

MARYLAND CITY WRF ENR

Background

This is one of seven Enhanced Nutrient Removal (ENR) projects that the County is pursuing in compliance with the State's Bay Restoration Program. When complete, nitrogen concentrate levels will be reduced from 8mg/L to 3 mg/L and phosphorus from 2 m/L to 0.3 mg/L.

The current treatment process employed at the Maryland City WRF is an intermittent aeration process with effluent filtration. The process design was based on the earlier biological nutrient removal (BNR) goals of a seasonal total nitrogen (TN) level of 8 mg/L. The facility is rated to process 2.5 million gallons per day.

The new process design will be based on a four-stage Bardenpho process followed by conventional filtration for phosphorus removal. The existing aeration tanks will be modified to optimize and ensure nitrification. New post-anoxic reactors will be constructed for optimizing denitrification utilizing a supplemental carbon source. The design also includes modifications and improvements to the aeration system and process control system.

Benefits

- Meet pollutant load limits set in Bay Restoration Program
- Significantly reduce nitrogen effluent concentration from 8 mg/L to 3 mg/L, and phosphorous effluent concentration from 2 mg/L to 0.3 mg/L.

Funding Source

- State Grants (under negotiation)
- County Bonds

Project Status

- Final Design
- State Grant eligibility determination in progress



Project Information

Project Manager	George Heiner (410) 222-4128
Design Consultant	RKK
Contractor	TBD
Inspection Manager	EBA Engineering
Estimated Total Project Cost	\$12.9M
Design Notice to Proceed	November 2008
Construction Notice to Proceed	April 2011
Projected Completion Date	August 2012

For more information contact Customer Relations at 410-222-7582 or email us at customer@aacounty.org