SUMMARY OF THE MASONVILLE
CITIZENS ADVISORY COMMITTEE MEETING
April 3, 2018 5:30PM
1000 Frankfurst Avenue
Baltimore, Maryland 21226

Attendees:

Angie Ashley Consulting: Angie Ashley
Baltimore City Mayor's Office of Human Services--Southern Community Action Partnership: Natalie McCabe
Ben Franklin High School: Hillary Clayton, Kelly Oglesbee
Chesapeake Bay Foundation: Carmera Thomas
Curtis Bay Citizen: Yinglee Tseng
Living Classrooms Foundation (LCF): Lorraine Warnick
Maryland Environmental Service (MES): Jessica Keicher, Chris Williams
Maryland Department of Transportation Maryland Port Administration (MDOT MPA): Chris Correale, Bertrand Djiki, Kristen Fidler, Katrina Jones, Kristen Keene, Holly Miller
Masonville Citizens' Advisory Committee (CAC) Chair: Mike Sakowski
National Aquarium: Curtis Bennett, Andrea van Wyk

Action Items:

1. Ms. Miller will ask the Baltimore Department of Public Works if they have had any issues with feral cats using storm drains during colder months.
2. MDOT MPA will provide the comprehensive monitoring plan for the Masonville mitigation programs to the Committee.
3. Ms. Ashley will share the Masonville Cove Small Water Action Plan with the Committee. *(see attached)*
4. Ms. Ashley will contact the MCAC members not in attendance and brief them on the meeting and share meeting materials.

Statements for the Record:

None.

1.0 Welcome & Introductions

Ms. Angie Ashley called the meeting to order. Ms. Ashley then asked the meeting attendees to introduce themselves. Mr. Sakowski moved to approve the October 3, 2017 meeting summary as final, the motion was approved.

2.0 Masonville Construction Update **Mr. Bertrand Djiki, MDOT MPA**

Dike Raising

Mr. Djiki reviewed the history of the Masonville Dredged Material Containment Facility (DMCF). Design and planning started in 2003. Phase 1 and Phase 2 of the dike construction were completed in 2012. Currently, the DMCF is approximately 110 acres. The current available capacity at the DMCF is 3 million cubic yards (MCY). The current dike elevation averages approximately 10 feet high.

The outer dike of the DMCF will be raised to approximately +18 feet. Raising the dike will add 1.6 MCY of placement capacity to make the total remaining capacity 4.5 MCY. The Cofferdam Berm is currently under construction and is being raised to approximately +6 feet. The Cross Dike Berm is complete and was raised to approximately +4 feet. In addition, the Kurt Iron Slip (KIS) is currently being filled, MDOT MPA is working on crust management and dewatering. There is excess material from Mercedes Hill; that material will be placed in the KIS. MDOT MPA will be constructing a dedicated site access road.

Kurt Iron Slip (KIS)
MDOT MPA will continue to fill the KIS using fill material from other MDOT MPA projects including stockpiled aggregate from the Cox Creek site. The KIS will eventually be developed into approximately 13 acres of terminal space and incorporated into the Masonville Marine Terminal.

Two derelict vessels will soon be removed from within the KIS. MES has re-advertised this project; bids will be opened on April 5, 2018.

Once the KIS has been filled and paved, a permanent Operations and Maintenance (O&M) building and dedicated site access road to manage the Masonville DMCF will be constructed. Ms. Jones asked where the O&M Building would be placed. Mr. Djiki responded that the current plan is for the O&M Building to be adjacent to the Cross Dike.

3.0 Mitigation and Community Enhancements Progress Ms. Holly Miller, MDOT MPA

Mitigation Projects
In total there are 18 mitigation projects associated with Masonville, of which only five (5) are outstanding; the status of those projects is either in progress or pending.

Due to the amount of remediation that needed to occur at Masonville Cove and a desire to expedite public access to Masonville Cove, the remediation area was split into three zones. Access Zone 1 (AZ1) is open to the public and a great deal of educational programming takes place here. Access Zone 2 (AZ2) was opened to the public as of summer 2017. Access Zone 3 (AZ3) is still under construction. Capping and sculpting of the area is complete; planting is anticipated to take place in the fall.

As of April 2018, six nontidal wetlands have been constructed and planted at Masonville. Three monitoring events took place over the summer in each of the completed wetlands. MDOT MPA will continue to monitor these wetlands to Maryland Department of Environment (MDE) success standards and adjust as needed to ensure wetland success. The seventh and final nontidal wetland (located in AZ3) has been constructed; the next step is to plant it this spring.

Shad and Herring Restoration
MDOT MPA provides funding to the MD Department of Natural Resources' (DNR) for the Patapsco River Shad and Herring Restoration Project. The overall objective of the project is to introduce larval and

juvenile American shad, hickory shad, alewife, and blueback herring populations to the Patapsco River, and in so doing, produce adult stock of hatchery-origin fish that will return to spawn; this will help to produce a self-sustaining population. In addition, DNR monitors the areas where the larvae are placed to determine the extent to which the overall objective has been met by assessing the contribution of hatchery fish to the adult spawning population and, in comparison, monitoring recovery of naturally produced stocks. The fifth year of adult, larvae, and juvenile shad and herring sampling was completed in September 2017. Sampling efforts include the use of seine nets and electrofishing. The current monitoring is showing there is an incremental increase in populations.

Trash Interceptors

There are five trash interceptor projects associated with the Masonville mitigation package. The Jones Falls Water Wheel ("Mr. Trash Wheel") was the first trash interceptor constructed as part of this mitigation package and has been operational since May 2014. As of February 2018, 719 tons of trash has been collected. The Masonville Cove trash wheel was installed March 2018 and is in its testing phase. MDOT MPA also constructed a trash interceptor at the Dundalk Marine Terminal. It is a hydrodynamic separator that uses swirl concentration and continuous deflective separation (CDS) to screen, separate, and trap trash and debris from storm water runoff. Currently the trash interceptor is operational. The contractor is working through a final punch list and is expected to demobilize from the site in the coming weeks. In lieu of constructing the two remaining trash interceptors, MDOT MPA is working with Baltimore City Department of Public Works (DPW) on source control. This includes installing solar-powered compacting trash cans and storm drain inlet and screen devices, which catch the trash before it goes into the storm drain system. The storm drain screens will be placed in areas that have an active street sweeping program. The storm drain screens would be maintained by an alternate DPW program. MDOT MPA is working on a Memorandum of Understanding (MOU) with Baltimore City for these projects.

Mr. Mike Sakowski asked if this is the only hydrodynamic separator operational. Ms. Miller responded that there is a hydrodynamic separator in operation at the Horseshoe Baltimore Casino and others in operation in other places in the United States. Mr. Sakowski asked if a study was done related to the DPW storm drain inserts programs and feral cats that use the storm drains. Mr. Sakowski wants to know what happens to the cats when the storm drains are blocked off and the cats get trapped or have nowhere to get warm or stay safe from the elements. Ms. Miller responded that she would ask DPW if they have had any issues with feral cats using storm drains during colder months.

Biddison Run Stream Restoration

MDOT MPA is coordinating with Baltimore City to help fund the restoration of the Biddison Run Stream in Back River Watershed. There is 6,900 linear ft. of restoration needed. The design is underway. Baltimore City is working with residents that will be affected by this project to obtain right of entrance to access the Biddison Run Stream in Back River Watershed. Baltimore City has run into issues with rights of entry, which has delayed this project.

Conservation Easement

Currently, MDOT MPA has completed the restoration and remedial activities in AZ1 and AZ2 and both are open to the public. Visitors are required to check in at the Masonville Cove Environmental Education Center before proceeding onto the property. Once MDOT MPA has completed all the remediation activities in AZ3 the entire Masonville Cove area will be put in a Conservation Easement in conjunction

with Maryland Environmental Trust. The conservation easement process can begin once all the access zones are complete; it is anticipated to be complete at the end of 2018.

Mr. Bennett asked if all of the monitoring of each of the mitigation projects, have been conducted during the same timeframe or monitored during different timeframes. Ms. Miller responded that each mitigation project is different and on a different timeframe to be monitored. Each project has a 5-year monitoring timeframe that starts when the project is considered complete. MDOT MPA has a comprehensive monitoring plan for all the mitigation programs; MDOT MPA will provide the comprehensive monitoring plan for the Masonville mitigation programs to the Committee. Mr. Sakowski asked if there is a map of where the outlets are into the water, for all the storm drains. Ms. Miller stated that Baltimore City DPW would have that information. Ms. Ashley responded that National Aquarium did a Masonville Cove Small Water Action Plan and she believes they were identified in that plan. Ms. Ashley will share the Masonville Cove Small Water Action Plan with the Committee. Ms. Thomas replied that Baltimore City DPW now has an interactive map to track water main repairs.

4.0 Innovative and Beneficial Use Progress Report Ms. Kristen Keene, MDOT MPA

Ms. Keene gave a report on several MDOT MPA demonstration scale projects that are anticipated to be initiated during the 2018 calendar year. The goal is to execute meaningful demonstration scale projects that will help further the Innovative Reuse Program. Currently the potential projects will use dried dredged material from the Cox Creek DMCF for both alternative daily cover (ADC) at the Baltimore City Quarantine Road Sanitary Landfill and also as engineered fill for the Hawkins Point South Cell. In addition, MDOT MPA developed a test nursery demonstration in October of 2017 at the Cox Creek DMCF.

Alternative Daily Cover

Using dried dredged material from Cox Creek DMCF as ADC at the Quarantine Road Sanitary Landfill has been approved by MDE. A letter was sent to Baltimore City Department of Public Works (DPW) approving the use of the material for this demonstration project. MDOT MPA is working with Baltimore City DPW to finalize an agreement for the hauling of the material from the Cox Creek DMCF drying area to the Quarantine Road Sanitary Landfill. The approval letter from MDE outlines reporting requirements from the landfill to assess: the performance of the dredged material as ADC, the description of any operational issues encountered, the photographic documentation illustrating the field manipulation and handling of the ADC, and the description of any modification to the landfill's standard operating procedures required in using dredged material as ADC.

The MDE approval letter also states if the DPW report states the use of dredged material as ADC was successful then MDE may consider allowing the landfill to extend the use of the material as ADC. If dredged material is approved for extended use, the City will be required to amend the landfill's Operations & Maintenance manual to reflect the use of dredged material as ADC. MDOT MPA currently has three stockpiles approved by MDE for use: Stockpile A, Stockpile B1, and Stockpile B2. These three stockpiles total 6,000 CY. This demonstration project will run for one year, it will start upon receipt of material at the landfill. MDE approval will be sought if any additional material is needed for the demonstration.

Dredged material will only be used for daily cover, not intermediate or final cover. Application of ADC will be determined by the landfill operators.

Engineering Fill at Hawkins Point

Hawkins Point DMCF last received material in 1997. The North Cell of the Hawkins Point DMCF was closed in 2012 and subsequently graded and planted with native tree species and is currently serving as a mitigation bank for Critical Area Commission projects. MDOT MPA is looking to officially close the South Cell of the Hawkins Point DMCF to construct an Algal Flow-way (AFW). Approximately 19,000 CY of material is needed to fill the South Cell; the material will be comprised of dried dredged material from Cox Creek DMCF as well as on-site berm material. Currently, the South Cell site is undergoing dewatering (into Thoms Cove) and crust management (i.e. material consolidation) operations to further dry and consolidate the material. Once the South Cell has been filled and graded, construction of the AFW can begin. MDOT MPA has built perimeter trenches to channel the water away from the cell; interior trenches will be built next. Hauling of dried Cox Creek DMCF material is expected to occur in late spring or early summer.

Test Nursery at Cox Creek DMCF

The test nursery was initiated in October 2017; the purpose for the test nursery at Cox Creek DMCF is to determine the ability of Cox Creek DMCF dredged material to sustain grass seed growth. The nursery (8 feet x 16 feet) was divided into eight separate plots (approx. 5 inches of material planted with native grass seed), each with a unique treatment using dried dredged material, Leafgro®, and lime with one control plot of topsoil. The plots were planted with a grass seed mix and are visually observed weekly. The test nursery will last one full growing season, ending in the fall, 2018. The 100% dredged material and lime plot currently has the highest percent coverage of all the plots, with the 100% dredged material plot having the second highest percent coverage. The dried dredged material used in the study was previously tested for pH, metals, and nutrients and will be tested again after completion of the observations in late summer 2018. Mr. Sakowski asked where the topsoil came from in plot one. Ms. Miller responded that it was sourced from Home Depot. Mr. Sakowski also asked if any of the plots showed heavy lead concentrations or if the soil was relatively clean. Ms. Keene replied that this material came from the Cox Creek DMCF and most of the material MDOT MPA pulls from that site is considered Category 2 material. According to the Innovative Reuse Guidance Document which qualifies material into one of four categories: Category 1 material is approved for residential use, Category 2 material is suitable for commercial or industrial use, Category 3 material is acceptable in a commercial or industrial setting and requires capping, and Category 4 material is not suitable for reuse. The testing limits associated with each Category of material are based on the Environmental Protection Agency's (EPA) regional screening levels.

Innovative Reuse RFP

In addition to the demonstration projects, Ms. Keene provided an update to the committee on the Innovative Reuse of Dredged Material and Capacity Recovery at the Cox Creek DMCF Request for Proposals (RFP). The objective of the RFP is to recover placement capacity at the Cox Creek DMCF. The proposal involves a successful offeror excavating, dewatering, characterizing, and transporting off-site a total of 500,000 CY of material for innovative reuse projects. The contract duration is 5 years. The RFP was issued by MES on behalf of MDOT MPA on December 29, 2017; proposals were submitted on March 20, 2018 and MDOT MPA is looking to award a contract in May 2018 with the Notice to Proceed in June 2018. Ms. Keene displayed a contract drawing of the project layout indicating the location of the on-site innovative reuse Staging Area A and potential Staging Area B adjacent to the Cox Creek DMCF. Staging

Area A (approximately 1.7 acres) is the on-site area where the potential contractor may conduct the dewatering, characterizing, and temporary stockpiling operation prior to loading the material for transport. Staging Area B is an additional on-site area that the potential contractor can build out if they elect to for a combined total of four acres to use as the on-site staging area. Ms. Keene also pointed out the Innovative Reuse Project Excavation Area within the Cox Creek DMCF. This is the area inside the DMCF that engineers have determined that a contractor can safely excavate dredging material without impacting the integrity of the existing dike, will not interfere with base dike construction that will be occurring during this contract, and will prevent the excavation of previously placed material that may not be representative of maintenance dredged material.

The material may be used in more than one innovative reuse project. The location of the reuse project will be at the discretion of the contractor and must be approved by MDOT MPA. All of the material will be characterized based on the sampling procedures outlined in the MDE Guidance Document but only material innovatively reused in Maryland will need to adhere to the regulatory parameters described in the MDE Guidance Document.

MDOT MPA will continue to advance the existing demonstration projects to help further the innovative reuse program as well as explore additional opportunities for the innovative and/or beneficial application of dredged material.

5.0 Citizen Science and Community Projects **Mr. Curtis Bennett, NA**

2017 Events

Mr. Bennett, the Director of Conservation and Community Engagement at the National Aquarium (NA) detailed the work that the NA Conservation, Education and Field Conservation teams have been working on at the Masonville Cove and surrounding communities. In the fall of 2017, NA hosted two clean-up events. The first was held in the Brooklyn community at the Brooklyn Dream Center. The second was held at the Masonville Cove in conjunction with the International Coastal Clean-up. Over 200 people were involved in both clean-ups; and removed about 15,000 pieces of debris. In addition, the Greater Baltimore Wilderness Coalition hosted the Celebrate Baltimore Birds festival at Gwynn's Falls Leakin Park which highlighted that Baltimore is an Urban Bird Treaty City as designated by the US Fish & Wildlife Service. In November 2017, NA hosted the Nature City Forum which is held to encourage thinking more holistically about conservation, where professionals in the restoration, education, public health, and environmental justice areas to discuss the different components of conservation.

2018 Events

Through the EPA Environmental Justice Small Grants, the Patapsco Latino Action Network in conjunction with NA is hosting three events: Visioning Workshop (April 17), Community Clean-up (April 22), Latino Conservation Day (June 24).

The Monarch Butterfly Conservation program is working with community partners to construct habitats for pollinators using monarch butterflies as an ambassador species for that conservation effort. NA has been visiting Benjamin Franklin High School in the classroom, preparing the students for a planting this spring. NA will also be working with the Curtis Bay Recreation Center and having a planting at that site. While working with the Curtis Bay Recreation Center, NA spoke with the Director of Baltimore City Recreation Centers office and they expressed their interest in planting pollinator gardens in other locations.

NA will be working to develop more of a relationship with the Baltimore City Recreation Centers to help them develop more environmental based programs.

NA has been working through the Curtis Bay Alley Art Project to identify alleys in need of beautification to deter illegal dumping by having art change the space. NA has been working closely with The Well (an organization in Curtis Bay.) Similar efforts have been made in other parts of Baltimore City, led by the Chesapeake Bay Foundation or Healthy Harbor Initiative. The alleys in consideration will be presented to the Greater Curtis Bay community to narrow down the decision. The design is still being finalized by artist Steve Bradley of the Chesapeake Arts Center. A date for the community event is not yet set.

NA is sponsoring the 2018 Urban Conservation and Education Internship Program. Applications closed March 30, 2018. The goal is to accept four students from local universities. In addition, NA, in partnership with the Baltimore City Office of Sustainability, has the Green Healthy Smart Challenge where they work with schools in the south Baltimore-Gateway area to establish recycling and trash removal programs in the schools. The Green Healthy Smart Challenge will have its culminating event on May 12 called GreenScape at Middle Branch Park.

Upcoming Events

- April 13-14 – Dundalk Wetland Planting
- April 14 – Project Clean Stream - Masonville Clean-Up
- April 27-30 – City Nature Challenge
- April 28 – Gwynn's Falls Leakin Park BioBlitz
- May 11-12, May 18-19 – Dundalk Wetland Planting
- May 6-May 12 – Baltimore Wildlife Week
- June 16 – 5th Annual Masonville Cove BioBlitz
- June 23 – Masonville Cove Community Planting

6.0 Education and Campus Operations **Ms. Lorraine Warnick, LCF**

Ms. Warnick gave updates for the Living Classroom Foundation (LCF) regarding their events and activities. LCF has been implementing their school outreach programs and working with five schools (Federal Hill Preparatory Academy, Westport Academy Elementary/Middle School (E/MS), Lakeland E/MS, Cherry Hill E/MS, and Arundel E/MS in the casino area leveraging the South Baltimore Gateway Partnership Funding. LCF has been going out to the schools and conducting hands on environmental education outreach program with the students as well as bringing the students to the Masonville Cove Environmental Education Center for fieldtrips. This past fall, LCF held five Land & Sea Program days where the students spent half the day on the water (on LCF's skipjack) and half the day on land in the science labs. In addition, LCF has been writing grant proposals for the upcoming year to attain additional funding to continue serving the current school programs but also to add additional school programs. Multiple corporate groups have come to LCF to volunteer which helps LCF share their story and spread the message of what is going on at LCF. Once every month, LCF holds a Masonville Cove Stewardship Program where volunteers complete necessary outdoor activities to benefit the Masonville Cove (protecting trees in winter, shoreline cleanup, winterizing pond, working on the pollinator garden, plant milkweed seeds). LCF has hosted events for Girl Scout groups and for holiday ornament making. The Audubon Society has begun visiting Masonville Cove and have added the site as one of their regular bird

walk locations. The eBird website has become popular and has helped to spread the word about the Masonville Cove and the many bird watching opportunities on site. LCF has initiated a new program which offers bilingual programs at the Masonville Cove site. These programs are educational and engaging to help the entire community to understand the relationship of how personal actions impact the environment. LCF worked with MDOT MPA on the naming contest of the new trash wheel and are excited students from Lakeland E/MS named it Captain Trash Wheel.

7.0 Harbor Development Update **Ms. Chris Correale, MDOT MPA**

Ms. Correale reported that one of the recommendations that the Dredged Material Management Program (DMMP) Management Committee provided in the 2016 and the 2017 Annual Reports was to try to look out beyond the 20-year planning horizon for dredged material management capacity. MDOT MPA has been using the same numbers for dredging demand and placement capacity supply for a number of years and those numbers needed to be challenged. MDOT MPA decided to take a closer look at where the numbers came from and what the numbers really mean in order to plan better. MDOT MPA will update these figures on a yearly basis now. The Masonville DMCF had one of the bigger impacts on placement capacity supply and adjustments were needed.

<u>Cumulative Capacity of Material</u>

The original footprint of the Masonville DMCF was made up of the current Masonville DMCF plus the Kurt Iron Slip (KIS). At the time the project was planned the expected cumulative capacity was 14 MCY. MDOT MPA did not revisit the capacity numbers after the dike was constructed. MDOT MPA conducted value engineering on the KIS dike and decided not to build a dike around the KIS, due to high cost and low return on capacity. Other factors added to the loss of capacity including the volume occupied by the dredged material, improved modeling of site geometry and changes in some other assumptions With the factors outlined above, in total the Masonville DMCF lost approximately 3 MCY of capacity. Total capacity is now 11 MCY.

One of the assumptions made about the volume of the material was regarding volume occupied. Volume occupied includes the water filled spaces between the sediment particles. MDOT MPA originally used Hart Miller Island volume occupied for the Masonville DMCF. The volume occupied changed when MDOT MPA opened Cox Creek DMCF, a much smaller DMCF than HMI with far less surface area that would promote drying, and lessons were learned. MDOT MPA also assumed that 500,000 CY of material would be recovered to use in dike construction, but inflow had to occur in the site and the 500,000 CY could not be recovered.

Mr. Sakowski asked how these changes affect the timeline of the DMCF receiving material and the life span of the Masonville DMCF. Ms. Correale responded that it will shorten the life of the placement site because there is not as much capacity. MDOT MPA will continue to incrementally raise the dikes until they reach +42' but the total volume of capacity is 3 MCY less than initially expected; the updated

cumulative capacity is now 11 MCY. Mr. Sakowski asked if the KIS would be accessible sooner for its purpose. Ms. Correale replied yes, that the KIS area will be ready sooner.

At the Cox Creek DMCF, 400,000 CY was added to the initial 6 MCY of cumulative capacity. When MDOT MPA planned the Cox Creek DMCF Expansion site it was initially expected to have 12.5 MCY of capacity but that number was adjusted to 10.8 MCY capacity.

Cumulative Placement of Material

Average annual placement demand for the next 20-years in the Baltimore Harbor is expected to be 1.15 MCY down from 1.5 MCY in previous calculations.

Mr. Sakowski asked about the details regarding the volume occupies and how it affects the numbers; is it about square footage or ground water. Ms. Correale replied that it is not about ground water, it is about the water surrounding the particles at the placement site. Mr. Sakowski asked if over a period of years wouldn't the particles sink further and take longer for the sedimentation to dry out. Ms. Correale responded that every time MDOT MPA puts dredged material into a site the ideal lift is 3 feet, frequently, more than 3 feet is placed at the site. The ability to dry material, through any one year, depends on rainfall, sunlight and temperatures for evaporation which leads to a specific amount of consolidation at the site. MDOT MPA measures this consolidation every year, adds trenching around the site, then it drains water using crust management techniques. Ms. Miller added that the smaller the lift of material that goes into a site the easier it is to drain the water; if you do not get the water off between the next inflow cycle the water is trapped. The water can be removed using other methods, but those methods require no inflow for a couple of years, which is not currently ideal at Masonville and is only applicable at the end of the use of the placement site.

8.0 Upcoming Events and Open Discussion Ms. Angie Ashley, Angie Ashley Consulting

Ms. Ashley reviewed logistics by announcing the DMMP annual meeting and saying she would send information to members via email with more details on the meeting.

Upcoming Meetings

- Masonville CAC next meeting – October 2, 2018
- DMMP Annual Meeting – November 2, 2018

Ms. Ashley also reminded the Committee that MDOT MPA is willing to participate in community events or meetings, and to please reach out to Katrina Jones at MDOT MPA to discuss any of those events. MDOT MPA will participate in multiple events this spring: BenFest 2018 on April 14 at Benjamin Franklin High School, Curtis Bay Festival on June 9, Masonville Cove BioBlitz on June 16, and a National Maritime Day on June 20. In the near future, there will be an announcement about an event surrounding Captain Trash Wheels' launch. Mr. Bennett added the Community Light Display's event on April 6, 2018 at Garrett Park from 6:00 pm – 9:00 pm.

9.0 Adjournment

The next meeting is scheduled for October 2, 2018.