



William Morgante, PWS  
Wetlands Administrator

State of Maryland  
**Board of Public Works**

Wetlands Administration  
Post Office Box 1510  
Annapolis, Maryland 21404  
410-260-7791  
Fax: 410-974-5240  
Toll Free: 1-877-591-7320

Lawrence J. Hogan, Jr.  
Governor

Nancy K. Kopp  
Treasurer

Peter Franchot  
Comptroller

Sheila C. McDonald  
Executive Secretary

In Re Application of:  
MARYLAND PORT ADMINISTRATION  
401 East Pratt Street, Suite 1900  
Baltimore, MD 21202

Before the:  
BOARD OF PUBLIC WORKS  
Tidal Wetlands Case  
No. 15-WL-0131

**Request of  
Maryland Port Administration  
to expand the  
Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island  
by creating  
575 Acres of Mixed Use Habitat (Poplar Island Phase III)**

- Mechanically dredge no more than 5.6 million cubic yards of clean dredged materials from the footprint of the proposed Poplar Island Phase III and the access channel northwest of the footprint.
- Transport dredged materials by scow to Poplar Island cell 1D and Poplar Island Expansion cell 7.
- Provide periodic maintenance dredging.
- Construct three 2,153-foot long by 160-foot wide stone breakwaters.
- Construct one 24,647-foot long by 240-foot wide armored dredge material containment dike.
- Emplace four 100-foot long by 24-foot wide spillway and breach features.
- Emplace one 15-foot long by 60-foot wide temporary upland spillway feature.
- Create approximately 259 acres of upland habitat, 206 acres of tidal wetland habitat, and 110 acres of protected open water embayment.
- Emplace 400-foot long by 60-foot wide temporary steel sheet pile bulkhead.
- Authorize a 30-year license term.

**ADMINISTRATOR'S REPORT**

The Maryland Port Administration (the Port), having nearly reached capacity for Phases I and II of the Poplar Island project authorized in 1996, now requests that the Board of Public Works grant a State tidal wetlands license to authorize the Port to construct a 575-acre mixed use habitat referred to as Phase III. This Wetlands Administrator's Report analyzes and advises on the tidal wetland impacts associated with the Port's Phase III request.<sup>1</sup> I conclude that granting a State Tidal Wetlands license to the Port is appropriate. However, concerns remain about the impact of the expansion project – particularly the permanent loss of view – on nearby property owners.

<sup>1</sup> The Board of Public Works Wetlands Administrator shall "prepare a written recommendation to the Board, indicating whether a license should be granted and, if so, specifying the appropriate terms and conditions." COMAR 23.02.04.08B(1). Internet address: [bpw.maryland.gov](http://bpw.maryland.gov) • E-mail address: [bill.morgante@maryland.gov](mailto:bill.morgante@maryland.gov)

## Project

*Background.* Primarily due to sea-level-rise and erosion, by the 1990s only five acres of Poplar Island's 1847 footprint of 1,140 acres remained. Federal and State agencies collaborated on a plan to use clean Chesapeake Bay dredged materials from harbor approach channels to restore Poplar Island to its 1847 size. After scientific study, examination of alternative locations, and the permitting process, the Port constructed and now operates Phases I and II of the Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island.

The Poplar Island project – a unique economic and environmental success – provides:

- Repository for millions of cubic yards of clean dredged materials to sustain Baltimore Harbor as a successful port *and*
- Valuable habitat – tidal wetland, upland, and protected open water embayment.

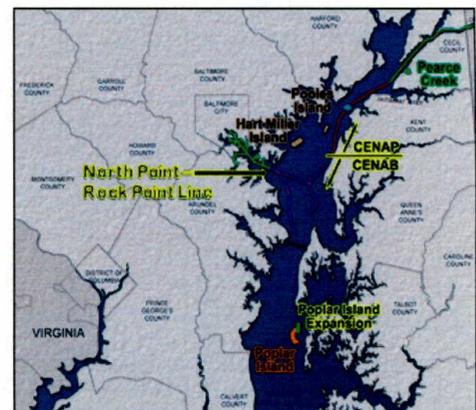
*Current License:* The Board of Public Works in 1996 authorized Phases I and II of the Poplar Island project for a 30-year term that expires August 2026.<sup>2</sup> Phases I and II aimed to restore Poplar Island to its 1847 footprint of 1,140 acres. The dredged material deposit areas included within Phases I and II are, twenty years later, reaching maximum capacity.

*Proposed License:* The Port now seeks a 30-year State tidal wetlands license to authorize the construction and operation of Phase III: creating an additional 575 acres of mixed use habitat through depositing clean dredged materials from the harbor approach channels.

## Location of Project/Dredging

*Poplar Island.* Poplar Island is located 16 miles south of the Bay Bridge, 1.2 miles west of the Talbot County mainland, just northwest of Tilghman Island and Knapps Narrows, and west of Green Marsh Point and Lowes Point. Google Earth imagery of Poplar Island as it is now (Phases I and II) and the proposed addition to Poplar Island outlined in yellow (Phase III) is appended to this Report.<sup>3</sup>

*Dredging.* Under the current and the proposed licenses, all dredged materials deposited at Poplar Island come from **outside the Baltimore Harbor.**<sup>4</sup> Moreover, the Port must perform sediment testing of dredged materials every three years to assure that dredged materials deposited at Poplar Island are not contaminated based on currently-accepted testing parameters and standards.



North Point-Rock Point Line boundary of the Patapsco River

<sup>2</sup> Wetlands License No. 96-WL-0728 (Secretary's Agenda 1 [8/14/1996])

<sup>3</sup> Administrator's Report Exhibit 1.

<sup>4</sup> "Baltimore Harbor" means the waterway which consists of the tidal portion of Patapsco River and its tributaries lying westward of a line extending from Rock Point in Anne Arundel County to North Point in Baltimore County. §5-1101(a)(2), Environment Article, Annotated Code of MD. See also §5-1102.

## MDE Report and Recommendation

*Public Comment.* Because Phase III of the Poplar Island project does not qualify as a minor modification of the license for Phases I and II, the Maryland Department of the Environment (MDE) held two public information hearings and accepted public comment before submitting its favorable Report and Recommendation to the Board's Wetlands Administrator. MDE also solicited feedback from the Department of Natural Resources, the Maryland Historical Trust, the U.S. Army Corps of Engineers, the U.S. Coast Guard, and the Talbot County Department of Planning and Zoning.

The Wetlands Administration distributed MDE's Report and Recommendation to interested persons and asked them to state in writing any continuing exceptions they might have to the Port's request for the Phase III license.<sup>5</sup>

### *Timeline.*

Phase III Public Information Hearing (Easton):	July 7, 2015
Phase III Public Information Hearing (Millersville):	July 8, 2015
Public Comment period ended:	July 15, 2015
MDE Report & Recommendation submitted to Board:	November 9, 2015
Request for Interested Persons to State Continuing Exceptions:	November 25, 2015

*MDE Recommends Licensing Phase III.* MDE recommends that the Board of Public Works grant the Port a license for Phase III, concluding: "Provided all general and special conditions are adhered to, the work proposed will not cause significant deleterious impact to marsh vegetation, submerged aquatic vegetation, finfish, shellfish, or navigation. . . . Beneficial impacts from the proposed expansion area are an increase to the capacity of the site to accept dredged material from the outer bay Baltimore Harbor approach navigation channels to preserve the Port of Baltimore's ability to remain a viable facility, provide remote island habitat for wildlife, and reduce erosive forces to nearby properties. In consideration of the site characteristics and the nature of the proposed work, [MDE] concludes that the application represents a reasonable request to perform work in State tidal wetlands."<sup>6</sup>

*MDE Responses to Public Concerns.* MDE's Report and Recommendation highlighted continuing concerns from interested property owners:

*However **there are two concerns** or comments that were unable to be directly addressed by the applicant, but **MDE feels can be addressed through Special Conditions** placed within the authorization. [Emphasis added.]*

<sup>5</sup> See COMAR 23.02.04.08B(3).

<sup>6</sup> MDE Report and Recommendation at pages 7-8.

*One such concern was that the nearby private islands and nearby properties on the mainland, due to the type, size, and location of the project, will experience an increase in **noise** levels from activities involved in moving tugs, offloading barges, construction equipment, and operating pumps. . . . Special Condition Q has been recommended to reduce noise generating activities during the evening hours using the 75dBA limit.*

*Another concern [was expressed] regarding the possible **contaminants** contained in the dredged material received for use in Poplar Island and the frequency of sampling for such contaminants. Currently samples are taken every three years at the location where the dredging occurs, but MDE is recommending Special Condition R which requires sampling to occur prior to initial placement from the location dredging occurs.*

*There is **one comment that was unable to be addressed** by the applicant due to the location and size of the proposed project. **The two private islands directly adjacent to the current and proposed project will experience a reduction in their current view area.** Jefferson Island's open water view will be significantly reduced due to the close proximity of Jefferson Island to the proposed Poplar Island expansion project area. Coach's [sic] Island will also experience a reduction in open water views, but to a lesser degree than Jefferson Island.*

*Project engineers determined that the current proposed design could not be altered to minimize the impacts to the view area because of the location of the Natural Oyster Bars and the extensive areas of weak bottom; the current design fails to completely avoid the weak bottom. . . . The unavoidable impact resulting in a reduced view area cannot be minimized or eliminated because of the location of the project. [MDE] has considered the view impact on neighboring properties and has concluded that the benefits of the project to the citizens of the State outweigh the impacts on the reduction in view to the neighboring properties.<sup>7</sup>*

## **Responses to MDE Report and Recommendation**

After distributing the MDE Report and Recommendation, I received responses from interested persons and discussed continuing concerns with nearby property owners.

- Doug Meyers, Senior Scientist for the *Chesapeake Bay Foundation* supports the project.
- Peter Tulloch, who owns *Coaches Island*, in a telephone conversation with the Wetlands Administrator generally favors the project while noting the reduction of his viewshed.

<sup>7</sup> MDE Report and Recommendation at pages 6-7 (emphasis added).

- Paul Zelinske owns the nearby *Jefferson Island*<sup>8</sup> and *Lowes Wharf Marina, Inn, and Restaurant* on the shore of Sherwood, Talbot County. Mr. Zelinske “strongly opposed the expansion of Poplar Island” by submitting a letter with questions and concerns.<sup>9</sup> The Wetlands Administrator met with Mr. Zelinske in person on December 22, 2015 to review his concerns.

## Wetlands Administrator's Analysis and Recommendations

In the two decades since this project was originally authorized, scientists and engineers designed and built upland and wetland habitat areas in the cells at Poplar Island using dredged materials. Wetland habitats include tidal wetlands with high marsh, low marsh, habitat islands, and open water pools. Since 2001, 232 acres of wetlands have been created, providing habitat for egrets, osprey, terns, heron, eagles, crabs, small fish, shellfish, and terrapins. When the proposed Phase III is completed, an additional 206 acres of wetlands and 110 acres of open water embayment will be created, contributing to the restoration of Chesapeake Bay wetlands and improving the Bay's water quality. Poplar Island simultaneously provides the Port of Baltimore with a nearby location for depositing 40 million cubic yards of clean dredged material in Phases I and II and a proposed 28 million cubic yards of clean dredged materials in Phase III. The Port examined alternative sites and found none of the options to be acceptable.<sup>10</sup>

This beneficial environmental and economic project is, however, not without its adverse impact on individual property owners. Although many concerns that were expressed have been alleviated, the project will result in a substantial loss of viewshed for Jefferson Island.

*Jefferson Island.* Mr. Zelinske and his co-owners purchased Jefferson Island in 2001 when Phase II was under construction. At that time, no plans for a proposed Phase III expansion had been made public. It was not until 2003 or 2004 that the public would be on notice of Phase III. Mr. Zelinske notes: “[T]he original design of Poplar Island [was to] maintain the . . . original footprint of Poplar Island with no further expansion. Now they want to increase its size almost 50%.”

*Water quality.* Mr. Zelinske is concerned that contaminants from the dredged material will endanger well water and swimming. The Port's September 18, 2015 letter to MDE<sup>11</sup> addresses these concerns, in my opinion, in a more than satisfactory manner.

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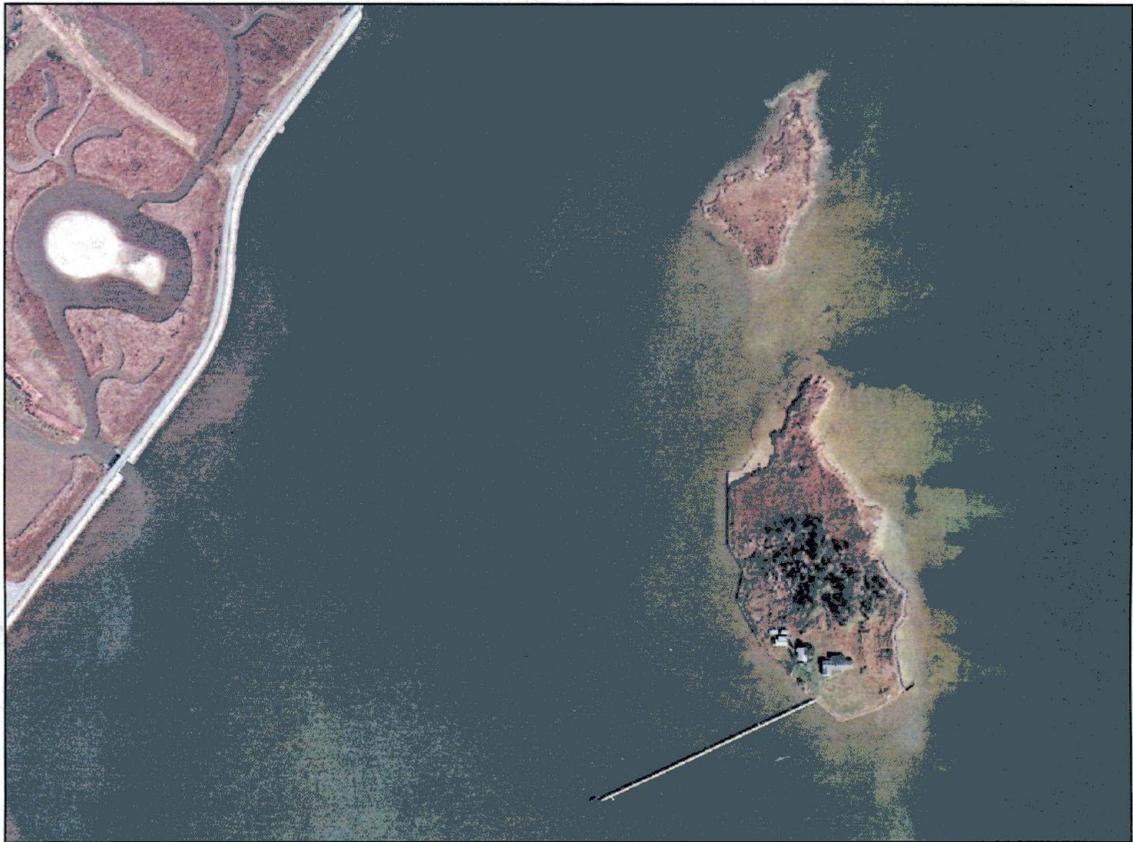
<sup>8</sup>Mr. Zelinske and his wife are Jefferson Island joint owners with Kevin McMahon. Mr. Zelinske is the joint property owners' spokesperson.

<sup>9</sup>Mr. Zelinske enumerated his “concerns and objections to this expansion” in his December 2, 2015 letter to the Wetlands Administrator which incorporated his July 14, 2015 letter to MDE.

<sup>10</sup>The Critical Area Commission approved the Phase III expansion plan at its January 6, 2016 meeting. The Commission, in a January 20, 2016 letter notifying the Board of Public Works of its approval, relayed the Port's reasons for rejecting Site 123, an artificial island creation site at the mouth of the Patapsco River, as an alternative to the Phase III Expansion. See Administrator's Report Exhibit 2.

<sup>11</sup>Administrator's Report Exhibit 3.

- *Well water:* A well drilling report for Jefferson Island indicates that four separate clay layers exist between the surface and the Aquia Formation Aquifer, the source of Jefferson Island and Poplar Island well water. These clay layers isolate and protect the aquifer from potential surface contamination. This information allays concerns over well contamination.



*Jefferson Island comprises two land masses. Poplar Island appears to the left in this 2015 aerial view.*

- *Swimming:* The Army Corps of Engineers tests the dredged materials every three years to ensure that the materials are clean and suitable for habitat development; test parameters include chemical concentrations, effluent elutriates, and various metals. Monitoring of surface water and groundwater quality inside Poplar Island and within Poplar Harbor (where Jefferson Island is located) is extensive. Water quality parameters must be met before water may be discharged from the site. Exterior samples are tested on a quarterly basis and no contaminant results above regulated levels have occurred since 2009. These results alleviate concerns over swimming safety.

MDE proposes in its Report and Recommendation to tighten the current requirements for testing of dredged materials. I specifically concur except I recommend restating the water quality condition to clarify that samples must be taken from each new dredged material location.

*Trees on Jefferson Island.* Mr. Zelinske complains that Poplar Island has attracted cormorants to Jefferson Island that have “killed a majority of our trees on Jefferson Island.” Poplar Island follows a Wildlife Disease Coordination Plan drafted and implemented in collaboration with U.S. Fish and Wildlife Service and the Maryland Department of Natural Resources. Although double-breasted cormorants are generally known to harm trees, cormorant damage to the Jefferson Island trees is not directly linked to the creation of Poplar Island, but rather to natural migration patterns. Army Corps of Engineers site visits to the remnant Poplar Island in 1993 document heavy double-breasted cormorant populations.

The photo below from 2005 shows Jefferson Island with many dead trees at that time.



*June 2005 photo of Jefferson Island with Tilghman Island behind (Peter McGowan, USFWS)*

*Erosion on Jefferson Island.* Mr. Zelinske contends that Poplar Island has eroded the east side of Jefferson Island due to “increased tidal flow.” The Port responds to the contrary – that the construction of Poplar Island acts as a barrier island, protecting Jefferson Island from “primary wind fetches of west, northwest, southwest, and south.” An Army Corps of Engineers hydrodynamic model for this area shows wave reductions and reduced erosion for Jefferson Island.<sup>12</sup> Given Jefferson Island elevations ranging from Elevation 3.64 at the north end of the island, 4.72 at the foot of the pier, and 6.24 at the end of the pier and that the entire island was inundated during Hurricane Isabel in 2003<sup>13</sup>, the evidence supports a conclusion that erosion on Jefferson Island is reduced as a result of the construction of Poplar Island.

*Duck hunting.* Mr. Zelinske further states that a primary reason for purchasing Jefferson Island was to duck hunt but that Poplar Island biologists have advised him not to eat the duck because of botulism. The Port responds<sup>14</sup> – and science confirms that – avian botulism may naturally occur in wetland environments under certain circumstances. I spoke with Poplar Island biologist Peter McGowan<sup>15</sup> who reports that biologists have monitored wildlife on the island since 2001. A hunter notification was posted in 2012 informing hunters about

<sup>12</sup> See Supplemental Environmental Impact Statement at 5-159 (2005)

<sup>13</sup> Mr. Zelinske relayed this information.

<sup>14</sup> Administrator's Report Exhibit 3 at page 8.

<sup>15</sup> Telephone conversation between Peter McGowan and Bill Morgante(1/27/2016).

avian botulism and harmful algal blooms in the vicinity of Poplar, Coaches, and Jefferson Islands. This was the only such warning posted during fifteen years of wildlife monitoring. The 2012 avian botulism event was one of 56 similar events across the country that year as reported by the U.S Geological Service's Wildlife Health Center Lab. The Port states that "predictions cannot be made whether another large scale botulism event will occur" and that "the risk to public health is considered very low due to the type of toxin identified" (type C). The Port further states that all practical site management techniques are used to minimize risk as outlined in the project's Wildlife Disease Coordination Plan.

*Noise.* MDE addressed noise concerns with a special condition that would limit noise levels during evening hours. I contacted an acoustical engineer who worked on noise issues for the Woodrow Wilson Bridge project and the Inter-County Connector project. Based on that discussion and the entire record, I conclude that because the residents of Jefferson Island and Coaches Island do not live on their properties full-time, I concur with MDE's recommendation to restrict noise above 75dBA during the hours of 7:00pm to 7:00am.

*Diminished view.* The Army Corps of Engineers and the Port found that the Jefferson Island viewshed – currently 71% water and 29% land – would change as a result of Phase III to 51% water and 49% land.<sup>16</sup> The Phase III engineering design creates two different cell types: an upland cell and four wetland cells.

- The upland cell requires a 23.5 foot high (above mean high water) stone dike
- The four wetland cells require a 9 foot high (above mean high water) stone dike.

The upland cell with its 23.5 foot high stone dike will be approximately 784 feet from Jefferson Island.

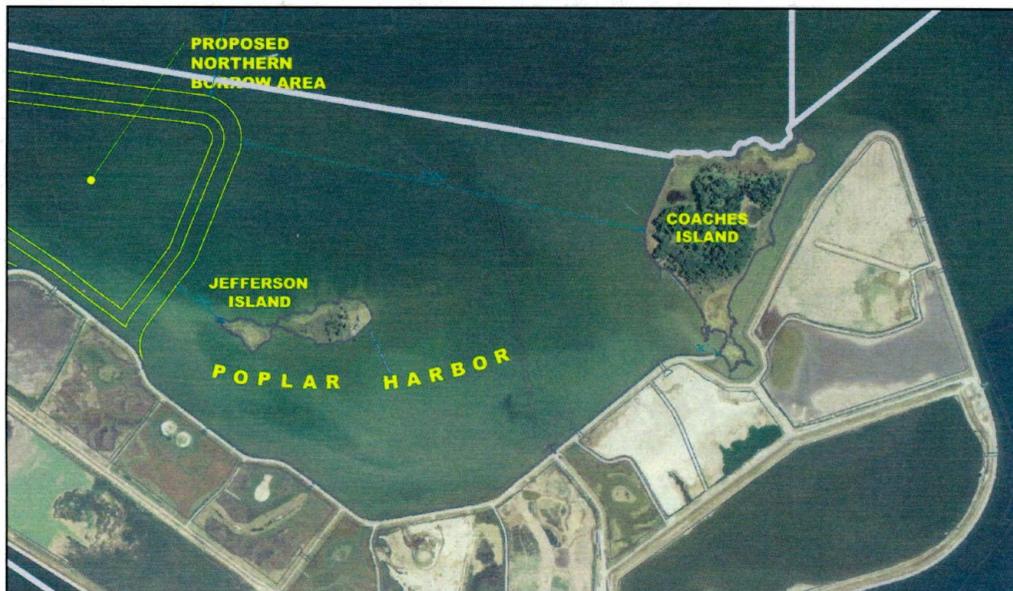
Mr. Zelinske additionally states that views from Lowes Wharf – the marina, inn, restaurant, and beach he owns across the Bay from Poplar Island – will be negatively impacted by the Phase III expansion. He describes the summer season at Lowes Wharf when boat owners from the Bay's western shore frequent his restaurant, beach, and tiki bar while enjoying live music and Bay sunsets. Mr. Zelinske contends the expansion will alter Bay summer sunsets from Lowes Wharf, sunsets his marina is well known for, because they will occur over the expansion land as compared to over the Bay.

The Port states that the upland cell with the high dike must be located in the portion of the expansion nearest Jefferson Island: "Alternative project alignments that could possibly reduce the immediate foreground water view impacts for Jefferson Island were considered; however these alternative alignments were found to be geotechnically unsound. The current proposed project alignment was chosen based on foundation conditions, availability of quality borrow material within the proposed footprint (to mitigate impacts to natural bay bottom), avoidance of cultural and environmental resources, and optimization of dredged material capacity."<sup>17</sup> The Port states that if it were to be required to avoid an impact on the Jefferson Island viewshed by moving the proposed Northern Borrow area away from Jefferson, the project cost would increase \$243 million (43% increase) to \$804 million.

<sup>16</sup> See Supplemental Environmental Impact Statement at 5-159 (2005)

<sup>17</sup> Administrator's Report Exhibit 3 at pages 4-5.

**NOTE:** I encouraged the Port to meet with Mr. Zelinske to determine whether the parties could reach an accommodation. Port personnel did meet with Mr. Zelinske on January 8, 2016 but neither the Port nor Mr. Zelinske has reported reaching common ground.



*Jefferson Island is approximately 784 feet from the proposed dike containing the northern borrow area*

*Coaches Island.* Mr. Tulloch purchased Coaches Island in 1982. He recently built a (non-primary) home there and uses the property for hunting. His home faces north, viewing the proposed dike located approximately one mile away. Although Mr. Tulloch generally favors the environmental project, he is concerned that his viewshed will be affected by the expansion. Noting that Coaches Island (as well as Jefferson Island) is currently powered by generators, Mr. Tulloch suggested that allowing Coaches Island to tie into the electric cable connecting Poplar Island to the mainland would be appropriate to ameliorate his view disruption. Justin Callahan, the Army Corps of Engineers project manager, states that the electric line at Poplar Island could be split to supply electricity to Coaches Island through a federal Section 408 permit *if* the State bears the cost of the electrical split (not the federal government). Mr. Tulloch stated he would pay for the actual electricity once it was provided to Coaches Island. The Port indicates that installing an electric line to Coaches Island “raises complicated legal and administrative issues” (e.g., billing, damage claims, liability) especially given that the federal government (the Army Corps of Engineers) owns Poplar Island.

### **Concurrence with MDE Recommendation to License with Special Conditions**

Based on MDE’s Wetland Report and Recommendation, the favorable dispositions of local, State and federal reviewing agencies, my own analysis, and the entire record herein:

- I concur with MDE that the Board should license the Port to construct and operate Poplar Island Phase III for a 30-year term.

- I concur with MDE's recommended special conditions except I recommend restating the water quality condition to clarify that samples must be taken from each new dredged material location:

DELETE: *MDE Special Condition R*: A sample of any dredged material shall be collected prior to use at Poplar Island and resampled at least every three years per the Poplar Island General Reevaluation Report and Supplemental EIS (2005). The sample shall be tested per the US EPA and USACE guidelines for disposal of dredged material.

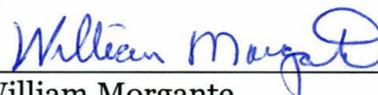
INSERT: *BPW Special Condition R*: Licensee shall collect a representative sample of dredged material from each new dredged material location before use at Poplar Island at least every three years per the Poplar Island General Reevaluation Report and Supplemental EIS (2005). The sample shall be tested per the US EPA and US Army Corps of Engineers guidelines for disposal of dredged material.

### Continuing Concerns

By law, the Board of Public Works shall issue a State tidal wetlands license if issuance is in the State's best interest "taking into account the varying ecological, economic, developmental, recreational, and aesthetic values" presented by the project.<sup>18</sup> In this case, the ecological, economic, developmental, and recreational values of Poplar Island to the State and its citizens are clear. However, in my opinion, this Phase III expansion – by blocking substantially the existing viewshed – does have a detrimental effect on the aesthetic values of the Jefferson Island property owners.

February 12, 2016

Date: Revised Feb 18, 2016



William Morgante  
Wetlands Administrator

- Exhibit 1: Aerial View of Project Site  
Exhibit 2: Critical Area Commission Letter (1/20/16)  
Exhibit 3: Maryland Port Administration Letter (9/18/2015)

<sup>18</sup>Section 16-202(g), Environment Article, Annotated Code of Maryland.