

**DRAFT FINAL**  
**SUMMARY OF THE DREDGED MATERIAL MANAGEMENT PROGRAM**  
**INNOVATIVE REUSE COMMITTEE MEETING**

**November 26, 2019, 5:30 PM**  
**1000 Kembo Road**  
**Curtis Bay, Maryland 21226**

***Attendees:***

*Innovative Reuse Committee (IRC) Members:*

*Baltimore Development Corporation (BDC):* Patrick Terranova  
*Baltimore Port Alliance (BPA):* Rupert Denney  
*Cox Creek Citizens Oversight Committee (COC):* Donald Heinbuch  
*Chesapeake Bay Foundation (CBF):* Doug Myers  
*Maryland Department of Natural Resources (DNR):* Paul Petzrick  
*Maryland Department of the Environment (MDE):* Matt Rowe  
*Maryland Department of Transportation State Highway Administration (MDOT SHA):* Kevin Wilsey  
*Tradepoint Atlantic:* Peter Haid

*IRC Support Staff and Observers:*

*Facilitator:* Steve Pattison  
*Anchor QEA:* Walter Dinicola  
*Baltimore City, Office of the Mayor:* Ethan Cohen  
*CSI Environmental:* John Elstner, Craig Stevens  
*GreenVest, LLC:* Adam Ganser  
*Mahan Rykiel Associates (MRA):* Isaac Hametz  
*Maryland Department of Transportation The Secretary's Office (MDOT TSO):* Eddie Lukemire  
*Maryland Department of Transportation Maryland Port Administration (MDOT MPA):* Kristen Fidler, Kristen Keene, Jill Lemke  
*Maryland Environmental Service (MES):* Dallas Henson, Benjamin Langer, Lauren Mentzer  
*Northgate Environmental Management (NGEM):* Steve Bedosky  
*Parks & People Foundation:* Andy Frank  
*Pennoni Associates:* Steve Donahue  
*South Baltimore Gateway Partnership:* Brad Rogers  
*University of Maryland Center of Environmental Science (UMCES):* Elizabeth Price  
*West 8:* Donna Bridgeman, Douglas Brooks, Adriaan Geuze, Priscilla Leong

**Action Items:**

1. Mr. Denney and Mr. Pattison will coordinate to develop updated language to clarify the discussion from the August 27, 2019 IRC meeting summary regarding dredged material from above the Conowingo Dam and finalize the meeting summary.
2. Mr. Rogers will provide the Westport property purchasers' contact information to Mr. Petzrick to discuss the possible fly ash deposit. *(Complete.)*
3. MDOT MPA will discuss the potential for mitigation funds to be applied to innovative reuse/beneficial use projects at a future IRC meeting.
4. The Committee will review the questions regarding updating the Innovative and Beneficial Use Strategy and provide any feedback or suggestions to Mr. Pattison via email (spattison@ecologixgroup.com).

5. MDOT MPA will develop and present lessons learned for the 2014 Innovative and Beneficial Use Strategy at the next IRC meeting.

### **Welcome & Introductions**

**Steve Pattison, Facilitator**

Mr. Pattison welcomed the meeting attendees and asked the attendees to introduce themselves. Ms. Fidler welcomed the Innovative Reuse Committee (IRC) to the new Cox Creek Operations and Maintenance (O&M) Complex, which was completed in October 2019. Ms. Fidler stated that Cox Creek is home of the Maryland Department of Transportation Maryland Port Administration (MDOT MPA)'s Innovative Reuse operations and informed the Committee that site tours are available if any members or groups are interested.

Mr. Pattison requested comments on the August 27, 2019 IRC meeting summary. Mr. Denney commented that page 4 paragraph 2 line 3 should be updated from "... the use of dredged material" to "... their use of dredged material." Additionally, Mr. Denney clarified language on page 7 pertaining to the dredged material from Conowingo Dam. The purpose of Mr. Denney's statement was to convey that that dredged material from above the Conowingo Dam might, for fiscal and political expedience, have to be placed in existing Dredged Material Containment Facilities (DMCFs) thereby skewing long term projections and reducing capacity for maintenance dredging in the harbor. Mr. Pattison suggested adding "and therefore should be considered in future Dredged Material Management Program (DMMP) planning" to address the concern. Mr. Myers cautioned that the language should not imply that dredged material from above the Conowingo Dam may become the responsibility of MDOT MPA. Ms. Fidler requested that Mr. Denney and Mr. Pattison coordinate to develop language to clarify this concern. The Committee did not raise any additional comments and accepted the August 27, 2019 summary as final once the updates have been incorporated.

### **Middle Branch Waterfront Plan**

**Ethan Cohen, Baltimore City, Office of the Mayor**  
**Brad Rogers, South Baltimore Gateway Partnership**  
**Adriaan Geuze, West 8**  
**Andy Frank, Parks & People Foundation**

Mr. Cohen introduced himself as the Senior Project Coordinator for the City of Baltimore, Office of the Mayor, and he introduced the team coordinating on the Middle Branch project, which includes the South Baltimore Gateway Partnership, Parks & People Foundation, West 8, and Mahan Rykiel Associates (MRA). Mr. Cohen briefly discussed the Middle Branch Waterfront project vision which reached its first milestone with the 2007 Middle Branch Master Plan. The Master Plan was revived in 2015 through the efforts of the Parks & People Foundation and community groups. Mr. Cohen stated that Baltimore City Mayor Bernard Young has embraced the Middle Branch project and the project team is excited to continue this momentum moving forward. The project team is seeking IRC feedback to further project development with the goal to begin the construction process.

Mr. Rogers introduced himself as the Executive Director of the South Baltimore Gateway Partnership and provided background on the Middle Branch project. The Middle Branch of the Patapsco River is a lush and vegetated environment with beautiful architectural features, and a wonderful landscape with existing trails that is actively used by local communities for fishing and outdoor recreation. In comparison to the Inner Harbor, the Middle Branch is Baltimore's often overlooked waterway even though it is larger, contains more green and public spaces, has better highway access, and has numerous opportunities for economic and community development. Reclaiming this waterfront area, which has been disconnected from local neighborhoods due to transportation, construction, industry, and landfills, will be critical for improving the quality of life for existing residents. Mr. Rogers added that the project will also have the potential for innovative and beneficial use of dredged material on a scale not previously seen in an urban setting.

Phase 1 of the Middle Branch project involved the development of an international competition to select a landscape architecture firm for the project. Of the 30 firms that were considered for the project, three were asked to develop and submit proposals, which underwent an intense public engagement process that involved community meetings, tours, and conversations with Middle Branch area residents. The public was also invited to provide comments regarding the proposals through the project website. The proposals were then reviewed by a jury comprised of local residents, Baltimore City staff, and two expert landscape architects, Ms. Susannah Drake and Mr. Michael Middleton Senior. The jury unanimously decided to award the design contract to West 8, a Dutch architecture firm based in Rotterdam, Netherlands, due to their expertise in coastal resiliency, the use of dredged material, and working in urban water environments around the world. Mr. Rogers added that Baltimore has received national attention due to this progressive project that looks at urban waterways on a large scale.

Mr. Rogers informed the Committee that the project team has completed Phase 1 and is nearly ready to begin Phase 2, the design development. Mr. Rogers introduced Mr. Adriaan Geuze, the Principal of West 8 and an internationally known landscape architect, to discuss the design components of the Middle Branch project. Mr. Geuze stated that there has been a huge shift in the landscape engineering and design industry over the last 15 years from use of concrete levees and dikes to “building with nature”, especially in highly dynamic environments. In the Netherlands, the term “building with nature” refers to the reuse of dredged material and sediment. This method is not only more cost effective than concrete structures, but it is also environmentally sound and may be incorporated into the Middle Branch project, dependent on new machinery availability and current regulations.

Mr. Geuze reviewed historical maps of the Middle Branch and stated that when the project team visited the site, they noted the dominance of infrastructure, lack of ecological features, and abundance of trash surrounding the Middle Branch. Mr. Geuze shared site design renderings with the Committee that outlined the Middle Branch project goals. The project goals are to: reconnect neighborhoods with the water and with each other; revitalize the hydraulic belt; use dredged material to redistribute and reframe natural channels and hydrodynamic processes; reveal and activate previously unavailable parklands; and reinforce ecological resilience to mitigate for sea-level rise and storm surges. To fulfill the project goals, a pilot project will be conducted to study the Middle Branch's natural sediment transportation process to determine key locations to place dredged material abutments. After the abutments are installed, geotubes can be utilized in naturally shallow areas to establish the limits of the stabilized dredged material placement and to act as breakwaters. Mr. Geuze added that the strategic inclusion of a trash wheel would greatly reduce the quantity of waste debris. The Middle Branch project plan proposes the use of 1 million cubic yards (mcy) of dredged material to create approximately 240 acres of wetland and marshland habitat. West 8 believes that this project will not only revitalize the Middle Branch but will also redefine the South Baltimore Area.

Mr. Rogers introduced Mr. Andy Frank of the Parks & People Foundation to discuss the timeline and funding of Phase 2 of the project, design development, and Phase 3, implementation. Mr. Frank reviewed the phase 2 timeline, starting with the development of the master plan, which is expected to begin in January 2020 and be completed by early 2021. The master plan will consist of development of a framework plan, a communication strategy, and design guidelines. Portions of the overall project will be implemented as each milestone is completed to expedite overall project implementation. Phase 2 milestones include schematic/concept design submissions, design development submissions, cost estimates, and construction document/drawing submissions for various portions of the overall project through 2022. Mr. Frank stated that the implementation phase (Phase 3) will follow the master plan and include a comprehensive financing strategy and is expected to begin in fiscal year 2022.

The long-term success of the project requires a designated project champion to continue to move the project forward. This will be either a newly-formed entity, potentially incubated at South Baltimore Gateway Partnership, or an extension of responsibility from one of the existing team members, such as Waterfront Partnership. The project champion would advocate for the project, raise funds and/or locate funding mechanisms, and develop programs to ensure that the community can access and enjoy the completed project. The estimated cost for Phase 2 of the Middle Branch project is approximately \$3 million. Phase 3 is expected to occur over a five-year period and is estimated to cost \$81.5 million; the first-year costs are estimated at \$7.5 million and \$18.5 million per year for the final four-years. Baltimore City is funding \$1 million per year over the five-year period. Additionally, funding is being requested from the State of Maryland and other private organizations. Funding for Phase 3 would also include funds from mitigation banks, obligations under the Municipal Separate Storm Sewer System (MS4) permit, and designing with nature projects. Mr. Rogers added that the South Baltimore Gateway Partnership recently committed \$1 million for Phase 2 of the project. Mr. Rogers explained that the South Baltimore Gateway Partnership receives approximately \$6 million annually out of the approximately \$12 million received by Baltimore City through casino revenue; this is the funding source of the \$1 million from South Baltimore Gateway Partnership.

Mr. Petzrick asked if the historical Westport Power Plant fly ash deposit purportedly located on the south-end of Smith Cove has been factored into the project design plans. Mr. Rogers responded that Mr. Pat Turner conducted an extensive environmental investigation of the Westport property when he acquired it approximately 15 years ago and that the nature of the contamination has been reasonably documented. Mr. Rogers added that the majority of the shoreline in the Middle Branch is historically contaminated, therefore the project will include encapsulating and containing contaminated materials as new shorelines and wetlands are being constructed. Mr. Rogers stated that he will send the Westport property purchasers' contact information to Mr. Petzrick to discuss the possible fly ash deposit.

### **Innovative and Beneficial Reuse**

**Kristen Keene, MDOT MPA**

Ms. Keene reviewed new items pertaining to the Innovative Reuse Program.

#### Fleming Park Restoration Project

Ms. Keene announced that MDOT has awarded a \$500,000 Secretary's Grant to the Turner Station Conservation Teams for the Fleming Park restoration project, which is a multi-partner effort to develop a community-based co-benefits project in Baltimore County. The design for the Fleming Park project proposes to create a new hybrid landscape that combines the innovative reuse and beneficial use of maintenance dredged material with waterfront recreational amenities and resilient infrastructure. The project will encompass the restoration of approximately five acres of upland and approximately five acres of offshore habitat. The goals of the project are to: enhance public health and safety by addressing possible pollutants in and around Fleming Park; support community recreation and workforce development by increasing access to high quality public parkland, environmental education opportunities, and green jobs; restore aquatic environment by placing offshore reef balls to attenuate wave energy, support oysters and other aquatic species; reduce flood risk and strengthen resiliency of adjacent property, communities, and infrastructure by stabilizing and protecting shorelines with natural and nature-based features; expand permitting and regulatory pathways for innovative and beneficial reuse of dredged material; and nourish, re-grade and revegetate intertidal environments by removing invasive species and replacing with appropriate native plants.

The project includes four phases: Phase I – Community Outreach, Pre-Design Investigation, 30% Design and Engineering, and Permitting and Regulatory Review; Phase II – Design Development, Final Design and Engineering; Phase III – Construction Planning, Construction, and Construction Management; and Phase IV – Monitoring, Adaptive Management, and Reporting. The MDOT Secretary's Grant will be used to fund Phase I.

Mr. Rogers inquired about the project champion for the Fleming Park restoration project. Ms. Keene responded that the Turner Station Conservation Teams is the community organization/leader for the Fleming Park restoration effort. Ms. Keene added that the property is owned by Baltimore County and that MDOT MPA is currently coordinating with the county to obtain right-of-entry. Mr. Haid asked when construction is expected to begin. Ms. Keene responded that the construction schedule will be developed as a part of Phase I. Ms. Keene added that the 30% design and engineering plans are expected to be completed within 12 to 18 months.

Ms. Fidler expressed MDOT MPA's gratitude to the Turner Station Conservation Teams members that have been long-term DMMP committee members for their belief and vision in the Fleming Park project, and to the Chesapeake Bay Foundation, Anchor QEA, and MRA who continued to move the project forward, galvanized support for beneficial use of Harbor channel material for this project, and set the stage for larger projects such as Middle Branch. Mr. Myers informed the Committee that Fleming Park restoration and improvement plans were part of the Turner Station Conservation Teams 2007 Strategic Plan.

#### Innovative Reuse and Beneficial Use Request for Proposals

Ms. Keene informed the Committee that the Innovative Reuse and Beneficial Use Research and Development Request For Proposals (RFP) was advertised on November 26, 2019 through the new e-Maryland Marketplace Advantage (eMMA):

([https://emma.maryland.gov/page.aspx/en/bpm/process\\_manage\\_extranet/19586](https://emma.maryland.gov/page.aspx/en/bpm/process_manage_extranet/19586)). The RFP will be used to support research and development of novel dredged material end-use applications to further the State's efforts to recover capacity and extend the lifespan of the Cox Creek (DMCF). MDOT MPA intends to award multiple proposals, each not-to-exceed \$300,000. The maximum volume of dredged material that can be allocated under this RFP is 5,000 cy per proposal due to current space constraints to dry and manage material. MDOT MPA may decide to offer a longer-term contract for successful dredged material end-use applications should MDOT MPA acquire additional property in the vicinity of the Cox Creek DMCF or the vendor provides sufficient off-site property to conduct such operations.

The results of the RFP will provide MDOT MPA with an opportunity to better understand the potential for cost-effective capacity recovery of significant material volumes within the DMCF. Additionally, MDOT MPA can evaluate lessons learned, adaptive management approaches, and scalability of end-use applications with an eye on future opportunities to recover capacity in DMCFs.

Mr. Denney commented that both the Fleming Park project and the Middle Branch project are in similar need for additional funding and suggested that the value of a mitigation dollar and the use of mitigation funds for small-scale innovative reuse projects be discussed at a future IRC meeting. Mr. Rogers stated that the use of mitigation funds for the Middle Branch project is a critical part of the funding strategy. Mr. Myers suggested that the projects aim to become mitigation banks and preemptively begin the regulatory process to attract mitigation funding. Mr. Myers also suggested that the Committee should discuss the regulatory process for an innovative reuse project to become a mitigation bank. Mr. Denney suggested that large

projects in need of mitigation credits should have the opportunity to use their mitigation funds on innovative reuse projects located nearby or within the watershed.

**Revising the Innovative and Beneficial Use Strategy**

**Kristen Fidler, MDOT MPA**

Due to limited time, Ms. Fidler asked the Committee to review the provided questions regarding updating the Innovative and Beneficial Use Strategy after the meeting and provide any feedback or suggestions to Mr. Pattison via email. A facilitated discussion about the updated strategy will be included on the February 25, 2019 IRC agenda. Mr. Rowe recommend that MDOT MPA develop lessons learned for the 2014 Innovative Reuse Strategy and suggested that they be presented at the next IRC meeting.

**Upcoming Meetings**

Mr. Pattison stated that the 2020 IRC meetings will be held on February 25 (snow date March 3), June 2, August 25, and December 1. The 2020 DMMP Annual meeting will be held on November 6.

*Meeting adjourned at 7:00pm*