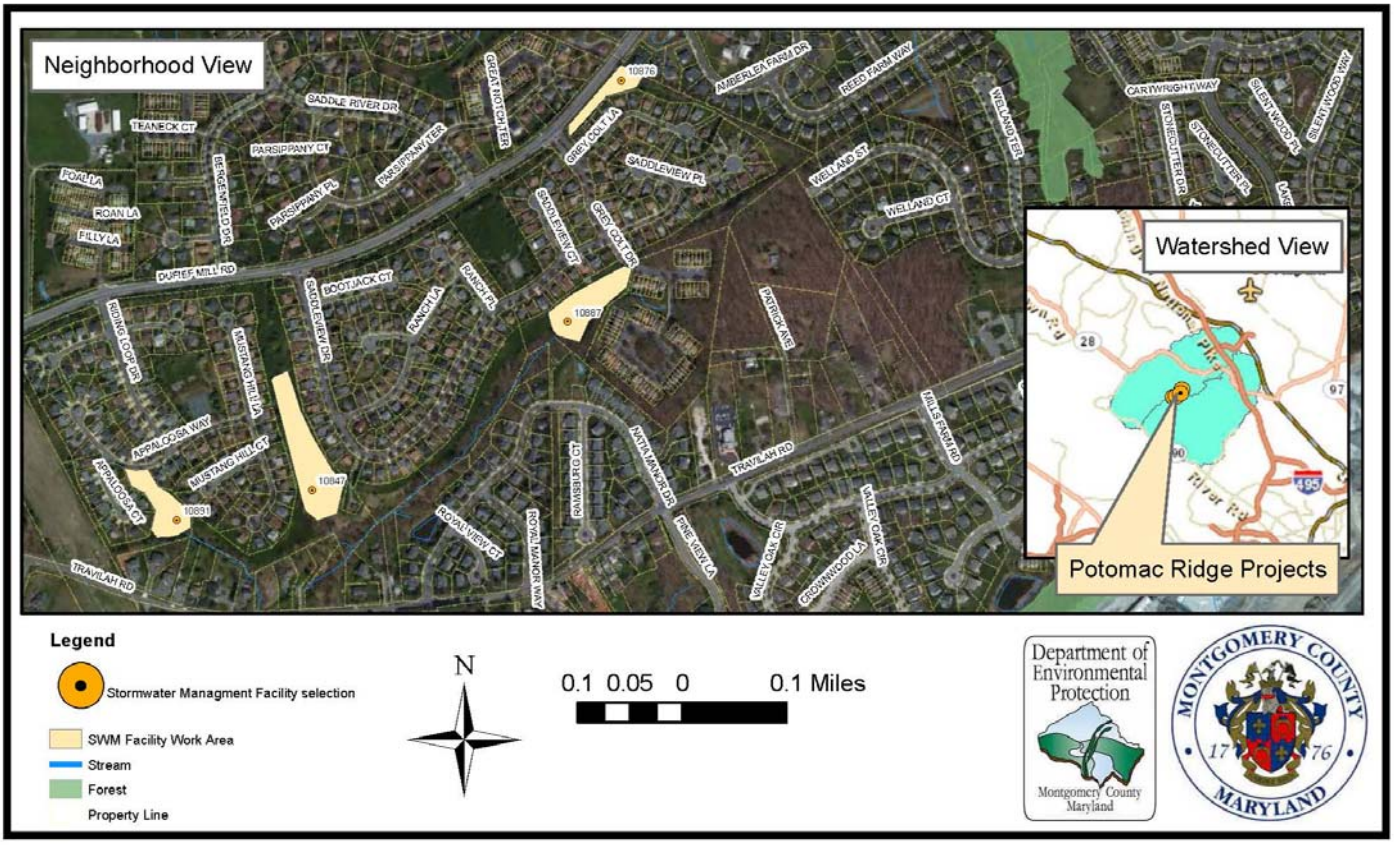
DEPARTMENT OF ENVIRONMENTAL PROTECTION
MONTGOMERY COUNTY, MARYLAND

Stormwater Management Facility Retrofits FACT SHEET:

Potomac Ridge Stormwater Management Ponds



Potomac Ridge Storm Water Management Facilities Facts:
Combined Drainage Area: 174.44 acres (0.273 sq.mi.)
Combined Impervious Cover: 35.7 acres (20.4%)
Property Ownership: Potomac Ridge Homeowner's Association
Watershed: Great Seneca Creek
Watts Branch - Assets #10847, #10887, & #10891
Muddy Branch - Asset # 10876

Storm Water Management Facility Retrofit Project Facts:
Combined Limits of Disturbance: 6 Acres
Project Status: Conceptual Design
Estimated Construction Start Date: Summer 2014

Restoration Goals: Upgrade storm water ponds to meet current Maryland Department of the Environment (MDE) storm water management regulations, repair and upgrade pond infrastructure to meet current safety standards, improve aquatic and wetland vegetation in storm water pond and improve and expand existing wetlands if possible.

Project Selection

Montgomery County has a continuing commitment to protect and improve its water resources. *The Countywide Stream Protection Strategy, (*CSPS,1998, updated 2003*)*, published by the Department of Environmental Protection (DEP), evaluated biological, chemical, and habitat conditions of streams in the county, and identified impaired "priority" sub-watersheds for restoration. These stormwater facilities were identified for retrofit in the Great Seneca Watershed Implementation plan which details how the county will meet it's MS4 permit requirements. Additionally, these facilities were chosen because of their age and need for maintenance.

The existing stormwater management facilities meet the feasibility criteria for upgrading the storm water management pond. The Department of Environmental Protection's storm water management maintenance section identified the facilities as being a good candidates for upgrading to current standards.

Pre-Retrofit Conditions

The Potomac Ridge neighborhood was developed prior to current regulations for storm water management control. Uncontrolled storm water runoff from highly impervious areas creates erosive, high velocity or "flashy" storm water that damages receiving streams and contributes to significant sources of pollutants in those streams. The existing storm water management ponds have sufficient room for storage; however, the outlet works were not designed to meet current MDE storm water management standards and over time, have both entered a state of disrepair and reached the end of their service life. Finally, the existing stormwater facilities lack the proper vegetation needed to enhance stormwater management treatment, and improve aquatic and semi-aquatic habitats to achieve a higher level of water quality.

ABOVE: Existing SWM ponds (left) will be retrofitted and additional native planting will be provided in and around all facilities to increase water quality, aquatic habitat and improve aesthetics (right). Warning signs will be placed around the wet ponds.

Proposed Retrofit Actions

Expected construction activities for the retrofit are:

- Replacement the outlet works at all four facilities.
- Convert Asset 10887, and 10891 to wet ponds
- Convert Asset 10847 to a dry pond
- Convert Asset 10876 to an infiltration area/dry pond
- Enhance existing drainage swales flowing to the pond for additional stormwater quality treatment
- Landscape all facilities with native plants, trees and shrubs
- Stabilize storm drain outfall locations with appropriate riprap stone to prevent erosion from stormwater

BELOW: Outlet works will be replaced with concrete outlet works which have a longer service life than their metal counterparts seen here.

Construction Expectations

Construction activities will not have any significant impacts on local traffic. Appropriate erosion and sediment control measures will be provided to control dust and muddy water runoff. The contractor will be required to adhere to all OSHA safety regulations, the Montgomery County Noise Ordinance, and provide safety barriers and fencing between the construction site and public open spaces to prevent accidental or unauthorized access to the site.

ABOVE: Outfalls will be modified by placing riprap and native vegetation around the pipe to minimize the velocity of the water entering the pond.

For more information:

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