

Critical Area Commission

STAFF REPORT

October 7, 2020

APPLICANT:	Maryland Port Administration
PROPOSAL:	Cox Creek Dredge Material Containment Facility Expansion – Phase 2
JURISDICTION:	Anne Arundel County
COMMISSION ACTION:	Vote
STAFF RECOMMENDATION:	Approval with conditions
STAFF:	Jennifer Esposito
APPLICABLE LAW/ REGULATIONS:	COMAR 27.02.05 State Agency Actions Resulting in Development on State-Owned Lands

DISCUSSION:

The Maryland Port Administration (MPA) is proposing the second phase of work to expand the Cox Creek Dredge Material Containment Facility (DMCF) by approximately 89 acres. The purpose of the project is to provide 50 years of additional capacity to store dredge material removed from the Port of Baltimore shipping channels. The first phase - which was presented to and approved by the Commission on November 1, 2017 - involved demolishing the remaining structures on the site, excavating a large borrow pit in the upland area, widening the existing DMCF perimeter dike base in preparation for future dike raising, and constructing a new spillway valve vault. MPA is now requesting approval of the second phase, which involves raising the existing DMCF perimeter dikes and constructing new dikes around the expanded upland area.

The project is located in Anne Arundel County, south of the Francis Scott Key Bridge (I-695) on the western branch of the Patapsco River. The proposed project is located partially within the Critical Area on lands designated as an Intensely Developed Area (IDA) and a Resource Conservation Area (RCA). A copy of the site plan is attached (Attachment 1A & 1B).

Background and Existing Conditions

The Cox Creek dredge material containment facility is operated by the Maryland Environmental Service (MES). This site is approximately 374 acres in size and is composed of approximately 144 acres of a dredge material containment facility to process dredged material, 93 acres of upland, and 137 acres of the Swan Creek wetland easement area. The facility actively receives dredged material from the Port of Baltimore's shipping channels. The upland area was formerly

used by the Kennecott Refining Company and then the Cox Creek Refining Company, which operated a copper refining and manufacturing facility to make copper wire and rod prior to MPA acquiring the property. South of the upland area is the Swan Creek property, which MPA has under a conservation easement with the Maryland Environmental Trust and North County Land Trust.

The former copper refining facility (several buildings and pavement areas) was demolished, and the existing DMCF will be expanded westward to encompass this upland industrial area in order to provide additional storage capacity for future dredged material from the Port of Baltimore's shipping channels.

Proposed Project – Phase 2

The proposed scope of work for this phase of the project involves three main components:

1. Raising the existing DMCF perimeter containment dikes to an elevation of 60 feet above the mean low water line;
2. Constructing new containment dikes within 89 acres of upland area to expand the DMCF; and
3. Performing various onsite improvements, including: upgrades to site access roads and drainage and stormwater management infrastructure; and installing a new spillway valve vault, spillway intake structures, site lighting, security fencing, and cameras.

The total limit of disturbance (LOD) for this project is approximately 206 acres, which includes the upland area adjacent to the existing DMCF, areas outside of the Critical Area, and small areas within the Swan Creek easement area. Total disturbance within the Critical Area is 124 acres, of which, 97 acres are located within the RCA and 27 acres are within the IDA (see Attachment 2 for LOD and associated impacts). Most of the proposed LOD overlaps the limit of disturbance from the previously approved Phase 1 project.

Proposed Impacts and Mitigation

Tree Clearing:

Grading, development, and tree clearing within the upland area is proposed. Existing conditions of the upland area consists of a mixture of small trees, scrub shrub, and unvegetated land.

Impacts include several areas of dense tree cover as well as areas with sparse tree cover. MPA surveyed the existing trees in this area, cataloging and quantifying the square footage of tree canopy removed in all densely vegetated areas as well as counted individual trees that have a minimum 2-inch diameter at breast height (DBH) in the more sparsely vegetated areas.

Additionally, the Maryland Department of Natural Resources Forest Service decided to defer to the Critical Area requirements for the proposed tree clearing outside of the Critical Area. In total, 2.26 acres of tree canopy plus 193 individual trees will be removed. A summary of proposed tree removal is provided below.

Tree Removal Impacts Summary:

Tree Removal Area	Canopy Area Removed (ac)	Sparse Trees Removed (#)	Sparse Tree Removed Converted to Acres
Outside Critical Area	0.27	121	0.56
Inside Critical Area	1.99	72	0.33
Subtotal	2.26	193	0.89
Total Mitigation for Upland Tree Clearing = 3.15 Acres			

A small portion of the project’s limit of disturbance extends into the Swan Creek property, which is located in the RCA. An additional 14 trees will be removed in this area for construction of a storm drain outfall. Because this disturbance area is within the conservation easement, onsite tree replacement is proposed for these impacts. MPA has coordinated with representatives from Maryland Environmental Trust and North County Land Trust to determine adequate mitigation for the 14 trees. It was determined that mitigation will be required at a 3:1 ratio to satisfy requirements for Critical Area and conservation easement representatives. A total of 42 new trees will be planted within the conservation easement area, in a location acceptable to easement representatives. The 42 trees are not included in the Mitigation Summary below.

Critical Area Buffer:

Construction of new storm drainage outfalls around the existing DMCF perimeter dike will result in permanent disturbance to several areas within the 100-Foot Buffer on the seaward face of the dike. The permanent disturbance includes new areas of riprap extending from the new storm drain pipe outfalls to the existing dike armor stone. The purpose of the new riprap outfall swales is to provide stable drainage conveyance for runoff draining down the outer face of the raised dike. The areas of new riprap cover within the 100-Foot Buffer are shown on the Critical Area Permanent Disturbance exhibit (Attachment 2). The total disturbance area is 0.52 acres. Additional permanent impacts within the 100-Foot Buffer on the seaward face of the dike include a new 414-square foot (0.01 acre) spillway valve vault. Access roads will also be extended down to the new vault and the previously installed vault to allow for maintenance, which will result in an additional 0.32 acres of permanent disturbance within the 100-Foot Buffer. In total, 0.85 acres of permanent disturbance within the 100-Foot Buffer are proposed. Mitigation will be provided at a 2:1 ratio. A summary table is provided below.

Buffer Permanent Disturbance Summary Table:

Buffer Impacts	Permanent Disturbance (acres)
Riprap Outfall Swale	0.52
Spillway Valve Vault	0.01
Access Roads	0.32
Total Buffer Permanent Disturbance	0.85

Mitigation Summary

Based on the impacts and mitigation ratios described above, total mitigation required is as follows:

Mitigation Type	Required Mitigation (acres)
Upland Tree Clearing (3.15 acres at 1:1)	3.15
Buffer (0.85acres at 2:1)	1.70
Total Mitigation Required	4.85

The upland area tree clearing and Buffer mitigation will be fulfilled offsite at the MPA’s Hawkins Point property, approximately 1.5 miles north of the project site (Attachment 3). The Hawkins Point mitigation site has already been planted by MPA, has been approved by Commission staff as a mitigation bank for the MPA, and is currently undergoing monitoring. The planting area is within the Critical Area along the Patapsco River.

Stormwater Management

The upland site consists of 93.0 acres. Existing impervious on the site totaled 46.86 acres. Of that, MPA has permanently removed or will remove over 30 acres of impervious surface. Newly proposed impervious surface, mostly associated with access roads, will total 14.05 acres. As a result, total impervious surface will now total only 30.91 acres. Therefore, 10% phosphorus reduction requirements are met through the overall net decrease in impervious surfaces. In addition, MPA is proposing to treat water quality through stormwater management ponds or direct drainage of the site into the DMCF.

Agency Review and Permits

Maryland Department of the Environment (MDE)

Dam Safety Division: A joint permit application was submitted on March 12, 2020. Review is in progress.

Stormwater Management & Erosion and Sediment Control: Sediment and erosion control as well as stormwater management authorization is required for this project. MDE is currently reviewing impacts for these items and final approval is pending coordination with MDE Dam Safety Division.

Nontidal Wetlands Review: There will be nontidal wetland impacts associated with this project. A joint permit applicant was submitted on May 18, 2020 and the public notice period was July 15 to August 15, 2020. Mitigation for the impacts will be provided at an off-site wetland restoration and enhancement location. Review is currently in progress and approval is anticipated in early 2021.

Tidal Wetlands Review: There will be tidal wetland impacts associated with the new storm drain outfalls. A joint permit applicant was submitted on May 18, 2020 and approval is anticipated in September 2020.

Maryland Department of Natural Resources:

On November 20, 2019, the Maryland Department of Natural Resources Wildlife and Heritage Service determined that there are no State or Federal records for rare, threatened or endangered species within the project boundary.

Maryland Historic Trust:

On December 10, 2019 the Maryland Historic Trust determined that there are no historic properties affected by the proposed project.

U.S. Fish and Wildlife Service:

The U.S. Fish and Wildlife Service determined that the Northern Long-eared Bat (a threatened, endangered, or candidate species) may exist in the geographic area, but there are no critical habitats within the project area for such species.

Coastal Resiliency

As required under COMAR 27.02.05.03, State agencies who are proposing development activities on State-owned lands shall demonstrate that the agency has considered the likelihood of inundation by sea level rise over the course of the design life of the project, and to demonstrate that the development identifies and incorporates climate resilient practices in order to avoid or minimize environmental or structural damage associated with a coastal hazard, an extreme weather event, sea level rise, and other coastal impacts. MPA has provided the following information to demonstrate that they have reviewed these coastal resilient factors:

- The project does not involve the construction of a structure or highway facility, and therefore Coast Smart Construction siting and design criteria would not be applicable. However, general siting and design criteria to incorporate climate resilience principles and practices when practicable to minimize potential damage due to future sea level rise, coastal flooding, and storm surge impacts has been considered for the project during the planning and design phases, as per MDOT MPA's climate resiliency policy.
- By 2100, Mean Sea Level projections show no impacts to the project area or the LOD. Even the largest projected sea level rise (5-foot inundation) will not impact the Cox Creek DMCF Expansion project area.
- Wetland adaptation area projections show impacts to the project area, but these projections are inaccurate for the upland areas of the Cox Creek DMCF Expansion project because the current GIS mapping classifies the DMCF as a wetland. Given the current elevation and the proposed elevation of the DMCF, wetlands are unable to migrate. However, impacts to the existing wetlands south of the DMCF where migration is anticipated has been minimized in the proposed project.
- Storm surge for Category 1 through 4 will not impact the Cox Creek DMCF Expansion project.

Notification

In accordance with COMAR 27.03.01.03, public notice of the project was posted on the property on October 23, 2019, and the project advertised in *The Baltimore Sun* on November 7, 2019. As of the date of the writing of this staff report, no comments have been submitted to MPA.

RECOMMENDATION

Commission staff recommends approval of the Cox Creek DMCF Expansion project with the following conditions:

1. Prior to the start of construction, the Maryland Port Administration shall submit to Commission staff copies of authorizations issued by the Maryland Department of the Environment for the following:
 - a. Erosion and sediment control;
 - b. Stormwater management;
 - c. Geotechnical/Stability review of the DMCF containment dikes raising;
 - d. Tidal wetland impacts; and
 - e. Nontidal wetland impacts.