

FINAL DRAFT
SUMMARY OF THE DREDGED MATERIAL MANAGEMENT PROGRAM
MANAGEMENT COMMITTEE MEETING

June 27, 2018, 10:00 AM

World Trade Center

20th Floor, Stanton Room

Baltimore, Maryland

Attendees:

Angie Ashley Consulting: Angie Ashley

Association of Maryland Pilots: Eric Nielsen

Chesapeake Bay Foundation (CBF): Carmera Thomas

Ecologix Group: Steve Pattison

Maryland Department of Natural Resources (DNR): Bruce Michael, Richard Ort

Maryland Department of the Environment (MDE): Matt Rowe

Maryland Environmental Service (MES): Tammy Banta, Jeff Halka, Chris Williams

Maryland Department of Transportation, Secretary's Office (TSO): John Denniston, Eddie Lukemire

Maryland Department of Transportation Maryland Port Administration (MDOT MPA): Sergio Adantor, Dave Bibo, Chris Correale, Bertrand Djiki, Kristen Fidler, Jennifer Guthrie, Katrina Jones, Kristen Keene, Shawn Kiernan, Holly Miller

Rukert Terminals Corporation: Steve Landess

University of Maryland Center for Environmental Science (UMCES): Dr. Peter Goodwin, Dave Nemazie

US Army Corps of Engineers, Baltimore District (CENAB): Harvey Johnson, Graham McAllister

US Army Corps of Engineers, Philadelphia District (CENAP): Gavin Kaiser

Action Items:

1. None.

Statements for the Record:

1. None.

1.0 Introductions, Approval of Meeting Summary

Ms. Chris Correale, MDOT MPA

Ms. Correale welcomed the attendees and called the meeting to order. Attendees were asked to introduce themselves and state whom they represent. Ms. Correale introduced Harvey Johnson, who is the new Chief of Operations at the US Army Corps of Engineers, Baltimore District (CENAB). Ms. Correale requested comments on or changes to the summary from the March 28, 2018 Dredged Material Management Program (DMMP) Management Committee meeting. A motion to accept the meeting summary passed unanimously.

2.0 2018 Dredged Material Management Program (DMMP) Mid-Year Report

Ms. Chris Correale, MDOT MPA

Ms. Correale stated that the report measures where the Maryland Department of Transportation Maryland Port Administration (MDOT MPA) is, mid-way through the year, based on the fulfillment of the recommendations from the 2017 Annual Report. The first recommendation from the 2017 Annual Report was to continue with the implementation of the Hart-Miller Island (HMI) North Cell Habitat Development Plan. MDOT MPA began excavation of the deep pool in 2016 to create a sustainable rain-

fed pond feature. Planting of vegetation test strips has also occurred with annual and perennial grasses as well as woody vegetation; this is a long-term project. There has been coordination with Maryland Department of Natural Resources (DNR) regarding the type of habitat which could be created in the North Cell; discussions are ongoing. The objective is to establish the habitat and turn the land over to DNR to become part of the state park. Mr. Michael stated that coordination is ongoing with Maryland Park Service to provide MDOT MPA and MES with habitat type recommendations as soon as possible.

The second recommendation is a combination of a few projects such as the Mid-Chesapeake Bay Islands (Mid-Bay) project and Poplar Island Expansion. Assistant Secretary of the Army (Civil Works), R.D. James, toured Poplar Island along with elected officials and stated that he does not like projects to become deauthorized. The US Army Corps of Engineers (USACE) Federal Fiscal Year (FFY) 2018 Work Plan was recently published and the Port of Baltimore was a beneficiary of the work plan. The Plan included approximately \$30 million in additional funds for the Poplar Island Expansion, which will allow the last contract for the footprint of the expansion to be executed. For Mid-Bay, \$644,000 was included to initiate pre-construction engineering and design. Funding of approximately \$4 million was also received for Energy and Donor Port dredging; coordination with the USACE will occur to determine how those funds will be expended.

The House and the Senate each have a version of the Water Resources Development Act (WRDA) for 2018. The bill passed in the House and is expected to be passed by the Senate before the August recess. Information received from American Association of Port Authorities states that if the bill is not passed before the mid-term election then it will most likely not be passed until 2019. This is important to MDOT MPA because of favorable language in the document, stating that the deauthorization timeline would be extended from 7 years to 10 years for any project which was authorized by the Water Resources and Reform Development Act (WRRDA) of 2014. The Mid-Bay project currently expires in 2021 and the extension would give it an expiration of 2024, allowing extra time to get the project designed and constructed. Other language in WRDA 2018 allows non-federal sponsors to advance funds for aquatic ecosystem restoration projects. There is language in the Senate version of the bill that is not included in the House version, stating that if a project is budgeted under a business line that is different than the purpose under which it was authorized, then the USACE must ensure that project is carried out under the requirements of the business line under which it was originally authorized. This language was included due to the change of the Poplar Island Expansion project from the Environmental business line to the Navigation business line.

Mr. Nemazie asked if WRRDA 2014 would still be followed until the WRDA 2018 is passed. Ms. Correale replied that it would. Mr. Nemazie also asked if there was a chance for deauthorization if there was no bill to replace the WRRDA 2014. Ms. Correale replied that there is that chance, but that there would be time for new legislation to extend the project since Mid-Bay does not deauthorize until 2021. Ms. Correale stated that the FFY2019 Energy and Water Development Appropriations are in a minibus with other agencies. The full House and Senate have passed that bill. If a conference agreement is reached and passed, then the USACE will be one of the few agencies in the federal government that will have a budget for the entirety of FFY 2019. Regarding Mid-Bay, it is not included in the President's FFY 2019 budget. MDOT MPA is depending on the FFY 2019 Work Plan funds for the permit and design of Mid-Bay. The next increment of design is very expensive and is estimated at \$3.3 million. MDOT MPA is working to inform the elected officials of the need to support the project in discussions with the USACE.

Ms. Correale stated that the Federal Dredged Material Management Plan (DMMP) was approved October 31, 2017 for the Baltimore Harbor and Channels project. Mr. James transmitted of the Supplemental Chief's Report on Mid-Bay to the Office of Management and Budget (OMB). MDOT MPA hopes that the OMB will clear the Mid-Bay project to be budgeted for FFY2020 for the USACE.

Ms. Correale stated, regarding Virginia channel placement sites, that MDOT MPA has been working with the USACE on a cost-share feasibility study and general reevaluation report for widening the channels. There have been challenges such as the use of the Wolf Trap Alternate Placement Site. MDOT MPA is working through the issues with the USACE and the National Marine Fisheries Service (NMFS) and Virginia Marine Resources Commission to assess impacts on the essential fish habitat (EFH) that is affected by the dredging project, as well as by the placement site. Overwintering female crabs spend time in the Wolf Trap Alternate Placement Site; the USACE has changed their proposed maintenance method from hopper dredging to mechanical dredging, which should reduce the impacts to the overwintering crabs. The use of mechanical dredging allows dredging to take place in the summer since the risk to sea turtles is much lower than with hopper dredging.

All of the DMMP committees have been briefed on dredging demand versus the capacity supply. MDOT MPA believes that they have sound planning numbers for dredged material management. MDOT MPA is planning beyond a 20-year capacity due to the time it takes for creating capacity. MDOT MPA, in conjunction with the University of Maryland Center for Environmental Science (UMCES), is developing a workshop which will investigate dredged material use in low lying areas of the Chesapeake Bay related to sea level rise. Mr. Nemazie stated that a similar workshop was held in 2005 and recommended using those materials for the development of the upcoming workshop. Capt. Nielsen stated that DNR Chesapeake and Coastal Service is looking heavily into thin layer placement and asked for DNR to be incorporated in to the workshop.

Ms. Correale stated, regarding the Cox Creek Expanded (CCE) project, that the base dike contract should be awarded soon. MDOT MPA is expecting the Erosion and Sediment Control permit from the Maryland Department of the Environment (MDE) any day. The concept design for the elevation +60' mean lower low water (MLLW) dike was completed in April. The final design for the +60' MLLW dike is expected to be completed next summer. The +60' MLLW dike construction would begin in 2020. Construction has begun on the Operations and Maintenance complex, which will house staff from MDOT MPA and MES, equipment, and a meeting room. Regarding Building 201, MDOT MPA is close to receiving approval from the US Environmental Protection Agency (EPA) and is working with a contractor to obtain a proposal to initiate the work soon.

Ms. Correale stated that MDOT MPA has been performing due diligence with MDE regarding the nearby Cristal property for potential acquisition. MDOT MPA is continuing discussions to obtain the property for future innovative reuse and potential terminal space. Previously it was anticipated that the Cristal property would be used for additional diked placement capacity, but the cost would be too high for the small amount of capacity gained. There would be about 20 acres of area for innovative reuse if the property is acquired.

Ms. Correale stated, regarding the Confined Aquatic Disposal (CAD) pilot project, that all of the DMMP committees have been updated on the project. The cell was dredged by MDOT MPA and USACE placed maintenance material into the cell. MDOT MPA has monitored the site and the only discrepancy noticed was a scour hole that developed at nine months post-placement. Monitoring has thus been extended for another year to identify if there are any additional impacts and if the material is staying in place. Ms.

Miller stated that the first post-placement monitoring event after the initial year of monitoring was conducted on June 1 and results are forthcoming. Ms. Correale stated that the CAD pilot project was implemented to determine if it could be used as another tool for dredged material management in the future.

Regarding Innovative Reuse, MDOT MPA is investigating alternative daily cover (ADC) at the Quarantine Road Sanitary Landfill. At the closed Hawkins Point Dredged Material Containment Facility (DMCF), the south cell will be filled with dried dredged material and then MDOT MPA's Safety, Environment, and Risk Management (SERM) department will build an algal flow-way to conform to the Municipal Separate Storm Sewer System (MS4) permit compliance. The Cox Creek dredged material grass test plots have drawn more interest than expected. The test plots will be grown through the end of the season.

At the Pearce Creek DMCF, the USACE finished the liner installation and dredged material has been placed at the site during the 2017-2018 dredging season; the project has been a success. Regarding the water system for the nearby residents of the Pearce Creek DMCF, there are 232 residences eligible for hook-up. To date 224 in-home connections have been completed and 203 of the wells have been abandoned. There are four home owners (who own six properties among them) who have refused to connect, one home owner who has recently passed away, and one home owner with whom no contact has been made. The project is close to completion. The citizens must notify MDOT MPA by July 8 in order to continue eligibility, which will allow the contractor to complete the remaining connections by the MDOT MPA funding expiration date of September 8. Multiple attempts have been made to get the remaining residences connected. If the residents refuse to connect the County will require that they have potable water if they wish to sell the property, which would incur the expense of connecting to the system and abandoning the wells themselves, estimated at \$10,000. Mr. Ortt asked about the 21 wells which have not been abandoned. Ms. Correale stated that all wells will be abandoned. Mr. Ortt asked if any of the wells would be kept open as observation wells. Ms. Keene stated that the USACE has a series of groundwater monitoring well locations around the dike of the Pearce Creek DMCF as well as a few located within the communities to evaluate any changes in the groundwater associated with the liner installation. Mr. Kaiser stated that approximately 35 monitoring wells are located around the perimeter of the DMCF and additional wells within the communities. Ms. Correale stated that the Pearce Creek project is almost complete and that a briefing and tour will be held for elected officials within the next few months.

Ms. Correale stated that MDOT MPA had a successful event unveiling Captain Trash Wheel, which is located at Masonville Cove. The trash wheels are a way to engage the public about keeping trash out of the Baltimore Harbor, and to learn about the environment and the Chesapeake Bay. All three trash wheels have a presence on social media. MDOT MPA also attended the Curtis Bay festival. Ms. Correale stated that the diamondback terrapin head-start program has been a great tool for engagement as well. The goal is to attract the younger generation to get involved.

Ms. Correale asked for a motion to approve the Draft Mid-Year Report. The motion was unanimously approved.

3.0 Fort Carroll Oyster Reef

Carmera Thomas, CBF

Ms. Thomas stated that she is the Baltimore Program Manager for the Chesapeake Bay Foundation (CBF) and manages the Oyster Restoration Program in the Inner Harbor. The oyster reef is at Fort Carroll, which was constructed after the War of 1812 but was never completed; it is now a great habitat

for birds and oysters. The nearby shipping channels have raised and stabilized the salinity, as well as allowed for good water flow to provide oxygen and algae for the oysters. The reef has been planted for over 15 years: Living Classrooms Foundation, Department of Natural Resources, CBF, and oyster gardeners through the Great Baltimore Oyster Partnership (CBF and Waterfront Partnership of Baltimore) have planted at the Fort Carroll reef. A 1.1-acre reef, constructed in April 2017, is also adjacent to the oyster gardening reef.

Building a reef begins with oyster shell purchased from the State of Maryland and restaurants, as well as received from resident donations. The shells are cleaned by curing for a year in a parking lot, allowing the biological material and diseases to die. The material is further cleaned by volunteers and a shaker to remove any debris after the year of curing is completed. The shells are placed in to setting tanks in which the oyster larvae settle on the shell. Once the oysters have settled on the shell, they continue to grow and build their own shell. The cleaning allows for larger surface area for the larvae to set on since oysters prefer shell over other hard substrate, but concrete is also used. The oyster restoration center is located in Shady Side, Maryland which is just south of Annapolis. There are five setting tanks.

The Patricia Campbell is CBF's custom-built restoration vessel. The ship is about 64 feet long and can go in to waters 3-5 feet deep. The vessel includes eight hoppers with hydraulic rams that allow the shells to be dumped on-to a conveyor belt. At the end of the boat there is a spreader with a GPS to accurately and precisely drop shell on to a reef using GPS waypoints. The flat deck allows space for reef balls, which are used for other restoration projects. Approximately 2,000 bushels of shell are collected each year and 10-15 million spat-on-shell oysters are planted each year. A new campaign is expected to plant 10 billion oysters in the Chesapeake Bay by 2025 in both Maryland and Virginia.

Funds received from MES (on behalf of MDOT MPA) and Abell Foundation allowed for the construction of the reef. The 1.1-acre reef was then constructed with spat-on-shell on top of the granite. Granite is used to allow the reef to set off of the bottom so that it does not become silted over. Images of the oyster reefs were shown, taken by a Clearwater Box. Approximately 10-12 live oyster spat are on each surface; 3.1 million oysters were planted on the reef in April. Approximately 7-8 oysters survive per shell and grow from the size of a small dot to thumbnail, then the growth is approximately one inch per year. The oysters are planted millions at a time to increase the survivability in the wild. The reefs have been monitored in December 2017 and May 2018, showing consistency and successful survivability.

The Great Baltimore Oyster Partnership, a collaboration between CBF and the Waterfront Partnership of Baltimore is currently managed by Ms. Thomas in the Inner Harbor, but there are other locations in Maryland and Virginia performed by volunteers where the oysters are grown on the side of their private docks. There are eight locations in the Inner Harbor, including the Downtown Sailing Center and Lighthouse Point Marina. Volunteers from corporations, students, and general public are involved with oyster restoration and it provides an engagement tool. Approximately 150,000 oysters are planted per year because of the Oyster Gardening Program. The cages are put together by volunteers and the spat-on-shell is distributed in shell bags. Each participant receives 150 shells in the fall and takes care of them for nine months. The shells are then returned to CBF who then places them on non-harvest reefs around the Chesapeake Bay.

Mr. Nemazie stated that the salinity in the area is fairly low and asked if monitoring was being conducted for disease. Ms. Thomas replied that at Fort Carroll, an education vessel goes out every day to test the water quality. MSX and Dermo are slowly moving up the Chesapeake Bay but they have not reached

Fort Carroll yet. The diseases are mostly found in the lower part of the bay where the salinity and water temperatures are higher. Mr. Nemazie stated that the concern is spreading diseased oysters to sanctuaries where diseases may not yet occur. Ms. Thomas stated that the oysters are planted in close proximity to where they are grown. Mr. Michael stated that there has been relatively low salinity this year due to freshwater flows. Oysters can withstand short periods of low salinity, but extended periods could impact them. Ms. Thomas stated that the summer is when the spat-on-shell are grown in the tanks and CBF is a month or so behind due to the low salinity and unavailability of spat from Horn Point Lab. Mr. Nemazie stated that the low salinity has been a challenge. While the oysters may survive a low salinity event, their fecundity lowers drastically.

Ms. Thomas stated that the Snow Goose is a CBF education vessel which runs in the Baltimore Harbor; a trip can be set up for those who are interested. Sampling is also conducted on the boat to get students involved with the current bay issues. CBF also has a scientific permit for fish trawling and dredging for oysters around Fort Carroll for measuring year classes. A high amount of biodiversity can be found in the Harbor. CBF works with many groups including students from the Baltimore Lab School and Digital Harbor High School. Students participate in the program throughout the entire school year. In the fall, discussions are held regarding oyster restoration in the Inner Harbor, and the Chesapeake Bay. The students take care of the oysters for nine months and then earn a trip to plant their oysters at the end of the school year. Regarding the Clearwater Box, it contains clear water and a camera which makes it easier to take very clear pictures under water.

The first monitoring trip for the 1.1-acre reef was conducted in December 2017, which showed a high density of oysters. The Clearwater Box was used for photos and sampling was conducted using transect lines. Another monitoring event was conducted in May 2018. Samples were collected from a 100 x 100 meter transect. The oysters were measured for their length and width and to see what was growing on them (i.e. barnacles, anemones) as well as wild reproduction. It is believed that spat is setting on the oyster reef, but the origin of the spat is unknown. Oyster larvae can travel with the current. As oysters reach maturity they can change sex allowing them to have better survival in the wild. Oysters can filter up to 50 gallons of water per day. CBF plans on planting an additional 2 million spat-on-shell on the 1.1 acre reef in spring 2018. Monitoring will continue through 2019, but the hope is to continue monitoring through 2020. The goal for 2020 was to plant 5 million spat-on-shell at Fort Carroll. Once that is completed oyster gardening will still continue.

4.0 Innovative & Beneficial Reuse Progress Report **Ms. Kristen Keene, MDOT MPA**

Ms. Keene provided an update on the Innovative Reuse (IR) demonstration projects. Dried dredged material from the Cox Creek DMCF will soon be hauled over to the Quarantine Road Sanitary Landfill for use as an alternative daily cover (ADC). Currently, MDOT MPA is in the process of finalizing a hauling agreement with the Baltimore City Department of Public Works (DPW) for that material. Regarding the small-scale test nursery at Cox Creek DMCF, observations will continue to be recorded until early fall. Additional IR material will be taken to Hawkins Point South Cell for use as engineered fill, which is expected to begin within 60 days. The newest demonstration project is the HMI North Cell Habitat Development. MDOT MPA is in the process of data collection to help develop the preliminary design scenario for the micro-landforms that will support a diverse habitat.

The topic of IR has been presented at a number of local conferences. The first was in May at the North American Dredging Summit; a panel consisting of MDOT MPA, MDE, and Mahan Rykiel Associates led a discussion on IR. More recently, at the Maryland Recycling Network (MRN)/Solid Waste Association of North America (SWANA) Mid-Atlantic Annual Conference, MES gave a presentation

on behalf of the MDOT MPA regarding the overview of the MDOT MPA IR program, generating a lot of productive discussion. Many questions were related to the use of material as ADC as well as using dredged material for shoreline improvements and construction materials.

Ms. Keene stated that the Chesapeake Bay Journal recently interviewed MDOT MPA for an article regarding the beneficial use of dredged material and the Turner Station Fleming Park Project Proposal. The community is asking to use the dredged material, showing a paradigm shift in the way the communities view dredged material. The Chesapeake Bay Journal will be following up with CBF and leaders from Turner Station as they continue to identify different funding opportunities to implement the project.

Regarding the MDE Guidance Document, the National Park Service (NPS) contacted MDE regarding using dredged material in different agricultural applications. Mr. Rowe stated that NPS inquired if dredged material from the Chesapeake & Ohio (C&O) Canal could be used on nearby agricultural land. This request triggered a conversation between MDE and the Maryland Department of Agriculture (MDA) in terms of placement requirements. Parameters were developed and the MDE Innovative Reuse & Beneficial Use Guidance Document will be updated. Internally MDE will discuss ensuring the proper controls and approvals are in place for when material is used.

On June 22, MES, on behalf of MDOT MPA, cancelled the IR Request for Proposals (RFP). Four proposals were received, one of which was deemed unresponsive. The proposals were encouraging and demonstrated feasibility of innovatively reusing 500,000 cubic yards of dredged material but they were not cost effective and exceeded available funding at this time. MDOT MPA is continuing to actively pursue the acquisition of additional space near the Cox Creek DMCF that will allow MDOT MPA to conduct large scale innovative reuse operations in a more economically efficient manner. The next steps include advancing the demonstration projects, collaborative efforts, and alternative funding opportunities. The Sustainable Materials Management Maryland (SM3) group was initiated by MDE and is a private sector-led and supported coalition of businesses across multiple sectors in the State of Maryland committed to collaboration with MDE and other state agencies to try to meet the goals outlined by Governor Hogan's Waste Reduction and Resource Recovery Executive Order. Under this forum other subgroups are being developed to discuss innovative technologies and efficiencies in using dredged material, among other discussions regarding various waste streams. The Management Committee will be kept apprised of any updates.

In addition to procuring land adjacent to the Cox Creek DMCF and advancing the demonstration projects, MDOT MPA is focused on IR strategy items #6 (Explore alternative means of funding and financing for IR) and #7 (Investigate opportunities to foster research and innovation such as tax credit programs, incubators, and university programs). Ms. Keene reminded the committee that MDOT MPA continues to work with the MDOT State Highway Administration (MDOT SHA) and the University of Maryland on various environmental testing of dredged material blends for the purpose of embankment fill and topsoil. MDOT MPA received preliminary results from the University of Maryland on their embankment fill material blending study; the results were encouraging and demonstrated that dredged material can be blended with other materials in a way that reduces the overall leachate potential of the material. For 2019, MDOT MPA is investigating engaging a pilot project with MDOT SHA using a dredged material blend as embankment fill material. The testing is critical to ensure that the MDOT SHA specifications can be revised for topsoil and recycled materials to allow for the use of dredged material.

Currently, DNR is developing internal beneficial use guidance for different dredged material applications, identifying a thin layer placement (TLP) pilot project site, and developing desktop guidance analysis for finding other TLP sites in Maryland. Two projects are moving forward through the DNR Community Resilience Grant Program that will incorporate the use of dredged material. The projects are at Franklin Point State Park in Anne Arundel County, and at Hurst Creek on the Choptank River in Dorchester County. Both projects involve using dredged material to construct a living shoreline for coastal resiliency purposes. Mr. Rowe asked if the material being used was dredged by DNR or MDOT MPA (*Update: All stages of the TLP projects will be coordinated with DNR staff*).

This month MDE hosted a public meeting for solid waste managers to review the Guidance Document and outline the procedures for obtaining a variance for using dredged material and other impacted soils at landfill locations. A category calculator tool was developed as well, which will help environmental professionals in evaluating and characterizing the material before a request is submitted to MDE for dredged material use on land. The tool is not accessible on a public website at this time, but it can be made available upon request to MDE. Mr. Bibo asked if the tool could only be used for landfill cover. Mr. Rowe stated that the tool could be used for categorization of any material, not just landfill cover.

Mr. Kaiser stated, that the US Army Corps of Engineers Philadelphia District (CENAP) has done some work with TLP and offered to share their experience. Mr. Ortt stated that Maryland Geologic Survey (MGS) has been contacted regarding a possible source of excavated material related to the building of the Hyperloop from Washington D.C. to New York. The calculated production of material from the project is over 360 million cubic yards; for comparison, Hart-Miller Island contains about 100 million cubic yards of dredged material. Mr. Michael stated that over 200 million cubic yards of material has accumulated behind the Conowingo Dam.

**5.0 Corps of Engineers, North Atlantic, Baltimore (CENAB) Mr. Graham McAllister,
Mr. Justin Callahan**

Mr. McAllister stated that the CENAB District Engineer, Colonel Chamberlayne, will be replaced by Colonel John Litz on July 13. On July 19 at the regional headquarters in New York, Major General William Graham will be replaced by Major General Jeffrey Milhorn. Mr. McAllister stated that a meeting was held with Colonel Chamberlayne and Colonel Litz and both Maryland Senators. A lot of projects were covered in great detail. The need for additional funding for Mid-Bay to continue was specifically discussed.

VA Dredging Plans

Mr. McAllister stated that one contract is ongoing in Cape Henry supporting the Baltimore Harbor and Channel project. The contract was awarded to Great Lakes Dock and Dredge in September 2017. Their hopper dredge arrived in April 2018. Work is expected to continue through August 2018. To date, 1.2 million cubic yards has been removed out of an estimated 2.5 million cubic yards to be removed. The material is being placed at the Dam Neck Open Water Site off the coast of Virginia Beach.

The FFY 2018 President's budget included \$25,557,000 for Baltimore Harbor. CENAB will have two solicitations next month for the Baltimore Harbor and Channels Project. CENAB will dredge approximately 1.9 million cubic yards from the Maryland Channels. Approximately 400,000 cubic yards from the Curtis Bay Channel which is expected to be placed in Masonville DMCF, and 1.5 million cubic yards from the Craighill Entrance, Craighill Channel, Craighill Angle, Craighill Upper Range, and the Cutoff Angle, which will be placed at Poplar Island. The solicitation is anticipated in July and awarded in September 2018. The second solicitation is for the maintenance dredging of the York Spit Channel in

Virginia for 2.5 million cubic yards of material, which will be placed in the open waters of Virginia. The project will change from a hopper dredge to a mechanical dredge contract.

Regarding the Energy Transfer Port Funding for FFY 2018, the WRRDA 2014 had authorized the Secretary of the Army to provide funds, subject to availability of appropriations, to Energy Transfer Ports. An Energy Transfer Port is one where energy commodities comprise over 25% of all commercial activity by tonnage and through which 40 million tons cargo are transported annually. CENAB received \$3.96 million for Energy Transfer Port Funding which will be transferred to MDOT MPA later this year.

Poplar Island/Poplar Island Expansion

Mr. McAllister stated, on behalf of Mr. Callahan, that more than 70% of the \$146.4 million in expansion construction contracts are either complete or underway. These contracts are on or ahead of schedule. CENAB received over \$31 million from the 2018 Work Plan to complete the construction of the Poplar Island Expansion, which will increase Poplar Island to 1,715 acres and 68 million cubic yards of capacity. Approximately 1.5 million cubic yards of material will be placed at Poplar Island from the upcoming contract next year. Completion of 83 acres of wetland in Cells 5A and 5B will occur within the next two weeks, bringing the total restored wetland acreage to 372 acres. The final dike construction contract is scheduled for award in September 2018. The expansion of Poplar Island should allow for placement through the 2032-2033 dredging cycle. The MES landbase uses the Knapps Narrows federal navigation channel to transport MES and CENAB representatives to Poplar Island on a daily basis. CENAB has completed the maintenance dredging of the Knapps Narrows channel in April of 2018 and removed 93,000 cubic yards from the channel.

Masonville Tipping Fee Study

Mr. McAllister stated that the 2017 Decision Document was approved by USACE Headquarters in January 2018. The Kurt Iron Slip (KIS) was removed from the planned footprint of the Masonville DMCF, which changed the costs attributed to the dike construction. The revised construction costs will be used to determine a revised Tipping Fee to establish a Memorandum of Agreement (MOA) with MDOT MPA in order to place material at Masonville.

Mid-Bay

Mr. McAllister reiterated that \$644,000 was included in the FFY2018 Work Plan, allowing pre-construction engineering, and design. With the funds CENAB intends to complete the design agreement package for submittal to USACE Regional Headquarters in August 2018. An optimal funding schedule should facilitate initial construction in 2027.

50-foot Widening Study

Mr. McAllister stated that CENAB is evaluating channels to be widened to 750-800 foot in Maryland and 900-1,000 foot in Virginia. No widening is recommended for the Inner Harbor channels. CENAB is working with NMFS on comments to the EFH documentation. The draft report may be released for public review this fall.

Regarding the WRDA 2016 Section 1122 proposals, earlier this year Corps headquarters released a RFP for Beneficial Use of Dredged Material. The proposals needed to include reduction of storm damage to the property and infrastructure; promote public safety; protect, restore and create aquatic ecosystem habitats; stabilize streams and shorelines; and/or promote recreation. Over 90 proposals were submitted and only 10 will be selected. USACE Headquarters is currently evaluating the proposals.

Mr. Bibo complimented CENAB regarding the deployment of buoys for the Poplar Island Expansion to minimize the accidents by recreational boaters. CENAB is currently coordinating with the National Oceanic and Atmospheric Administration (NOAA) regarding updating the nautical charts. The buoys are inspected weekly to insure they are maintained.

6.0 Corps of Engineers, North Atlantic, Philadelphia (CENAP) Mr. Gavin Kaiser, CENAP
Mr. Kaiser reminded the committee that Mr. Anthony DePasquale has retired; Mike Landis, who was previously the deputy of the CENAP Operations, is now the Chief of Operations.

Pearce Creek Dredging Plans

Mr. Kaiser stated the C&D Canal goes from Reed Point in Delaware to Pooles Island in Maryland and is managed by CENAP. Dredging was completed in February and the discharge monitoring data for the Pearce Creek DMCF has been sent to MDE. Monitoring of the wells around the Pearce Creek DMCF was also completed in May. The next sampling is scheduled for October. The data from the well monitoring events will be compiled and an annual report will be sent to MDE for review. A community public site visit was conducted at the Pearce Creek DMCF A site visit for elected officials is being coordinated with MDOT MPA. The Pearce Creek Implementation Committee meetings are continuing; those meetings include dialogue and feedback from the residents. CENAP is currently working on improving stormwater management surrounding the site and communicating the needs with nearby residents. The municipal water project funded by MDOT MPA is nearing completion; the bottled water being supplied by CENAP will cease soon.

Future Dredging Plans

Mr. Kaiser stated that CENAP plans to dredge Pooles Island again due to high shoaling areas. CENAP is coordinating with the Pilots and the Coast Guard regarding the upcoming dredging project. The project is expected to be announced in August 2018 with an award in August or September 2018. The dredging would most likely occur December 2018 - March 2019 and the material will be placed at the Pearce Creek DMCF.

7.0 Harbor Development Update

Ms. Kristen Fidler, MDOT MPA

Ms. Fidler stated that planning has begun for the DMMP Annual Meeting. A survey was distributed to the members of the DMMP advisory committees in order to determine the best way to consolidate input, share information, and broaden the audience and stakeholders attending the meeting. One of the questions asked was regarding the timeframe of the meeting. Many responses replied that the morning timeframe is preferred but others stated that the afternoon would be better. MDOT MPA asked committee members what they found most valuable regarding the DMMP Annual Meeting (i.e. networking, keynote speakers/presentation, questions/answer session, etc.). The results indicated that many found the DMMP Annual Meeting useful for understanding the DMMP recommendations and receiving the update of the state of the Port of Baltimore. The survey asked committee members for suggestions on how the DMMP Annual Meeting can be improved. Many replies focused on engaging the audience to a greater degree and inviting organizations and individuals from outside of the program. There were requests for a presentation regarding the recent GreenPort Congress and to engage businesses and the private sector. One comment stated that MDOT MPA does well in providing information to the public. MDOT MPA is encouraged by the responses received.

Ms. Fidler stated that the GreenPort Congress was held in Baltimore in May and was a collaboration between MDOT, MDE, DNR, and the private sector. There were 196 attendees from 14 different countries and 6 continents. There were several opportunities for tours to show off the Port of Baltimore assets. Participants were able to attend a waterside tour of the terminals, and a landside tour of Poplar Island and the trash wheels. The ports and maritime businesses are serious about sustainability and they are looking at innovative approaches to solve a variety of environmental issues such as climate change, sea level rise, and pollution while maintaining operation efficiencies and business success. Mr. Kiernan stated that the conference was well organized and very diverse. Mr. Kiernan gave a presentation regarding the DMMP committee structure and the Baltimore Port Alliance. Several attendees from other countries stated that the DMMP committees were a great idea and complimented the MDOT MPA on the community and business focus they are able to maintain.

Ms. Ashley stated, on behalf of Fran Taylor, that the race held on HMI was very successful and people were excited for future events. Mr. Taylor had emphasized the need for continued outreach from MDOT MPA. Ms. Ashley reminded the committee that Mr. Taylor would be retiring from the DMMP Citizens Advisory Committee at the end of the year. MDOT MPA is currently working on the transition process.

8.0 Round Table discussion: Activities and Issues of Significance

Mr. Nemazie stated that the UMCES Chesapeake Bay Report Card was released, and it was the first time that there has been a significant increasing trend. Seagrass has expanded greatly in the past few years, increasing water clarity in the Chesapeake Bay. Mr. Michael stated that the high rain flows this spring distributed a lot of sediment and nutrients into the Chesapeake Bay. The hypoxia forecast for the summer of 2018 is predicted to be worse than average. DNR has conducted its first monitoring cruise and the data indicated that the prediction was correct. DNR will conduct a second cruise in June.

Mr. Rowe stated that MDE is in the process of determining how much progress has been made in the Phase II Watershed Implementation Plan (WIP) for Bay Restoration and what else needs to be accomplished to reach the goal in 2025. The draft Phase III WIP is due to the EPA in March 2019.

Ms. Banta stated that MES is hosting an Environmental Business Leadership Conference at the Westin Annapolis Hotel on July 19. There will be 40 different speakers, including Ms. Correale and Dr. Goodwin. MPA will share the link to the conference registration/agenda information with meeting attendees.

Ms. Fidler stated that the IR presentation demonstrated how much is going on outside of MDOT MPA and stated that it was encouraging that state agency partners were working together. Ms. Thomas stated that Fleming Park and Turner Station were looking at funding sources for their proposals. The Chesapeake Bay Trust Outreach and Restoration Grant may provide a source.

Ms. Correale stated that the USACE has a debris mission in the Harbor to remove large debris that could interfere with commercial navigation. Debris from the recent storm that flooded Ellicott City collected near the cruise terminal. The USACE was able to remove debris from the terminal and made it possible for an arriving cruise ship to enter without issue, shortly after the flooding event. Ms. Correale thanked the USACE for their large debris clean-up efforts.

9.0 Closing Comments and Adjourn

Ms. Chris Correale, MDOT MPA

The next DMMP Management Committee meeting will be held September 26, 2018. The next DMMP Executive Committee meeting will be held on November 28, 2018. There were no additional comments. Ms. Correale thanked everyone for their attendance and the meeting was adjourned.