

**FINAL DRAFT SUMMARY OF THE MASONVILLE
CITIZENS ADVISORY COMMITTEE MEETING
October 3, 2017 5:30PM
1000 Frankfurst Avenue
Baltimore, Maryland 21226**

Attendees:

Angie Ashley Consulting: Angie Ashley
Ben Franklin High School: Kelly Oglesbee, Hillary Clayton
Canton Kayak Club, Community College of Baltimore County: Christina Cardona
Greater Bay Brook Alliance/ Community Member: Janet Eveland
Living Classrooms Foundation (LCF): Patty Parsley
Maryland Environmental Service (MES): Jessica Alexander
Maryland Department of Transportation Maryland Port Administration (MDOT MPA): Chris Correale, Holly Miller, Bertrand Djiki, Kristen Fidler, Shawn Kiernan, Sergio Adantor
Masonville Citizens' Advisory Committee (CAC) Chair: Mike Sakowski
National Aquarium: Curtis Bennett
South Baltimore Business Alliance: Vince Glorioso
Concerned Citizens for a Better Brooklyn: Diane Ingram
Baltimore City Planning Department: JaLeesa Tate
University of Maryland Baltimore County: Stephen Bradley

Action Items:

1. Include a link to subscribe to the Port of Baltimore (POB) magazine in the meeting summary. *Complete*
2. Incorporate an overview map of the off-site fish stocking mitigation project into the meeting summary. *Complete*
3. A more detailed discussion of the Conservation Easement and Land Trust will be added to a future meeting agenda.
4. Ms. Eveland requested a copy of Bertrand's presentation as a PDF. Ms. Ashley will share the PowerPoint slides with Ms. Eveland. *Complete*
5. The Federal Lands Access Program (FLAP) final report will be available on the GreenPort website once completed. Ms. Ashley will reach out to MCAC members when the report link is activated.
6. Ms. Clayton requested data information from the Confined Aquatic Disposal (CAD) Presentation. Ms. Ashley will request contact information from Ms. Oglesbee and then connect Ms. Clayton and Ms. Miller.
7. Ms. Ashley will contact the members not in attendance and brief them on the meeting and share meeting materials.

Statements for the Record:

None.

1.0 Welcome & Introductions

Mr. Sakowski called the meeting to order. Mr. Sakowski then asked the meeting attendees to introduce themselves. Mr. Sakowski moved to approve the April 4, 2017 Meeting Summary as final and Patty Parsley second his motion.

2.0 Masonville Environmental Update

Jessica Alexander, MES

DMCF Operations and Landside Construction

Ms. Alexander presented updates on operations projects at the Masonville DMCF as well as updates regarding the status of mitigation projects associated with the Masonville Cove project. Ms. Alexander stated that the Masonville DMCF has not received any hydraulic inflow since October of 2016 and that the DMCF has received over 1.5 million cubic yards (MCY) to date. Two small inflow events are tentatively scheduled for the fall and winter of 2017.

Ms. Alexander stated that the Masonville DMCF has been experiencing a Harmful Algal Bloom (HAB) containing the cyanobacteria *Microcystis*. HABs are naturally occurring, prevalent to stagnant or slow moving water bodies. Due to the HAB a no contact order, allowing minimal sampling, has been issued for the water within the cell until algae cell counts and toxin levels fall below set standards. No discharge has occurred from the site due to the HAB presence. Ms. Eveland inquired about any potential danger to wildlife because of the HAB. Ms. Alexander stated that there is a potential for danger to wildlife and that MES is working with other organizations including the U.S. Fish and Wildlife Service (USFWS) to monitor the potential impact to birds. The HAB has not caused any mortality events in 2017. The HAB is monitored bi-weekly and coordination with other government agencies including the Maryland Department of the Environment (MDE) and the Maryland Department of Health and Mental Hygiene (DHMH) regarding the event are ongoing.

Mitigation and Community Enhancements

Ms. Alexander presented a chart listing ongoing and completed mitigation projects associated with the Masonville DMCF. Ms. Eveland asked about the location of the completed projects. Ms. Alexander stated that most of the projects were located within the Masonville Cove and that several of the other projects including Daniels Dam and the Shad and Herring Restoration Project are located off site along the Patapsco River or throughout the Patapsco River watershed. Ms. Eveland inquired about a map showing the location of the projects. Ms. Ashley stated that a map of mitigation projects at Masonville Cove had been sent out and included in the meeting summary of the April 2017 meeting.

Ms. Alexander stated that currently there are six tidal wetlands that have been completed at Masonville Cove. The final tidal wetland located in Access Zone (AZ) III was planted in spring 2017. The living shoreline received supplemental plantings in spring 2017 as well. As of October 2017, the Masonville

Cove has six completed nontidal wetlands. Three monitoring events took place over the summer in each of the completed nontidal and tidal wetlands. A seventh and final nontidal wetland is currently under construction with completion anticipated by the end of the year. Monitoring of the tidal and nontidal wetlands for MDE success standards will continue and adjustments will be made as needed to ensure wetland success.

The second year of monitoring the Masonville Cove Fish Habitat Improvement Project began in May 2017. Several sampling events and techniques are utilized, including seining, gillnets, pop traps and benthic/epibenthic monitoring in an effort to document fish, crabs, eels, grass shrimp, and benthic species utilizing the Cove habitat.

Construction of the Daniels Dam Eel ladder was completed in 2014. This year, the ladder was turned on April 12, 2017 and will run through mid-October 2017. Ms. Alexander said that the eel ladder has seen a steady increase of eels using the ladder each year, from 14 in 2014 to 36 eels as of September 2017. Ms. Alexander stated that the fifth year of the American Shad and Hickory Shad stocking took place from April to June 2017. The fifth year of adult, larvae, and juvenile shad and herring sampling began in April 2017 and was completed in September 2017. Sampling efforts include the use of seine nets and electrofishing. Ms. Eveland inquired about the location of the fish stocking. Ms. Alexander stated that stocking took place along the Patapsco River. Specifically in 2016 and 2017, larvae were stocked upstream of the Baltimore Harbor beneath the Rt. 648 Bridge and juveniles are introduced at the Southwest Area Park boat ramp (Figure 1).

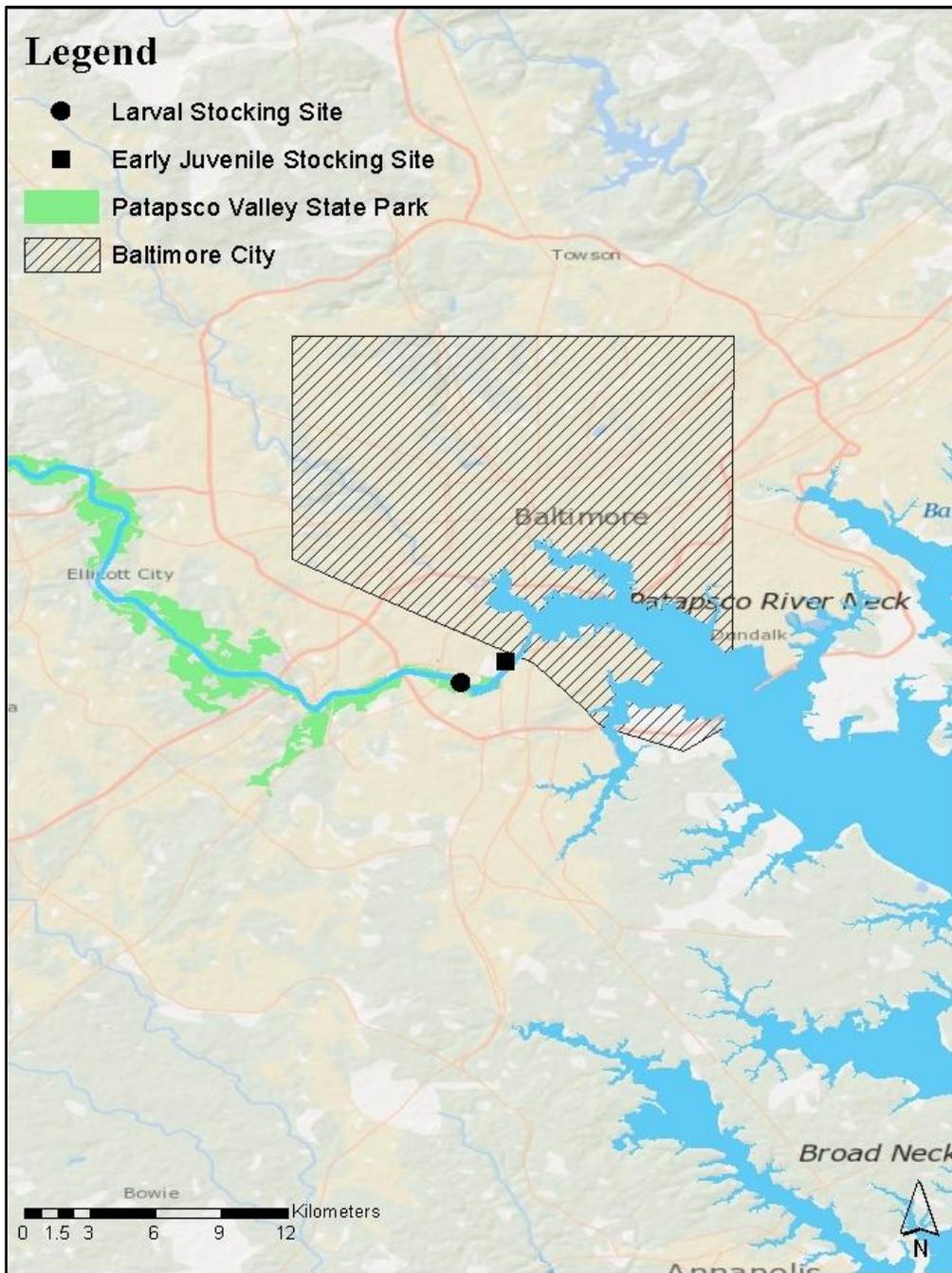


Figure 1. Shad and Herring 2016 Fish Stocking Locations

The remediation of AZ II area of the Masonville Cove was completed in April 2017, and has since been open to the public. Currently access to this area by the public is available through western access gate located in AZ I. Visitors are required to check in at the Education Center before proceeding into the AZs. Ms. Eveland asked if Vulcan Materials has been cooperative in regards to the opening of AZ II. Ms. Ashley stated that Vulcan was a member of the committee and that they have been involved and good neighbors to the Cove.

The Masonville Conservation Easement is currently in the early coordination stage. Discussions with Maryland Environmental Trust have begun and will continue through the end of the year. Ms. Miller explained that a Conservation Easement cannot be put in place until the site is completely capped and vegetation has been established. She explained that more information will be provided in 2018.

As of June 2017, Mr. Trash Wheel has collected 686 tons of trash. The Waterwheel Powered Trash Interceptor continues to operate effectively at the mouth of the Jones Falls River. Construction of the Dundalk Marine Terminal trash interceptor began in spring 2017 and has an estimated completion date by early 2018. The Dundalk Marine Terminal Trash Interceptor is a hydrodynamic separator that uses swirl concentration and patented continuous deflective separation (CDS) to screen, separate and trap trash and debris from storm water runoff. The contract for the Masonville Trash Wheel was issued in March 2017. The Masonville trash wheel will be very similar to the other wheels; smaller with solar panels in a different location. The Masonville wheel is currently in construction off site; it will be assembled in water then floated to Masonville Cove and anchored to pilings.

3.0 Masonville Trash Wheel Update

Kristen Fidler, MDOT MPA

Ms. Fidler stated that MDOT MPA was excited to be working with Clear Water Mills and Ziger/Snead in the construction and development of the Masonville trash wheel. Ms. Fidler stated the Masonville Trash Wheel will be smaller than the existing trash wheels and the solar panels will be located on the front of the wheel. MDOT MPA is currently working with the National Aquarium and Living Classrooms Foundation to create an education campaign around the opportunity to name the Masonville Cove trash wheel. MDOT MPA is partnering with nine different schools in the area to develop trash education and curriculum. The nine schools are already working on name suggestions for the trash wheel, due to MDOT MPA in early October. An internal team will select five names to be listed on social media sites for everyone to vote on a name for the Masonville Cove trash wheel. Ms. Fidler stated that MDOT MPA anticipates the social media vote will be announced and ready on or about October 16, 2017. Voting will be open for about one week. The overall goal is to be able to unveil the name at the Dredged Material Management Program (DMMP) annual meeting on November 3, 2017, the school group which has the winning name will receive a to be determined prize.

4.0 Masonville Engineering Update

Bertrand Djiki, MDOT MPA

Mr. Djiki presented updates on the Masonville Dike Raising, Kurt Iron Slip (KIS), and the Site Access Study.

Dike Raising

Mr. Djiki stated that MDOT MPA is currently raising the existing earthen dikes to +18 feet above mean low water (MLW). Dike raising to +18' will generate approximately 4.6 MCY of total capacity for Harbor dredging projects. The current elevation of the dikes varies from between +10' and +16' along the existing dike, and currently +4' at the new Cross dike. Current capacity is approximately 3.0 MCY. Dike raising is scheduled to be completed by winter of 2018/2019. Current engineer's estimate for dike construction to +18' is approximately \$12 million.

KIS

The completed cross dike separates the KIS terminal development from the existing DMCF that is being elevated for increased capacity. The cross dike required undercutting of unsuitable material from the footprint of the foundation of the dike in order to be structurally sound for dike raising in the future. The undercut dredging was successful and the cross dike was filled to an elevation of approximately +4' above mean low water. Contractors removed approximately 30,000 CY as part of the undercut. The cross dike is approximately 425' long and 120' wide. The cross dike was constructed from 50,000 cubic yards of sand. The total fill volume was approximately 30,000 to an elevation of +4'. MDOT MPA is in the process of removing two Styrofoam filled vessel hulls and a partially filled steel hull that are located in the KIS. The design for removal of the vessels is currently at 99% for procurement. The schedule for removal is to be determined. MDOT MPA is also contracting to remove three previously scuttled vessels from inside of the KIS in order to accommodate the terminal expansion. Ms. Eveland asked about the potential for coordination with the state or the city in regards to road improvements. Mr. Kiernan stated that the city Department of Transportation is always looking into road issues and that truck traffic continues down into the terminals and that currently there are no road improvement plans. Mr. Kiernan also stated that a component of the Transportation Investment Generating Economic Recovery (TIGER) project is to increase the number of shipments coming out of the terminals by rail. MDOT MPA will construct a permanent Operations and Maintenance building and dedicated access road to manage the DMCF along the crossdike. The road will extend on the east side of the KIS.

Site Access Study

Mr. Djiki stated that intermediate shuttle service from the nearby communities to the Masonville Cove Environmental Education Center (MCEEC) could potentially be provided through partnerships with existing community organizations that could operate a shuttle, have a contract service with a licensed transportation provider, and/or through an Owner-Operated shuttle purchased to service the MCEEC. A long-term option that was identified may include some form of a shared use path along Frankfur Avenue terminating at the MCEEC. This concept would create a pathway accessible for pedestrians. However, there are several important considerations of this possible option: First, it would likely be quite expensive to design and construct a pathway. This concept would also require considerable further study regarding issues such as easements, safety design, and compatibility with other uses of the roads and intersections. Mr. Djiki stated that the Federal Land Access Program grant (FLAP) feasibility study report will be posted on greenport.com for public review. Ms. Eveland asked when the report will be ready for review. Mr. Djiki stated that they are hoping to get the report completed by the end of the year.

5.0 Confined Aquatic Disposal (CAD) Update

Holly Miller, MDOT MPA

Ms. Miller stated that the Harbor Team made recommendations for the placement and reuse of harbor dredged material that included several options, one of which included the construction of a Confined Aquatic Disposal (CAD) site. Ms. Miller explained that CAD works by removing the silt and clay overburden constructing a cell in the underlying sand area and effectively containing the maintenance material dredged from the channel within the cell. Quality sand material is recovered and potentially reused for construction materials elsewhere, including building roads or dikes. The CAD site was constructed between Pier 3 and Pier 4 (an area with an existing depth of -44') adjacent to the Masonville DMCF. Dredging took approximately 4 weeks, from September to October 2016. Approximately 130,000 cubic yards of sandy material was removed and placed at the Masonville DMCF. The CAD cell dimensions were adjusted from 800ft x 300ft to 800ft x 250ft and the cell was dug down to -65'.

Maintenance material from the Ferry Bar Channel was placed within the CAD. Dredging and placement occurred over 9 days in February 2017. Approximately 62,000 cubic yards of material was placed into the CAD site. Inflow of the silty fine-grained material was designed to incorporate a minimum of 2-feet of freeboard.

A Multi-Phased Monitoring Plan was developed. Phase I, was characterization of channel and CAD cell Sediment. Sediment sampling was completed for chemical analysis of the material with standard elutriate testing also taking place. Phase II, baseline sampling, focused on nutrient and turbidity baseline water quality monitoring. Phase III was placement monitoring to include turbidity and nutrient water quality monitoring. Phase IV is post-placement monitoring that is currently underway and includes mostly surveys to see how the material is consolidating over time within the CAD cell. Phase III Turbidity results were compared to the Code of Maryland Regulations (COMAR) standards: Not to exceed 150 Nephelometric Turbidity Units (NTUs) at any one time and not to exceed 50 NTUs as a monthly average. Turbidity results were low for the project with the highest recorded result being 68 NTUs and an overall project average of 11 NTUs. Phase III nutrient results showed that all results were well within the ranges of the baseline monitoring showing very low concentrations of nitrogen during the project. Phase IV post placement monitoring showed a change in elevation of 15' to 18'. The CAD cell has consolidated 4-6' over the last six months and the cell is effectively confining material as shown by post placement surveys. Next steps include finalizing and distributing the nutrient monitoring report, complete Phase IV – Post placement monitoring, update the stakeholders and evaluate the lessons learned from this pilot project to see how they can be applied to using CAD as a dredged material management tool in the future. Mr. Sakowski noted that this project was in a slip with less tidal influence, saying that it would be a big difference if a project like this was done in an open area. Ms. Miller stated that the area was picked purposely for the reason that the tidal and hydrodynamic currents were very constrained. She stated that if a project such as this was to be pursued anywhere else additional influences would have to be considered.

6.0 Citizen Science and Community Projects

Curtis Bennett, NA

Mr. Bennett gave updates for the National Aquarium and Community Projects.

In 2016, the National Aquarium partnered with two congregations to construct and plant a pollinator garden. In the spring of 2017, the National Aquarium went back and replanted the space. The National Aquarium has been working with two local congregations to help develop a "Green Team" to help with the overall sustainability efforts. The Dream Center replanting had 15 people, planting 94 plants.

The Ben Franklin High School senior day of service was spent cleaning up the Masonville Cove and planting pollinator plants. Pollinator gardens have also been planted at Ft McHenry and at the Ben Franklin High School. In total, 28 students and two teachers removed 110 lbs of trash from the Masonville Cove and planted 64 pollinator plants.

The Curtis Bay Community Clean Up partnering with organizations such as The Well and The Curtis Bay Community Association had 36 people attend; distributed 19 recycle bins and collected 5000 lbs of trash (one full dumpster). Mr. Bennett showed a before and after picture of the Ben Franklin Community rain garden and mural. As part of this effort, the National Aquarium partnered with Steve Bradley of University of Maryland Baltimore County and the Chesapeake Arts Center to show a story, telling and

envisioning through art. The envisioning sessions and fence paintings and plantings engaged 310 participants with over 40 total hours.

As part of spring programming, the National Aquarium takes groups out that are part of the Wetland Nursery programs, which are schools that raise bay grasses locally. Over 100 students from four schools planted 5,000 tidal wetland grass plugs at Masonville Cove. The National Aquarium hosted a Donor Event that included 53 guests participating in fishing, biohut inventory checks, nature walks, marine debris clean up, and making seed balls. Summer 2017 was the fourth year doing the Urban Conservation & Education Internship Program. A total of four students participated in the program from various colleges. The fourth annual Masonville Cove BioBlitz was a very successful event with a total of 35 specialists and 77 participants. In total, the BioBlitz identified 166 species in a three-hour window for a total of 311 observations. Over the course of the summer, the National Aquarium worked with Patuxent Research Refuge to have recreational fishing programs at Masonville Cove. They worked with several organizations including Black Girls Dive Foundation, SAFE Alternative Foundation for Education, and Play Fresh. As part of a grant through the Environmental Protection Agency the National Aquarium is working with The Well, a woman's mentoring organization in Curtis Bay, to do more residential habitat gardens in the Curtis Bay Community. Mr. Bennett listed the following upcoming events:

- October 6: Visioning Workshop (Alley Art),
- October 8: Brooklyn Community Clean-Up,
- October 14: Celebrate Baltimore Bird,
- October 21: Patuxent Research Refuge Fall Wildlife Festival, and
- October 28: Masonville Cove Clean-Up.

7.0 Education and Campus Operations

Patty Parsley, LCF

Ms. Parsley gave updates on education and the Living Classrooms Foundation campus operations.

The Baltimore Environmental Education Summer Math and Reading Trailblazers (BEE SMART) program is a 5-week summer program for rising 2nd-5th graders that uses Education – Science, Technology, Engineering, and Math (E-STEM) projects related to real-world local environmental problems as a vehicle for students to retain reading levels throughout the summer. They use their skills and imaginations to solve local environmental problems caused by improper trash disposal and illegal dumping. During the summer of 2017, 60 students participated in the program and achieved the following goals and objectives:

- 82% of students increased their reading levels on assessments from the beginning to the end of the summer (the goal was 75%),
- 67% of families attended at least two family events (the goal was 60%),
- 95% of families attended a workshop on how to help their child read at home, and
- 65% of students who have attended BEE SMART for two consecutive summers showed cumulative reading gains

Summer 2017, was year three of three of the 21st Century Community Learning Center funding. At this point Living Classrooms has been unable to secure funds to continue the BEE SMART program in summer 2018.

School Leadership in Urban Runoff Reduction Project (SLURRP)

The SLURRP program tackles the issue of storm water runoff pollution in the Patapsco River through investigation of the question: “What is storm water runoff pollution and how can we help prevent it?” SLURRP targets critical connections between environmental science, reading, writing, math, and technology. Action steps include storm drain research and stenciling, trash interceptor engineering projects, community outreach and clean-ups, and schoolyard habitat redesign projects. SLURRP embodies a successful “learning by doing” approach to education through its project-oriented, hands-on, and experiential nature. Last school year SLURRP programming for 904 4th and 5th grade students and 31 teachers was conducted in the following nine South Baltimore schools: Arundel, Bay Brook, Friendship Academy at Cherry Hill, Curtis Bay, Federal Hill Preparatory Academy, Lakeland, Logan, Maree G. Farring and Westport. Through classroom outreach programs and field trips at MCEEC, the participating students and teachers had the opportunity to increase their knowledge of storm water runoff and how to prevent it, to learn causes and sources of pollution and ways to prevent it, to gain an awareness of land use and local environmental issues, and to understand the importance of environmental stewardship to the entire community. The programs also provided increased awareness of the MCEEC as a community resource. Overall, 82% of the 611 students that completed both pre- and post-tests showed improvement in their scores. Program impact was also evaluated through post-program teacher feedback forms. Using a scale of 1 – 5 (1=Poor, 2=Fair, 3=Average, 4=Good, 5=Excellent) the average feedback response across all categories was 4.89. Living Classrooms was excited to report that they had received \$90K in funding from the South Baltimore Gateway Partnership to serve schools in the casino area impact zone this school year with SLURRP. Living Classrooms is in the process of determining which classes they will be working in this school year, and plan to be in the schools starting next week.

Community Programming

MCEEC programming supports civic engagement and promotes social responsibility by providing environmental education that successfully encourages South Baltimore residents to examine their behaviors regarding the environment. Programs bring participants into direct contact with their local environment, and have seen participants develop an understanding of how dumping, littering, and pouring pollutants down the drain affect their watershed. MCEEC programs address strategies that people can use to change their habits, and demonstrate how small actions undertaken by many (throwing away trash, recycling, plantings, conserving water) can culminate in a positive measurable impact on the environment. Every month, MCEEC hosts Citizen Science Programs, in which volunteers are trained to perform water quality tests for turbidity, salinity, temperature, and several chemical species. Volunteers also participate in observations of bird and mammal evidence, collections of fish in traps, and photographic records at six designated areas of the campus. This allows Masonville scientists to collect a large body of data to use to understand the health and biodiversity of the campus. Two Tuesdays each month, volunteers come to MCEEC to participate in stewardship activities such as invasive plant removal, trail work, winterizing native gardens, and many other needed tasks. These activities are

critical to maintaining a healthy habitat and keeping outdoor educational spaces clear and safe for students.

Ms. Parsley was happy to report that over the next two years Living Classrooms will receive almost \$50K in funding from the National Fish and Wildlife Foundation (NFWF) to implement "People and Pollinators at Masonville Cove" to engage 1500 South Baltimore residents with environmental education activities (group plantings, community clean-ups, fieldtrips to MCEEC and Patuxent Research Reserve, also engage local Latino populations, and link to SLURRP and BEE SMART).

Looking to the Future

MCEEC not only provides access to a little-known urban wilderness area, but also promotes practical solutions for the community by encouraging simple cost-free steps that anyone can take to improve the environment and reduce storm water runoff pollution, ultimately helping to restore the Patapsco River watershed. The presence and programming have significant value to the community, to local schools, and to anyone who loves the Chesapeake Bay.

Campus Operations

Access Zone II is open to the public during normal campus operating hours. It is accessed along the mulch trail entrance near and to the left of the piers. Masonville Cove will be getting a Trash Wheel soon and the local students are excited to be participating in the MDOT MPA "Name That Trash Wheel" contest. Land/Sea programs are happening this fall. Discussion was brought up about potentially changing the operating hours of the center. Ms. Parsley stated that they had not changed the hours and that they are adding more adult programming.

8.0 Upcoming Events and Open Discussion

Angie Ashley, Angie Ashley Consulting

Ms. Ashley reviewed logistics, announced the DMMP annual meeting and said that she would be in contact with members via email with more details on the meeting. The Port of Baltimore Magazine was distributed to members explaining that it is a monthly publication. The Port of Baltimore link for subscription is included below.

<http://www.mpa.maryland.gov/Pages/pob-magazine-subscription.aspx>

Ms. Ashley distributed a survey for MDOT MPA to help improve their communication and outreach. Ms. Ashley stated that they are always open for feedback and that they enjoy getting questions and creating dialog. Ms. Ashley discussed the migration south of Harriet the osprey who nests in the Cove. The USFWS in partnership with stakeholders at Masonville has been tracking Harriet with a satellite tag. She explained that Harriet was about to make the longest part of her journey to her winter nesting location. Ms. Ashley thanked the members for attending and closed the meeting.

Upcoming Events and Meetings

- Annual DMMP Meeting November 3, 2017

- Next Masonville CAC Meeting is in April 2018 (Final date TBD)