

Port of Oakland Dredge Disposal Challenges

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Port of Oakland

9/17/2014



PORT OF OAKLAND

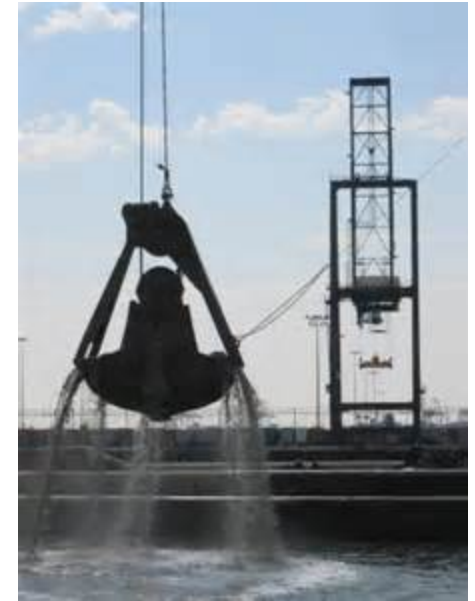
Quick Stats



- 5th Busiest U.S. container Port
- 1 of only 6 U.S. sea trade gateways with 50ft Channel Depth
- Only major container trade gateway for Northern California Mega Region

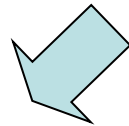
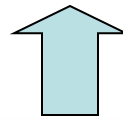
Maintenance Dredge Metrics

- Dredge Yearly
- Approximate Dredge volume : 100,000 cy
(5 year avg. 93k, 10 year avg. 98k)
- Yearly Budget:
\$2.7M
- Number of days of actual Dredging:
50 calendar days
- Dredging Window
120 calendar days (August 1 to November 30)

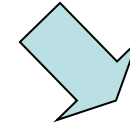


Disposal Options

San Francisco Deep Ocean
Disposal (SFDODS) (58 nm)



Alcatraz (SF-11) (6nm)



Montezuma Wetlands
(52nm)

Dredge Unit Cost Analysis

\$/cy

	SF-11	SF-DODS	Montezuma
2013-2015	14.33	22.34 (156%)	29.73 (207%)
2010-2012	14.10	19.11 (135%)	26.55 (188%)
2007-2009	12.90	17.90 (138%)	28.02 (164%)

Affordability/Reality

Port's shipping business growth
(Revenue):

Year to date 0.05% increase
0.1% in 2013
0.1% in 2012
0.5% in 2011



Dredging Unit Rate:

↑ 12% (2010-2012) to (2013-2015)

Future Planning / IAA

Integrated Alternative Analysis 2013 to 2017

Table 2: Proposed Port of Oakland Maintenance Dredging Volumes, 2013-2017

Berth	Permitted depth (ft MLLW)	Overdepth (ft MLLW)	Proposed annual dredging volumes (CY)					5 year Total
			2013	2014	2015	2016	2017	
20	-42	2	NDA	NDA	NDA	NDA	NDA	0
21	-42	2	NDA	NDA	NDA	NDA	NDA	0
22	-50	2	NDA	16,000	NDA	16,000	NDA	32,000
23	-50	2	NDA	13,000	NDA	13,000	NDA	26,000
24	-50	2	13,500	NDA	14,000	NDA	14,000	41,500
25/26	-50	2	10,000	14,000	14,000	14,000	14,000	66,000
30	-50	2	17,500	13,000	13,000	13,000	13,000	69,500
32	-50	2	13,500	13,000	13,000	13,000	13,000	65,500
33	-50	2	NDA	NDA	NDA	NDA	NDA	0
			NDA	NDA	NDA	NDA	NDA	0
			13,500	15,000	15,000	15,000	15,000	73,500
			4,000	7,500	7,500	7,500	7,500	34,000
			8,500	9,000	6,000	6,000	6,000	35,500
			4,000	8,500	3,000	3,000	3,000	21,500
			2,000	8,000	9,000	9,000	9,000	37,000
			2,500	7,500	7,500	7,500	7,500	32,500
			1,000	4,500	4,500	4,500	4,500	19,000
			NDA	4,000	4,000	4,000	4,000	16,000
			4,000	4,000	4,000	4,000	4,000	16,000
			4,000	4,000	4,000	4,000	4,000	16,000
			4,000	4,000	4,000	4,000	4,000	16,000
			NDA	NDA	NDA	NDA	NDA	0
			0	NDA	NDA	NDA	NDA	12,500
			30	145,000	122,500	137,500	122,500	630,000
			or	SF-DODS or upland	SF-DODS or upland	SF-DODS or upland	SF-11	
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Table 2: Proposed Port of Oakland Maintenance Dredging Volumes, 2013-2017

Berth	Permitted depth (ft MLLW)	Overdepth (ft MLLW)	Proposed annual dredging volumes (CY)					5 year Total
			2013	2014	2015	2016	2017	
67	-42	2	NDA	NDA	NDA	NDA	NDA	0
68	-42	2	12,500	NDA	NDA	NDA	NDA	12,500
Total CY (proposed)			102,500	145,000	122,500	137,500	122,500	630,000
Proposed disposal location			SF-DODS or upland	SF-DODS or upland	SF-DODS or upland	SF-DODS or upland	SF-11	

NDA = No Dredging Anticipated

While dredging is not currently planned over the next five years at Berths 7, 8, 9, 10, 38, 82, 83 or 84 or in the marinas or other Port-owned water areas, this analysis covers disposal of material from those sites as well.

*the next five years at Berths 7, 8, 9, 10, 38, 82, 83 or 84 or in other areas, this analysis covers disposal of material from those

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ferent disposal options potentially available to the Port with a summary in Table 3. The analysis is structured to 4(b)(1) guidelines concept of the least environmentally

damaging practicable alternative (LEDPA) that still meets the overall project purpose, where "practicable" is defined in terms of cost, logistics and technology. The sites analyzed for

Impacts of TMDLs and Beneficial Use Site Acceptance Criterias

- TMDL exceedance implications
 - Port Hg/PCB levels usually close to exceedance
 - Exceedance prohibits in-Bay disposal
 - Classifies as non-cover, Montezuma becomes cost prohibitive
- Historic solution
 - Reclamation District Island levees (e.g. Winter Island)
 - New WDRs now prohibit Hg/PCB > Bay ambient
- Bottom Line
 - More \$\$\$ needed to dredge / Fewer disposal sites

Additional Costs due to TMDLs and Beneficial Use Site Acceptance Criterias

	SF-11	SF-DODS	Montezuma	Berth 10
2013-2015	14.33	22.34 (156%)	29.34 (207%)	45.00 (319%)
2010-2012	14.10	19.11 (135%)	26.55 (188%)	58.73 (426%)
2007-2009	12.90	17.90 (138%)	28.02 (217%)	37.20 (288%)

Questions?

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