

DRAFT FINAL
SUMMARY OF THE DREDGED MATERIAL MANAGEMENT PROGRAM
CITIZENS' ADVISORY COMMITTEE MEETING

May 8, 2019 6:30 PM
Point Breeze Maritime Center II
2200 Broening Highway
Baltimore, Maryland

Attendees:

Angie Ashley Consulting: Angie Ashley
Audubon Maryland – D.C.: David Curson
Baltimore County Department of Environmental Protection and Sustainability (DEPS): David Riter
Blue Water Baltimore: Daniel O'Leary
Chesapeake Bay Foundation: Doug Myers
EA Engineering: Peggy Derrick
EcoLogix Group: Steve Pattison
Kent Conservation and Preservation Alliance: Doug West
Maryland Environmental Service (MES): Olivia Gullledge, Danielle Wilson
Maryland Department of Transportation Maryland Port Administration (MDOT MPA): Dave Bibo, David Blazer, Kristen Fidler, Katrina Jones, Kristen Keene, Holly Miller, Amanda Peñafiel, Gannon Price, John Vasina
National Aquarium: Laura Bankey
Turner Station Conservation Teams: Gloria Nelson
US Army Corps of Engineers, Baltimore (USACE): Graham McAllister
Waterfront Partnership of Baltimore: Adam Lindquist

Action Items:

No action items to report.

Statements for the Record:

1. Ms. Fidler introduced two new Maryland Department of Transportation Maryland Port Administration (MDOT MPA) employees, Ms. Amanda Peñafiel, Environmental Permits and Compliance Manger for Harbor Development and Mr. David Blazer, Chief of Outreach, Policy, and Permits.

1.0 Welcome & Introductions

Adam Lindquist, Chair

Ms. Ashley convened the meeting at 6:30 pm and welcomed the committee members. Mr. Lindquist asked the attendees to introduce themselves and their affiliated organizations. Ms. Ashley reviewed the action items from the February 13, 2019 meeting and stated that all action items have been completed.

Mr. Lindquist asked for a motion to approve the meeting summary from the February 13, 2019 meeting. The meeting summary of the February 13, 2019 meeting was approved.

2.0 Dredged Material Placement Application Process

Peggy Derrick, EA Engineering

Ms. Derrick stated that MDOT MPA recently updated their dredged material permit application, which is now referred to as a Dredged Material Placement Right of Entry application.

MDOT MPA is responsible for safe navigation systems for the Port of Baltimore (POB) and provides placement capacity for sediment that is dredged to maintain channels to authorized depths. MDOT MPA partners with the United States Army Corps of Engineers (USACE) Baltimore District and private applicants/entities to dredge and place material.

There are 13 federal navigation channels for the POB, which contribute approximately 4.7mcy of maintenance dredged material annually. This material is placed into Masonville and Cox Creek Dredged Material Containment Facilities (DMCFs). Approximately 80% of the dredged material in the DMCFs is derived from the 13 federal navigation channels and approximately 20% is derived from private dredging projects. Sampling and chemical analysis of the sediment, water, and effluent elutriate from the 13 federal navigation channels is funded by the USACE and is conducted every three to four years. For material placed at the DMCFs, MDOT MPA maintains a sediment quality database, which dates back to 1995. The toxicity characteristic leaching procedure (TCLP) is included in the analysis to identify if a material needs to be categorized as a hazardous material.

Ms. Derrick stated that the Dredged Material Placement Right of Entry application is approximately 70 pages and requires multiple steps. First, a letter must be submitted to MDOT MPA asking if an application will be accepted and if MDOT MPA has capacity for additional material. Other submittal information includes an application form with project information, a sampling and analysis plan, an operations plan with the logistics of dredging and offloading, copies of applicable regulatory permits, laboratory results of material testing, and a hydrographic survey for both pre- and post-dredging. On average, MDOT MPA receives approximately one or two private applicants per year. The Dredged Material Placement Right of Entry application process takes approximately three to six months, depending on the information the applicant provides.

The applicant must provide information on the dredging project including project location, volume of in-situ material to be dredged, how will the project be dredged, schedule, and proposed sampling plan and testing requirements. Currently, material must be classified as maintenance material as MDOT MPA is only accepting maintenance material at its DMCFs at this time. Maintenance material is material that has shoaled in an area that has been previously permitted and dredged to a set depth. New work material is from an area that has not been previously dredged that needs to be deepened or widened.

For the required sampling and analysis plan submittal, MDOT MPA must approve all sampling locations, sample depths, sample collection (grab samples for shallower samples and core samples for deeper samples) and compositing methods. At a minimum, MDOT MPA is requiring two composite samples consisting of at least three sample sites per sample. Depending on the size and volume of the dredging project, MDOT MPA may require additional samples. Similar to the USACE federal navigation channel testing program, all samples require testing for a comprehensive list of physical and chemical characteristics such as grain size, Atterberg limits, specific gravity, moisture content, metals, organics, nutrients, pH, total organic carbon (TOC), and oil and grease. In addition, MDOT MPA now requires testing for total petroleum hydrocarbons (TPH), TCLP, ammonia, sulfide, cyanide (associated with road salts), and tributyltin (associated with shipbuilding). Required sampling allows MDOT MPA to provide a record of the quality of the material placed at MDOT MPA DMCFs and can aid in facilitating future re-use of dredged material through potential segregation of material at inflow.

The laboratory that analyzes the dredged material for the MDOT MPA applicant, must meet target detection limits. Sediment can be difficult to analyze chemically because it is not a dry soil nor water, but a combination of both. Sediment samples have very high moisture rates, for example a sediment sample can be 80% water with only 20% solid content, which can cause detection limits for certain constituents to increase. When tested at analytical laboratories unfamiliar with sediment analysis, this creates data results that are reported as non-detect, but at very high detection levels. Laboratories that are familiar with sediment analysis, have methods to adjust for the high moisture content prior to analyzing the samples, in order to meet a lower detection limit. The target detection limits that are listed in the application are comparable to those achieved for the USACE federal channel sampling and DMCF exterior monitoring programs.

The key Dredged Material Placement Right of Entry Application updates include: electronic applications; timeline for submittals and requirements; National Environmental Laboratory Accreditation Program (NELAP) certified laboratory requirements for sample analysis; minimum number of composite samples per project; physical/chemical data required to be collected within the last three years; new analytical testing requirements and target detection limits with web links within the application for additional guidance/resources; electronic data submittal requirement; pre-construction meeting requirement; and a data screening process.

The data screening process is a comparison of a chemical concentration to a regulatory limit or numeric value that is representative of the baseline or existing facility conditions. This process allows MDOT MPA to monitor material entering the DMCFs, identify materials with chemical concentrations that statistically differ from or are similar to material previously placed in the DMCFs, assist with early identification of materials that are suitable for future innovative reuse (IR) projects, and allow for implementation of material management practices. To assist in the data screening process, a baseline control limit (BCL) was calculated for the chemical constituents in the dredged material. The BCL represents a statistically derived upper concentration limit with the expectation that 95% of future data from the Baltimore Harbor will be below the BCL. The BCL for Baltimore Harbor DMCFs was determined using the USACE Baltimore Harbor channel sediment datasets. The MDOT MPA two-step data screening process for maintenance material starts with whether the TCLP results exceed the regulatory criteria. If sediment exceeds the TCLP criteria, the sediment cannot be placed in an MDOT MPA DMCF. If sediment does not exceed the TCLP criteria, step two compares the detected bulk sediment results to the BCL. If the bulk sediment results are less than or equal to the BCL then the sediment is suitable for placement at an MDOT MPA DMCF. If the bulk sediment results exceed the BCL, then the exceedances are investigated, and the material will either be excluded from placement or appropriate DMCF management practices can be implemented.

Mr. Myers requested clarification on an Atterberg limit. Ms. Derrick replied that an Atterberg limit is a physical attribute and refers to the plasticity of a material. Mr. Myers stated that there is a notion that maintenance dredged material is becoming cleaner over time and asked if the data has confirmed this. Ms. Derrick replied that since the ability to detect certain parameters has changed drastically since the 1990s, comparison of older data with the more recent data is not compatible. Ms. Derrick elaborated that with newer laboratory methods, parameters are detected and reported at much lower levels, whereas with previous older data, the parameters would have been reported at non-detects at higher levels.

Mr. Lindquist asked why MDOT MPA is currently not accepting dredged material from new work projects. Ms. Fidler replied that there are capacity constraints both from an annual in-flow perspective as

well as the 20-year planning horizon, and until the capacity constraints are loosened, MDOT MPA will not be accepting new work applications from the private sector. Mr. Lindquist asked if there are significant non-MDOT MPA DMCFs. Ms. Fidler replied the municipalities such as Anne Arundel County and Baltimore County have DMCFs. Ms. Derrick mentioned that some landfills may also accept dredged material if it has low moisture content. Mr. Lindquist asked if an entity such as a marina or boating club were to dredge their facility, would the dredging company complete the application and screening process. Ms. Derrick responded that the dredging company would complete the process.

Mr. Bibo asked for an estimated price of composite sediment samples. Ms. Derrick replied that it costs approximately \$2,500 to \$3,000 per composite sample. Ms. Derrick added that some labs may provide discounts for quantity. Ms. Derrick confirmed that if a laboratory is not equipped to conduct sediment analysis, they can work with MDOT MPA to better understand how to conduct the analysis correctly.

Mr. Riter asked if a tidal wetlands permit is required for this work. Ms. Derrick replied that to collect sediment samples, a tidal wetland permit from Maryland Department of Environment (MDE) is required. This is the same permit process that is required for the dredging. The most efficient way to go through this permit process is to apply for dredging and borings at the same time.

3.0 Innovative and Beneficial Reuse Progress Report

Kristen Keene, MDOT MPA

Ms. Keene stated that the Innovative and Beneficial Reuse Progress Report would focus on new policy initiatives related to the Innovative Reuse Program.

Governor Hogan's Executive Order

In June 2017, Governor Larry Hogan issued the Waste Reduction and Resource Recovery Executive Order, which recognizes dredged material as a valuable resource with vast reuse potential, calls on state agencies to be leaders of dredged material reuse, and prompted the creation of the Sustainable Materials Management Maryland (SM³) group.

Sustainable Materials Management Maryland Group

SM³ is a private sector-led and supported coalition of businesses from multiple sectors who are committed to working collaboratively with MDE, state agencies, and other public sector leaders across Maryland to meet the goals outlined in the Governor Hogan's Executive Order. The SM³ group contains a diverse set of stakeholders and has representation from senior level leadership at state agencies.

One of the SM³ workgroup goals is to establish a Maryland Waste Reduction and Resource Recovery Innovation Center (MWR³), or multiple MWR³ Innovation Centers across the state, to accommodate several municipalities in a manner that dually reduces waste streams and recovers resources to eventually be returned to market. Much of the work that the MDOT MPA has done with the IR Program provides an example of how to recover a "waste" stream and return it to the region as a valuable resource.

Ms. Keene summarized the key points from the December 14, 2018 and April 18, 2019 SM³ meetings. During these meetings, dredged material was introduced into the conversation in the context of waste stream recovery efforts. Meeting participants recognized dredged material as one component of a larger solution to improve sustainable materials management in Maryland. The SM³ group has been working to investigate and perform a landscape assessment of the regulatory framework in Maryland, including definitions and policies that call for updating or revision to help promote the activities of SM³ in Maryland.

The collaborative effort of MDOT MPA with the MDOT State Highway Administration (SHA), MDE, and MDOT Office of Environment to update the harmful materials provisions in SHA's topsoil specification to remove the words 'dredge spoil' is an example of how outdated policies can have a negative impact on sustainable materials management in Maryland. This group has generated a significant interest in conducting dredged material blending demonstration projects in collaboration with MDOT MPA.

House Bill 171

Ms. Keene described House Bill (HB) 171 – Yard Waste, Food Residuals, and Other Organic Materials Diversion and Infrastructure study. The bill requires MDE, in consultation with other entities, to study and make recommendations regarding specified matters that relate to the diversion of yard waste, food residuals, and other organic materials from disposal facilities and the status of infrastructure in Maryland. The group is currently drafting a report that include legislative, regulatory, and programmatic recommendations. The workgroup recommendations will include a recommendation regarding dredged material and the potential to use it as feedstock for material blending efforts to support research and development of end use options for various waste streams. The report is expected to be complete July 1, 2019 and will be submitted to Governor Hogan and the General Assembly.

The recommendation language regarding dredged material from the HB 171 workgroup will support the notion that dredge material has value and will enhance the IR program, which can aid in the identification of other ways dredged material can be used.

Ms. Keene stated that the SM³ and HB 171 workgroup meetings have generated interest in working with MDOT MPA for demonstration projects. Both groups heavily discuss further research and development to better understand and identify the end use options for dredged material as well as other waste streams. MDOT MPA's Revised IR Strategy contains an action item that specifically speaks to investigating opportunities to foster research and innovation. Both the SM³ and HB 171 workgroups have robust private sector representation, which has allowed MDOT MPA to form relationships and identify opportunities for collaboration. The SM³ group is an example of how to generate synergy among different state agencies, allowing the agencies to work together, opposed to solely focusing on their individual sectors.

4.0 Corps of Engineers Report

Graham McAllister, USACE

Dredging

Mr. McAllister stated that the USACE Baltimore District awarded a maintenance dredging contract at the end of the federal fiscal year (FFY) 2018 to Norfolk Dredging to dredge 2 million cy from the Maryland Approach and Baltimore Harbor channels. The dredging started December 2018 and was completed April 2019. Norfolk Dredging dredged approximately 2.2 million cy from the Craighill Entrance, Craighill Channel, Craighill Angle, Craighill Upper Range, and the Cutoff Angle. All material was placed at Poplar Island. Norfolk Dredging dredged approximately 475,000 cy from Curtis Bay, which was placed at the Masonville DMCF.

USACE will be listing two maintenance dredging contract solicitations in June 2019. One solicitation will be for the Maryland Approach and Baltimore Harbor Channels for approximately 2.5 million cy with material coming from the Brewerton Channel, Brewerton Angle, and East Channel to be placed at Masonville DMCF and the Brewerton Eastern Extension and Tolchester Maryland Approach channels with material to be placed at Poplar Island. The other solicitation will be for the York Spit channel in

Virginia waters for approximately 2 million cy using a hopper dredge. A previous solicitation for the York Spit dredging with use of mechanical dredges was issued in an effort to not disturb endangered sea turtles and overwintering crabs, however, the submitted bids were not able to be awarded. USACE is working on an environmental assessment for a northern extension to the Wolf Trap Alternate Placement Site to avoid overwintering crab locations.

USACE is working with MDOT MPA to transfer approximately \$4.95 million of Energy Transfer Port (ETP) funds, which were included in the FFY19USACE Work Plan for the POB. The Water Resources Reform and Development Act (WRRDA) 2014 authorizes the Secretary of the Army to provide funds, subject to availability of appropriations, to ETPs. An ETP is a port at which energy commodities comprised more than 25% of all commercial activity by tonnage and through which at least 40 million tons of cargo were transported per year.

The President's budget proposal for 2020 included \$20.4 million for Baltimore Harbor channel projects and \$17.3 million to Poplar Island.

Masonville Tipping Fee

The USACE Baltimore District has a Decision Document that was approved by USACE headquarters that allows the Baltimore District to enter into a Memorandum of Agreement (MOA) with the MDOT MPA to place dredged material from the federal channels in the Masonville DMCF. After the Decision Document was approved, the Kurt Iron Slip (KIS) was removed from the planned footprint for the Masonville DMCF, which alters the tipping fee price. USACE will submit a Decision Document addendum and the MOA concurrently to the Assistant Secretary of the Army once the costs and inflow quantities are revised to reflect current figures, which has a December 2019 expected completion date.

Poplar Island Expansion

USACE has created 372 wetland acres and have placed 34.3 million cy of dredged material at Poplar Island to date. The 2018 Sand Stockpile contract was completed in April 2019 which placed approximately 2.6 million cy of dredged material at Poplar Island for expansion purposes.

Currently the USACE has two contracts underway; Lateral Expansion 2 and Lateral Expansion 3, which will include creation of three wetland cells, dike construction, and an upland cell. Both contracts are expected to be completed by July 2020. A Structures contract for the spillway is scheduled to be awarded in September 2019.

All Poplar Island expansion work is expected to be completed by July 2020. Once the expansion is complete, placement for the Maryland Approach channels should exist through the 2032/2033 maintenance dredging cycle.

Mr. Bibo asked if USACE considered dredging Swan Point with the Brewerton Extension. Mr. McAllister replied that USACE was considering this, however, due to placement capacity, Tolchester Channel and Brewerton Eastern Extension take priority.

Mr. Bibo asked what happens to the funds set aside for a tipping fee if a tipping fee was not implemented. Mr. McAllister replied that USACE would discuss with MDOT MPA regarding if the additional fees should go towards maintenance dredging or be returned to the Treasury.

Mid-Chesapeake Bay Island Expansion

In order to execute a design agreement with MDOT MPA, the USACE is awaiting the Assistant Secretary of the Army of Civil Works approval of the Record of Decision. Mr. McAllister stated that the Mid-Chesapeake Bay Island Expansion project received \$4.9 million to begin the design of the project. The initial design is expected to be complete by 2027 in order to keep the Maryland Approach channels open.

5.0 Harbor Development Update

Kristen Fidler, MDOT MPA

Currently, Cox Creek DMCF is not open to receive inflow from new or maintenance dredging due to multiple ongoing construction projects onsite.

Cox Creek Base Dike Widening

Clay material from the Cox Creek Upland excavation and borrow area is being placed for the base dike and will continue to be placed in segments around the interior of the existing DMCF dike. The base dike will support the dike as it is raised to +60 Mean Lower Low Water (MLLW). As clay is placed for the base dike, it displaces the dredged material, which creates a mud wave in the DMCF.

Cox Creek Building 201 Demolition and Remediation

Building 201 demolition is nearing completion. The building requires demolition as the DMCF will be expanded into the MDOT MPA-owned upland. The polychlorinated biphenyls (PCB) found in Building 201 structural materials slowed the demolition process. PCB-contaminated material that tested above 49 parts per million (ppm) was sent to specialized disposal sites in Michigan and Texas and material with less than 49 ppm will go to approved disposal sites in Virginia or Pennsylvania. Ms. Fidler reminded attendees that all material handled from the Building 201 demolition is separate from that of dredged material. The demolition and remediation of Building 201 is expected to be complete by early fall 2019.

Mr. Myers asked if the PCBs are in the soil underneath the building. Mr. Price replied that the PCBs are only in the building materials. Mr. Price stated that MDOT MPA is coordinating with the Environmental Protection Agency per their regulations, and if any contaminated soils are found, they will be properly disposed of as well.

Cox Creek Operations and Maintenance Complex Building: The Operations and Maintenance (O&M) building is expected to be completed in September 2019. The building will provide meeting and office space, equipment bays, and storage.

Cox Creek Citizens Oversight Committee

Over a year ago, MDOT MPA worked with the Cox Creek Citizens Oversight Committee (CC COC) to identify their recommended prioritized mitigation and community enhancements efforts. Through research, data collection, information sharing, and discussion the CC COC was able to unanimously agree at their April 10, 2019 meeting on a prioritized list of recommendations that they would like MDOT MPA to consider after the Cox Creek required mitigation is complete.

Mr. Myers asked if MDOT MPA has an estimation of how much mitigation will be required. Ms. Fidler stated that MDOT MPA has yet to have any definitive numbers, but believe monetarily, the mitigation will require an approximate \$2 million budget.

Masonville DMCF

The Masonville DMCF dikes will ultimately be raised to +42 MLLW. Currently, construction to raise the dikes to +18 MLLW is underway which is expected to be completed in late 2019. MDOT MPA is working with MDE to approve designs and acquire permits for the next increment of dike raising.

Mr. O'Leary asked where the material to raise the Masonville dikes is coming from. Ms. Miller replied that the material is being purchased from the Vulcan quarry from Vulcan Materials Company, located near Masonville Cove.

Masonville Cove Public Access

Ms. Fidler stated that 2019 is the pilot project year for access enhancement solutions and Masonville Cove is also celebrating a Decade of Dedication to the public. MDOT MPA is tying the two efforts together to allow extended hours for Masonville and the Environmental Education Center. Currently the site is not open on weeknights, however, MDOT MPA has worked with its partners to open the site on the first Thursday of every month until 8 pm. MDOT MPA and their partners are tracking data on visitor numbers, shuttle usage, etc. to determine which access solution would benefit from a long-term investment.

The latest event was the 1st Thursday evening Yoga on the Deck event on May 5, 2019. Five community members attended the event and one utilized the shuttle service. The next event will be the Feathered Friends Day on May 11, 2019, which will be a part of the Baltimore Urban Wildlife Festival. Free shuttles will be offered from Middle Branch Park to Masonville Cove. Flyers have been distributed electronically as well as hard copies in both English and Spanish.

Masonville Cove is the first Urban Wildlife Refuge partnership designated in the country and has served approximately 35,000 students through Masonville Cove programs, approximately 10,000 visitors for free community program participation, and approximately 4,000 volunteers have donated over 20,000 hours. Masonville Cove is home to Captain Trash Wheel and more than 61,000 tons of trash and debris has been removed. Approximately 452 plants and animal species have been identified at Masonville Cove and, recently, an eaglet.

Seagirt Berth and Loop

In 2017, the POB handled a record 596,972 containers, an 11 percent increase from the previous record set in 2016. To accommodate the growing cargo activity, the remainder of the Seagirt Loop will be deepened to 50 feet and Berth 3 will be deepened to 50 feet. This will provide a second 50-foot container berth and should allow ships to more easily, efficiently and safely turn around, thus increasing the efficiency of the POB.

To deepen the loop, MDOT MPA is working with USACE on the possibility of conducting a feasibility study; federal funding has yet to be allocated for a study. Once started, the study would be expected to take four years. If the study has a positive outcome and funding is appropriated by Congress, it will be approximately seven to nine years until the Loop project is complete.

The Berth 3 project is well underway with the preliminary planning, ship simulation study, geotechnical investigations, and chemical analysis completed. The Berth 3 infrastructure design is ongoing, and the permitting process began in December 2018.

Mr. Myers asked if the material from the Seagirt Berth and Loop is considered new work and where the material will be placed. Ms. Fidler stated that the project is mostly State new work material with some maintenance material, and will be placed at Masonville DMCF and that MDOT MPA goes through the same testing process as private applicants.

Pearce Creek

In the community surrounding the USACE-owned Pearce Creek DMCF, 224 in-home water service connections and 247 well abandonments (some homes contained multiple wells) have been completed out of 232 properties. As a result of the construction associated with the waterline connections MDOT MPA facilitated road restoration, which is nearing completion. The next Pearce Creek Implementation Committee meeting is May 17, 2019.

Mid-Bay Project

The Mid-Bay project will provide long-term capacity for dredged material placement to keep the federal navigation channels safe and efficient for the POB. It would also restore important, scarce, and remote island habitat in the Chesapeake Bay, an ecosystem of national significance.

The USACE has received \$4.9 million for Mid-Bay design. The Project management plan and design agreement between USACE and MDOT MPA is underway. MDOT MPA applied to MDE for a tidal wetland permit to conduct geotechnical borings near James and Barren Island.

6.0 Committee Administration and Open Discussion *Angie Ashley, Angie Ashley Consulting*

Ms. Ashley reminded members that the next meeting is August 7, 2019 at MedStar Harbor Hospital, which is a joint meeting with the Harbor Team. The DMMP CAC plans an annual fall field trip and Ms. Ashley will inform members of the details once they are available.

The Annual Meeting is scheduled for November 8, 2019 at the Sollers Point Multi-Purpose Center in Dundalk.

Mr. Curson distributed brochures to the committee regarding the Farm Creek Marsh wetland restoration project which was completed in October 2018.

Mr. Lindquist stated that Captain Trash Wheel is turning 1-year old in June 2019 and Mr. Trash Wheel will be turning 5 years old May 11, 2019. There will be a birthday party for Mr. Trash Wheel at Peabody Heights Brewery where a new Mr. Trash Wheel-themed beer will be released.