DRAFT FINAL SUMMARY FOR THE HARBOR TEAM MEETING April 27, 2017; 5:00 PM 2200 Broening Highway Baltimore, MD

Attendees:

Baltimore Port Alliance: Rupert Denney Council Fire: George Chmael EcoLogix Group: Steve Pattison Gahagan & Bryant Associates, Inc. (GBA): Jake McTavish Hayward Baker: Kevin Wiker Living Classrooms Foundation: Lorraine Warnick Mahan Rykiel Associates: Isaac Hametz Maryland Environmental Service (MES): Melissa Slatnick, Jeff Halka, Christine Holmburg Maryland Department of Transportation Port Administration (MPA): Chris Correale, Kristen Fidler, Holly Miller, Katrina Jones, John Vasina, Sergio Adantor, Dave Bibo, Shawn Kiernan, Bertrand Djiki, Bill Lear Moffat & Nichol: Craig Huntley Patapsco Back River Tributary Team: Stuart Stainman Phoenix Engineering: George Harman Ports America Chesapeake: Aamer Oureshi Terracon: Nancy Straub Turner Station: Gloria Nelson United States Army Corps of Engineers (USACE): Graham McAllister University of Maryland Center for Environmental Science: Elizabeth Price

Action Items:

1.) None.

Statements for the Record:

1.) None.

1.0 Welcome & Introductions

Prior to the meeting, members of the Harbor Team (HT) were given a riding tour of the Cox Creek Dredged Material Containment Facility (DMCF) to view the progress of the site expansion and dredged material inflow. Mr. Pattison welcomed the attendees and everyone introduced themselves. Mr. Pattison asked for comments regarding the tour of Cox Creek DMCF. Ms. Nelson stated that she was pleased with the opportunity provided by the Maryland Department of Transportation's Port Administration (MPA) to view the site during its expansion and also during inflow. Mr. Stainman was impressed with the clay on-site which will be used to build the base dike in the future, and the diligence and thoroughness of MPA regarding cleaning up the industrial site.

Mr. Steve Pattison

2.0 Approval of Summary from Last Meeting

Mr. Pattison stated that a minor change was made to the January HT meeting summary in the "Baltimore County Shoreline Enhancements" section on page 4 at the request of David Riter (Baltimore County Environmental Protection and Sustainability). The change regarded the hard engineering techniques and soft engineering techniques nomenclature, which were previously referred to as hard and soft shorelines. The HT approved the January 26th meeting summary as written.

3.0 IBR Workgroup Update

Ms. Fidler stated that the Innovative and Beneficial Reuse (IBR) Regulatory Workgroup was tasked with investigating the practices used around the country for use and reuse of dredged material. The discussion will focus on an overview of Task 1, which charged the Maryland Department of the Environment (MDE) with developing a technical screening criteria and guidance document. The documents have been created and were released on March 21st; the public comment period is now open.

The IBR Regulatory Workgroup findings of best practices from around the country have led to recent recommendations and policy changes. The existing framework was developed in response to uncertainty in the MDE statutory and regulatory authority surrounding innovative reuse. The Workgroup reviewed successful innovative reuse programs in Ohio, Virginia, Pennsylvania, Oregon, and Florida. All of those programs had established "authorized uses" and a tiered permit structure for other uses. There was either a separate dredged material reuse office or a strong, joint, coordinated programmatic effort between land, air, water, and waste departments. Additionally, the programs reviewed also had a minimum set of technical screening criteria or standards applicable to dredged material. The Workgroup recommended to MDE to develop a technical screening criteria and guidance manual that is protective of human health and the environment by spring 2017; this has been accomplished. The technical screening criteria and guidance document aims to addresses the appropriateness of dredged material, including Baltimore Harbor shipping channel material, for various potential innovative and beneficial uses.

MDE's technical screening criteria and guidance document is rooted in existing MDE statutory/regulatory authority and standard operating procedures. It establishes a framework that is flexible, end-use based, and uses the Environmental Protection Agency (EPA) risk-based Soil Regional Screening Levels (RSLs). The guidance document is a living document that establishes four categories of risk-based soil and fill based management options, and allows for case-by-case decisions if needed. The document is not a new regulation, change in existing statute, or a substitute for existing regulations or laws. The document also does not impose legally binding requirements since it is for guidance purposes.

The existing MDE policies have regulations and permits for dredging and dredged material management. For instance, there are currently regulations for beneficial uses associated with aquatic habitat restoration projects. The beneficial uses have been organized and consolidated in the approval process of the guidance document. This provides the opportunity to implement beneficial use projects utilizing Baltimore Harbor channel material subject to sediment characterization. Innovative reuse policies associated with activities such as brownfields reclamation, landfill cover, etc. have also been organized and consolidated in the document. The

Team

Ms. Kristen Fidler, MPA

new MDE guidance and policy allows for dredged material to be categorized as fill material and soil. Four categories were established for the management of engineered fill (including dredged material) or soil, including as a soil amendment. The categories are listed below:

- Category 1 Residential, Unrestricted
- Category 2 Non-Residential, Restricted Use
- Category 3 Restricted Use, Cap Required
- Category 4 Ineligible for Reuse

These categories are based on EPA regional screening levels. The IBR Regulatory Workgroup also identified seven end-use scenarios as needing further regulatory clarification:

- Land amendment for agricultural use unprocessed dredged material directly from DMCF
- Upland Use without containment using unprocessed dredged material
- Fill for Upland Use with containment using unprocessed dredged material
- Upland reclamation with processed/amended dredged material
- Manufactured topsoil for landscaping with processed/amended dredged material
- Building Materials with processed dredged material from DMCF
- Engineered fill with processed/amended dredged material

Using the MDE fill material and soil management guidance, the end-use scenarios were able to be categorized, with a majority of applications suitable for Category 2. Additionally, the material screening results are important when characterizing which category the material should fall under. The MDE guidance document provides transparency to the MDE regulatory approval process; protects human health and the environment; and provides opportunities for the recycling and recovery of an economically valuable resource – dredged material.

Moving forward, the MDE guidance document identifies MDE Points of Contact for each of the end uses and environmental media (i.e. air, land or water). The guidance provides detailed flow charts specific to innovative and beneficial uses, sampling requirements, and gives risk-based sediment benchmarks used for MDE approvals. The draft MDE technical screening criteria and guidance document is open for public comment through May 26th; final document approval is estimated summer 2017.

Ms. Fidler announced a photo contest which has been created to engage citizens with the MPA and the Port of Baltimore (POB) on social media. Ms. Fidler encouraged participation by taking photos at the different DMCF facilities and using the hashtag #sedimenttosolutionsphotocontest. The contest will run from Memorial Day to Labor Day. The winner's photo will be published in the POB magazine. Mr. Stainman asked if there was space to begin drying the Cox Creek dredged material for fill or if drying would not occur until completion of the expanded DMCF. Ms. Fidler replied that both innovative reuse and the Cox Creek DMCF expansion are moving forward simultaneously. Mr. Kiernan stated, regarding crust management, that there is a test pad in place and MPA is working on how to continue progress on IBR as the site undergoes changes. Ms.

Fidler stated that the goal is to move as quickly as possible with IBR considering the recent release of the document and the interest expressed by the industry; there is currently 5,000 cubic yards which is drying and will be used for demonstrations and pilot projects.

4.0 Mahan Rykiel Intern Program Mr. Isaac Hametz, Mahan Rykiel Associates Ms. Fidler introduced Isaac Hametz from Mahan Rykiel Associates which is a Landscape Architectural Firm. MPA is partnering with Mahan Rykiel, and Professor Brian Davis from Cornell University to bring graduate design students to the Port of Baltimore (POB) to work on designing beneficial use projects. The program will be evaluating ecosystems, environmental restoration, and coastal resiliency in an urban environment at a very high level of design. Mr. Hametz stated that he is the Director of Research at Mahan Rykiel Associates where they look to push the boundaries of landscape architecture. In the previous summer Mahan Rykiel worked on a project with the Baltimore Museum of Industry which began the idea of engaging with dredged material. The Baltimore Museum of Industry project involved investigating how the landscape of the museum showcased and celebrated the cultural, economic, and ecological story of the POB as the cornerstone of industry in the region. The design research effort focused on blending the history, background, and operations of the POB with the museum campus itself. A book was produced from the investigation called "Port Terrain: A Baltimore Atlas of Industry" as well as a proposal which looked at expanding the land-water interface of the Baltimore Museum of Industry campus using dredged material to possibly create wetlands and/or restore tidal marshes.

The interns will be asked how dredged material can be repurposed as a resource for creating public landscapes, living shorelines, and urban development in Baltimore Harbor to improve ecosystem resilience, public health, and economic sustainability. The interns will also investigate where the high priority areas for sediment reuse are based on the intersection of urban morphology, harbor bathymetry, and ecosystem potential. The key aspects of the design research efforts will include investigating dredged material and the channel morphology, the watershed and water's edge perspective, and designing pilot projects. The internship will commence June 5th and continue through August 10th.

The interns were chosen based on their different qualities and design approaches. Maddie Hoagland-Hanson is from the University of Virginia and was chosen because of her urban design of vacant cities and stormwater management focus. Qing Li comes from the Rhode Island School of Design and brings a strong design aesthetic and the ability to think through waterfront design questions from a topographic perspective. Xiang Huan is from the University of St. Louis and focuses on stream design through upland conditions and river morphologies, specifically floodplains being repurposed and revegetated. Lastly, Jingting Li is from Auburn University and focuses on the future scenarios with regards different end uses of levees and construction while managing flood risk reductions and coastal resiliency. Jingting Li has considered dredged material specifically as a student and researcher.

Mr. Stainman asked about the background of the students. Mr. Hametz replied that all of the interns were graduate students from different Universities and all have varied backgrounds. Mr. Stainman asked if the interns were given any information about the POB before the program begins. Mr. Hametz replied that the interns were given the draft guidance document, IBR Workgroup report, and data regarding the dredged material. Site visits will also occur. Ms. Fidler

stated that MPA is working with Mahan Rykiel to provide a lead-in and allow time for preparation. Ms. Fidler asked for ideas from the HT to help educate and inform the interns. Mr. Stainman asked if the interns would make use of the recently updated US Army Corps of Engineers (USACE) 100year floodplain maps. Mr. Hametz replied that they are gathering as much updated data and information as possible, including the recent floodplain maps. Mr. Hametz also asked the HT for suggestions of sites which would be suitable for innovative reuse to allow a focusing of the interns' energy to obtain a level of design which could lay the foundation for implementation. Mr. Stainman recommended meeting with David Riter of the County Environmental Protection and Sustainability who gave a presentation at the previous HT meeting regarding shoreline enhancements; Ms. Fidler stated that Mr. Riter would be involved. Mr. Halka asked if coastal resiliency would be a primary driver in the potential projects. Mr. Hametz stated that coastal resiliency and climate change adaptation are currently leading the focus. Mr. Denney stated that the Baltimore Port Alliance is currently working with the Baltimore Museum of Industry and Port Discovery to investigate ways for residents of Baltimore City to connect with the POB since most of the city does not have access to the port. Mr. Denny recommended considering IBR on a microscale (e.g. dredged material could be used to cultivate gardens to connect neighborhoods to the POB). Mr. Hametz stated that there will be new civic landscapes incorporated into the intern project.

5.0 Federal Lands Access Program (FLAP) Grant Mr. Bertrand Djiki, MPA

Mr. Djiki stated that the Federal Lands Access Program (FLAP) Grant is part of the Fixing America's Surface Transportation Act (FAST) which provides funding to improve transportation facilities that are located on, adjacent to, or provide access to federal lands. The goal is to provide safe pedestrian access to Masonville Cove. A public access study was completed because Masonville Cove is a community resource but currently Frankfurst Avenue does not allow for safe pedestrian/bike access. Past surveys have indicated the community wants better access to Masonville Cove; this study will assess available multi-modal (motorized and non-motorized transit) transportation options in the area.

Masonville Cove was designated an Urban Wildlife Refuge in 2013 and this allows the use of Federal Highway Administration funds and potentially other federal grants. MPA and the US Fish and Wildlife Service (USFWS) partnered to apply for the FLAP Grant. The study is assessing feasible multi-modal transportation options to Masonville Cove including the Baltimore Water Taxi, Lyft, Uber, pedestrian access, biking, kayaking, busses, and private drivers. Pedestrian access options include shared use (biking/walking) path traveling on the westbound side of Frankfurst Avenue and improvements to the intersection of Frankfurst Avenue and Hanover Street. The shuttle/shared mobility options include contacts with a bus or shuttle service, an agreement with a local entity such as the Chesapeake Center for Youth Development to provide service, renting vans when needed, and utilizing rideshare options such as Lyft or Uber. Marine options include kayak access which is currently available and the Baltimore Water Taxi which is not currently available. The Maryland Transit Administration (MTA) does not currently provide service along Frankfurst Avenue. Also, MTA's BaltimoreLink redesign is not anticipated to include service along Frankfurst Avenue. In the future, MTA or Baltimore City may be able to apply for Mobility on Demand Grant Funds through the Federal Transit Administration.

The next steps include review of comments from the March 16th community meeting. A second community meeting will be held on May 18th to present the most feasible transportation options with the community recommendations. A report will be drafted to document the community recommendations. Potential next steps include seeking other partners or sponsors to pursue design funding through the FLAP Grant process for selected multi-modal transportation improvement options and seeking other partners or sponsors to pursue construction and implementation FLAP Grant for selected multi-modal transportation improvement options.

Mr. McAllister asked if any consideration was being given to having kayaks available for rent at Masonville Cove. Mr. Kiernan responded that currently kayaks are not available to rent, but the study was conducted to investigate reasonable access through multi-modal pathways and connect to the communities. Ms. Nelson stated that the communities were promised access to Masonville Cove and any public access should not be at the cost of the residents. Mr. Kiernan stated that MPA did not want to burden the communities and that there were issues obtaining bus transportation. MTA requires that there is a demand (i.e. people at Masonville who need transportation) for the bus stop to be placed at that location, but there can be no demand since residents cannot easily and safely access the site. Mr. Stainman stated that there is limited parking available at Masonville and there is no safe place to cross Frankfurst Ave. Mr. Kiernan stated that modifications of intersections would need to occur to allow for safe pedestrian travel; MPA does not want to create a hazardous situation. In May, MPA will be looking at the next steps of the project while taking into consideration community feedback.

6.0 Masonville Mitigation

Mr. Shawn Kiernan, MPA

Mr. Kiernan stated that there are projects being developed as part of the off-site mitigation package which is part of the requirements which MPA has agreed to in an effort to obtain the federal permitting for the Masonville DMCF construction. There has been some on-site mitigation which includes non-tidal and tidal wetlands, and upland tree restoration. The required off-site work is spread around the Baltimore Harbor. The eel passage installation at Daniels Dam has been completed along with the Western Run Stream Restoration. The shad and herring restoration is ongoing and the trash interceptors are underway. The trash interceptor at Jones Falls is complete and the construction of the Dundalk and Masonville Cove trash interceptors are underway. The Baltimore City Trash Control Program is in development and is focused on source reductions. Lastly, the Biddison Run Stream Restoration project is in the design phase.

The trash interceptor at Jones Falls has collected 573 tons of trash since May 2014. A new trash wheel is under contract to be placed at Masonville Cove at the end of the Masonville Stream; construction will begin in 2017. Construction of the Dundalk Marine Terminal trash interceptor is scheduled to begin in May 20107 and will use hydrodynamic power (i.e. a vortex to separate the water and trash); there is an added benefit of sediment collection to help manage some of the on-site Total Maximum Daily Load (TMDL) requirements. MPA is coordinating with Baltimore City to help fund the restoration of Biddison Run in the Back River Watershed. There will be 6,900 linear feet (ft.) of restoration and the design phase is underway. Baltimore City Source Control is a concept being explored to expand an existing, successful Baltimore City Department of Public Works (DPW) pilot project. The project uses screens or inserts that stops trash from entering stormwater pipes; the trash is then cleaned up by the DPW through street sweeping or regular

maintenance. MPA is investigating sponsoring an extension of the pilot project to meet MPA's trash interception mitigation requirements of the permit.

7.0 Harbor Development Update

Ms. Chris Correale, MPA

Cox Creek Expanded Project

Ms. Correale stated, regarding the Cox Creek Expanded demolition progress, that demolition is 90% complete. Building 201 is still posing issues due to the polychlorinated biphenyls (PCB's) present; remediation coordination with EPA is underway. Hotspot remediation for the remainder of the site is ongoing. The Operations and Maintenance Complex building construction is nearing procurement and will hold Maryland Environmental Service personnel for operations as well as the maintenance bays, equipment storage, and a meeting space. The base dike engineering plans are almost complete. Lastly, a well-attended public information meeting was held on April 6th and site tours on April 8th, both were a success.

Cox Creek 2017 Inflow

Ms. Correale stated that inflow began on April 22nd and will last about 8-10 days. MPA will be hosting a tour to view the inflow on Saturday April 29th.

Confined Aquatic Disposal (CAD)

Ms. Correale stated that filling of the CAD cell was completed in February with ~62,000 cubic yards of federal maintenance material dredged from the Ferry Bar Channel. The turbidity requirements of the permit were met through the entire project. Post-placement monitoring will occur regularly for the next year. The HT watched a video of the material placement at the CAD site using an open-bottom scow.

Channel Widening Project

Ms. Correale stated that MPA and the USACE have been working on a 50-foot widening study of the Chesapeake Bay shipping channels. No channels within the North Point/ Rock Point Line will be widened as it has been deemed unnecessary by the study. Channels from the Craighill Entrance to the Cutoff Angle will be expanded from their existing width of 700 ft. to the authorized width of 800 ft. In Virginia, the Cape Henry Channel is already at its authorized width; the York Spit and Rappahannock Shoal will be widened from 800 ft. to 1,000 ft. The report preparation is experiencing some issues regarding environmental documentation, but the draft report is expected to be ready for public review in the summer.

Mr. Denney asked if there were any particular topics which were brought up during the Cox Creek public information meeting. Ms. Correale stated there were many different questions ranging from birding, dredging, and the upcoming Operations and Maintenance Complex. Mr. Kiernan stated that former workers from the Kennecott Refining Company were in attendance and gave an interesting perspective. Ms. Fidler added that there was very positive reception of IBR at the public meeting. It was asked when the dikes will be raised at Cox Creek; Ms. Correale replied that the base dike construction will begin next summer. A test dike section has been completed and exhibited substantial displacement; another test dike is scheduled for construction after inflow is complete.

8.0 Upcoming Meetings

Mr. Steve Pattison

Harbor Team Meeting April 27, 2017 Draft FINAL Meeting Summary

Mr. Pattison stated that the next HT meeting will be held on Thursday July 27th followed by another meeting on October 26th. The DMMP Annual Meeting will be held on November 3rd. HT members were reminded about the inflow tour being held Saturday April 29th as well as the IBR photo contest.

9.0 Adjourn