

**DRAFT FINAL
SUMMARY FOR THE HARBOR TEAM MEETING
January 25, 2018; 6:00 PM
2200 Broening Highway
Baltimore, MD**

Attendees:

Baltimore County Economic and Workforce Development: Rick Johnson
Baltimore County Environmental Protection and Sustainability: David Riter
Council Fire: George Chmael
Cristal Corporation: Paul Morris
Dundalk Renaissance Corporation: Paul Rosenberger
EcoLogix Group: Steve Pattison
Fort Howard Community Association: Kathy Labuda
Leaders Helping Leaders 7th District Civic Council of Baltimore County: Scott Pappas
Living Classrooms Foundation: Lorraine Warnick
Maryland Environmental Service (MES): Christine Holmburg
Maryland Department of Transportation Maryland Port Administration (MDOT MPA): Chris Correale, Katrina Jones, John Vasina, Dave Bibo, Shawn Kiernan, Bertrand Djiki, Sergio Adantor, Kristen Keene, Holly Miller
North Point Peninsula Council: Fran Taylor
Patapsco Back Rivers Tributary Team: Stuart Stainman
Ports America: Aamer Qureshi
South Baltimore Business Alliance: Mike McGeady
Terracon: Nancy Straub
Turner Station Conservation Teams: Gloria Nelson
University of Maryland Center for Environmental Science: Elizabeth Price
U.S. Army Corps of Engineers (USACE): Kevin Brennan

Action Items:

- 1.) None.

Statements for the Record:

- 1.) None.

1.0 Welcome & Introductions

Mr. Steve Pattison

Mr. Pattison welcomed the attendees and everyone introduced themselves.

2.0 Approval of Summary from Last Meeting

Team

Mr. Pattison stated that there was a slight revision to the draft summary that was previously distributed; the Wildlife Habitat & DMCFs overview listed the operating hours at Masonville to be from 7 am to 4 pm Monday through Friday and 7 am to 1 pm on Saturdays. Masonville is open to the public from 9 am to 4 pm Monday through Friday and 9 am to 1 pm on Saturdays. The Harbor Team (HT) approved the October 26 meeting summary as amended.

3.0 Innovative & Beneficial Use Progress Report

Ms. Kristen Keene, MDOT MPA

Ms. Keene stated that the Maryland Department of Transportation Maryland Port Administration (MDOT MPA) is working with several partners to develop Innovative Reuse (IR) demonstration projects which should be executed this calendar year. MDOT MPA is currently evaluating projects using dried dredged material from Cox Creek Dredged Material Containment Facility (DMCF) for alternative daily cover (ADC) and engineered fill. A small test nursery demonstration has also been established at the Cox Creek DMCF. Dried dredged material will be used as ADC at the Quarantine Road Landfill. The Maryland Department of the Environment (MDE) has provided a letter to Baltimore City Department of Public Works (DPW) approving the use of the material for this demonstration project. Reporting requirements include the performance of the dredged material and operational challenges encountered, etc. The letter also included information regarding the time extension for use of dredged material as ADC based on the final report and evaluation from the landfill. All material being used has been approved by MDE.

Regarding the use of engineered fill at Hawkins Point, MDOT MPA is planning to close the South Cell and build an Algal Flow-way (AFW). The area must be filled and graded prior to construction of the AFW; approximately 19,000 cubic yards of material is needed. Also, the test nursery at the Cox Creek DMCF is using various treatments of dried dredged material, lime, and LeafGro® mixtures to determine which could support the growth of grass; the control plot uses only topsoil. Based on weekly visual observations, the 100% dredged material and some lime is performing the best, while the 100% dredged material (with no lime) is performing second best. The plots were established in October of 2017 and observations will continue for one year, through a complete growing cycle.

MDOT MPA recently issued the IR of Dredged Material and Capacity Recovery at Cox Creek DMCF Request for Proposal (RFP). The objective is to recover dredged material placement capacity in the Cox Creek DMCF. A successful offeror must excavate, dewater, characterize, and transport off-site a total of 500,000 cubic yards for innovative reuse projects over a five-year period. The RFP was issued by MES on behalf of the MDOT MPA on December 29; proposals were due February 6 but a recent Addendum extended the due date to March 6. Staging Area A is approximately 1.7 acres of land on-site, which is available for use by the contractor. Staging Area B is available for a buildout, bringing the total available area to 4 acres. These activities will not impact the existing dike, the base dike that will be under construction during this contract, or any other materials which may have been placed in the DMCF before MDOT MPA purchased the site.

Mr. Taylor asked if the test plots were using harbor channel maintenance material, and Ms. Keene replied yes, but the exact location is unknown. Mr. Taylor asked why Hart-Miller Island does not grow plants as well as the material from Cox Creek. Ms. Miller stated that some species do grow on Hart-Miller Island but the liming could also be the cause for lack of growth. Mr. Stainman stated that the test plots were not very large and asked if the test plots will be expanded or repeated. Ms. Keene stated that the test plots were used to establish if dredged material can support growth of grass seed. The material will be monitored weekly for one year; after that, a decision will be made regarding the continuation and/or modification of the test plots. Ms. Labuda asked if the material used was processed. Mr. Kiernan replied that the only process which occurs is the drying of material; dried material was used for the test plots. Ms.

Straub asked if the list of contractors who had expressed interest in the RFP was available. Ms. Keene stated that the list of contractors who attended the pre-proposal conference was available in Addendum #1.

Ms. Labuda asked what type of contamination was in the Cox Creek DMCF material. Ms. Keene replied that the dredged material in the Cox Creek DMCF is maintenance material, which is tested against the MDE guidance document for IR and the material has qualified as Category 2. Ms. Miller explained that Category 2 is for industrial use, not residential use. Ms. Labuda expressed a concern regarding future runoff from the material even if it is used for industrial purposes. Ms. Miller stated that the material is used in coordination with MDE, to identify the levels of contaminants and safe uses for the material; all results are compared to US Environmental Protection Agency (EPA) risk levels. Mr. Pappas suggested long-term monitoring on the material being recycled. Mr. McGeady asked about the amount of dredged material that would be used for the project. Ms. Keene replied that a minimum of 500,000 cubic yards would be used. The contract is split in to two phases. Phase 1 includes the use of 100,000 cubic yards over the initial two years; Stage 2 is the contract's remaining 3 years, in which the remaining 400,000 cubic yards would have to be used. The contract could be extended to use an additional 250,000 cubic yards over 3 years.

Ms. Stainman asked how much material the Quarantine Road Landfill project is expected to use. Ms. Keene stated that 1,000 cubic yards was approved for use as ADC. The Department of Public Works estimated that 7,000 cubic yards could be needed for the project; additional stockpile material is currently undergoing testing to obtain MDE approval for use as ADC. Mr. Stainman asked if there is an avenue for increased amount of use. Ms. Keene stated that the MDE approval letter indicated that if the demonstration is successful, MDE will consider extending the amount of time they could use the material as ADC. Mr. Stainman asked about the time frame for the project. Ms. Keene stated that project will run for one year from first receipt of material at the landfill site.

4.0 Cox Creek Expanded Project

Mr. Shawn Kiernan, MDOT MPA

Mr. Kiernan stated that at Cox Creek earthen dikes make up the approximately 144 acres of the existing DMCF. Cox Creek is one of two sites which can accept harbor material; the other site is Masonville DMCF. There is almost 100 acres of upland area that used to be the Kennecott Copper Refinery; MDOT MPA purchased the site in 1997. The upland area will be used for additional capacity as Cox Creek DMCF is expanded. There is a 115-acre conservation easement, which is protected in perpetuity, as well as 12 acres of mitigation land which includes a marsh area, open water, sand bars, and beach. The Cox Creek Expanded project was implemented to create additional capacity to meet the dredging demands for MDOT MPA'S 20-year Dredged Material Management Plan. The expansion project's steps involve demolishing the existing buildings, raising the earthen dikes on the upland property to +60 ft Mean Lower Low Water (MLLW), and raising the existing dikes to +60 ft MLLW. MDOT MPA is planning to borrow existing onsite clay to build the base dike. The ultimate goal is to raise the dikes to +80 ft MLLW. Inflow will continue as construction occurs. In the future the dikes will be stepped in to construct the +80 ft MLLW dikes. The onsite clay has low permeability; the use of the material creates a resource and generates more capacity for the DMCF. Currently, all of the buildings have been demolished except for one (Building 201). From the 25 buildings removed

about 12,000 tons of steel, 5,700 tons of asphalt, and 52,000 tons of concrete were recycled. Stockpiled aggregates of dirt and gravel are being moved from the northwest corner to Masonville; about 48,000 tons has been placed at the Kurt Iron Slip.

Building 201 was found to have high levels of polychlorinated biphenyls (PCBs). MDOT MPA worked with the EPA to develop a remedial strategy. EPA has now approved the remedial strategy and a work plan is in development to remediate and demolish the building safely. Once the work plan is approved by the EPA, removal of Building 201 is expected to begin in the summer of 2018. All of the material will go to PCB landfills. Other remediation activities have been split in to two Phases which include identifying and removing the known hotspots found in the soil (Phase I). So far approximately 22,270 tons of petroleum impacted soils, 1,857 tons of heavy metals impacted soils, and 1,462 tons of PCB-impacted soils have been removed. Additional areas have been identified and will be further delineated and remediated under Phase II. Eight underground storage tanks (USTs) have been removed; at least one remains.

The Operations and Management (O&M) Complex bids were due today. The plans underwent redesign after the initial bids came back higher than expected. Construction is anticipated in the spring if the construction bids are within the expected range.

Regarding the schedule, coordination with MDE Dam Safety Division, Water Management & Land Management, EPA, and with the communities has already taken place. As construction begins; the site will be active for inflow. Within the next few months the 100% base dike design plan will be completed; progress is expected from the upland dike design, as well.

Ms. Labuda asked where the removed concrete and asphalt was taken to be recycled. Mr. Kiernan stated that removal and final location was the responsibility of the contractor. Ms. Labuda asked if any of the material from Building 201 will be recycled. Mr. Kiernan reiterated that none of the material will be recycled and the entire building will be safely dismantled and removed to facilities which accept PCBs, either in Texas or Michigan. Mr. Stainman asked when the expanded site would be open to accept material. Mr. Kiernan stated that small jobs are currently underway, but after the initial construction, inflow will resume as normal in 2019.

5.0 Confined Aquatic Disposal (CAD) Pilot Project Ms. Holly Miller, MDOT MPA

Ms. Miller stated that Confined Aquatic Disposal (CAD) pilot project is located adjacent to the Masonville DMCF in the Masonville vessel berth between Pier 3 and Pier 4. The CAD cell is 800 ft by 250 ft and dug to a depth of 65 ft. Approximately 130,000 cubic yards of sandy material was removed from the CAD project area for use in the Kurt Iron Slip Terminal Development Project and dike raising activities. The area is an active vessel berth so extensive coordination with the pilots, terminal operations, and the dredging contractor occurred. The project area was filled over a 9-day period in February 2017. There was 62,000 cubic yards of fine-grained silty material from the US Army Corps of Engineers (USACE) maintenance dredging of the Ferry Bar channel placed into the CAD cell; placement design incorporated a 2-ft freeboard.

A multi-phase monitoring plan was developed for this project. Phase I characterized the sediments being dredged from the channel and placed in the CAD cell, as well as the material

being removed from the CAD cell when it was constructed. Chemical and standard elutriate testing was performed to determine any contaminant release into the water. Metals were not detected and therefore were not likely to be released during placement, but nutrient release was a possibility. Phase II was a baseline monitoring program which characterized the natural nutrient variation in conditions of the area. Phase III included turbidity, nutrient, and total suspended solid water quality monitoring during placement. Phase IV is post-placement monitoring, which involves surveys to track consolidation and any material movement from the CAD cell.

Phase III, which occurred during placement activities, monitored turbidity and nutrients. The turbidity results were compared to Code of Maryland Regulations (COMAR) standards. The standards state that turbidity cannot exceed 150 Nephelometric turbidity units (NTU) per day or 75 NTU for a monthly average. The highest recorded result was 68 NTU and the overall average was 11 NTU. Nutrients were compared to the baseline monitoring results; the nutrients were low and remained well within the observed baseline.

During placement of material into the site, approximately 15-18 feet of sediment was placed throughout the cell. The depth differences were due to the uneven bottom. The project site was originally adjusted to move it away from an area that was likely to scour. Post-placement monitoring shows that the material is silty and self-leveling; some material moved into the location of scouring next to the project site, at the adjacent vessel berth. There has been even consolidation between 5 to 6 ft over the project area; it is beginning to revert to original conditions. Based on the most recent survey, a small area is showing scouring down to about 7 ft. This is a new condition. In the beginning, surveying was conducted frequently however over time surveying has spread out due to no expected changes. Based on the results of the 9-month survey, an 11-month survey was added to monitor the cell. MDOT MPA will investigate the operations occurring at the berth to determine why the scouring is occurring. Surveying is supposed to be completed at the end of 12 months, but may be extended due to the new scour formation.

The next steps include finalization and distribution of the nutrient monitoring report. MDOT MPA will complete the post-placement monitoring. Some of the surveys will need to be further evaluated and investigated to determine if any operational changes could be impacting the cell. Stakeholders will be updated with the results. MDOT MPA will evaluate the lessons learned from the project to determine if CAD is a tool which could be used in the future.

Ms. Labuda asked what “scouring” was. Ms. Miller explained that the ships propellers create conditions which churn the water and disturb the sediment. No cap was placed on the cell. That decision was based on the amount of space between the material and the top of the cell. Ms. Straub asked how sure MDOT MPA was that the difference is not from that particular area settling faster. Ms. Miller stated that the assumption of scouring is based on the consistency of the settling throughout the entire cell so far. MDOT MPA will continue to monitor and evaluate the situation. Ms. Straub asked how uniform the material was and how was it placed. Ms. Straub stated that there could be a sand pocket in that location. Ms. Miller stated that was possible, but the material was bottom dumped from scows. Based on testing, the placed material is fine and silty. Ms. Straub suggested sampling to determine the type of material present. Ms. Straub asked if calculations had been performed to determine that the settlement would be

completed in about 6 months. Ms. Miller stated that Seepage Induced Consolidation testing was performed. The material was sampled for physical properties while it was in the channel and a modeling exercise was conducted based on those results. Several samples were taken and averages were used to create a curve. The actual rate of consolidation has been compared to those curves and they have matched the curves the entire time except for the new scouring area. Mr. Pappas asked, regarding the scouring location, how much is over 7 feet? Ms. Miller replied that it was barely over 7 feet.

6.0 Harbor Development Update

Ms. Chris Correale, MDOT MPA

Masonville Dike Raising

Ms. Correale stated that the MDOT MPA is preparing to raise the dikes to +18 feet MLLW. The Kurt Iron Slip has been closed off and the Cox Creek stockpiles have been used to fill in the area, which will eventually be terminal space. Currently MDOT MPA is awaiting the Erosion and Sediment Control permit to continue dike raising activities. Once the permit is received the dike raising is expected to be completed by winter 2019.

MDOT MPA Harbor-Wide Dredging Permit

Ms. Correale stated that a request has been made to modify the Harbor-Wide dredging permit, to deepen an area adjacent to the Masonville DMCF. The plan includes a buffer to stay away from the Ferry Bar Channel toe as to not impede traffic. The deepening would allow scows with larger capacity to inflow into the Masonville DMCF. The modification includes 71,000 cubic yards to be dredged and up to 150 off-shore borings. The public comment period closed at the end of October and the USACE is currently responding to the comments. It is anticipated that a modified permit will be received in February.

Energy Port Dredging

Ms. Correale stated that maintenance dredging will occur at Dundalk Marine Terminal. There are three different areas with varying depths, some below grade, some at grade, and some too shallow. Areas 1 & 3 will be dredged to 43 ±1feet MLLW and Area 2 will be dredged to 44 ± 1feet MLLW. This material will be placed at Masonville; the project is expected to be finished this summer.

7.0 Upcoming Meetings

Mr. Steve Pattison

Mr. Pattison stated that the next Harbor Team meeting is scheduled for April 26, 2018.

8.0 Adjourn