

**FINAL DRAFT  
SUMMARY FOR THE HARBOR TEAM MEETING  
October 20, 2016; 6:30 PM  
1000 Frankfurst Avenue  
Baltimore, MD**

***Attendees:***

*Angie Ashley Consulting:* Angie Ashley  
*Anne Arundel County Department of Public Works:* Chris Phipps  
*Baltimore County EPS:* David Riter  
*Blue Water Baltimore:* Phil Lee  
*Chesapeake Bay Foundation:* Doug Myers  
*Cristal USA:* Paul Morris  
*Dundalk Renaissance Corporation:* Paul Rosenberger  
*EcoLogix Group:* Steve Pattison  
*Gahagan & Bryant Associates, Inc. (GBA):* Brian Newbury  
*Geomatx Surveying and Mapping:* Tom McElroy  
*Greater Dundalk Alliance:* Russell S. Donnelly  
*Living Classrooms Foundation:* Lorraine Warnick  
*Maryland Environmental Service (MES):* Kristen Keene, Jeff Halka, Christine Holmburg  
*Maryland Department of Transportation Port Administration (MPA):* Chris Correale, Kristen Fidler, Holly Miller, Bill Lear, John Vasina, Sergio Adantor  
*Moffat & Nichol:* Pete Kotulak  
*North County Land Trust:* Rebecca Kolberg  
*North Point Peninsula Community Coordinating Council:* Fran Taylor  
*Patapsco Back River Tributary Team:* Stuart Stainman  
*Phoenix Engineering:* George Harman  
*Turner Station:* Gloria Nelson  
*United States Army Corps of Engineers (USACE):* Graham McAllister  
*W.R. Grace:* Mark Galloway

**Action Items:**

- 1.) Mr. Pattison will investigate how MPA measures air emissions at its terminals. The tons that were presented by Mr. Pattison were tons of emissions that were avoided by replacing and destroying older dray trucks and other equipment with newer dray trucks and equipment.

**Statements for the Record:**

- 1.) None.

**1.0 Welcome & Introductions**

**Mr. Steve Pattison**

Prior to the meeting, members of the Harbor Team were given a riding tour of the Masonville dredged material containment facility and restored Masonville Cove campus area. Mr. Pattison welcomed the attendees and everyone introduced themselves.

## **2.0 Approval of Summary from Last Meeting**

**Team**

Mr. Stainman requested a revision on page 6 of the July meeting summary to reword the section pertaining to Confined Aquatic Disposal (CAD) to reflect that the nutrient levels were within the allocation and below the permitted Total Maximum Daily Load (TMDL) for the watershed. The HT approved the July meeting summary as corrected.

Mr. Pattison distributed an article regarding toxic sediment located at the bottom of Lake Erie that Mr. Donnelly wanted to share with the team. Mr. Pattison discussed the \$1 million grant awarded to The Maryland Department of Transportation's Port Administration (MPA) by the Environmental Protection Agency (EPA) Region 3 with matching funds from the Maryland Department of the Environment (MDE) and the Maryland Energy Administration. This grant was awarded to retrofit 79 pieces of existing equipment (i.e. fork lifts, one-lifts, dray trucks, switcher locomotives, etc.) in order to reduce diesel emissions. A tour of the Dundalk and Seagirt Marine Terminals was provided by MPA for those attending the grant awarding event. Attendees included EPA Regional Administrator Shawn Garvin, Kathy Broadwater, Senator Ben Cardin, MDE Secretary Ben Grumbles, a representative from the White House (Office of Economic Advisors), and Rebecca Ruggles (Director of the Maryland Environmental Health Network). The grant funding will reduce diesel emissions by around 8,000 tons.

Mr. Pattison reminded the HT that almost one year ago MPA, MDE and The Maryland Department of Transportation (MDOT) began voluntary initiatives, above and beyond the mandated and required regulations, in order to improve air quality at port facilities. Mr. Donnelly asked if the retrofitting will apply to the Tier II or III compliance level. Mr. Pattison responded that the Tier level will vary with the type of equipment. Ms. Kolberg asked how many tons of pollution the Port of Baltimore is currently producing. Mr. Pattison responded that he was unsure but would investigate that information. Ms. Nelson mentioned that the Port of Baltimore was also involved with the community for the health and well-being of children. Mr. Stainman asked the team to reflect on how much the air quality has improved at the Port over the last five years with regards to ground-level ozone concentrations and the production of smog. Mr. Pattison commented that the air quality at the Port is improving and will likely continue to improve. Mr. Myers commented that 25 percent of the nitrogen load going into the Chesapeake Bay is from air emissions.

## **3.0 Welcome to Masonville & Overview of Living Classrooms Ms. Lorraine Warnick**

Ms. Warnick welcomed the team to Masonville Cove Environmental Education Center (MCEEC) and provided a background and overview on the purpose of the site. The HT is a group of State and local government, non-profit organizations, local business and community group representatives that were brought together to be informed about the Port of Baltimore (POB). HT members learned "What it is", "How it works", and "Why should Baltimore care?" The MPA helped people understand that the need to dredge impacts everyone. HT members were enlisted to brainstorm solutions and suggest options for continued dredged material management. In 2007 Masonville Cove was selected as the next site for a new DMCF and clean-up began. By 2009, the Living Classrooms Foundation (LCF) was holding programs onsite and the first inflow of dredged material to the DMCF occurred in 2010. Historically, new DMCFs took about 14 years to become functional, usually with little to no community support; however, the Masonville DMCF took about half that time and had significant community support due to

the HT process. The Masonville DMCF is recognized globally as an example of effective stakeholder engagement for other ports.

Masonville Cove, once an abandoned and neglected parcel of land in the middle branch of the Patapsco River, has grown into an opportunity for residents, schoolchildren, and the public to connect with the natural environment and participate in meaningful stewardship activities. The campus is a model for community involvement and environmental awareness. The MCEEC consists of a partnership between MPA, Maryland Environmental Service (MES), US Fish and Wildlife Service (USFWS), the National Aquarium, LCF, and local communities. Masonville Cove has been designated as the nation's first Urban Wildlife Refuge Partnership and includes 54 acres of land filled with abundant and diverse wildlife. LCF is excited to be a partner at Masonville Cove. For over 30 years, LCF has been strengthening communities and inspiring young people to achieve their potential through hands-on education and job training using urban, natural, and maritime resources as "living classrooms".

Mr. Taylor asked where the nearest place was to put a kayak in the water. Ms. Warnick replied that there are two piers at MCEEC, but they do not have vehicle access; most people put their kayaks in at the Middle Branch Park or Harbor Hospital and paddle to MCEEC as a destination. Mr. Stainman asked about the age range for LCF programs and Ms. Warnick responded that programs are available for all ages. Mr. Donnelly asked if MCEEC was connected with the No Child Left Behind Act (NCLBA). Ms. Warnick replied that they do follow the NCLBA and programs are connected to national and local learning standards. Mr. Lee asked for an overview of how the MCEEC came to fruition. Ms. Warnick replied that there were mitigation requirements associated with constructing the Masonville DMCF and MPA went above and beyond those requirements to include community enhancements, which resulted in reconnecting the cove to the surrounding communities.

Ms. Kolberg stated that one community issue which has not been addressed regarding Masonville Cove involves pedestrian access. Ms. Warnick stated that the issue is still being investigated; Baltimore City has plans for sewer line construction which has impacted planning for pedestrian access. Ms. Correale stated that because of the Urban Wildlife Refuge Partnership designation, Masonville qualified to receive funds from the Federal State Highway Administration (SHA) for an access study which is the next step toward access. Mr. Myers asked if the access demand could be met by shuttles. Ms. Jones stated that surveys were conducted with the communities to investigate ridership. MPA met with the Maryland Transit Administration (MTA) and suggested a periodic shuttle at peak times. MTA stated that a certain number of people needed to be traveling to the site regularly to justify the shuttle which is difficult to quantify. Mr. Myers asked if the Habitat Management Plan was informed by conversations with the community members who might have remembered the habitat which was previously present, specifically if there had been any submerged aquatic vegetation (SAV). Ms. Warnick replied that oral histories were taken from the residents but nothing was specifically mentioned regarding SAV. Mr. Halka stated that as part of the mitigation effort, the bottom habitat of the cove had material removed (i.e. creosote soaked logs), sand was used to improve the habitat, and reef balls were placed offshore. There is a possibility that SAV's could return to the area and proliferate in the future.

Mr. Donnelly asked if there were any discussions regarding long-term plans to construct land bridges for animals. Ms. Warnick replied that deer currently use storm drain outfalls as passes and swim across the channels. Mr. Donnelly asked the HT members to consider land bridges for future planning. Mr. Stainman asked when all of the environmental enhancements would be completed. Ms. Miller stated that the remediation is being conducted in three phases in the three access zones, with completion slated for the end of the year, which is contingent on weather and the final approval of the regulatory agencies.

#### **4.0 Sediment Characterization**

**Ms. Kristen Fidler**

Ms. Fidler gave a brief update on the progress being made regarding the Innovative Reuse (IR) project. Based on HT recommendations, MPA has been investigating the potential to reuse dredged material. Recent discussions with stakeholders have shown that there is a lot of resistance to reuse and a negative stigma pertaining to harbor channel sediment which inhibits opportunities for a successful IR program. A team of scientists, researchers, and communications experts reviewed decades of sediment data and developed two fact sheets to refute fears that the material is toxic in a scientifically factual and accurate way. Ms. Fidler requested feedback from the HT members on the two new IR fact sheets, which will be available on the MPA website. Both fact sheets focus on POB navigation channel material and provide outreach and education to a wide variety of audiences in an effort to address the long standing negative stigma surrounding dredged material; the goal is to create support for IR.

Ms. Fidler stated that an important piece of dialogue is reminding people that maintenance dredged material is being discussed. The maintenance material is generated as part of a natural sedimentation process and consists of dirt, silt, sand and other materials running off of the land. The sediments fill in the shipping channels and are removed yearly through maintenance dredging which would be eligible for IR at the Cox Creek DMCF. Any new work will be tested and analyzed in advance and would only be allowed into the stockpiles if the material is consistent with the maintenance material. Sediment from the harbor channels (as well as the navigation channels) is tested and analyzed before it is dredged, placed in a facility, and/or reused. The sediment has passed the EPA testing requirements which have allowed MPA to confidently share that the maintenance material from harbor channels is not hazardous waste.

The harbor maintenance material grain size is very fine (i.e. silts and clays), has high moisture content, and a range of salinity due to the estuarine habitat. The material also acidifies when exposed to oxygen which lowers the pH and causes metals to leach from the material. There are some organics (i.e. PCB's, VOC's, etc.) which are well below regulatory limits. The material also contains naturally occurring metals and the background levels exceed regulatory limits, but any metals tested in the channel sediments have been below regulatory limits. Regarding the Toxicity Characteristic Leaching Procedure (TCLP), all of results are below the EPA Resource Conservancy and Recovery Act (RCRA) limits and are not considered hazardous waste. Over 140 samples have been tested and testing is still ongoing and will continue; the raw data will be made available. MPA is developing a more robust, long-term monitoring program to discuss potential end uses of the maintenance material with the SHA. Maryland Geological Survey (MGS) has put together a comprehensive sampling plan for MPA and is taking sediment samples

from the river, the navigation channel, as well as the Cox Creek DMCF. MGS will be running a battery of tests in the near-term and moving forward in an attempt to draw correlations and determine how the material will behave on land.

Regarding the fact sheets, Mr. Myers suggested switching the section on Harbor Sediment Channel Summary with the Existing Harbor Channel Required Testing which should help the flow of the material for the reader. Mr. Donnelly stated that “new use” needs to be defined. Ms. Kolberg suggested inserting a slide illustrating the shipping channels. Mr. Myers asked if channel widening will occur, and it was replied that channel widening would happen, but not in the harbor. Ms. Kolberg suggested detailing the specific metals which are found, even if they are below the required limits. Mr. Stainman asked if the same definition is being used for ‘hazardous material’ between the different departments (i.e. EPA, MDE, and MPA). Ms. Fidler replied yes, and it is based on the RCRA definition. Mr. Donnelly stated that hazardous and toxic have two different meanings. Ms. Fidler stated that the material is not hazardous or toxic. Mr. Stainman asked what hazardous waste was. Ms. Miller stated that the TCLP tests the leaching potential of the material (i.e. metals, VOC’s, SVOC’s, PCB’s, etc.) and if those levels are exceeded then the material must be treated as hazardous waste.

#### **4.0 CAD Pilot Project**

**Ms. Holly Miller**

Ms. Miller stated that the Confined Aquatic Disposal (CAD) pilot project is underway. Construction began on September 5<sup>th</sup> and finished on October 9<sup>th</sup>. The CAD cell was constructed to 250ft by 800ft at an average depth of -66ft Mean Lower Low Water (MLLW). About 130,000 cubic yards of sand was removed and placed into the Masonville Kurt Iron Slip. The CAD cell capacity is at 73,000 cubic yards and will receive maintenance material from the Ferry Bar Channel; placement will occur this fall. The Norfolk Dredging Company was the contractor for the pilot project. The process involved loading a scow which would be transported by a tug boat to the Masonville DMCF and pumped into the DMCF by a hydraulic unloader. The next step involves placing the maintenance material in the CAD cell. Monitoring will occur during placement (i.e. total suspended solids, turbidity, nutrients, field parameters, etc.) and post-placement monitoring will focus on seepage-induced consolidation testing and high frequency multi-beam surveys to document any type of material movement. Completion of the project is anticipated by February 2017 with monitoring occurring for one year after completion.

Mr. Donnelly asked about the percentage of water in the slurry. Mr. Newbury stated that the slurry is about 95% water and 5% sand which allows the material to be pumped through the pipe. Mr. Myers asked if there would be active ship berthing over top of the CAD site and Ms. Miller replied yes. Mr. Myers asked about the availability of the sand due to its potential usefulness regarding the construction of living shorelines. Ms. Miller replied that all of the sand is needed for MPA projects but that other uses for the sand would be considered moving forward. Mr. Donnelly asked if any baseline monitoring was conducted. Ms. Miller replied that during the past year monitoring has been conducted to compile baseline conditions. Mr. Lee asked why the term ‘mining’ was not being used when creating the CAD cell, as opposed to ‘dredging’. Ms. Miller replied that MPA has a Tidal Wetlands License and the permitting mechanism is for dredging; MPA is dredging to a permitted depth. Mr. Stainman stated that the cell was dug out to -66ft MLLW and asked about the estimated depth once the cell is filled. Ms. Miller replied that the CAD cell will be filled to -52ft MLLW with a +2ft freeboard.

Mr. Stainman asked about the end use for the Kurt Iron Slip. Ms. Miller replied that the Kurt Iron Slip is expected to be developed as terminal space by 2018; wick drains will expedite the process of dewatering and consolidation. Mr. Myers asked if the material used to raise the dikes at the Masonville DMCF will be the reclaimed sand or other materials. Ms. Miller replied that it will be both; some of the sand cannot be reclaimed since it is mixed with dredged material and other material will have to be brought in. Mr. Stainman asked about the cost of the CAD cell compared to a normal dredging project. Ms. Correale stated that the CAD cell is a pilot test, which has a higher cost when working with such a small quantity. Additionally, the project is located in an active vessel berth and although it did not interfere with vessel activity; there was an increased risk and cost for the contractor having to move their equipment for vessels. The true cost is unknown at this time; the main focus is determining if the project is successful. In theory the CAD project should cost less than placement in upland sites. Mr. Donnelly asked where the CAD cells would exist if the project moved forward. Ms. Correale replied that it is unknown at this time since the pilot project is still in its infancy; they could potentially be placed below existing navigation channels.

Mr. Donnelly asked the HT to be cautionary in their consideration of CAD cell locations due to the potential for the Baltimore Harbor to be a mine field of contamination associated with new work dredging. Mr. Phipps stated that there was a concern with drinking water contamination in Anne Arundel County; however, after MGS performed a hydraulic study on the Patapsco Confined Aquifer it was shown that the flow of water was away from the aquifer and that recharge areas would not be affected. Mr. Pattison stated that the filling of the CAD cell would be completed in February followed by a year of monitoring and asked at what point MPA would make a decision regarding the viability of the project. Ms. Miller replied that once post-placement monitoring is complete, MPA will be able to make a determination. Ms. Miller stated that the area was chosen for the pilot project due to the area being sheltered. If MPA were to have a project not in a sheltered area there would be many preliminary studies needed. Mr. Myers asked if CAD would provide capacity for Harbor maintenance material so the DMCF's could hold the new work material. Ms. Miller stated that CAD could be used for potentially contaminated new work material but caps would have to be incorporated to make sure the contaminants stay in place. No decision has been made yet but DMCF maintenance material is slated for IR and MPA would not want to risk adding contaminated material.

Ms. Kolberg asked if the CAD cells would be located inside the North Point/Rock Point line and Ms. Miller replied yes. Mr. Donnelly opposed the creation of CAD cells in the shipping channel due to the likelihood of ships increasing in size which could cause problems in the future as the channel size increases. Ms. Miller stated that it has not been decided how the project will be implemented and MPA will take into consideration all of the recommendations. Mr. Myers stated that ship size is limited by the height of the Bay Bridge. Ms. Correale added that ships are also limited by the Chesapeake Bay Bridge-Tunnel. Mr. Stainman asked what the depth of the area was before the CAD cell deepening. Ms. Miller replied that it was between -45ft to -50ft MLLW. Mr. Stainman asked if there was going to be a slope of 14 feet which the material would have to migrate upwards. Ms. Correale replied that the material will initially be bulked up and take time to consolidate. Future testing will involve determining the consolidation rate. Ms.

Miller stated that the material will be bottom dumped which should keep the material together and cause less drifting.

## **5.0 Harbor Development Update**

**Ms. Chris Correale**

### *Masonville DMCF*

Ms. Correale stated that the Masonville dike will be raised to +42 MLLW. The raising will be done in increments to allow the material to properly consolidate. Initially the dikes will be raised to +18ft MLLW in the summer of 2017. There is also a tipping fee agreement with US Army Corps of Engineers (USACE) at Cox Creek which covers some of the MPA operations and management costs associated with the Cox Creek DMCF; a similar agreement is being drawn up for Masonville.

### *Cox Creek Expanded Project*

Ms. Correale stated that almost all of the buildings have been demolished. After demolition the dikes will be raised on the existing DMCF. In order to raise the dikes a base dike must be built on the inside of the DMCF to support weight of the dike to +60ft MLLW. Construction is anticipated to begin summer 2018.

### *Innovative & Beneficial Use*

Regarding sediment quality, which is a key driver in implementing the IR program, there is a tight timeline for the creation of a technical screening criteria and technical guidance document. After approval by all of the agencies, which expected by spring 2017, there will be a predictable process for any vendor who would like to participate in IR. Another benefit is that the criteria and guidelines will be safe for the environment and public health.

### *Channel Widening Project*

Regarding channel widening, MPA is working on a cost share study with the Baltimore District of the USACE to widen the Chesapeake Bay channels. The Maryland channels were authorized to 800ft, but only dredged to 700ft. No widening will occur within the North Point/Rock Point line. Widening will occur from the Craighill Entrance to the middle of the Cutoff Angle. Virginia channels were authorized to a width of 1000ft but only dredged to 800ft wide. Public review is still needed for the limited reevaluation report; final approval is expected in August 2017. Approval of the report does not authorize funding for the construction; the Corps will have to wait for congressional approval. The project is estimated at \$67 million.

Mr. Lee asked why widening is not occurring inside the North Point/Rock Point line. Ms. Correale replied that in the lower Bay area wind and currents have more effect on the ships, compared to the Harbor where the ships are maintaining a slower speed. The pilots had input in the decision-making process and went to the USACE Engineering, Research, and Development Center in Vicksburg, Mississippi to determine where it would be safer to pass ships in the Bay. Mr. Myers asked if the Poplar Island expansion project needed material from the widening to be completed and Ms. Correale replied, no. Ms. Kolberg asked if the public review was only going to be for the Virginia widening component. Ms. Correale replied that the whole study would be publicly reviewed. Ms. Kolberg asked if meetings had been held on the eastern shore. Ms. Correale replied that the USACE had two meetings, one in Virginia, and one in Pasadena, Maryland. Ms. Kolberg recommended outreach to the communities (i.e. Broadneck, Kent Island,

Gibson Island, Cape St. Claire, etc.). Mr. Donnelly asked who authorizes the disposal of material in Norfolk Ocean Disposal Site and it was replied that EPA permits placement there. Ms. Correale stated that the channel widening project will be completed in several segments over several years.

Ms. Correale stated that MPA still has a 20 year dredged material management plan. Mr. Pattison reminded the HT that the dredging season is approaching and inflow will occur between December and March; inflow events will be available for viewing for those interested.

## **6.0 Upcoming Meetings**

**Mr. Steve Pattison**

Ms. Correale stated that the DMMP annual meeting is upcoming at the Soller's Point Multi-purpose Center on November 14<sup>th</sup> at 10:00am. Secretary Grumbles from MDE will be the keynote speaker this year and there will be interactive activities as well as a video on IR.

Mr. Pattison stated that the 2017 HT meetings will still be held on Thursday nights, but will be the last Thursday of the first month of each quarter. The 2017 Harbor Team meeting dates include January 26<sup>th</sup>, April 27<sup>th</sup>, July 27<sup>th</sup> and October 26<sup>th</sup>. There is a snow date of February 2<sup>nd</sup> if needed.

## **7.0 Adjourn**