Conclusion and Path Forward – Charette #5 July 21, 2020

Meeting Participants (from chat box):

Roman Berenshteyn, Bay Planning Coalition

Scott Bodensteiner, Haley & Aldrich/BPC

Todd Bridges, USACE

Seth Cohen, CPCX

Edwin Draper, Port of Oakland

Sarabeth George, San Francisco Bay Regional Water Quality Control Board

Brenda Goeden, San Francisco Bay Conservation & Development Commission

Josh Gravenmier, Arcadis

Jim Haussener, Executive Director, California Marine Affairs & Navigation Conference

Jim McNally, Manson Construction (Dredging Contractor)

Niray Patel, Defense Innovation Unit (Department of Defense Research and Engineering)

Wendy Rocha, Foth Infrastructure & Environment

Renee Spenst, Ducks Unlimited

Barbara Waffer, USACE

Will Wallgren, Dutra Group

Roselyn Wang - Assistant District Counsel, USACE

Meeting Organizers/Helpers:

Stu Townsley – USACE (Deputy District Engineer for Project Management)

Brian Gerrity – USACE SPN (Meeting Host)

Tawny Tran – USACE Project Manager

Priscilla Ouchida – Nikkei Environmental LLC (Facilitator)

John Guenza – Adanta, Inc. (Facilitator)

Libby Claggett – Adanta, Inc. (Note Taker)

Joe Schwennesen – Adanta, Inc. (Timekeeper/Note Taker)

The charette began at 8:35 AM PT. Priscilla Ouchida welcomed everyone to the meeting and covered the meeting protocols. Stu Townsley then officially welcomed meeting participants. The meeting proceeded to discussing the highlights from each of the previous four charettes with the discussion being led by Tawny Tran. All previous meeting minutes were posted on the website for review.

Bulleted and indented items were copied directly from the presentation for Charette #5.

Charette #1 – Toxicology

- The RDMMP should incorporate how future protocols around materials that is contaminated from previous land use issues that are now migrating into dredge channels.
- In-Bay placement of dredged materials could help avoid/mitigate impacts to air quality due to the use of dredging equipment and offloading equipment.
- USACE should include costs in the RDMMP because testing is a coast issue and the next 20 years of dredged material management needs to take into account toxins.
- Partnership with SFEI and ERDC for future studies related to toxicology.
- RDMMP needs to clarify what will be done to material that does not pass tests for toxins.
- Future use protocols regarding land use for dredged materials taking into account ambient concentrations of contaminants.

Tawny Tran asked the participants if anything was missed from Charette #1.

Scott Bodensteiner wrote in the chat box "Engage Water Board in process that identifies effects based criteria for toxicants for beneficial reuse". This is a follow-on comment from the Toxicology charette.

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Ambient numbers used arbitrarily could disqualify dredge material that could go into the Bay. There needs to be a refinement of the point made previously.

Charette #2 - Climate Change and Environmental Issues

- The need for beneficial reuse for raising marshes is essential. It is sediment from the Bay and needs to stay there and not be removed from the Bay.
- There is opportunity to be cost effective in achieving wetland restoration goals.
- Abbreviated timeline because of the critical need to accelerate beneficial reuse.
- Discussion about the federal standard, contracting strategies, and regional/supplement funding to supplement the beneficial reuse.
- The Montezuma project's tipping fees were not supplemented with public funding. The same logic applied to privately funded projects should be applied to publicly funded projects.
- There is a need to cast wider for aquatic disposal sites. The site should be closer to the need for where the sediment is and not the existing disposal sites.
- Regarding channel deepening and sea level rise- typically when a channel is deepened, there is
 more dredging to be done and not less. It would be important to include the modeling in the DMMP.
 Changing sedimentation patterns and the increase of sea level in the production of sediment should
 be addressed.

Tawny Tran asked the participants if anything was missed from Charette #2.

The following comment was from James M. Haussener, "Montezuma, I don't know what public funding they have received with one exception. They were a recipient of Measure AA Funds". Jim Haussener stated he just wanted his comment to be part of the record.

Charette #3 - Physical Processes

- Need to determine data gaps in hydrodynamic model and address what needs to be studied. Perhaps with a partnership with other agencies or SFEI. A unified, versatile model is needed.
- Transport modeling for clean sediment and toxins are different and priorities need to reflect this.
- A focus should be addressing the cost issue and working with the dredging community to improve beneficial reuse and continue to work the federal standard issue.
- Beneficial reuse sites specific to improve habitat for waterfowl should include specific marsh species as they need the sediment the most.
- Need to define what is "beneficial" concerning dredged material.
- Assign an economic value to the sediment based on what folks would be willing to pay for it upland.
- Types of dredgers used should be considered on a case by case basis and contractor's capability for hopper dredge to have offloading capability should be considered.

Tawny Tran asked the participants if anything was missed from Charette #3.

Jim Haussener asked, "What is meant by work the "federal standard issue?" Stu Townsley asked if Jim Haussener was asking the question for the Corps to answer, and Jim Haussener stated yes. Stu Townsley said the Corps heard that the Federal Standard should be used for how to put the material in the Bay and believes this is more about funding than the planning process. Stu Townsley believes it is a responsible comment and the Federal Standard should be covered.

Renee Spenst asked, "4th bullet still needs clarification. I wouldn't think of dredged sediment reuse primarily as benefitting waterfowl so much as other marsh-dependent species". Renee Spenst stated she did not have a lot to add since there was much discussion during that charette.

Nirav Patel added his organization and email in the chat box per Priscilla Ouchida's request. Nirav Patel, Defense Innovation Unit (Department of Defense Research and Engineering), npatel.ctr@diu.mil.

Charette #4 - Economics, Social Studies, and Policies

- LTMS agencies would like RDMMP to use the LTMS strategies as baseline rather than starting from scratch.
- Need a flexible approach to dredged material management, especially in the situation with sea level rise and climate change.
- Dredge material management is larger than just the LTMS group. Encourage those who are impacted or influenced by how the dredging program is delivered to weigh in throughout this process.
- A need to evaluate if we can reduce the amount of material being dredged by the Corps annually and if there are opportunities to reduce the needs or will the needs increase?
- Consider redefining what in-bay disposal is to include some/all beneficial reuse?
- Rehandling of material for BU is one of the largest cost contributors to BU. One opportunity is to
 explore the potential for in-water "temporary" storage areas to create volumes that can be used to
 create an economy of scale for efficient rehandling.
- USACE funding other agencies for some of this effort discussed.

Tawny Tran asked the participants if anything was missed from Charette #4.

Scott Bodensteiner commented, "Evaluate how the LTMS 40/40/20 would be different under current conditions (i.e. suspended sediment load, and total annual dredge volume) as opposed to prevailing conditions at the time the EIR/EIS was published". Scott Bodensteiner stated he wanted this to be part of the written record.

Jim Haussener stated that he would take it further back to when the LTMS was first being developed in 1987/1989 as to what has changed since that point. Sediment routine goes back to the 1989 according to the plan and Jim Haussener wonders why that year was picked. Stu Townsley stated that he felt 1989 was an arbitrary year and added that sediment budgets, fracking, etc. have improved over the course of time and the more recent data is better than data from the early 1990s and late 1980s. The Corps should be utilizing all available information going forward.

Josh Gravenmier commented, "Does the Federal Standard include costs relative to sea level rise (i.e., looking at the potential long-term costs of not utilizing dredged sediment at beneficial reuse sites to prepare for sea level rise). I would think the future costs of no action would outweigh current cost savings". Josh Gravenmier said he looks to hear from the Corps of this could/should be included in the Federal Standard evaluation and added there is a small increment different going to the ocean versus going to reuse.

Sarabeth George commented, "The regime change likely refers to the reduced sediment supply to the Bay due to decreased suspended solids in the San Joaquin". Sarabeth George stated she wanted this noted because she thought this was what Jim Haussener was referring to in the plan. In 2000, the sediment supply to the Bay significantly decreased.

Brenda Goeden stated someone said there is no law with the limits about the 20% and wanted to clarify that 100M CU is the limit.

Outstanding Topics/New Comments

- A common recurring question asked by several stakeholders that remained unanswered is: "What
 is beneficial?"
- Lowering the Barriers to reuse is critical.
- Expand environmental windows and the opportunity to seek improvements and efficiencies in how concerns and risks related to natural resources and species (T&E and otherwise) are addressed.
- Any other topics?

Todd Bridges stated the Corps takes the requirement to protect species seriously. The Corps annual spends about \$200M on threatened and endangered (T&E) species. Plus, there are a range of expenditures that are not for endangered species. Environmental laws and principals of values are followed by the Corps. Environmental windows (seasonal restrictions) are also followed. Economic costs associated with impacted windows are not included in the \$200M annual costs. This topic is the subject of the 2020 South Atlantic Regional Biological Opinion (SARBO) action area. A chart was included in the presentation showing the action area. Finding the optimal measures regarding dredging and sediment management is evolving. If a target requires reevaluation because of restrictions posing an environmental impact, it will be reevaluated or there may not be many opportunities for beneficial reuse.

Jim Haussener asked, "Where specifically on the web site are the SARBO Slides? Stu Townsley said to go to the website and click on Charette #5 to find the slides.

Brenda Goeden said the example Todd Bridges showed was very interesting, and she is aware of some interesting measures that can be taken to minimize the effects to sea turtles. In the past, equipment modifications were made to modify the work windows. There are 7 to 9 listed species in the Bay and there are many overlapping species and regulatory agencies over the species. Brenda Goeden stated they worked with the Fish and Wildlife to modify the work windows in the Delta Smelt region to allow deep water dredging. Also, the Green Sturgeon does not require a work window. Five years ago, NOAA Fisheries allowed any dredgers that need to work outside the work windows to go to beneficial reuse (through a programmatic consultation) (for the Salmon work window). Cal Fish and Wildlife has not agreed to NOAA Fisheries opinion. Ducks Unlimited is working to modify the work windows and provide opportunity for beneficial reuses throughout the year.

Jim McNally stated via the chat box, "I can just say this in the chat box but the collaboration between Dredging Contractors (often through DCA) and the Corps seems to be more open and effective, probably owing to the Hopper Fleet Coordination forcing closer coordination. However, since the cost of dredging overall and incremental cost of various reuses or protections is so central to getting the to the best solution. I suggest more effort be made by the district to find a way improve their ability to evaluate dredging cost of alternatives and credibly communicate that in the decision-making progress. This arena is full of misperceptions, in part spread by the Corps". Jim McNally added that the collaboration is more effective on the east coast.

Stu Townsley asked Jim McNally which misperceptions being spread by the Corps. Jim McNally said Stu Townsley's predecessor had stated in a meeting that beneficial reuse is the same as the ocean. Stu Townsley stated that in the past 18 months he has tried to be consistent with the Corps message and asked if there was any better way to not spread misconceptions. Jim McNally stated that things have gotten better over the past 18 months.

Brenda Goeden asked, "I am wondering how the USACE plans to address these outstanding topics?" Stu Townsley said he would cover this under the path forward portion of this meeting. Brenda Goeden asked Stu Townsley to briefly answer this now. Stu Townsley stated it is a planning study and a lot of the questions will be covered.

Way Forward

Stu Townsley stated the RDMMP is required under Corps policy and is a look 20 plus years into the future as to how dredging materials will be handled. Many planning studies get rolled into RDMMPs. Science and engineering issues are addressed along with new knowledge and the shortcomings of the knowledge base that merit some attentional attention. Policy issues also need to be addressed, but the Corps can only talk about how policies influence the ways things are done. The RDMMP is not a vehicle to drive at significant policy changes but can illustrate where policy changes may help. Stu Townsley added the RDMMP needs to address financing issues. The Preliminary Assessment is the precursor to the RDMMP and is the evaluation of financials of given channels to dredge versus the benefit of the dredging. How

dredge material will be placed over the next 20 to 25 years is pursued. Planning and policy protocols are reviewed along with funding. Since this is a federal action, the NEPA process is followed.

Project Management Plan (Road Map)

- The purpose of this Project Management Plan (PMP) is to manage the execution of a RDMMP for the Bay. This PMP serves as a guide and reference on how to manage the project delivery team, project acquisitions, changes to the project, quality of work products, risks to project execution, internal and external communications, and most importantly the overall scope, schedule, and budget for the management plan (RDMMP).
- This PMP is not intended to anticipate or include all possible changes to the project during execution. It is a dynamic "living" document that requires periodic update.

The draft PMP originally posted was shell that is to show the format. After the conclusion of this charette, the comments will be incorporated. A draft final PMP will be shared again for comments. The framing of the study is as inclusive as possible to ensure those interested in the dredging program has their perspectives known and issues addressed and have a plan that offers a better outcome along the way.

The PMP timeline is to have the draft final PMP delivered by November 2020 and the Final PMP out by Spring 2021. There will be one more round of public input after the draft final PMP is out.

After the PMP is finalized, the Regional Dredge Material Management Plan (RDMMP) studies are then further divided and conducted in two phases:

1-The initial phase: concentrates on developing a detailed Scope of Work. The initial phase shall be completed within twelve (12) months of receipt of funds by the San Francisco District.

2-Final phase: The Scope of Work shall be the basis for estimating the total study cost and local share, if any, and shall allow not longer than thirty-six months (36) to complete the final phase.

Estimated Costs: \$1M-7M

Closing Remarks

- The draft PMP is posted at: https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Regional-Dredge-Material-Management-Plan/
- Email your comments to: CESPN-RDMMP@usace.army.mil

Stu Townsley added that just because the charette process is concluding, it does not mean that new comments will not be accepted. There are multiple people that monitoring the new comments mail box to find the appropriate person to answer any questions.

Jim Haussener asked, "What environmental agencies have been identified as having sufficient resources to participate? What is the existing permitted capacity? what is the projected capacity based on permitting over the next five years? How do we get copies of the completed and the upcoming Preliminary Assessments? How was risk determined in this process on current O&M projects? What will be the process to validate continued federal investment in current O&M projects? How will stakeholders be involved in that process? When will a "revised" PMP be available? Is the Draft Final PMP the next document?" Stu Townsley stated the Corps will be happy to share the preliminary documents. Stu Townsley added that the Corps cannot augment funding for any agency that is already getting Federal funding for a specific obligation.

Brenda Goeden asked, "Is the USACE planning to do the RDMMP tiered under the LTMS program as described in the ROD/EIS?" Stu Townsley stated they are not. They will work with the LTMS program, the but this will be a much more broadly engaged process. The Corps will work with the LTMS agencies, but the DMMP is a Corps product and a Corps process and will be managed thusly.

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Brenda Goeden asked how does the USACE step away from commitments in its Record of Decision (ROD), and Stu Townsley stated he does not feel the Corps is stepping away from their ROD commitments. There will be another conversation about how the LTMS and DMMP fit together; however, this will not be a public meeting.

Jim Haussener stated the state agencies would not have much in the way of funding to participate. Jim Haussener asked if the cost of the Corps dredging program does it include Mare Island Strait dredging. Jim Haussener asked about the smaller channels and their risk; will there be a federal interest? Stu Townsley stated that a good planning effort will identify on-line and potential future beneficial placement locations. Quantities dredged in the future the demands for the future will be addressed. Smaller channel risks are considered through the planning efforts. Regional economic accounts beyond tonnage, environmental factors, and other societal affects will be considered. Good planning should look at the broad spectrum of future potential benefits along with future costs of the project.

Brenda Goeden stated via the chat box, "The state agencies are furloughed 2 days a month at this time, and BCDC has a budget shortfall such that we are not back filling some of open positions in regulatory and planning divisions....it's a bummer!"

Nirav Patel stated the DIU's mission is to help the agencies with the acquisition and utilization of new technologies and appreciated being added to the call. Stu Townsley stated that last year the Corps had an opportunity for a 6-month developmental assignment with one person from NOAA to help with a number of planning efforts across the region. Nirav Patel is the second person to help with the assignment. Nirav Patel's work telephone number is (650) 447-7166.

The meeting was closed at 10:01 AM PT.