

Critical Area Commission

STAFF REPORT

August 7, 2024

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| APPLICANT: | Maryland Department of Natural Resources (DNR) and Maryland Environmental Service (MES) |
| PROPOSAL: | Point Lookout State Park – Wastewater Treatment Plant Upgrades |
| JURISDICTION: | St. Mary’s County |
| COMMISSION ACTION: | Vote |
| STAFF RECOMMENDATION: | Approve with Conditions |
| STAFF: | Jonathan Coplin |
| APPLICABLE LAW/ REGULATIONS: | COMAR 27.02.05 State Agency Actions Resulting in Development on State-Owned Lands |

DISCUSSION

The Maryland Department of Natural Resources (DNR) and Maryland Environmental Service (MES) are seeking approval to proceed with upgrades to the existing wastewater treatment plant (WWTP) located at Point Lookout State Park in St. Mary’s County. The proposed work is needed to meet the demands of the park during peak summer months and meet nutrient removal requirements for wastewater treatment. These upgrades will complete the overall sewer line and facility work that was previously approved in June 2022 under the General Approval Memorandum of Understanding (MOU) between DNR and Critical Area Commission (CAC).

Existing Conditions:

Point Lookout State Park is located in Scotland, St. Mary’s County at the southernmost point on the western shore of Maryland. The park itself is 1,079 acres and is at the confluence of the Potomac River and Chesapeake Bay. The park is a mixture of forest, non-tidal wetlands, beach areas, and open recreational lawn. Roughly 355,000 visitors use the park each year for beach, boating, camping, and hiking recreation. The increase in number of visitors per year, and the age of the existing wastewater facility, has put a strain on the sewer infrastructure of the park. Currently, the machinery at the WWTP does not meet the requirements for nutrient removal needed to maintain compliance and is insufficient to deal with the surge in demand during peak summer months. The facility currently has an emergency holding tank, rotating biological contactor, two clarifying tanks, two wooden sheds, fuel tank, pumping station, radio tower, aerobic digesters, administration building, and surge tank.

Proposed Improvements and Impacts:

Proposed improvements include the removal of the clarifier equipment, radio tower, fuel tank, and one shed; and an upgrade to the administration building (due to age). The rotating biological contactor will be replaced with a new membrane bio reactive system (MBR) along with the addition of a diesel generator system. The new MBR system and new generator will be raised 7.5 feet and 8 feet, respectively, above ground elevation to minimize impacts from storm events and sea level rise. Additionally, one submerged gravel wetland, one planter box, an EV charging station, and solar panels will be installed to treat the facilities 10% pollutant removal requirement and reduce electricity consumption, respectively. The staging of materials for the work will be located south of the project area on a paved section of the Point Lookout Boat Ramp. This area is already being utilized for storage for the sewer and pipe work.

This project is coming to the Commission for review as a major development project under COMAR 27.02.05. A site plan is attached to this staff report.

Project Impacts and Mitigation

Buffer

The entire facility is located within both the 100-foot Critical Area Buffer and expanded Buffer for hydric soils. The proposed work will impact 10,239 square feet of Critical Area Buffer and will be mitigated at 1:1 for impacts to existing lot coverage and 3:1 for any additional lot coverage added within the Buffer.

Buffer Mitigation

Mitigation for impacts to the Critical Area Buffer are as follows: 10,239 square feet at 1:1, 1,947 square feet at 3:1, and the removal of a single elm tree with canopy coverage of 800 square feet, for a grand total of 16,880 square feet of mitigation required. DNR has located a mitigation site directly south of the facility, still within the park boundary. The mitigation site will be situated within Forest Interior Dwelling Species (FIDS) habitat and adjacent to the Critical Area Buffer. A mixture of canopy and understory trees will be planted to provide 16,900 square feet of mitigation.

Critical Area 10% Phosphorus Compliance

The required Critical Area 10% phosphorus reduction is 0.17 lbs P/year for the site. The total treatment provided by the submerged gravel wetland and planter box will equal 0.18 lbs P/year, which satisfies the 10% reduction.

Permits and Review by Other Agencies

Maryland Department of the Environment (MDE)

Non-tidal Wetlands Authorization

Approval for impacts to non-tidal wetlands is still pending. MDE has confirmed that no mitigation will be required for this proposed work.

Stormwater Management Compliance and Sediment & Erosion Control

MDE has issued concept approval for stormwater management and erosion and sediment control. Final approval is pending.

Maryland Department of Natural Resources (DNR)

The Wildlife & Heritage Service determined that there are no rare, threatened, or endangered species within the project area.

United States Fish and Wildlife Service (USFWS)

USFWS has completed the review of the project area and determined that no further consultation is required.

Maryland Historical Trust (MHT)

The Maryland Historical Trust (MHT) has determined that there are no historic properties affected by this project.

Coastal Resiliency

Point Lookout State Park is extremely vulnerable to sea level rise. The latest estimates by the Maryland Commission on Climate Change (MCCC) recommend planning for 1.59 feet of sea level rise by 2050 for sites located near Solomons, Maryland when evaluating built infrastructure. Maryland's Coastal Atlas includes a layer that shows 1.37 feet of flooding on land by 2050. This viewer indicates that the location of the WWTP will be impacted. Coastal Atlas wetland adaptation layers also indicate that the forested wetland currently surrounding the WWTP will be further inundated and likely to convert to transitional salt marsh. Finally, the Coast Smart – Climate Action Ready Boundary (CS-CRAB) model, which shows potential inundation of storm events with sea level rise, shows flood risk is also high during those events.

DNR has also reviewed the Maryland Coastal Atlas data and determined the location for plantings would be suitable to promote FIDS habitat and also meet the proposed project design life. The mitigation planting area will not be impacted by predicted wetland adaptation or drowned lands predictions by 2100, despite the fact that projected sea-level rise and storm surge show the majority of the park will be greatly affected by then. In addition, DNR has considered coastal resiliency measures within the park to address sea level rise and coastal hazards to the property. The Park has considered moving several of the campground sites to less flood-prone areas, reconfiguring existing structural shoreline measures to better protect existing land, changing breakwaters into groins, installing oyster reefs, reducing park capacity, and acquiring land outside the 2100 drowned land predictions to relocate the park further in-land. These measures would be subject to state and federal review for permitting and funding.

Public Notice Requirement

Public notice for this is required per COMAR 27.03.01, which requires both notice in a newspaper of general circulation, a posting at the site of the proposed improvements, and at least 14 days for public comment before the Commission makes a decision. DNR has issued public notice for the project, per the requirements of COMAR 27.03.01, on July 19, 2024.

RECOMMENDATION

Commission staff recommends approval of the project with the following condition:

- 1) Prior to the start of work, the Department of Natural Resources shall provide Commission staff with copies of final approvals for sediment and erosion control plans, stormwater management plans, and final Wetland and Waterway authorization from the Maryland Department of the Environment.

Point Lookout State Park – Wastewater Treatment Plant (WWTP)



Legend

Red – represents the approximate boundary of the WWTP facility.

Blue – represents the significant change to the facility.

Green – represents upgrades to the existing machinery/facility.

The area is located within the Resource Conservation Area of the Critical Area and is entirely within expanded buffer for hydric soils.

