

APPENDIX H
COMMENTS RECEIVED ON THE 12-YEAR
REVIEW DRAFT FINAL REPORT

After completing the four stakeholder meetings in 2012 and addressing the comments presented in Appendix E, the LTMS agencies developed the 12-Year Review Draft Final Report. This report was circulated to the public and agencies for review and comment between April 5 and May 8, 2013, and an LTMS meeting was held on April 24, 2013, to address the findings of the report. Comment letters were received from the California Coastal Conservancy, San Francisco Baykeeper, and Mare Island Shipyard, LLC, and comments were collected during the April 24 LTMS meeting. The 12-Year Review Final Report includes revisions made to address these comments, as necessary. The comment letters and minutes from the April 24 meeting minutes are included herein.



LONG TERM MANAGEMENT STRATEGY

MANAGEMENT COMMITTEE MEETING

MEETING HIGHLIGHTS

Bay Conservation and Development Commission
Thursday, April 24, 2013
1:00 PM – 4:00 PM

INTRODUCTION

MEETING ATTENDEES

Please email [Greg Ogata](mailto:Greg.Ogata@bcfdc.org) (San Francisco Bay Conservation and Development Commission [BCDC]) 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/Missions/DredgingWorkPermits/LTMS/LTMSProgram12YearReviewProcess.aspx>.

MEETING PURPOSE

To take comments on the LTMS Draft Final 12-year Review Report and to present and discuss next steps for the LTMS program.

LTMS Draft Final 12-Year Review Report and Findings

Brian Ross (U.S. Environmental Protection Agency) presented an overview of the LTMS Draft Final 12-Year Review Report. He explained that the LTMS transition period is complete, and that the program met its transition period goals. Overall, dredging and in-Bay disposal volumes have decreased over the 12-year period, with only one year having exceeded its in-Bay disposal target. Sediment management figures show significant progress in regards to beneficial reuse, with beneficial reuse at 20 million cubic yards (mcy; 42%), in-Bay disposal at 20 mcy (42%), and the San Francisco Deep Ocean Disposal Site (SF-DODS) at 8 mcy (16%). Necessary channel depths have largely been maintained. Areas with insufficient channel depths are mainly the result of budgetary issues, not inadequacies of the LTMS program. Maximizing beneficial reuse is of highest importance today considering the implications of sea level rise and reduced sediment input into the Bay, with an ever present need for reuse in marsh habitats and shoreline stabilization. Therefore, disposal at SF-DODS is less desirable because it will reduce the volume of sediment that could be beneficially reused. Brian noted that final comments are due by May 8, 2013, after which the report will be finalized and made available on the LTMS web page.

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Public comments pertaining to this agenda item included:

- John Coleman (Bay Planning Coalition [BPS]) supported the comment regarding beneficial reuse alternatives as compared to disposal at SF-DODS. He asked if there is a way to segregate beneficial reuse and in-Bay use. Brian Ross clarified that the term “in-Bay” refers to unconfined aquatic disposal, and noted that projects such as Middle Harbor were counted towards beneficial reuse volumes, not in-Bay disposal volumes.
- Ellen Johnck expressed her approval of the report and added that the LTMS should continue to maintain the linkage between the program and Bay’s navigation program. Synergy needs to be maintained between culture, economy, and the environment. As the LTMS moves forward, it needs a plank/policy that states the need to be perpetually connected to the support of maritime commerce. Ellen felt that this was an issue missing from the stakeholder comments collected throughout the 12-year review process.
- Tom Gandsbery (California State Coastal Conservancy) stated that air and water quality impacts were not addressed in 2008, resulting in a tradeoff of priorities between water and air quality. Apart from NO_x/SO_x, carbon emissions alone are problematic, but are not captured in the report. The report says that the program will continue as is, with increased flexibility. Tom asked what “increased flexibility” entails.
- Tom Gandsbery pointed out that beneficial reuse sites have mitigation, monitoring, and real estate requirements to contend with. If similar lease issues existed with in-Bay disposal sites or SF-DODS, it would be a game changer. The same can be said for monitoring, although some monitoring is required at SF-DODS.
- Doug Lipton (Lipton Environmental) said that there is more work to do in monitoring wetland beneficial reuse sites. The LTMS, along with individual agencies and stakeholders, have produced good, collaborative work, but a big gap in the step-down “success story” is introduced by the Port of Oakland’s 50-Foot Deepening Project. He also stated that the U.S. Army Corps of Engineers (USACE) did not contribute any sediment towards beneficial reuse projects last year.
- Scott Bodensteiner (Weston Solutions) expressed his approval of the report and the program’s flexibility over the years. However, a few paragraphs acknowledge other policy issues (e.g., essential fish habitat [EFH], total maximum daily loads [TMDLs], etc.) that will affect small dredgers. Will these new policies develop an allowance system for small and medium dredgers? For example, if they come in with low volumes for two consecutive years, will they be allowed additional volume in future years (volume banking)? Will there be a reward or credit system?
- Jim McGrath (BCDC and Regional Water Quality Control Board [RWQCB] Commissioner) believed that the measurement metrics in the report were a spin. The 3-year average of total dredging has decreased, but the data is smeared when deepening and maintenance dredging project volumes are combined. The population of beneficial reuse data is very different from the population of maintenance dredging data. Jim has no issues with the long-term progress, and that progress has everything to do with Congressional appropriations, but the data should be kept separate.
- Tom Gandsbery suggested looking at Figure 1 from the Background Information Document prepared for the beneficial reuse meeting, which shows the amount of new work versus maintenance dredging that went towards beneficial reuse. He noted that more new work dredging projects need to support beneficial reuse.
- Doug Lipton added that the Montezuma site would have been out of business last year if not for the Chevron, the Port of Oakland, and a couple of other maintenance projects.

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- Jim McGrath added that it would be important to put this point into the summary material of the report to be more fair and balanced. LTMS should consider practicability, feasibility standards, and cost-effectiveness.
 - Another stakeholder noted that, specific to the report's findings on the program's cooperative permitting process goals, it would be helpful to see how the LTMS is being proactive in engaging agencies not already at the table.
 - Ellen Johnck mentioned that, if new work is skewing program success, then another conclusion can be drawn that new projects are driving the program. Progress can be measured, in that big capital projects have allowed the LTMS program to be successful.

LTMS Going Forward

Brenda Goeden introduced the LTMS Options Paper, which helps lay out some of the potential next steps for the future of the LTMS program. Four categories were created for possible next steps, including:

1. Flexibility measures that can be implemented immediately using existing authorities
2. Recommendations needing stakeholder participation and leadership
3. Flexibility measures requiring Basin or Bay Plan amendments (a 2- to 3-year process requiring planning, time, and resources)
4. Recommendations outside current agency authorities

Public comments pertaining to this agenda item included:

- Jessica Burton Evans (USACE) was confused about the first point in the category 3 considerations. She asked if this means that the risk of exceedance is increased before amendment. Brian Ross clarified that the LTMS is not proposing to change the target. It would be an entirely different proposal to change the targets. Brenda Goeden added that the LTMS is not proposing to reopen the Environmental Impact Statement/Environmental Impact Report (EIS/EIR), and that there is no basis to do so.
- Tom Gandensbery noted that, specific to category 4, USACE used to dump all maintenance material into the Bay. Now they take all of the material to SF-DODS. He inquired about laws that influenced this change. Jessica Burton Evans responded that a change to the Coastal Zone Management Act and Clean Water Act forced USACE to go out of the Bay to a least-cost alternative. Tom asked if LTMS could make an argument against SF-DODS and force USACE to go upland. Brenda Goeden responded that LTMS policies are based on fill in the Bay, and that the program cannot force policy on SF-DODS disposal. Colonel John Baker (USACE) stated that, if environmental standards are set anew (air quality and water quality), then without changing the law, regulatory dynamics would change. Tom pointed out that a legislative change was not necessary to shift USACE dredged material disposal from in-Bay to SF-DODS.
- John Coleman noted that, specific to category 4, everyone wants to see more beneficial reuse occurring. Prior to additional conversation, the LTMS program needs an economic analysis of the cost of increased beneficial reuse. Requiring small dredgers to do something that they cannot financially afford will have negative economic impacts. Brenda Goeden agreed that a level of effort is required for such options, but the program's ability to implement this effort is lacking at the present time.

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- Jim McGrath noted that, specific to category 4, problem-solving is being viewed through a regulatory prism. Turbidity is not the enemy because it is natural. When considering issues such as rising sea levels and management of dredged material, the LTMS agencies need to start thinking about mimicking natural processes, and that large-scale restoration cannot continue without discovering ways to do it economically. Doug Lipton added that the LTMS Management Plan needs to be reconsidered. Reusing sediment is more important now than ever, and keeping the state's mud in the Bay estuary is critical. Instead of a 40-40-20 plan, why not consider a 60-20-20 ratio?
 - Tom Gandesbery noted that, because USACE decisions were made within a regulatory framework, USACE could take 100 percent of their dredged material to beneficial reuse sites, which would not require legislation decisions in Washington, DC. Jessica Burton Evans responded that there are still constraints due to the federal standard. Brian Ross added that it's not just budget, but whose budget. The difference in cost between SF-DODS and beneficial reuse sites could be made up by a sponsor.
 - A stakeholder asked if a contingency could be used to lower the beneficial reuse cost. Brenda Goeden responded that in 2012, USACE sent 20% of material to Alcatraz and 70% to beneficial reuse. Doug Lipton tried to get more material to be beneficially reused, but all of it went to SF-DODS because the windows and contracts forced it there.
 - Jim McGrath said that the process needs to be expanded. He gave two examples of potential reuse sites (eroding marsh edges of Eden Landing and Corte Madera). He asked if places like these could be designated as conditional sites and coupled with material delivery with low-cost (in-Bay) allowance.
 - Ann Whittington (Port of Oakland) spoke in regard to the allowance of averaging volumes over a period of 5 years. Not having to split up disposal sites during the course of a dredging season makes a huge financial difference. Money could be saved if, in a single year, both in-Bay and beneficial reuse are not required.
 - Ellen Johnck asked if the group could agree on any of the options presented, and whether there are any recommendations regarding the governance of LTMS going forward. She suggested a restart of the smaller LTMS Management Committee meetings. Brenda Goeden responded that the LTMS agencies are now proposing to implement the measures listed in category 1 immediately, unless there are any objections.
 - Jessica Burton Evans asked if all permits issued will be on a 5-year cycle. Brenda Goeden responded that BCDC issues 10-year permits.
 - John Coleman voiced Bay Planning Coalition support and offered assistance in coordinating an effort to search for funding and lobbying for an LTMS.
 - Ellen Johnck said that she could present what she's doing with two upcoming deepening projects (Stockton and Redwood City) that have received funding from the President's budget. She asked how the LTMS could secure funding for private or local public sectors to cost-share with federal projects, and whether the program is looking into a business model with dredging contractors as a way of moving beneficial reuse projects forward. Brenda Goeden asked if the LTMS program needs to expand and begin finding new partners and support.
 - Colonel John Baker touched on how to capture the environmental benefits of projects. As of now, USACE does not consider the environmental value of a project unless it is authorized as an environmental restoration project. Navigation projects receive no environmental credit and are defaulted to a "do no harm" label unless reauthorized as an environmental project. Brian Ross

mentioned that the Port of Oakland deepening was authorized as an environmental project. Does this environmental status extend to maintenance of the channel? Al Paniccia (USACE) responded that the Port of Oakland deepening was linked to the Hamilton Wetland Restoration Project, which was authorized separately. Future maintenance of the channel was not included in the scope of the Hamilton Wetland Restoration Project.

- Jessica Burton Evans noted that there is a need for expansion of the third measure for local sponsors to provide sites or site delivery, such as Pinole Shoal connected to Cullinan Ranch. Doug Lipton agreed that there are a lot of opportunities, but also many limitations. Brenda Goeden pointed to another example of the South Bay Salt Ponds and Redwood City channel. Methods could include searching out where potential nearby future beneficial reuse sites could be located. Doug Lipton stated that it won't work unless the LTMS agencies can figure out how to keep existing beneficial reuse sites open. Ellen Johnck pointed out that the South Bay Salt Ponds represent the largest sediment need in the south Bay. Brenda Goeden added that Skaggs Island is in the early stages of considering beneficial reuse.
- Brian Ross commented that Bay/Basin Plan amendments may require modification of the LTMS EIS/EIR.
- Jessica Burton-Evans noted that specific to category 3, temporarily suspending the step-down does not provide the benefit provided by contingency volume use. The EIS/EIR process is a major effort to reopen and should not be taken lightly. The LTMS agencies may want to reflect on the history of USACE to guide the decision regarding this option.
- Anne Whittington stated that "mandatory" may not be a term of art, but for dredgers it is. She asked if this would apply to USACE as well. Brenda Goeden responded that SF-DODS is considered according to practicability. Brian Ross added that allocations are invoked on a project-by-project basis. Doug Lipton voiced concern that the LTMS agencies were skirting the heart of Anne Whittington's question and that 40-40-20 is not being enforced fairly across the board (USACE being favored). He stressed the need to have more environmental groups engaged. Brenda Goeden agreed with Doug Lipton's concerns, but also responded that the implementation of the LTMS goals is based on feasibility at the project level. The feasibility of USACE projects is partially based on what is authorized by Congress annually and the number of projects that must be maintained for navigational safety.
- Anne Whittington commented on implementing taxes and fees to offset beneficial reuse. Although not a tax or fee, testing costs are burdensome. The RWQCB clarified that costs will be recalculated per volume. Independent testing is allowed but will cost less through the Regional Management Plan.
- Tom Gandesbery commented that in-Bay disposal is not the antithesis of beneficial reuse.
- John Lazorik (Valero) expressed a need for an economic analysis of beneficial reuse.
- Anne Whittington commented that a big stumbling block is the distance of permitted beneficial reuse sites. Other sites are further away and time is money. Along with cost, time, and emissions issues, there is a need for reuse sites closer to where the dredging is actually done.
- Brenda Goeden agreed that there could be an expansion for air quality analysis, but the program is not based on air quality impacts. Anne Whittington added that the Port of Oakland board has adopted a goal of reducing emissions with the help of an emissions inventory that analyzes every single source generated within the area. All emissions on the water are counted, with trucks from the Port of Oakland up until the highway counted as well. In particular, diesel emissions are targeted. Jay Ach (Port of San Francisco) added that the Port of San Francisco has

an emissions inventory as well. Several years ago, the ports collaborated to produce a Bay-wide baseline for Bay port emissions (2005). Another entity regulating air emissions would be unnecessary, but it might be beneficial to add air emissions related items to Integrated Alternatives Analyses. John Coleman responded to Jay Ach's comments, saying that dredging projects would risk lawsuits.

- Jim McGrath stressed the need to expand the LTMS program. Moving forward with a plan developed in 1998 that did not consider air quality and emissions and the use of sediment to supplement eroding shorelines should be re-evaluated.
- Ellen Johnck would like to have "beneficial reuse of sediment" added somewhere in the name of the LTMS program.

May 8, 2013

US Army Corps of Engineers, San Francisco District
Dredge Material Management Office
Attn: LTMS Program Managers
1455 Market St.
San Francisco, CA 9413

Submitted electronically to bayltms@anchorqea.com

RE: Comments to the Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region: 12-Year Review Draft Final Report

Dear LTMS Program Managers:

Please accept these comments on the *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region: 12-Year Review Draft Final Report* (12-Year Report) on behalf of Baykeeper and its 2,300 members who live, work, and recreate in and around San Francisco Bay. Baykeeper is a 501(c)(3) non-profit organization with the mission of protecting and enhancing water quality of San Francisco Bay for the benefit of its ecosystem and surrounding communities.

In summary, Baykeeper finds the 12-Year Report was prepared at insufficient scope to determine future challenges to the LTMS program and whether previously examined impacts and management strategies are still valid. Baykeeper requests that agencies tasked with management of the Long Term Management Strategy for Bay Area Dredged Material (LTMS) conduct new environmental analyses, in response to significant changes in understanding and management of the San Francisco Bay/Estuary since the 1998 publication of the *LTMS Final Environmental Impact Statement/Environmental Impact Report* (EIS/EIR) and release of the *LTMS Management Plan* (Management Plan) in 2001.^{1,2}

In 1998, LTMS agencies completed a Final Policy EIS/ Programmatic EIR, selecting the new long-term plan for achieving these goals. The approach called for disposal reduction within San Francisco Bay over time, and increased 'recycling' of dredged material for beneficial uses including habitat restoration, levee maintenance, and construction fill. The 2001 LTMS Management Plan described the detailed measures by which the LTMS agencies are implementing the EIS/EIR's new long-term plan.

Since 1998, a number of significant issues have arisen affecting the ecology, water quality, and management of the San Francisco Bay/Delta, including, but not limited to:

¹ U.S. Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (ACOE), the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), the Bay Conservation and Development Commission (BCDC), and the State Water Resources Control Board (SWRCB). 1998. *Long-Term Management Strategy for Bay Area Dredged Material Final Environmental Impact Statement/Environmental Impact Report*. Available at www.bcdc.ca.gov

² EPA, ACOE, SFBRWQCB, BCDC, and SWRCB. 2001. *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region; Management Plan 2001*. Available at www.spn.usace.army.mil

- Decreased sediment load
- Economic and political factors affecting future opportunities for beneficial reuse
- Designation of critical habitat for several fish species:
 - Central Valley Steelhead (2005)
 - Central California Coast Steelhead (2005)
 - Central Valley spring-run Chinook (2005)
 - Southern Distinct Population Segment (DPS) of Green Sturgeon (2009)
- Heightened public awareness and scientific understanding of sea level rise
- Release of Sub-Tidal Habitat Goals Report with particular applications for LTMS-related activities
- Development of sediment quality objectives (SQOs) designed to evaluate sediment quality
- Pelagic organism decline
- Proliferation of wetland restoration projects in the North and South Bays

In light of these significant developments, Baykeeper believes the Management Plan and EIS/EIR should be reopened at this time.

I. Bay sediment decline goes unconsidered in the LTMS strategy

The 1998 EIR/EIS states that human impacts such as “[i]ncreased sediment inputs and the virtual elimination of many tidal marshes as sediment traps may have also resulted in increased suspended sediment concentrations in the Estuary. High suspended sediment concentrations reduce light availability for phytoplankton and may interfere with the feeding mechanisms of many estuarine animal species.”³ This factual underpinning of the environmental review and LTMS plan is no longer accurate. Research presented over the last 12 years has dramatically reversed our understanding of sediment dynamics, highlighting the dynamic nature of the San Francisco Bay/Estuary. In 2009, the San Francisco Estuary Institute’s *Pulse of the Estuary, Bay Sediments: Past a Tipping Point* summarized these findings:

Intensive monitoring of concentrations of suspended sediment has also been a significant component of the RMP since the Program began in 1993. This work has been conducted by Dave Schoellhamer and his colleagues at the U.S. Geological Survey. Maintaining this dataset over this 16 year period has enabled us to detect a sudden and fundamental change that occurred between 1998 and 1999 (page 56) it appears that the Bay passed a tipping point at that time due to the depletion of a pool of easily erodible sediment that had been slowly moving through the watershed ever since the Gold Rush. In 1999 this pool seems to have been exhausted, and suspended sediment concentrations fell by 40%.

This shift to clearer waters is affecting the ecology and management of the Bay in many ways. Ecologically, the Bay shifted from a system where photosynthesis by phytoplankton was limited by a lack of light penetration in the murky waters, to one where phytoplankton abundance has been increasing (page 53) and represents a

³ EPA, ACOE, SFBRWQCB, BCDC, and SWRCB. 1998. *Long-Term Management Strategy for Bay Area Dredged Material Final Environmental Impact Statement/Environmental Impact Report*. See section 4.2.4. Available at www.bcdc.ca.gov

*growing concern. Water quality managers now must pay closer attention to the potential for nutrient pollution to cause the problems associated with excessive algal production that are common in many other estuaries, such as Chesapeake Bay.*⁴

*...With a smaller natural supply of sediment, there will be an even greater demand for re-using dredged sediment in restoration projects. **In light of all of these changes, the Long-Term Management Strategy for dredged material may need to be updated.***⁵(emphasis added)

*...The increase in Bay water clarity in recent years has significant ramifications for dredging, wetland restoration, water quality, and ecology. The Long-Term Management Strategy (LTMS) for Dredging and Dredged Material Disposal in San Francisco Bay was developed in the early 1990s, before the 1999 decrease in suspended sediment. Lower SSC reduces deposition, which in turn reduces the amount of maintenance dredging that is needed. Lower SSC may also make the in-Bay dredged material disposal sites more dispersive and increase their capacity. Bay disposal sites may be able to accommodate more material, reducing the need for costly ocean disposal.*⁶

The LTMS 12-Year Review asserts that “[a]s understanding of the seriousness of these issues has evolved, the LTMS agencies have begun to evaluate the role of and mechanisms for beneficially reusing dredged material as one component of regional adaptation.”⁷ Such shifts in agency response to changing environmental conditions should not occur outside of the public environmental review framework required under both NEPA and CEQA.

The 12-Year Review goes so far as to admit:

*The agencies concluded that, given the benefits, the need for additional marsh habitat, and the need for sediment along shorelines and within marshes to keep up with sea level rise, the goal of maximizing beneficial reuse of dredged sediment is appropriate and even more important now and into the future than it was in the early days of the program. Additionally, allowing disposal of large volumes of clean sediment at SF-DODS is less desirable now because this practice loses sediment from the system.*⁸

Accordingly, the program should not move forward based on dated analyses and goals provided for in the 1998 EIS/EIR and 2001 Management Plan, and instead should be updated to ensure the best fit between program activities and environmental protection.

⁴ San Francisco Estuary Institute. 2009. *Pulse of the Estuary 2009, Bay Sediments: Past a Tipping Point*. See p. 3. Available at www.sfei.org/rmp/pulse

⁵ *Id.* at 4

⁶ *Id.* at 63

⁷ Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region: 12-Year Review Draft Final Report. April 2013. See p. 18. Available at: www.spn.usace.army.mil

⁸ *Id.* at 20

II. LTMS data indicates decreased capacity for beneficial reuse in the region

Based on data presented in Appendix A of the 12-year review document, the voluntary decreases in in-bay disposal established in the LTMS have played little apparent role in decreasing in-bay disposal volumes during the last 12 years. Figure 1 displays total dredge volume, in-bay disposal volume, and the in-bay disposal target established in the LTMS. These numbers suggest the target was set at an easily-attainable level during the first 10-years of the management period and that actual in-bay disposal volumes have changed little over this time, though pre-LTMS data is not presented for comparison.

Nearly all of the observed decrease in in-bay disposal volumes observed occurred since 2008, when total volumes decreased, along with economic conditions. Data indicates the existing rate of beneficial reuse has been attainable due to large channel widening projects and on-going restoration projects in the North Bay. As these become less scarce, it is unclear whether the LTMS goals for in-bay disposal established in the 1998 EIS/EIR are still valid.

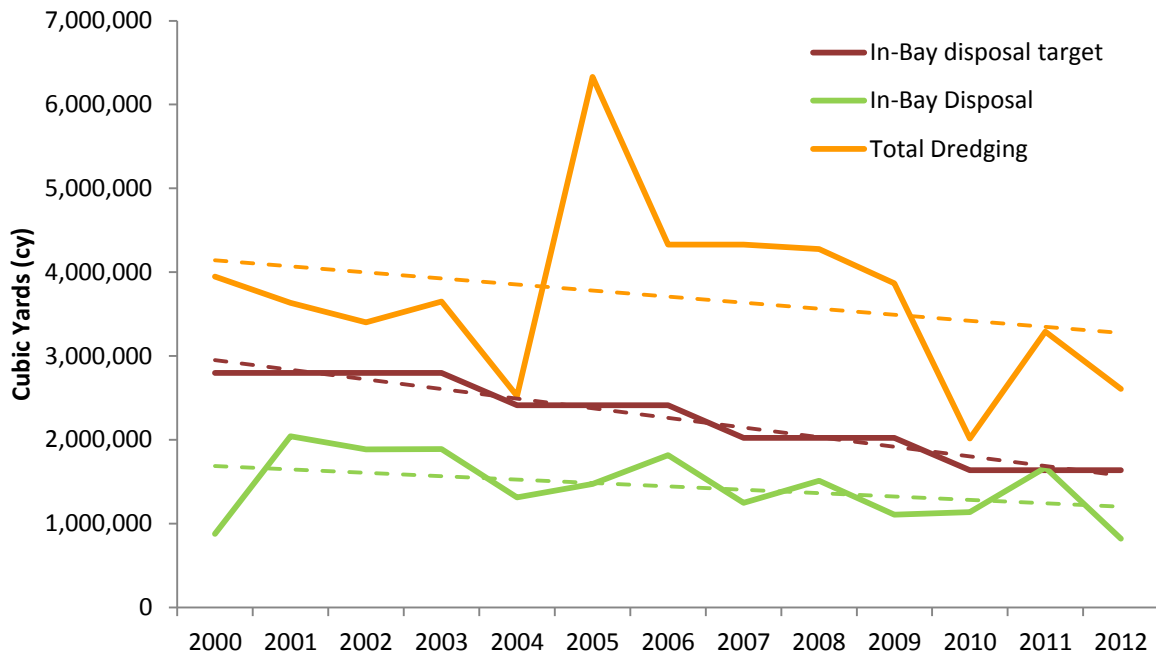


Figure 1. Annual rates of total dredging and in-bay disposal, compared with the In-Bay disposal target⁹

Implementation of the LTMS Management Plan was largely focused on implementing a 12-year transition period to achieve the reduced in-Bay disposal goal of 1.25 million cubic yards (mcy) annually. As Figure 1 indicates, this goal has been achieved. However, since the goal seemed easily attainable throughout the project and that sediment management needs in the region are changing, these goals are likely obsolete.

The 12 Year Review report suggests that since the target has not been exceeded the project is largely a success. However, relatively low levels of in-bay disposal seemed possible largely because of beneficial

⁹ EPA, ACOE, SFBRWQCB, BCDC, and SWRCB.. 2013. *Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region: 12-Year Review Draft Final Report, Appendix A*. See p. 57. Available at: www.sfn.usace.army.mil

reuse of sediments associated with large channel deepening projects, which were generally deposited at the Hamilton Wetlands Restoration Project (HWRP) and Montezuma Wetland Restoration Project (MWRP). With large scale projects decreasing in the future, and the prospect of maintenance dredging decreasing proportionally with Bay sediment decline, a new EIS/EIR should evaluate whether and how LTMS goals to maximize beneficial reuse of dredged sediment and minimize in-Bay disposal can and should be attained.

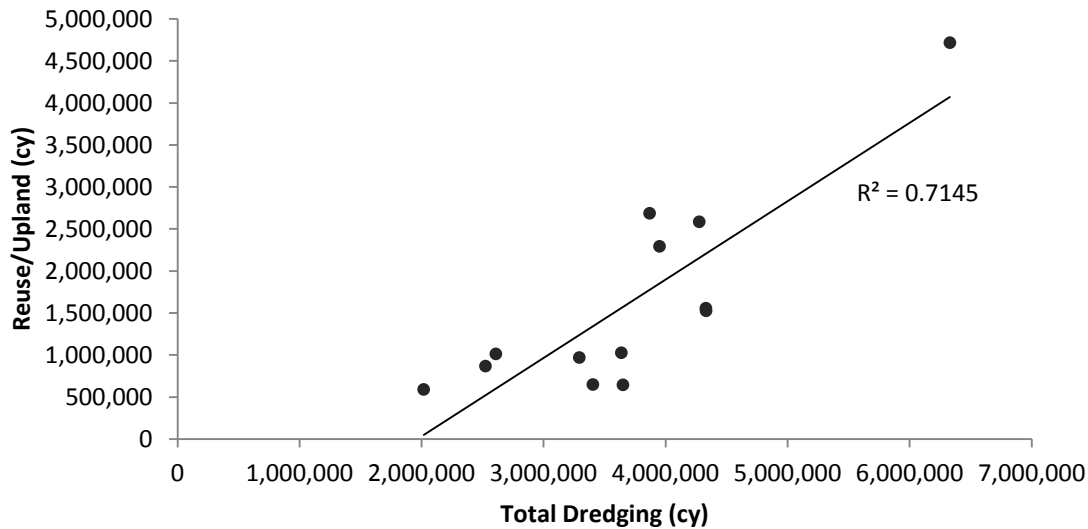


Figure 2. Total Dredging vs. Beneficial Reuse (2000 to 2012)

The relationship between total dredging and reuse/upland use is fairly linear over the last 12 years - indicating reuse options are timed more closely with planned increases in USACE and non-USACE channel or berth/marina deepening projects (Figure 2). This is in contrast to the relationship of total dredging versus in-bay disposal or ocean disposal (Figures 3 and 4). Though not shown here, the proportion of total dredged material committed to reuse/upland uses has increased over the last 12 years while ocean and in-bay disposal have decreased slightly. In the future, it is quite possible an inverse relationship will take hold, in the absence of well funded dredging operations.

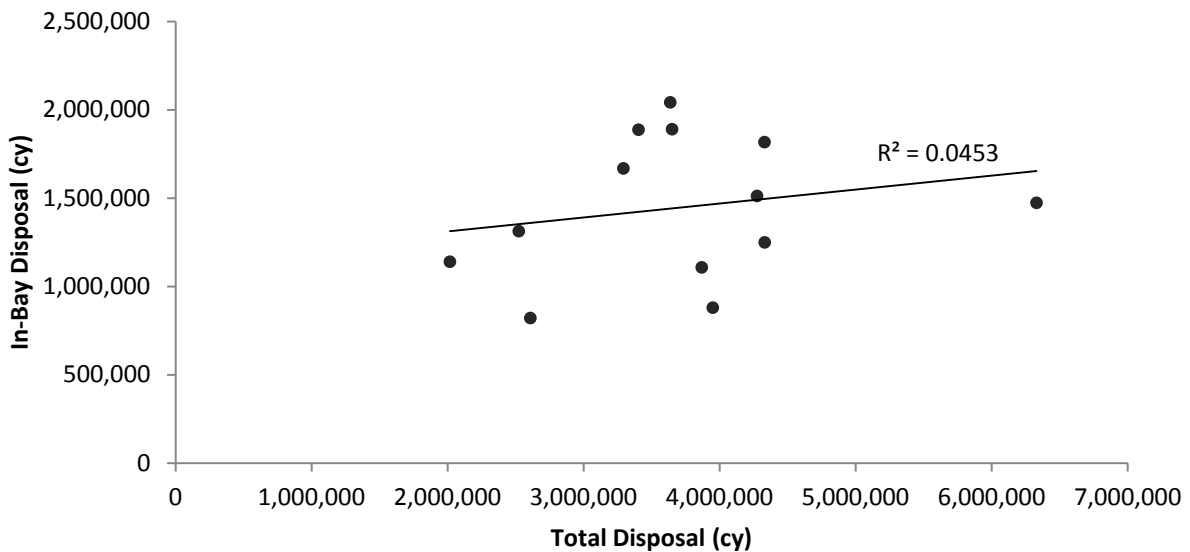


Figure 3. Total Dredging vs. In-Bay Disposal (2000 to 2012)

Correlation between total dredging volume and in-bay disposal is fairly weak, suggesting poor ability to increase in-bay disposal volumes as dredging demand increases; or that in-bay disposal is selected when beneficial reuse options become scarce. In a sediment deficient system, additional in-bay disposal may be appropriate, in instances where sediment quality standards are met.

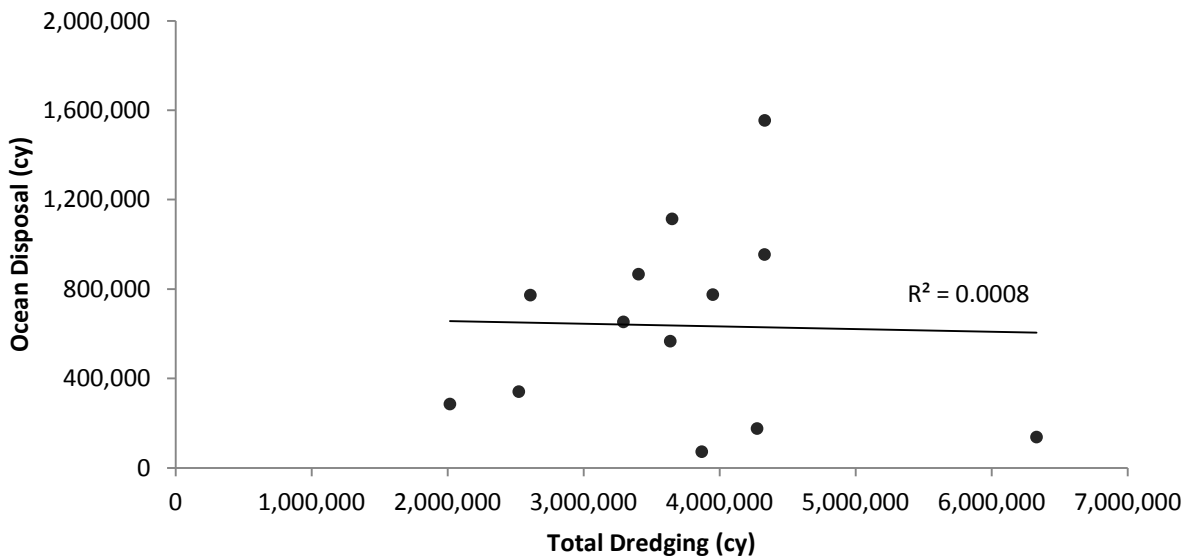


Figure 4. Total Dredging vs. Ocean Disposal (2000 to 2012)

Even less dependent on total dredging volume is the rate of ocean disposal (Figure 4), where correlation is particularly weak. This is likely due to the LTMS commitment to treat ocean disposal as a “safety valve” when in-bay disposal or beneficial reuse is not possible. In general, the only years in which ocean disposal has decreased is when beneficial reuse has increased (Figures 5 and 6). If options for reuse are limited, however, it is likely that ocean disposal will increase – the safety valve will open wider as beneficial reuses become less available. However, at a time when sediment is scarce and sea level rise

poses challenges to maintaining existing wetlands, ocean disposal should be minimized in favor of beneficial reuse and strategic in-bay disposal.

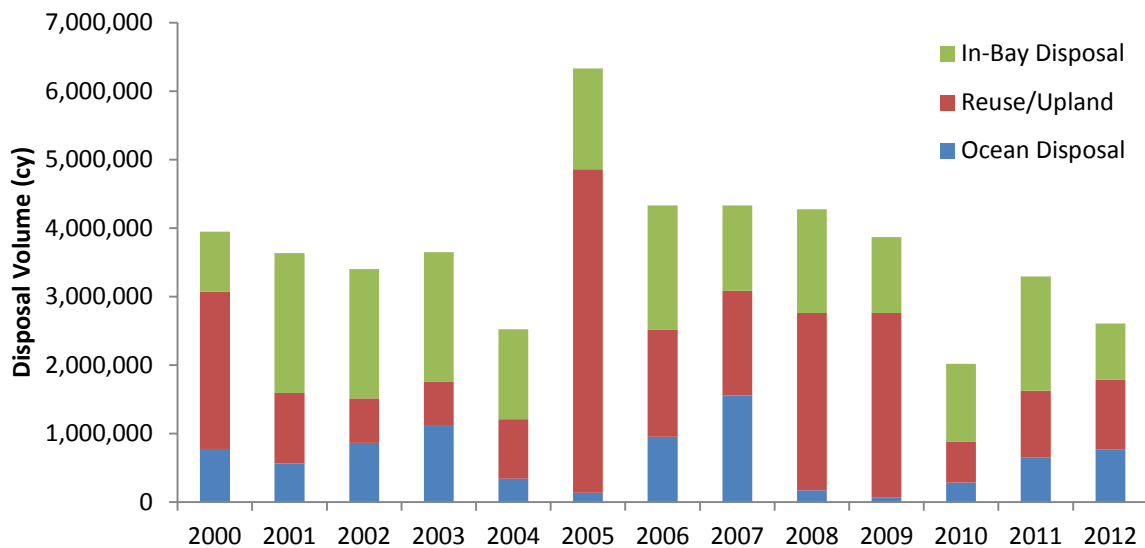


Figure 5. Total volumes of beneficial reuse, in-bay disposal, and ocean disposal over the last 12 years

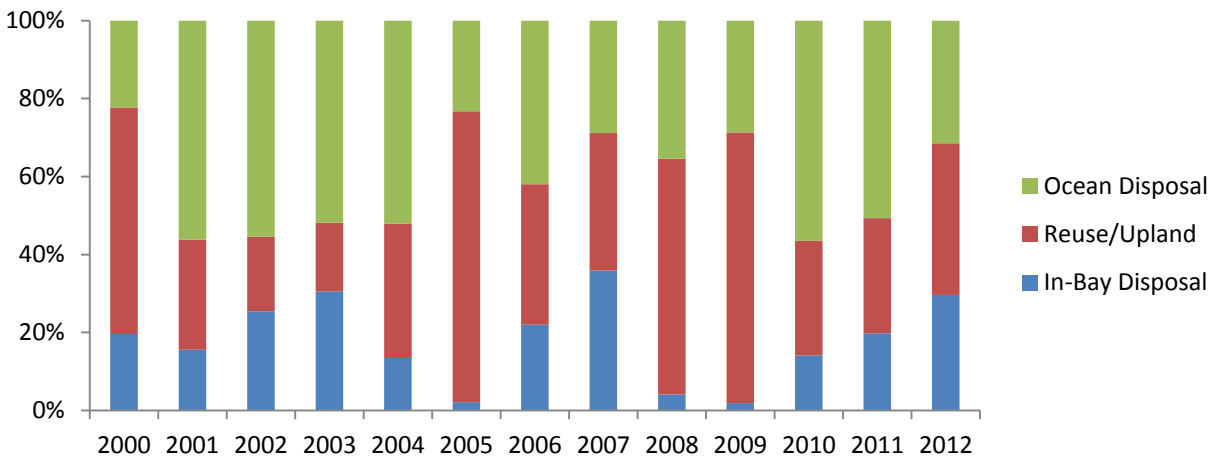


Figure 6. Proportion of total dredged sediment utilized for beneficial reuse or disposed of in-bay or at deep ocean sites

To determine whether opportunities for beneficial reuse are available and economically viable, a new EIS/EIR is required to revisit whether the 1998 LTMS EIS/EIR alternatives analysis is still valid. Dredgers are now apparently relying on 3-year Integrated Alternatives Analyses (IAAs), which is a non-transparent process that goes unevaluated in the 12-Year Review Report. New environmental analysis should include a long-term evaluation of realistic alternatives, considering environmental, economic, and political variables affecting the availability of beneficial reuse sites and large-scale dredging operations.

III. New protected species designations and observed declines in pelagic organisms

Since the 1998 EIR/EIS, additional species have been listed as threatened and endangered, and new critical habitat designations have occurred. In addition, declines in pelagic fish species were discovered

since finalization of the EIS/EIR. While fish and wildlife agencies are able to process dredging requests on a case-by-case basis, such a process fails to capture the cumulative impact of the program as a whole. For example, it appears that dredging operators rely heavily on work window extensions, enabling dredging outside of the prescribed environmental work windows, rendering them somewhat meaningless as management or mitigation measures. New analysis should include a comprehensive re-evaluation of whether dredging operations could impact new critical habitat and what role the LTMS may play in impacts to pelagic organisms and the benthos they rely on.

IV. Sea level rise impacts not addressed in existing impact analyses

Since release of the LTMS Management Plan in 2001, scientists and regulators have come to recognize the significant risks facing the Bay Area, regarding climate-induced sea level rise. Given the high degree of historic wetland loss within the San Francisco Bay/Estuary and the significant costs associated with wetland restoration incurred over the last decade, regulators and citizens are increasingly interested in how wetlands will respond and whether existing and newly restored buffer areas can serve to protect public safety and infrastructure.¹⁰

Decreasing sediment loads, coupled with accelerating sea level rise, could result in the inundation of a significant proportion of our existing wetlands.¹¹ However, if sufficient suspended sediment concentration (SSC) is present to build up existing mudflats and wetlands, it is possible the natural rate of sediment accretion could closely approximate the rate of sea level rise. In this respect, LTMS agencies should ensure a maximum rate of sediment retention within the boundaries of the Bay/Estuary.

At the time of the LTMS EIS/EIR managers were not seriously considering sea level rise, and the 12-Year Report makes no mention of sea level rise and the role of LTMS-activities in enhancing regional resiliency. Agencies responsible for LTMS implementation must ensure sediment is retained within the system for natural accretion, beneficial reuse at wetland restoration sites, and levee maintenance. As indicated by comments expressed in the 12-Year Report, this seems to be occurring in a haphazard manner and ocean disposal rates remain high (Figures 5 and 6). New environmental analysis and reconsideration of the LTMS approach is badly needed if we are to retain sediments for sea level rise adaptation in the region.

V. Sub-Tidal Habitat Goals Report advocates reduced impacts to soft-bottom substrates

The 2010 Sub-Tidal Habitat Goals report cites poorly understood impacts associated with dredging, among other physical impacts to sub-tidal habitats. Acknowledged in the report is that such impacts are typically localized, though the cumulative impacts may be large. Impacts expected from dredging and other physical impacts to bay floor include disruptions to “the functions of the soft bottom by killing or removing organisms, mixing the sediments, and disrupting the layers of different oxidation conditions. More broadly, activities that alter sediment transport and deposition, current patterns, or salinity

¹⁰ Orr, M., S. Crooks, P.B. Williams. 2003. *Will Restored Tidal Marshes Be Sustainable?*. San Francisco Estuary and Watershed Science, 1(1). Available at escholarship.org/uc/item/8hj3d20t

¹¹ Knowles, N. 2010. *Potential Inundation Due to Rising Sea Levels in the San Francisco Bay Region*. San Francisco Estuary and Watershed Science, 8(1). Available at escholarship.org/uc/item/8ck5h3qn

distributions can disrupt soft-bottom communities.”¹² The Report also recognizes scientists do not currently understand how benthic communities respond to disturbance, since “Most impact assessments focus only on the immediate impact, but disturbances could persist.”¹³

Impacts to benthic communities were analyzed in the 1998 EIS/EIR on a superficial level, without any data to support their finding that impacts to benthic habitats were considered negligible.¹⁴ New environmental analyses are required to properly understand the long-term cumulative impacts of LTMS-related activities and how these actions can achieve management goals established in the Sub-Tidal Habitat Goals Report. Specifically, LTMS activities should strive to support Soft Substrate Protection Goal #2: “Promote no net increase in disturbance to San Francisco Bay soft bottom habitat”; as well as Soft Substrate Protection Goal #4 to “Develop a coordinated, collaborative approach for regional sediment management for San Francisco Bay”.¹⁵ Clearly, managers and scientists feel the current LTMS structure is failing at these objectives and new understanding of the San Francisco Bay/Estuary warrants major revisions to the 15-year old EIS/EIR.

VI. Development of sediment quality objectives (SQOs) designed to evaluate sediment quality go unconsidered

Despite preparation by the State Board of Sediment Quality Objectives (SQOs), which affect the fate and transport of dredged materials in California’s bays and estuaries, the 12-Year Report makes no reference to the SQO process or whether existing activities are consistent with implementation requirements for dredge materials:¹⁶

2. The Water Boards shall not approve a dredging project that involves the dredging of sediment that exceeds the objectives in Part 1, unless the Water Boards determine that:

a. The polluted sediment is removed in a manner that prevents or minimizes water quality degradation.

b. The polluted sediment is not deposited in a location that may cause significant adverse effects to aquatic life, fish, shellfish, or wildlife or may harm the beneficial uses of the receiving waters, or does not create maximum benefit to the people of the State.

¹² California State Coastal Conservancy and Ocean Protection Council, NOAA National Marine Fisheries Service and Restoration Center, BCDC, and San Francisco Estuary Partnership. 2010. San Francisco Bay Subtidal Habitat Goals Report. See p. 60. Available at <http://sfbaysubtidal.org/report.html>

¹³ *Id.* at 66

¹⁴ EPA, ACOE, SFBRWQCB, BCDC, and SWRCB. 1998. *Long-Term Management Strategy for Bay Area Dredged Material Final Environmental Impact Statement/Environmental Impact Report*. See section 6.1.2. Available at www.bcdc.ca.gov

¹⁵ California State Coastal Conservancy and Ocean Protection Council, NOAA National Marine Fisheries Service and Restoration Center, BCDC, and San Francisco Estuary Partnership. 2010. San Francisco Bay Subtidal Habitat Goals Report. See p. 69. Available at <http://sfbaysubtidal.org/report.html>

¹⁶ SWRCB. 2011. *Appendix A. Draft Proposed Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries Plan, Part 1: Sediment Quality*. See Section VII(A)(2). Available at www.swrcb.ca.gov/water_issues/programs/bptcp/sediment.shtml

c. The activity will not cause significant adverse impacts upon a federal sanctuary, recreational area, or other waters of significant national importance.

Currently, the 12-Year Report does not document the processes by which sediments were evaluated or the results of sediment quality analysis. New environmental analysis should clearly document procedures for sediment quality analysis, as well as testing results received since the start of the LTMS.

Thank you for considering Baykeeper's comments. We urge you at this time to reopen the EIS/EIR and Management Plan, reconsider the existing LTMS permitting process, and strive to retain as much sediment within the San Francisco Bay/Estuary as possible. If you have any questions, please feel free to contact Ian Wren at (415) 856-0444, extension 108.

Sincerely,

A handwritten signature in black ink, appearing to read "Ian Wren". The signature is fluid and cursive, with the first name "Ian" and last name "Wren" clearly distinguishable.

Ian Wren
Staff Scientist
San Francisco Baykeeper

**Comments
On the
Long Term Management Strategy
LTMS 12-Year Review**

Prepared by:

*Tom Gandesbery, Project Manager, SF Bay Conservancy Program
April 25, 2013*

In reference to documents:

>12-Year Review Draft Final **Report**, April 2013

>**Discussion Paper**: Proposed Approach for Management Plan Implementation

1. I agree that the performance of the LTMS was successful in many respects (Table Page 8, Report). But as the focus of my work has been to complete wetland restoration projects, I will limit my comments below to those concerning beneficial reuse of sediment, acknowledging that the maritime and conservation communities has greatly benefited from the permit coordination (DMMO) and technical studies that resulted from the hard work of the LTMS staff.
2. The LTMS policies have not resulted in a change in the governmental structures, economic conditions and political climate that fosters upland and beneficial reuse projects (UBRU). No “market” has been created for dredged sediment despite the fact that there is a need for the material at numerous locations. Though this is acknowledged in the table on Page 8 of the Report and in Group 4 of the Discussion Paper, it is not discussed head-on in the Report.
3. The LTMS documents should accurately reflect the legal framework within which the member agencies work. As we discussed at the April 24th meeting, the Corps changed its disposal practices for two major maintenance dredging projects without any new. As discussed at the meeting, it was under current authorities that the Corps shifted disposal from Oakland and Richmond O&M dredging from In bay (Alcatraz) to the deep ocean site (SFDODS) and this was done to comply with LTMS policies.

Therefore, 40% beneficial reuse shown in Group 4 could, in theory, become mandatory, or the *de facto* “disposal” method if the Corps shifted its policy away from ocean and in-bay disposal. So is it correct to have this listed under Group 4 which is a table reserved for those actions “outside current agency authorities”? At the meeting, Corps staff stated that the change was made to comply with regulations under the Clean Water Act and Coastal Zone Management Act; No new law or legislation was needed to make this change. It would seem more appropriate to list it under Group 2, as it would be a major change requiring stakeholder participation and leadership. It is very important to make a clear distinction between what is *possible* with existing authorities versus what would *absolutely require* new federal or state legislation, especially given the current political climate.

4. Air quality impacts were not adequately covered in the 1998 Programmatic EIS/R nor are they accounted for in the current regulatory program for dredging. I understand this is an artifact of how air pollution is regulated as compared to dredge and fill: air emissions from ocean-going tugs are assessed in terms of a separate air basins, routine tug traffic is exempt from permits

and analysis and the Air Resources Board and BAAQMD have structured regulations around equipment and not projects. However even though the air emissions are not nearly as tightly regulated as water discharges, the impacts are significant and quantifiable. And since the 1998 analysis, the public has become much more aware of green house gas emissions, in this case namely carbon dioxide. The theme of LTMS policy should be balanced environmental management and its policies should be based on the best current and relevant science of all media, not just water quality and aquatic receptors. Therefore the LTMS agencies should assess the impacts of ocean disposal (SFDODS) in accordance with current CEQA and NEPA guidelines. The Regional Water Quality Control Board has started work on an Environmental Impact Report that will cover all the Corps' maintenance dredging program and this may be useful in framing these issues and comparing relative impacts across media.

5. Related to carbon emissions discussed above, LTMS policies do not directly address carbon sequestration of restored wetlands. Carbon sequestration is but one of many positive attributes to restoring wetlands using dredged sediment that need to be accounted for in LTMS policy.
6. The LTMS analysis makes comparisons between in-bay disposal, ocean disposal and upland beneficial reuse. The various comparisons suggest that there are comparable costs for using these placement options and the main variable is haul distance. However there are a myriad of costs and challenges associated with UBRU sites that are entirely absent from "managing" the aquatic sites. UBRU sites require significant upfront investments and face major financial and regulatory hurdles including: real estate and acquisition costs, site preparation, infrastructure and offloading systems, insurance and bonding, mosquito control, and regulatory compliance including monitoring of contaminants, biota and public access. There are no equivalent challenges and expenses for aquatic disposal.
7. In general, the positive environmental impacts of wetland restoration using dredged sediment need to be better spelled out in the LTMS documents and should be taken into account when approving a dredging project that results in beneficial reuse. It was mentioned at the April 24' 2013, meeting that perhaps dredging projects could be given a "credit" if the material is beneficially reused. This idea has merit but will be difficult to implement since the majority of sediment is dredged by the Corps. Nevertheless it should remain on the short list of good ideas for LTMS implementation.
8. A mention was made of changing the policy from 40/40/20 to 60/40 (60: BRU; 40: In-Bay or was it the other way around?) A change in direction should be carefully explored. The idea would be to allow the relatively inexpensive in-bay disposal balance out the higher cost of UBRU. The concept has merit because ocean disposal is expensive and wastes a valuable resource. In-bay disposal is inexpensive but has assumed negative impacts.
9. In many instances, the LTMS 12-Year Review mixes data from the Port of Oakland minus 50-foot Deepening project with data from operations and maintenance dredging. This is confusing and misleading. It looks like the LTMS has in effect taken credit for the Oakland Deepening Project, even though it could be argued that the 50-foot project was a stand-alone project that did not result from LTMS policy. In fact, because the Oakland 50-foot deepening project was planned years before the LTMS policies were finalized it may be more correct to say that the Oakland project set the template for LTMS. Either way, when one strips out the Deepening project data, it is clear that LTMS reuse goals were only met because of this one large project.

10. Within the greater SF Bay Area, there are a half dozen large scale restoration projects that are in the design and construction phases that could put dredged sediment to beneficial uses. These sites are well known and some are mentioned in the LTMS documents, and the universe of dredging entities is relatively small. Therefore the LTMS should focus on policies and procedures that make delivery of sediments to existing projects a reality, rather than continuing to make lists of possible sites and spending time and energy setting up an online brokerage for sediment.

Katie Chamberlin

From: WernerHoyt@aol.com
Sent: Monday, April 08, 2013 6:11 PM
To: Bay LTMS
Cc: marinesmc@hotmail.com; jbillings8@juno.com; rvpeterson@mac.com; portwork@gmail.com
Subject: Re: Draft Final 12-Year Review Report and April 24 Meeting Agenda

Katie,

We see some glaring discrepancies in the Draft LTMS.

No where in the document does the LTMS address

1. Costs
2. Economic factors
3. Compliance with CARB
4. Clean Air Act and CO2 emissions. EPA Regulation of CO2 as a pollutant and a greenhouse gas.
5. Assessment of fuel usage to accomplish dredging, energy security and national energy policies.
6. Quantitized cost benefit analysis of the alternatives.
7. Quantitized Impact of alternatives upon
 - Businesses
 - Small
 - Large
 - Cities, county, State, Federal government budgets.
8. Decisions which result in higher CO2 emissions and energy consumption are a conscious decisions on the part of the agencies to increase greenhouse gas emissions over the minimum necessary.
9. Lack of quantization of the decision making parameters does not allow for informed decision making.
10. There is no discussion of utilizing scouring systems in marina's and berthing facilities to completely do away with the requirement to dredge. Such systems would substantially decrease facility CO2 footprints when dredging is factored in.

All of the above is required in the wake of Federal Court Decisions relating to lack of quantifiable decision making information in water use determinations by the Bureau of Reclamation for the Central Valley Water Project.

Sincerely,

Werner F. Hoyt, PE

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Mare Island Vallejo, CA
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This transmittal is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this transmittal is not the intended recipient or the employee or agent responsible for delivering the transmittal to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited.

In a message dated 4/5/2013 4:27:22 P.M. Pacific Daylight Time, BayLTMS@anchorqea.com writes:

Dear LTMS stakeholders,

Please find attached the Draft Final 12-Year Review Report and draft agenda for the Management Committee meeting on Wednesday, April 24. Appendices A through D to the report will soon be posted to the newly updated LTMS website (<http://www.spn.usace.army.mil/Missions/DredgingWorkPermits/LTMS/LTMSProgram12YearReviewProcess.aspx>); however, if you would prefer to have them emailed to you directly, please let me know. Due to its smaller size, Appendix E is included in the attached document.

Please plan to review the report prior to the meeting and bring any comments with you for discussion purposes. Alternatively, comments may be submitted in writing or electronically by May 8. Thank you and please let me know if you have any questions.

Katie Chamberlin

From: Bay LTMS
Sent: Friday, March 22, 2013 3:02 PM
Subject: Save the Date: LTMS Management Committee Meeting - April 24, 1-4pm

Dear stakeholders,

The LTMS Management Committee invites you to a meeting to comment on the Draft Final 12-Year Review Report and discuss ideas for next steps for the LTMS program. The meeting will take place on Wednesday, April 24, from 1:00pm to 4:00pm in the McAteer Petris Conference Room at BCDC's office in San Francisco (50 California Street, 26th floor).

I will distribute the meeting agenda and Draft Final 12-Year Review Report approximately 3 weeks in advance of the meeting. Please plan to review the report prior to the meeting and bring any comments with you for discussion purposes. Alternatively, comments may be submitted in writing or electronically by May 8.

Thank you as always for your interest and participation in the LTMS program. Please let me know if you have any questions.

Katie Chamberlin

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