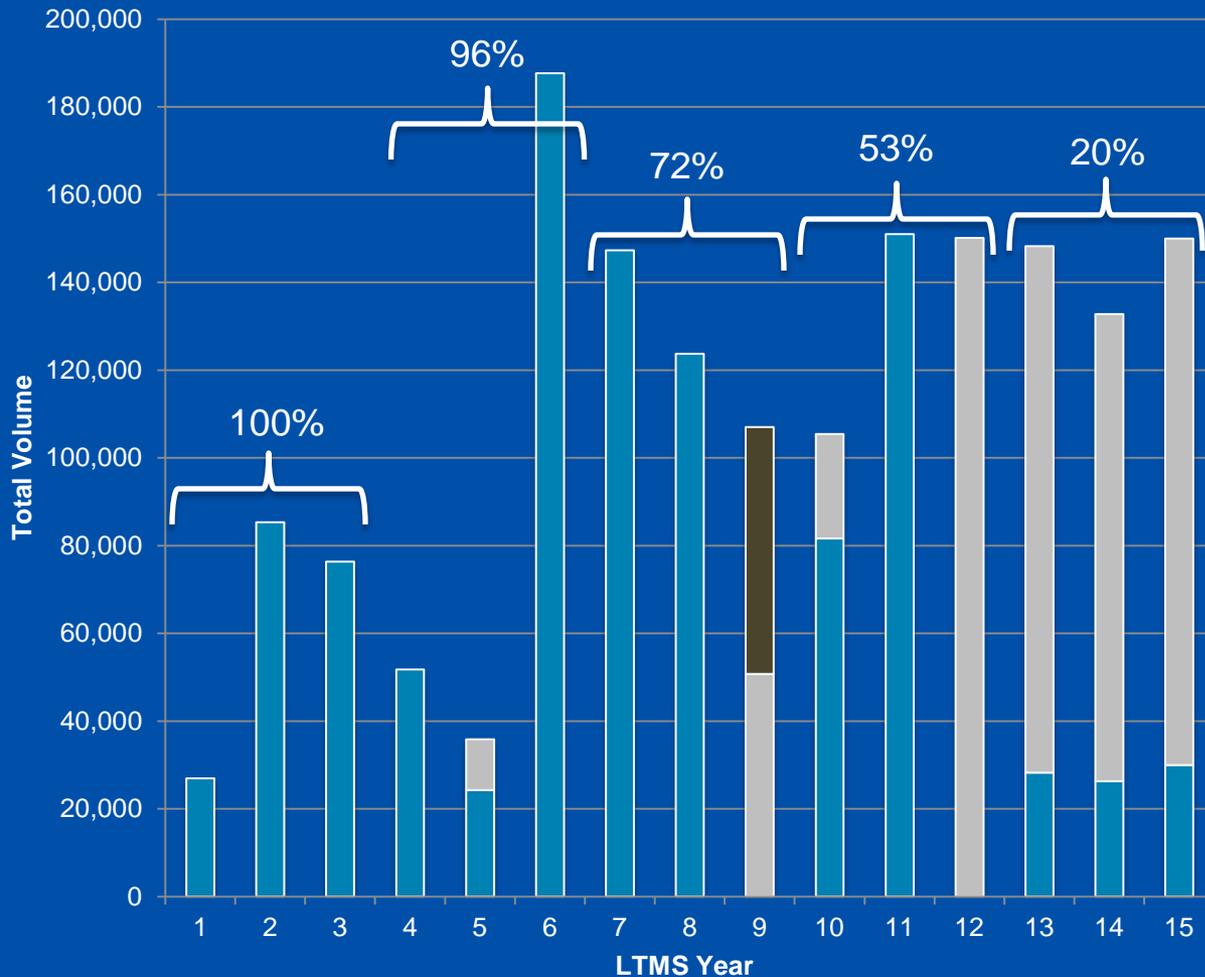
Chevron Richmond Long Wharf LTMS Goals – Transition Period



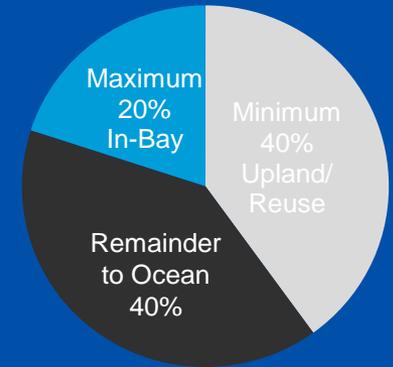
Chevron Richmond Long Wharf Transition Period



Disposal During LTMS (2001 – 2015)



LTMS Goals



- Ocean Volume
- Upland Volume
- Alcatraz Volume

Chevron Richmond Long Wharf Transition Period – 2010 to 2012



Hamilton Wetlands

Integrated Alternatives Analysis

Flexibility

- Utilizing Hamilton in 2010 allowed Chevron to take 50% to Alcatraz rather than a lesser percentage in 2011.
 - 40,658 cy
- Cost savings

Chevron Richmond Long Wharf Transition Period – 2010 to 2012

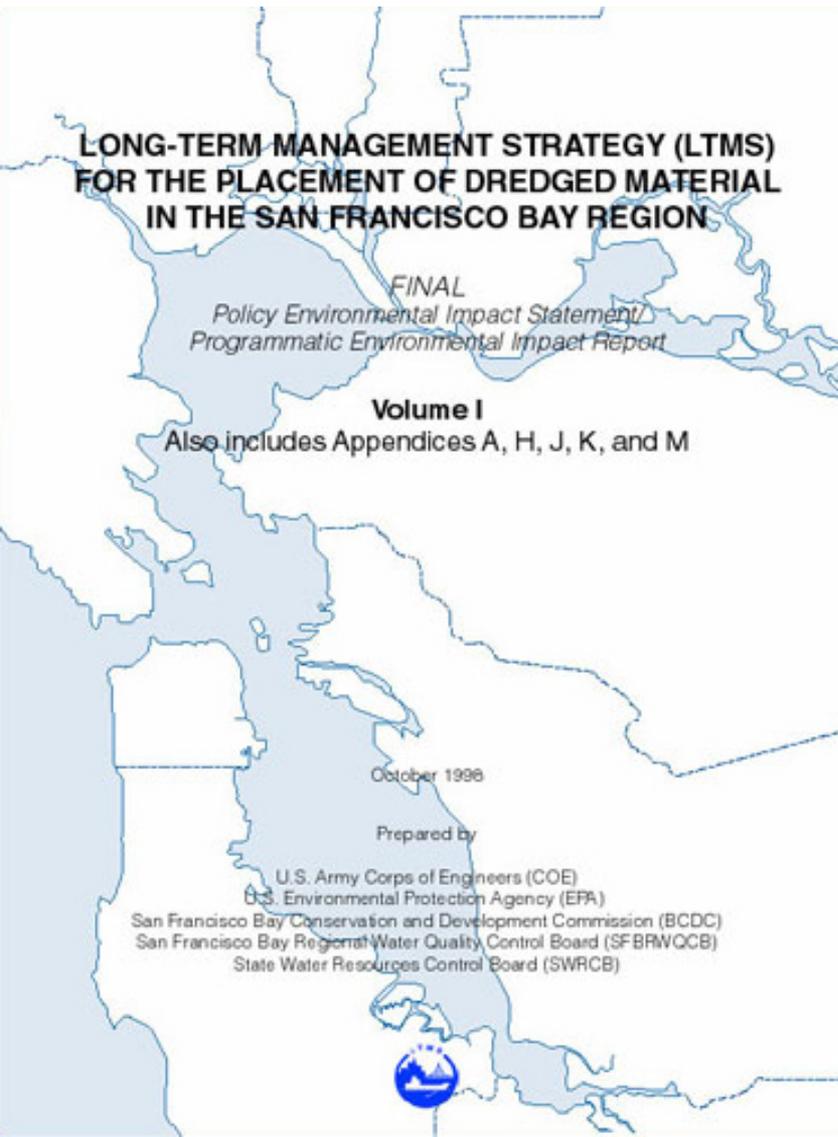


- Integrated Alternatives Analysis

Synergy

- Chevron R&G Yacht Harbor Dredging
 - Castro Cove capping (beneficial reuse)
- 3% more to Alcatraz
 - 29,318cy
- **Cost savings**

Chevron Richmond Long Wharf LTMS Goals



- Approved in 2001
- Manage dredging in an economically and environmentally sound manner
 - Environmental Work Windows
 - Reduced In-Bay Disposal Volume
- Maximize beneficial reuse
- Establish one stop permit shop

Chevron Richmond Long Wharf Dredged Material Management Office



HOME > MISSIONS > DREDGING WORK PERMITS > DREDGED MATERIAL MANAGEMENT OFFICE (DMMO)

- DMMO
- LTMS
- Application
- Meetings
- Public Notices
- Guidance
- Contact
- Links

Contact

Dredge Material Management Office

1455 Market Street
San Francisco, CA 94103

Dredged Material Management Office (DMMO)

Welcome to the Dredged Material Management Office (DMMO) Internet information server. This Internet site provides information regarding navigational dredging projects processed through the DMMO in the San Francisco Bay area.

The DMMO is a joint program of the San Francisco Bay Conservation and Development Commission (BCDC), San Francisco Bay Regional Water Quality Control Board (RWQCB), State Lands Commission (SLC), the San Francisco District U.S. Army Corps of Engineers (COE), and the U.S. Environmental Protection Agency (EPA). Also participating are the California Department of Fish and Game, the National Marine Fisheries Service, and the Fish and Wildlife Service who provide advice and expertise to the process. The purpose of the DMMO is to cooperatively review sediment quality sampling plans, analyze the results of sediment quality sampling and make suitability determinations for material proposed for disposal in San Francisco Bay. The Goal of this interagency group is to increase efficiency and coordination between the member agencies and to foster a comprehensive and consolidated approach to handling dredged material management issues. Applicants using DMMO fill out one application form, which the agencies then jointly review at bi-weekly meetings before issuing their respective authorizations.

Public Notice PN 96-3 describes the DMMO, the **Memorandum of Understanding (MOU)** implementing the DMMO, and the DMMO application form with instructions all working under the **General Operating Principles**. (Please click on appropriate subject for further information.)

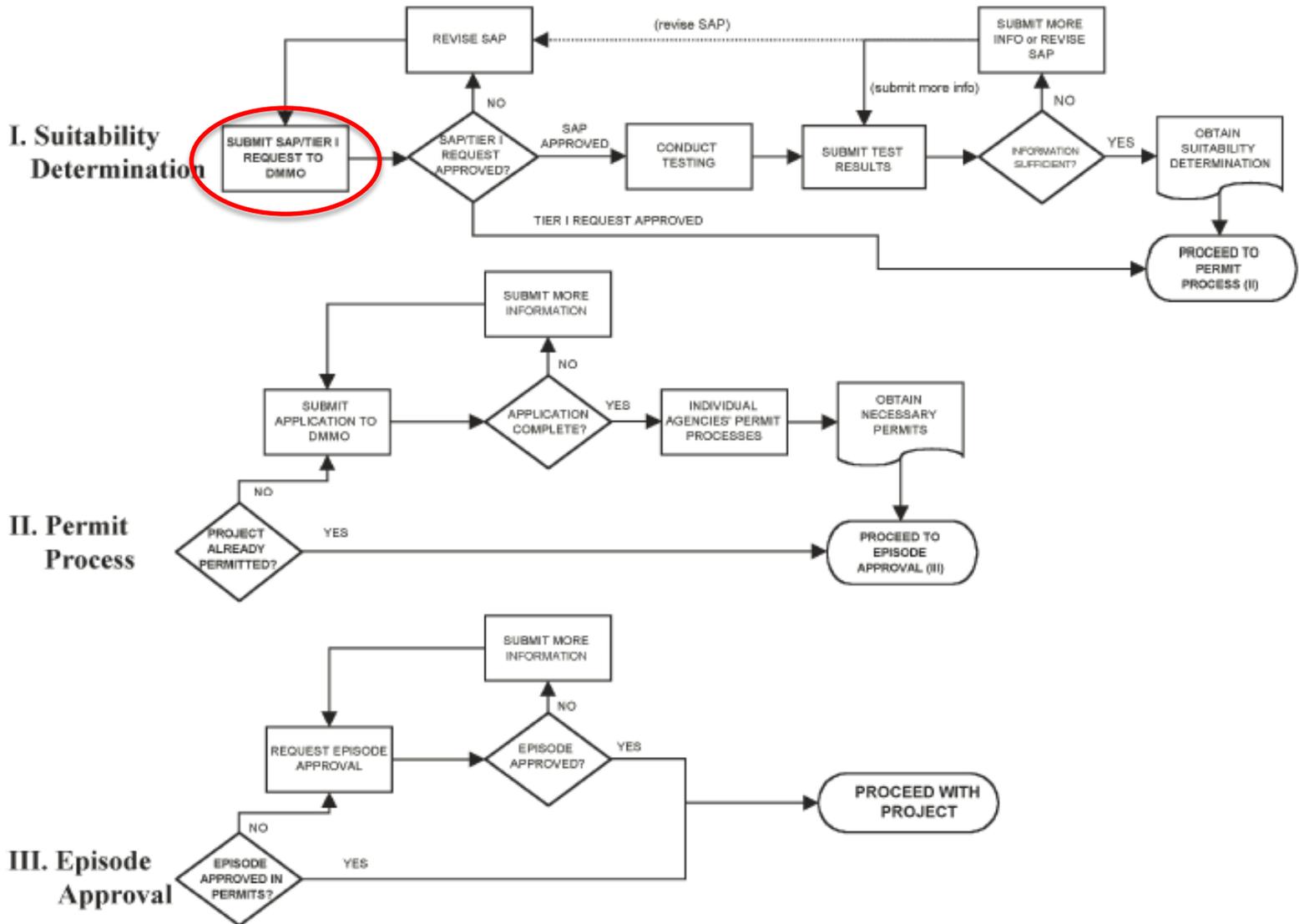
<http://www.spn.usace.army.mil/Missions/DredgingWorkPermits/CurrentPublicNotices.aspx>

- DMMO
- Single point of contact
- Know the local guidance

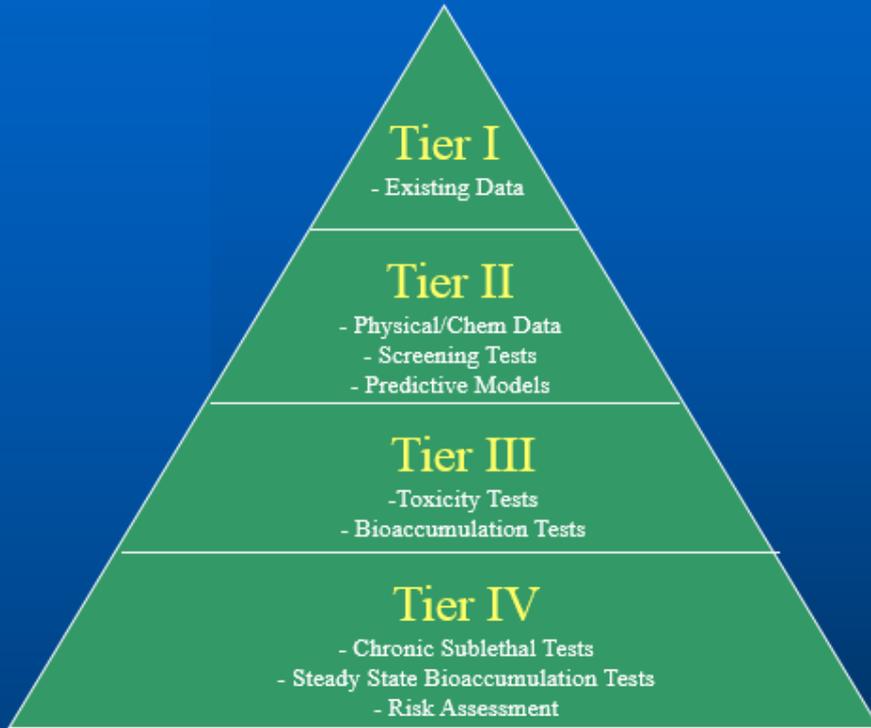
Chevron Richmond Long Wharf DMMO Process



Simple?



Chevron Richmond Long Wharf Suitability Determination



Certain dredged materials found in areas of high current that demonstrate a historically consistent and readily apparent lack of potential for environmental impact do not require a full set of analyses to make a factual determination of dredge material suitability (Tier I decision).

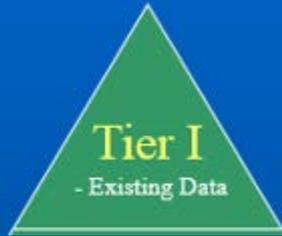


DREDGED MATERIAL MANAGEMENT OFFICE

GUIDANCE FOR REQUESTS FOR TIER I DECISIONS

November 1, 2000

Chevron Richmond Long Wharf Suitability Determination



Negotiated Tier I testing exclusion

- 2000-2008 (every other year)
- 2009-2013 (three year cycle: full, partial, none)
- 2014+ (testing once every three years)
- Significant cost + time savings



GUIDANCE FOR REQUESTS FOR TIER I DECISIONS

November 1, 2000

Chevron Richmond Long Wharf Suitability Determination Timing



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Suitability Determination												
Sampling & Analysis Plan (SAP) / Project Plan development			■	■								
Submit SAP / Project Plan to DMMO for approval (at least one week prior to meeting)				■								
Attend DMMO Meeting regarding SAP / Project Plan approval request				■								
Additional DMMO coordination (as necessary, based on review of SAP/Project Plan)												
DMMO approval of SAP / Project Plan				■								
Core sampling					■	■						
Sediment Chemistry Sample Analysis (Tier II)					■	■	■	■				
Additional Higher Resolution Sediment Chemistry Analysis (if preliminary results indicate elevated concentrations and laboratory issues)												
Bioassay Analysis (Tier III)					■	■	■	■				
Bioaccumulation Exposures (Tier IV)					■	■	■	■				
DMMO Coordination on Bioaccumulation Testing Scheme, after sediment chemistry results received							■	■				
Bioaccumulation Tissue Chemistry Analysis (Tier IV)							■	■	■	■		
Additional Higher Resolution Sediment Tissue Chemistry Analysis (if preliminary results indicate elevated concentrations or laboratory issues)												
Results Report							■	■	■	■	■	
Send results report to DMMO (at least 2 weeks prior to meeting)									■	■		
Attend DMMO Meeting to review Results Report										■	■	
Additional DMMO coordination (as necessary, based on review of Results Report)												
DMMO approval of disposal (location depends upon sampling results)										■	■	

Chevron Richmond Long Wharf Suitability Determination Timing



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Suitability Determination													
Environmental Work Window for RLW Dredging													
1Q10 RLW Sounding													
2Q10 RLW Sounding													
Prepare Dredge Operation Plan.													
Submit Dredge Op. plan to ACE 60-120 days prior to dredging.													
Perform pre-dredge survey.													
Provide notification to Coast Guard at least two weeks prior to dredging.													
Post Notice of Authorization on-site.													
Inform USACE when dredging starts.													
Dredging - Tentative start date Oct 1													
Submit weekly Disposal Site Verification Log to USACE by Noon on Monday.													
Notify USACE when dredging is completed.													
Prepare post-dredge report.													
Submit Post Dredging Survey (stamped, signed by HES mgr) and report within 30 days from last day of dredging. Copy to NOAA. Copy BCDC within 30 days of last day of dredging.													

Are you done yet?

Other General Challenges include:

- Keeping informed of the changing requirements
- Alternatives Analysis
- Regulatory Negotiations
- Review of Dredge Operation Plans
- Take Assessment (for endangered fish species)
- Eelgrass Surveys (essential fish habitat)



Chevron Richmond Long Wharf Challenges and Complexities



DREDGING

- Forecasting runoff impact
 - Volume and timing
- Volumetric limits in permits/approvals
- Scheduling
- Equipment selection/limitations
- Work Window timing
- Disposal location restriction(s)
- Budgeting

REUSE

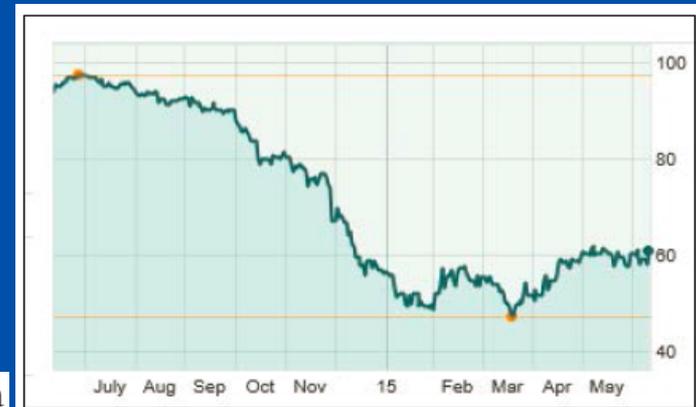
- Forecasting
- Feasibility of disposal
 - Offloading equipment
- Disposal timing
- Disposal criteria

U.S. Oil Prices Hit Fresh Six-Year Low, Dropping Below \$40 a Barrel

THE WALL STREET JOURNAL. By NICOLE FRIEDMAN

Updated Aug. 21, 2015 1:49 p.m. ET

U.S. crude on track for eighth consecutive weekly loss



WTI Crude Market Price
June 2014 – June 2015

Questions?

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