

**SUMMARY OF THE DREDGED MATERIAL MANAGEMENT PROGRAM
INNOVATIVE REUSE COMMITTEE (IRC) MEETING
May 13, 2025, 5:30 PM In-Person and Virtual Meeting**

Attendees:

Anchor QEA: Walter Dinicola, Billie-Jo Gauley*

Arcadis: Albert Buell, Amanda Kohler*

Baltimore County Department of Environmental Protection and Sustainability (DEPS): David Riter
EA Engineering, Science, and Technology (EA, Engineering): Kandice Sermon*

EcoLogix Group: Steve Pattison*

HarborRock: Jeffrey Otto*

Maryland Department of Natural Resources (DNR): Maggie Cavey

Maryland Environmental Service (MES): Dallas Henson

Maryland Port Administration (MPA): Rachael Gilde, Kelvin Moulden, Joe Ross, Darren Swift

Masonville Cove Citizens Advisory Group: Anita Kestel*

Northeast Maryland Waste Disposal Authority (NMWDA): Andrew Kays*

Northgate Environmental Management: Jacob Lacy*

Remline: Danielle Lloyd*, Michelle Puszcz*

Rock Creek Community: Ruth Sliviak*

Rummel, Klepper and Kahl (RK&K): Sari Rothrock, Fayth Strain*, Ed Tinney

Stoney Beach Community: John Garofolo*

The Bulldog Group: Tyler Abbott*

The Nature Conservancy: Austin Bamford

Tradepoint Atlantic: Peter Haid

University of Maryland Center for Environmental Science (UMCES): Elizabeth Price*

Water Oak Cove Community: David Copley

*Denotes attendees who participated virtually

1.0 Welcome and Introductions

Sari Rothrock and Ed Tinney, RKK

Ms. Rothrock welcomed attendees and reviewed the meeting agenda. Ms. Rothrock led introductions of virtual attendees, and Mr. Tinney followed with introductions of in-person attendees. Attendees were provided with the summary of the February 4, 2025, IRC meeting and were asked to review and provide comments by May 16, 2025.

2.0 Innovative Reuse Program Updates

Kelvin Moulden, Rachel Gilde, and Joe Ross, MPA

Ms. Gilde provided an update on the 2025 Innovative Reuse and Beneficial Use (IR/ B U) Strategy. The strategy was first drafted in 2014, revised in 2020, and updated in 2025 based on feedback from the IRC. Ms. Gilde requested that any remaining questions and comments be received by Friday, May 16, 2025, and that after that date, the document would be finalized. Following the finalization of the document, it will be sent to the Executive Committee and then made available to the public online.

Mr. Moulden provided updates on several initiatives:

- **Cox Creek Inflow Events:** During the 2024/2025 fiscal year, 491,175 cubic yards (cy) of material were received from the Curtis Bay and Fort McHenry Channels, as well as 28,706 cy from the CSX Coal Pier. The projected Fall 2025 inflow events include Baltimore County

(27,000 cy); Francis Scott Key Bridge (60,000 cy); Tradepoint Atlantic (350,000 cy); and Colgate Creek (172,000 cy).

- **The Colgate Creek Dredging Project** is expected to yield 172,000 cy of sediment, which will be hydraulically pumped directly into geotubes at Cox Creek. This will be the first time MPA will use the Direct into Geotube (DIG) process. The material will need to be removed from the geotubes by the fall of 2026 to accommodate other site logistics. If needed, approximately 42,000 cy of this material can be stockpiled at the Masonville Kurt Iron Slip. IR/ B U opportunities to utilize the material by the designated time include:
 - The Baltimore Peninsula project needs approximately 700,000 cy of engineered fill at the site of the former Baltimore Sun printing facility. MPA is coordinating to potentially provide material from the Colgate Creek project. Additionally, surplus clay material from the Cox Creek Upland is being considered to supplement the IR/ B U material generated from the Colgate Creek dredging project to support the Baltimore Peninsula project in becoming closer to its overall material needs.
 - The BGE Riverside Generation Station has requested approximately 20,000 cy of dredged material for backfill where contaminated material is being excavated and transported to an appropriate landfill. The material is likely needed in Spring 2026. MPA is working with BGE to align timelines to allow the availability of material.
 - MedStar Harbor Hospital requested approximately 100,000 cy of dredged material for wetlands restoration, though the project is now navigating through funding challenges. The overall size of the project may change.
 - Baltimore City Quarantine Road Landfill also has potential use for the Colgate Creek material; however, timing is a challenge. MPA completed a demonstration project in coordination with the Quarantine Road Landfill using dredged material as daily cover and is interested in pursuing a long-term MOU to provide dredged material for daily and intermediate cover needs.

Mr. Moulden paused for questions.

Speaker	Question	Speaker	Answer
Ms. Sliviak	What, if any, additional material is needed to supplement the dredged material for use in the previously described IR/ B U projects.	Mr. Moulden	The Colgate Creek material is fine-grain material and may need blending to meet project-specific structural needs. It is suspected that both the BGE Riverside and Baltimore Peninsula projects would blend the IR/ B U material, however, the material end user would determine blending needs and any necessary amendments based on project
Mr. Riter	Regarding the Colgate Creek project, could mechanical offloading decrease dewatering needs?	Mr. Moulden	The goal of using the geotube is to dewater the material more quickly than other processes due to a tight timeline. Expediting this dewatering

Speaker	Question	Speaker	Answer
			process will allow the material to be hauled from the geotube directly to the end user as opposed to being hauled and stockpiled at the Masonville Kurt Iron Slip or elsewhere.
Mr. Copley	Is the clay from the Cox Creek Upland material natural or previously placed dredged material? What is the plan for the material from the Cox Creek Upland? Does the Cox Creek Upland material also have the potential to be blended?	Kelvin Moulden	The clay material from the Cox Creek Upland is natural material. MPA is excavating down 6-10 feet into clay to deepen the DMCF. The material will most likely be provided to the Baltimore Peninsula Development Group, given they require a large amount of engineered fill (approximately 700,000 cy). If an end user deems blending appropriate for their end use, then yes.

- Cox Creek Geotube Dewatering Field:** The Direct into Geotube (DIG) Operation at the Cox Creek Sediment Technology and Reuse (STAR) Facility, adjacent to the Cox Creek DMCF, is planned to be operational by the end of fiscal year 2026. This will allow Cox Creek to reclaim about 50,000 cy of material, which would be hydraulically pumped into the geotubes to dewater. This would be a permanent, on-demand dredged material operation for IR/ B U end users.
- Construction on a cross-property access road** began in April 2025, allowing access between the Cox Creek DMCF and the Cox Creek STAR facility. Permitting has been completed, and erosion and sediment control and tree protection are now underway.
- The Geotube Pilot Project** involves investigating combinations of different commercially available geotextile fabrics and flocculants using hanging bag tests to determine which ones work best with the sediment. This will allow MPA to reduce sediment handling during the dewatering process, thereby increasing the throughput of dredged material for IR/ B U while reclaiming capacity from the DMCF.
- Cox Creek STAR Facility Request for Information (RFI):** The RFI is tentatively scheduled for release at the end of May 2025. The purpose of the RFI is for MPA to receive information from private companies that would potentially set up large-scale IR operations at the Cox Creek STAR Facility. The RFI contains questions related to operational plans, economic feasibility, environmental aspects of the project, and its processes. In lieu of taking Cox Creek STAR Facility tour requests from interested parties, MPA will offer tours on pre-selected dates, one month after the RFI is released and one month prior to its closure, as site tours are highly encouraged.

Mr. Moulden paused for questions.

Speaker	Question	Speaker	Answer
Mr. Haid	Regarding the on-demand dredged material system, if 20,000 cy of material is requested, what would the turnaround time be for availability?	Mr. Moulden	The area is seven (7) acres, and the current calculation estimates that 5,000-7,000 cy of material can be stored per acre. Depending on the geotextile fabric and flocculant combination used and with the optimization of the Geotube Pilot Program, MPA could dewater one geotube every 15-30 days, producing 5,000 – 7,000 cy of material each.

Mr. Ross presented updates on the IR Research and Development (R&D) Projects. The final three projects will be completed by the end of 2025, which will conclude the R&D phase. Each of the three remaining project teams are researching the different ways the material can be used in various construction categories, as well as gauging material performance.

- **University of Maryland** is researching vegetative earth berms in a controlled environment. The mesocosm is positioned in a rectangular box in an upstream stormwater simulation. This will allow the researchers to calculate and assess the hydrology of the material to understand the dynamics of water flowing through protected areas in swales. The University of Maryland plans to present at the August IRC meeting.
- **Northgate Environmental Management** is researching a variation of supplementary cementitious materials. Northgate may present its findings at the August IRC meeting.
- **HarborRock** is researching lightweight aggregates and supplementary cementitious materials. Results will be presented at an IRC meeting in the fall of 2025 or early 2026.

Mr. Ross also provided an update on several ongoing projects.

- **Stoney Beach Shoreline Restoration:** After pausing for a time of year restriction, the project has started again. Hauling from Hawkins Point was completed the week of May 5, 2025. MPA provided 114 truckloads, or approximately 1,368 cy of sand to the project.
- **Masonville Cove AZ2 Roadway Surface Improvements:** This project used 105 cy of Category 1 IR material for roadway resurfacing improvements. Rain collection on the road caused muddy conditions and deep rutting. Sandy dredged material stockpiled at the Hawkins Point DMCF was used to stabilize the roadways.
- **Swan Creek Nature Trail Spur Resurfacing:** The larger trail project is currently moving towards the construction phase. The trail spur at the southeast end of the property, which is frequently used by larger vehicles, was resurfaced using dredged material (90 cy) stockpiled at the Hawkins Point DMCF.

3.0 From Investigation to Implementation

Darren Swift and Kelvin Moulden, MPA

Mr. Swift gave an overview of where and how the dredged material utilized in IR/ B U projects originates. Mr. Swift noted that when it comes to capacity planning, Baltimore Harbor material is 23

percent of the material that MPA manages annually. The goal is to use the material in as many ways as possible to reserve capacity. At facilities such as the Cox Creek DMCF, the generation of IR/ B U begins with the process of placing dredged material at the site and the associated [*Right of Entry Application*](#). The party requesting the use of the DMCF for dredged material placement must submit a *Placement Request Letter* and provide copies of their sampling and analysis plan (SAP), project permits, plans, project description, and calculations related to the dredging project. The material must be tested as outlined in the *Right of Entry* document to confirm suitability for placement, including that the material is not hazardous, as MPA cannot accept hazardous material. A tipping fee to accept the material is used to cover the maintenance and operation of the DMCF. Later in the process, surveys are conducted, and pre-inflow meetings are held to help determine inflow logistics.

Mr. Moulden elaborated on the process, focusing on IR/ B U specifics. When dredged material is placed at the site it contains a significant volume of water. To facilitate IR/ B U efforts, the material is typically processed in some way, which may simply include drying. To obtain IR/ B U material for a project, an official request must be made to MPA by a requestor who must complete a MPA *Material Request* form, followed by the Maryland Department of the Environment *Confirmation of Suitability* (COS) process. The COS contains two forms for completion. The first is completed by the material supplier and is submitted to MDE along with the SAP and any test results, so the material can be appropriately approved based on the end use. The *Interim Receiving or End-User* form provides similar information but also includes MDE approval. MPA offers support for those completing this process.

Mr. Swift turned the meeting back to Ms. Rothrock, who informed attendees that they would be playing a board game to highlight the process of dredging to the IR or B U end use. Participants in the room played the board game in groups of four. Virtual participants were split into two breakout groups with a virtual game board. All groups had facilitators to help them play the game and answer questions.

After playing for approximately 20 minutes, attendees were asked to pause game play and engage in a large group discussion. Attendees were asked if any scenarios were missing in the game at key process steps that they would have liked to see. Participant suggestions included time of year restrictions, budget and funding considerations, more about permitting, information related to mitigation, climate effects, and community engagement. Attendees were also asked if their understanding of the process increased after playing the game. Participants indicated that the game was enjoyable, increased their sense of the process, but additional fun facts and scenarios could be incorporated.

Mr. Moulden stated that MPA would like to use the game as a tool for further community engagement and asked if committee members had further feedback or recommendations regarding this approach. Mr. Garofolo stated that while the language may be familiar to committee members, community members may not fully understand the terminology involved in the process. Ms. Gilde added that the game could be modified based on the audience. Participants also recommended that the game be played with a facilitator from MPA for support. Ms. Kestel expressed interest in playing the game with the Masonville Citizens Advisory Committee and suggested adding it to the website. Ms. Cavey suggested that an online version includes links to additional resources.

4.0 Small Group Discussion: Examination and Engagement

The meeting moved on to small group discussions. Participants in the room remained in the groups they used to play the board game. Virtual attendees discussed the topic in one large group. Breakout groups could choose to discuss either community engagement or material investigation. Worksheets

with questions related to both topics were provided to facilitators to generate discussion. Participant feedback by topic is provided below.

Topic 1 – Investigations:

What type of investigations would help to move toward the implementation of more innovative reuse and beneficial use projects?

1. What types of innovative reuse and beneficial use projects would you most like to see?	● Investigate methods to amend IR/ B U material for structural purposes on-site in advance of dispersal for end use. ● Share among the industry innovative or precedent-setting IR/ B U projects that could be replicated by others.
2. What type of information would be most useful for an end user to know ahead of time?	● Whether the use of dredged material in a product can contribute to the Leadership in Energy and Environmental Design (LEED) certification. ● Information on the ability to blend the material to expand potential end uses. ● How to resolve reuse barriers related to salinity. ● The material's MDE Fill and Soil Material Categorization. ● The cost, lifespan, and durability of the material. ● Any potentially advantageous properties for end use. ● Access to an IRBU Master Plan signed off by all relevant agencies. ● Having feedback from landowners where projects may be implemented. ● A better understanding of private terminal dredging quantities.
3. What physical and chemical characteristics might drive end use possibilities?	● The grain size of the material, as for IR, coarser material may be useful.
4. How do you make the process more legible for end users?	● The implementation of more projects beyond the pilot phase that can be referenced by others - this will help to inform others of the process. ● MPA should advertise IRBU beyond the large, well-known projects. ● A “state of the sediment” document that could communicate what material is available and its characteristics. ● The creation of a fact sheet.

Topic 2 – Community Outreach:

What type of community engagement would help to move toward the implementation of more innovative reuse and beneficial use projects?

1. What types of innovative reuse and beneficial use projects would you like to learn more about?	● Data from IR/ B U projects conducted worldwide that could be implemented locally. ● Presenting information on the safety of the material, including that it is not hazardous, which can change the viewpoint on the reuse of dredged material.
2. Where should outreach be conducted in order to see that type of project implemented? (Please provide an example, if able.)	● Consideration can be given to getting the colleges involved.
3. Who is the priority audience for this outreach? Who needs the information?	● Continued reference to the IR/ B U strategy document for lists of stakeholders should be given. ● The priority audience should include end-users specifically: ○ Those interested in agricultural uses, including farmers on the Eastern Shore. ○ US Department of Agriculture.
4. How do you make the process more transparent to a local community?	n/a

5.0 Announcements and Adjourn

Ms. Rothrock alerted the group that the next IRC meeting will be held on August 12, 2025.

Meeting Photos

