

Proposed Project

Project Number: PT2_02
Subwatershed: Plumtree 2

Project Type: Pond Retrofit
Project Size: 27 acre drainage area/ 6.5 acres impervious

Project Location: End of Valley Mede Court.



Project Description: This project would entail retrofitting an existing pond off of Valley Mede Court which captures runoff from Hearthstone Road and Country Lane. The pond would be excavated to increase detention volume to provide pollutant removal closer to current design standards. The design would incorporate water quality features such as a micropool, aquatic bench, forebay and meandering flow path. Because the project is a wet pond and is located near private residences, property owners would be kept informed and involved in the planning and design process.

Project Benefits:

Water Quality Conversion to a wet pond designed to current standards would provide water quality treatment and pollutant removal.

Project Constraints:

- Environmental No environmental constraints are anticipated with this project.
- Property Ownership This project is located on County owned open space property (Boone Farm natural resources open space).
- Facility Access Access to this site is obtained from Country Lane.
- Design / Construction No significant design or construction issues were noted.

Proposed Project

Upper Little Patuxent

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Subwatershed: Plumtree 2

Project Type: Pond Retrofit
Project Size: 27 acre drainage area/ 6.5 acres impervious

Cost Detail:

ITEM	QTY	UNITS	UNIT COST	TOTAL
Site Work				
Clear and Grub	0.2	AC	\$5,000.00	\$950
Pavement / Sidewalk Removal		SY	\$7.50	\$0
Curb-Gutter Removal		LF	\$10.00	\$0
Remove Pilot Channels		LF	\$6.00	\$0
Remove Barrel Pipe	150	LF	\$77.00	\$11,550
Pond Construction				
Grading and Excavation (Class I)	913	CY	\$30.00	\$27,390
Hauling and Disposal	913	CY	\$20.00	\$18,260
Embankment		CY	\$60.00	\$0
Forebay	91	CY	\$45.00	\$4,095
Safety bench	196	CY	\$30.00	\$5,880
Riser	1	LS	\$10,000.00	\$10,000
Outflow Pipe	150	LF	\$80.00	\$12,000
Outlet Protection	1	LS	\$8,000.00	\$8,000
Rip Rap Stabilization		LF	\$50.00	\$0
SWM Landscaping	965	SY	\$10.00	\$9,650
			Direct Construction Subtotal	\$107,775
Indirect Costs				
E/SC, MOT, MOS (20% of Directs or \$10,000)	1	LS	\$21,555.00	\$21,555
Construction Stakeout (\$1,000/Day)	3	Day	\$3,000.00	\$3,000
			Base Construction Cost	\$132,330
			Mobilization (10% of Directs or \$1,000)	\$10,778
			Subtotal	\$143,108
			Contingency (30%)	\$42,932
			Construction Subtotal	\$186,040
			Env't'l Studies / Permitting (5% of Construction or \$5,000)	\$9,302
			Engineering and Surveys (25% of Construction or \$40,000, maximum \$50,000)	\$46,510
			Total Capital Cost	\$241,852
Operations and Maintenance Costs				
Annual Maintenance	6	Percent	\$6,467	
Discount Rate	5	Percent		
Expected Life	20	Years		
			Net Present Value of O&M Costs	\$80,587
			Life Cycle Cost	\$322,500