



LONG TERM MANAGEMENT STRATEGY

LTMS 12-Year Review Costs and Contracting Meeting

MEETING HIGHLIGHTS

San Francisco Bay Conservation and Development Commission
McAteer Petris Conference Room, 50 California Street, 26th Floor, San Francisco
Tuesday, September 11, 2012, 9:00 AM to 12:30 PM

INTRODUCTION

MEETING ATTENDEES

Please email [Katie Chamberlin](mailto:katie.chamberlin@spn.usace.army.mil) for a scanned copy of the meeting sign-in sheet.

MEETING MATERIALS

The Background Information Document, meeting agenda, and meeting minutes are available at http://www.spn.usace.army.mil/ltms/ltms_program_review.html.

MEETING PURPOSE

Share relevant information on costs and contracting and identify opportunities for the dredging community to reduce costs and improve contracting processes.

Welcome, Introductions, and Purpose – Presented by Larry Goldzband and Brenda Goeden (San Francisco Bay Conservation and Development Commission [BCDC])

Larry Goldzband welcomed meeting participants, and Brenda Goeden presented an overview of the Long Term Management Strategy Program for the Placement of Dredged Material in the San Francisco Bay Region (LTMS) program 12-year review process that began on March 29, 2012. The 12-year review process involves LTMS agencies analyzing and disseminating basic data about the program's performance to date and holding a series of meetings with stakeholders (each focused on a different key topic suggested by stakeholders) culminating with a summary report. This process, the summary report, and any recommendations resulting from stakeholder meetings will form the basis for discussing whether changes to the program may be needed in the future. At the March 29 meeting, stakeholders identified beneficial reuse, costs and contracting, and policy and strategy development as the three most important topics for future 12-year review process meetings. The policy and strategy development meeting is scheduled for November 20, 2012.

Contracting Issues

This portion of the meeting consisted of the two presentations described below. The discussion period addressed questions on both presentations. The presentations are available at http://www.spn.usace.army.mil/ltms/LTMS_docs/Costs_and_Contracting_Meeting/Presentation.pdf.

Value Engineering Study and Concepts Relevant to Any Dredger – Presented by Jessie Burton Evans (U.S. Army Corps of Engineers [USACE])

Jessie Burton Evans presented the recommendations for improving contracting efficiency identified during the USACE's 2011 Value Engineering (VE) study that also have relevance to all dredgers (not just the USACE). The executive summary of the VE study is available in the Background Information Document at:

http://www.spn.usace.army.mil/ltns/LTMS_docs/Costs_and_Contacting_Meeting/Background%20Info.pdf.

A total of 26 concepts for improving contracting efficiency were identified during the VE study. Jessie Burton Evans focused her presentation on those that have relevance to non-USACE dredgers, including:

- Have permits in-hand prior to contracting and include them in the solicitation package.
- Include an array of placement sites in permits and contracts.
- Develop multi-year permits.
- Consolidate similar projects for contracts.
- Develop a separate beneficial reuse contract.
- Begin dredging as soon as the environmental work window opens.
- Dredge more volume, less frequently (i.e., dredge the whole project in one episode versus multiple small episodes).
- Use knockdowns or advanced maintenance dredging where appropriate.

Implementing Contracting Efficiencies – Presented by Len Cardoza (Weston Solutions, Inc.)

Len Cardoza further discussed the applicability of the methods for achieving contracting efficiencies as identified in the VE study to non-USACE dredgers. Dredged material management planning cannot be completed on an annual basis and must take into consideration site availability, capacities, access issues, and distance. Len stressed the importance of determining dredging needs early and recommended pre-solicitation coordination with the dredging industry. Matching a site's capacity with anticipated dredge volumes is a critical element in dredged material placement planning; handling/rehandling, monitoring, and disposition are also important to plan for in advance. The contractor's mobilization and demobilization costs can be reduced if dredging project timing is certain; dredgers can potentially reduce costs if they have the confidence that their equipment will be used. The more that a project dredges, the lower the cost is per cubic yard.

Public comments pertaining to the two contracting presentations included:

- Ellen Johnck (Independent) asked if the USACE is planning to identify which recommendations they are moving forward with as part of the 12-year review process. Jessie Burton Evans noted that the USACE will pursue a group effort in order to identify the recommendations from the VE study.
- Lieutenant Colonel John Baker (USACE) noted that he visited the Portland District, which provides the government dredges for other districts' use. The Portland District announces the federal dredging schedule to all nearby ports to allow non-USACE dredging projects to capitalize from the presence of the dredge. He asked whether this process has been done in the Bay Area. Oriana Duranczyk (The Dutra Group [Dutra]) added that she has seen similar instances in Coos Bay, Oregon. Jessie Burton Evans responded that it has been done for shallower draft projects in the Bay Area, but reductions in the federal budget have decreased the frequency of this coordination during recent projects.
- Jim McGrath (BCDC Commissioner and San Francisco Bay Regional Water Quality Control Board [RWQCB] member) noted that while it is an interesting concept, the two systems are very different. The Columbia River is sandy and therefore does not have the same sediment quality issues in terms of potential contaminants. The Bay Area also has limits at certain in-Bay disposal sites.

There may not be as many opportunities to work side-by-side as there is in the Portland District. Jessie Burton Evans noted that the Project Coordination Work Group tracks the timing of Bay Area dredging projects and the LTMS tries to develop the connections that could potentially lead to a relationship like that between the Portland District and nearby ports. Al Paniccia (USACE) added that the USACE tries to plan projects a year or more in advance, but federal budget uncertainties have complicated the ability to carry out early coordination efforts.

- Jay Ach (Port of San Francisco) noted that listening to the VE study outcomes is interesting, because the Port of San Francisco has been planning and strategizing similarly. Most of the Port of San Francisco's permits are issued for a 10-year period, but the Port is still required to obtain episodic approvals for sediment characterization. The Port of San Francisco's dredging contracts include unit prices for placement at in-Bay and upland sites, which works well because both the Port of San Francisco and the contractor have certainty on costs. Between 200,000 and 300,000 cubic yards (cy) of material are dredged from the Port of San Francisco annually; Jay Ach noted that he strives to balance the volumes annually so that annual budget are relatively consistent. He noted that costs have increased and, based on his 5- and 10-year cost projections, will continue to increase over time. The Port of San Francisco spends more than \$3 million annually on dredging and is expected to spend more than \$5 million annually in another 5 years. The biggest driver of the cost increase is the requirement to place dredged material in upland placement sites. He added that disposal costs at SF-11 are generally \$11/cy, compared to \$22/cy at the San Francisco Deep Ocean Disposal Site (SFDODS), and \$44/cy at upland beneficial reuse sites. These high costs mean that the Port of San Francisco may need to stop maintaining berths, which needs to be a part of this dialogue.
- Jim Haussener (California Marine Affairs and Navigation Conference) noted that the Golden Gate Bridge Highway and Transportation District encountered resistance because they went to SFDODS instead of waiting for certainty that the offloader would be available to use the Hamilton Wetlands Restoration Site.
- Ellen Johnck endorsed Lieutenant Colonel Baker's idea and noted that it will require a lot of coordination as well as the dredging community's ability to overcome uncertainties.
- Doug Lipton (Lipton Environmental) clarified that Montezuma's costs are not more than \$40/cy unless the material is contaminated. Costs range from \$22 to \$28/cy, including dredging and transport, which is just a few dollars more than SFDODS and with more competition, it could be even less.
- Hugh Davis (Marin County Flood Control District) asked about the length of time required to obtain permit approvals. Brenda Goeden responded that permits are generally required from the USACE, RWQCB, BCDC, and California State Lands Commission. All dredging projects go through the DMMO, which can still take some time. Timing depends on the completeness of applications. The USACE generally advises that permit approval could take up to a year but that is not always necessary. If permits are in place, only an episodic approval is required (in which case, approval can happen relatively quickly).
- Amy Hutzler (California Coastal Conservancy [CCC]) asked about a past instance where a USACE contract allowed for both an in-Bay and upland option. She added that the alternative transfer facility for Bel Marin Keys could be a cost savings mechanism. Al Paniccia responded that maintenance dredging of the Oakland Harbor is being advertised with alternative disposal and placement option schedules to give contractors an opportunity to balance costs.

Cost Issues

Regional Dredging Cost Comparison – Presented by Al Paniccia

Al Paniccia first presented information on the USACE-contract dredging costs throughout the country, including mobilization and demobilization and excluding the cost of construction of upland placement sites. In order to better understand the reasons for the regional differences, the USACE must delve deeper into the specific details of projects each year. Al Paniccia noted that the charts have been updated since the Background Information Document was distributed. The revised figures are now included in the Background Information Document available at:

http://www.spn.usace.army.mil/ltms/LTMS_docs/Costs_and_Contacting_Meeting/Background%20Info.pdf

f. Because the practices and requirements in the Bay Area are more stringent, dredging here is more costly.

Al Paniccia then presented information on the government hopper dredging costs throughout the country. The USACE pays the Portland District a daily rate inclusive of operating and fuel costs as well as a capital recovery factor.

Public comments pertaining to this presentation included:

- Ellen Johnck asked if there is still a restriction on how many days the USACE can use their hopper dredge. Jessie Burton Evans noted that there is a restriction in place for the dredges located on the East and Gulf coasts, but the *Essayons* and *Yaquina*, located on the West Coast, have no restrictions. They are maintained annually and, therefore, do not operate 365 days a year. In most cases, a project incurs costs associated with mobilizing the dredge from its previous project and not the demobilization, but in some cases, both could be incurred if an unnecessary or ineffective transit pattern is used.
- Lieutenant Colonel Baker explained that the two dredges on the West Coast are used for maintaining U.S. Navy access; however, they are used for other purposes when available to maximize their utility.

Case Studies: Hamilton and Middle Harbor – Presented by Al Paniccia

Al Paniccia presented the Hamilton Wetlands Restoration Project (HWRP) and Middle Harbor Enhancement Area (MHEA) cost tables. Specific to the HWRP, the project totaled \$238.2 million, with overall dredging and placement costing \$29.73/cy and the overall project cost costing \$42.31/cy. The MHEA project was entirely paid for by the Port of Oakland's 50-Foot Deepening Project (50-Ft Project), and had a total cost of \$66.8 million, with overall dredging and placement costing \$5.70/cy and the overall project costing \$11.52/cy. The placement phases of these projects are over, however neither project is complete.

Public comments pertaining to this presentation included:

- Jim McGrath noted that he appreciates the detail on the costs for both the HWRP and MHEA.
- Brian Ross (U.S. Environmental Protection Agency) clarified that the costs associated with the offloader and pipeline were shared between the 50-Ft Project and the HWRP.
- Jim McGrath suggested comparing the habitat enhancement value of MHEA to the HWRP on a cy/acre basis. Were the costs associated with the HWRP comparable to other habitat restoration projects or higher? Doug Lipton added that we need to know how many acres of habitat were restored and the habitat types and species recovered at the HWRP to understand the net benefit of the project. Al Paniccia responded that \$238.2 million is the final cost for the HWRP, and the total habitat restored was 998 acres.

- Amy Hutzler noted that comparing costs is helpful, but it is important to understand that costs will vary based on a given site. Subsidized sites will be more costly due to the need to construct berms.
- Beth Huning (San Francisco Bay Joint Venture) agreed and noted that the cost of carrying out habitat restoration will also vary depending on project sponsors.
- Bruce Wolfe (RWQCB) noted that mitigation banks in the Bay Area are charging as much as \$500,000/acre. The costs per acre for the MHEA and HWRP were \$300,000 and \$330,000, respectively.
- Tom Kendall (USACE) noted that assessments of habitat restoration costs have shown that costs are nearly always higher on the west coast.

Stakeholder Perspectives on Costs and Contracting Panel – Including Patrick Royce (Ahnta Construction), Jay Ach, Anne Whittington (Port of Oakland), Oriana Duranczyk (Dutra), and John Lazorik (Valero Benicia Refinery)

Jessie Burton Evans introduced the panel members and noted that they were provided a list of questions in advance of the meeting to provide feedback on. Due to the interactive nature of the panel, the following paragraphs summarize both panel members' responses to questions and audience commentary.

Patrick Royce introduced his firm, Ahnta Construction, as the beneficial reuse contractor for the MHEA. Ahnta Construction is following the USACE-designed topography that will result in a series of submerged islands in the MHEA eventually envisioned to be home to eelgrass. Ahnta Construction is dredging material from a borrow area and placing it in layers to shape the topography and form submerged islands. To minimize turbidity and increase the accuracy of appropriately placing the material, Ahnta Construction created a system that allows for the material to be placed as fast as it is dredged without creating mud waves by placing the sediment in 6- to 12-inch lifts. The equipment can disperse sediment while moving both forwards and backwards. Patrick noted that the cost for constructing this piece of equipment could potentially have been lower for the USACE if his company knew that it would be used on other projects in the Bay Area. The dredge drafts about 18 inches of water and must be coordinated with the tides; depending on the placement specifics of a project, the dredge could potentially be used for feeder beaches or mudflat projects. Patrick noted that it can be cost prohibitive to bring a piece of equipment to a region for a single project; if there is certainly that other specific projects would be constructed, dredging and beneficial reuse contractors could ensure that equipment is available in the area, thereby reducing costs.

Anne Whittington introduced herself as an environmental manager at the Port of Oakland and noted that the Port of Oakland has similar issues as the Port of San Francisco (previously described by Jay Ach). The Port of Oakland dredges about 100,000 cy annually and is already implementing a number of the recommendations from the VE study. The majority of the Port of Oakland's recent budget has been designated for installation of shore power for cargo vessels, which is just about complete. Anne Whittington noted that coordinating with other dredgers is a great idea in theory, but she is not sure whether it would work in practice due to the varying requirements of specific dredgers. Nonetheless, the Port of Oakland will continue to evaluate opportunities to coordinate with others, including the USACE.

Brian Ross noted that Ports of Oakland or San Francisco have multiple facilities that require dredging, which could allow for more flexibility in implementing contracting efficiency recommendations from the VE study. He asked whether dredgers with a single dredging location would have the same benefits and whether sharing a dredging contractor would be worth trying. Anne Whittington responded that smaller projects may not have long-term permits in place. She added that the Port of Oakland rarely has material that is unsuitable for in-Bay disposal. The Port of Oakland would be glad to share mobilization and demobilization costs with another dredger, but they would generally want their dredging to be conducted first to ensure that dredging is completed within the construction window. Jay Ach added that he feels the

opportunities for small dredgers to partner with ports are limited due to the different size of equipment generally used. He noted that there could be opportunities for smaller dredgers to group together to complete several projects.

Oriana Duranczyk introduced herself as a project manager with Dutra. She currently manages project start-up and equipment utilization production and cost tracking for Bay Area projects. She noted that the main cost drivers for dredging and dredged material placement projects in the Bay Area are distance to sites and the need to rehandle material. Bay Area dredging projects are hampered by the fact that so many of the upland beneficial reuse sites are far away, though dredging contractors would rather take material to upland beneficial reuse sites than to SFDODS due to weather and other logistical constraints. The Port of San Francisco has some of Dutra's most competitive pricing because of the contracting efficiencies in place with their existing contracts. For example, Dutra is able to predict project timing in advance and the Port of San Francisco requests pricing in the spring rather than in the fall. The Port of Oakland has a similar situation but having more ship traffic to deal with complicates matters more. Having a project backlog firmly committed to in advance is a huge benefit to Dutra, so combined (and early planned) projects could receive more competitive pricing than last minute jobs. Oriana noted that Dutra rarely dredges in June, so another opportunity to reduce costs would be if projects were ready to dredge earlier in the season. Lieutenant Colonel Baker added that the Portland District sent out draft plans and specifications and a rough estimate of the work that is needed in advance of the official bidding process to allow dredging contractors to have an understanding of what to expect.

John Lazorik introduced himself as an engineer with the Valero Benicia Refinery. Because the refinery is open 24 hours per day, 365 days a year, and 80 percent of its crude arrives by vessel, maintenance of its dock is critical. Typically, a vessel is docked at the refinery about every 2 days. The refinery's location makes it prone to sedimentation, particularly in the spring outside the work windows; therefore, dredging is conducted between 4 and 5 times a year. In 2010, in an attempt to reduce the need to dredge so frequently the area around the dock was advanced maintenance dredged to -42 feet mean lower low water (MLLW). Although it had been previously maintained at -40 feet MLLW, it appeared that the deeper depths filled at a faster rate than the shallower depths. Oriana Duranczyk noted that the ability for advanced maintenance dredging to result in reduced dredging volumes depends on the specifics of a given site. The Valero Benicia Refinery is permitted to dredge 80,000 cy/year and currently dredges 65,000 cy/year. When dredging is conducted within the work window, dredged material is disposed of at SF-9, and when dredging is conducted outside the work window, dredged material is disposed of at SF-11. Vessels bound for the refinery face several challenges after passing under the Golden Gate Bridge; they must cross over the Pinole Shoal and under the Carquinez Bridge. The dock's minimum operating depth is -35 feet MLLW, and the Valero Benicia Refinery conducts monthly surveys to monitor the need for a dredge event. If the survey indicates the need for a dredge event, dredging must occur within 5 to 10 days, otherwise vessels must "lighter" at another facility or anchor until dredging is complete. John noted that a vessel waiting to dock costs Valero \$20,000 to \$50,000 per day. The Valero Benicia Refinery works closely with the DMMO to approve numerous events. The primary constraints to using beneficial reuse sites instead of disposing of material in-Bay are logistics and cost. A 15,000-cy dredge event can be completed in 2 days if an in-Bay disposal site is used, whereas a 2012 dredge event that placed material at Montezuma required 4 days due to the increased distance from the site. With the dock utilization at 50 percent, creating a 2-day window in which dredging can be completed is not difficult, but creating a 4-day window is very difficult and costly. Placing material out-of-Bay essentially doubles the costs of dredging for the Valero Benicia Refinery. In addition, there is no alternative placement option that would more similarly represent natural conditions than SF-9. The Valero Benicia Refinery has tried to coordinate

dredging events with Amports and was successful once, but due to the short lead time, coordinating with other dredgers is difficult.

Brian Ross asked the panelists about the viability of a contracting mechanism that would require the use of additional scows to make barging material to Montezuma a faster process and more comparable to in-Bay disposal. John Lazorik responded that if the Valero Benicia Refinery used two clamshells dredges, barging material to Montezuma would still be a 4-day dredge event. Oriana confirmed that the offloading is the constraint at Montezuma as compared to disposing in-Bay.

Dave Doak (USACE) asked whether the Valero Benicia Refinery has to sample its material annually and, if so, how long it takes to get a suitability determination. John Lazorik responded that the Valero Benicia Refinery completes full Tier III testing every 3 years. The results are not tied directly to any one event but constitute representative samples of the material likely to be dredged over a 3-year period. Jay Ach responded that the Port of San Francisco generally samples all the dredging units at various berths. While there are patterns in the test results, they do not normally negate the need for testing. As such, the Port of San Francisco does not see a lot of benefit from a Tier III exemption. Anne Whittington responded that the Port of Oakland completes Tier III testing every 2 or 3 years.

Doug Lipton suggested that it is time to begin discussing the concept of issuing mitigation credits for projects that place material at beneficial reuse sites in lieu of in-Bay disposal. The costs for beneficial reuse projects can change depending upon when a dredging contractor is bidding the job. It is possible that smaller projects could obtain lower costs if beneficial reuse site operators can be assured that other projects would be placing material at the site at around the same time.

Tom Kendall asked whether the Port of Oakland has multi-year contracts with dredging contractors. Anne Whittington responded that the Port of Oakland has an on-call contract that sets up the contracting structure in advance but allows for the volumes and costs to be specified each year. The on-call contract does not guarantee work, but the dredging contractors know what the Port of Oakland's leases require and are familiar with the sedimentation patterns at various berths. The Port of Oakland has tried having on-call contracts with a single and multiple dredging contractors, and the preferable scenario is to have the contract with a single dredger so that the contractor can expect work and provide lower prices. Jay Ach noted that the Port of San Francisco's on-call contract is for 5 years and includes actual costs for the first year of the contract and an estimate (but not commitment) of future work. Oriana added that if the on-call contract is with multiple contractors, it removes the certainty for contractors and thereby mutes the benefit of the contracting arrangement. Lieutenant Colonel Baker noted that there is also a concern that if on-call contracts are with a single dredging contractor, competition could leave the region.

Dave Doak asked the port staff panel members whether the ports would consider partnering with each other or the refineries to invest in helping establish upland beneficial reuse sites. Anne Whittington and Jay Ach responded that they do not feel that the ports would invest in establishing upland beneficial reuse sites since Montezuma is already operating. It makes more sense for the ports to let others do that, like the USACE or beneficial reuse site proponents. Jim Haussener noted that one of the reasons that Montezuma was established was because there was a large dredging project at the Port of Oakland. The Port of Oakland advanced the funding for the project and later received reduced pricing for using the site. Lieutenant Colonel Baker noted that incentivizing facilitating beneficial reuse should be a topic of discussion at the upcoming policy and strategy development meeting.

Next Steps

Brenda Goeden noted that the next meeting is scheduled for November 20, 2012, after which the LTMS agencies plan to step back, review the information collected, and finalize the 12-year review process summary report in early 2013. There will be an opportunity for public comment on the draft report once it is released. The long-awaited DMMO database, which contains USACE and non-USACE dredging projects' sediment data, is up and available for beta-testing; the USACE is currently working to get the password protection issues resolved. Brenda encouraged members of the public to provide feedback on the database. Thus far, the DMMO has been able to get about 10 years' worth of data entered, and they are expected that users of the site will soon be able to upload project-specific information on their own.