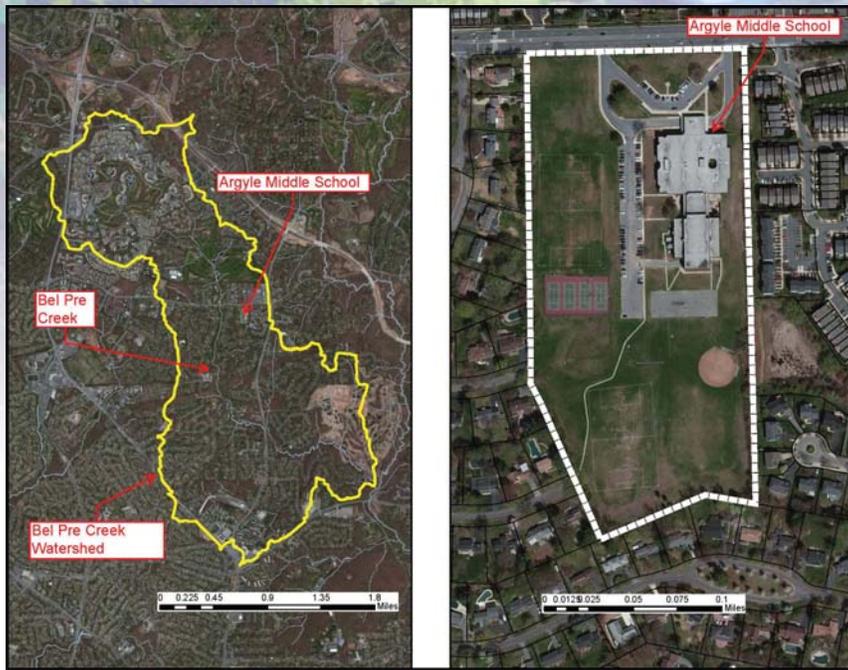




Watershed Restoration FACT SHEET

Argyle Middle School Low Impact Development Retrofit



Location of Argyle Middle School Low Impact Development Retrofit Project in Silver Spring, Maryland, within Bel Pre Creek watershed which is within the Northwest Branch Watershed.

Watershed Facts

Subwatershed Drainage Area: 2,866 Acres

Subwatershed Imperviousness: 762 Acres

Property Ownership

Montgomery County Board of Education

Restoration Goals

The restoration goals for this project include implementation of innovative low impact stormwater management practices at Argyle Middle School to improve quality and health of receiving waters.

Restoration Project Facts

Project Length : N/A

Drainage Area Captured: 8.13 Acres

Estimated Costs:

\$827,000

Project Status:

Concept Design

Monitoring Facts

Pre- and post-restoration monitoring will be conducted, following MCDEP monitoring protocols.

Project Selection

The Montgomery County Department of Environmental Protection has selected Argyle Middle School for a stormwater retrofit project. The project was identified in a study that assessed the feasibility of implementing Low Impact Design (LID) on Montgomery County publicly owned facilities. This study assessed sites for retrofit opportunities to treat and/or remove impervious area. Located within the Northwest Branch within the Potomac River Watershed, the lower reaches of the watershed were developed before current stormwater management techniques. Maintaining and improving conditions in the Potomac River is an important component of the overall watershed restoration effort, particularly of the efforts to improve water quality and protect waters from the effects of high-intensity land uses.

Similar to other restoration projects throughout the County, this project is designed to assist in compliance with the County's Municipal Separate Storm Sewer System (MS4) permit by treating stormwater runoff and stabilizing stream channels using current, proven methods. Improved water quality, stream health, and ecological function are other important benefits of this project.



View of proposed location for Bio-Filtration facility, located near the existing tennis court in the back of Argyle Middle School.



View of basketball courts whose runoff currently drains to adjacent grass field.

Pre-Restoration Conditions

Argyle Middle School is an exiting school located in Silver Spring, Maryland. The school consists of one main building, two parking lots, and several recreational areas and has 23.4% impervious cover. The site has moderate pedestrian and vehicular traffic during school hours. The site has two open entrances and exits. The facility is surrounded by single family homes to the south, east, west and Bel Pre Road to the north .

Drainage from school rooftops, via below grade roof leaders, are conveyed to the the existing storm drain systems located throughout the site. There is currently no stormwater treatment on site.



Example of a bio-filtration facility. Native vegetation will be planted in the facilities at Argyle Middle School to improve water quality and aesthetics.

Restoration Actions

The initial investigation of the Potomac Watershed found promising stormwater retrofit opportunities within the Argyle Middle School site. Runoff on the site is currently untreated. All rooftop runoff is currently piped via underground roof leaders to the storm drain system, providing no existing treatment.

The proposed stormwater retrofits include two bio-filtration facilities, and a micro bio-retention facility to provide stormwater treatment on site. These attractive landscape features provide water quality treatment for small storms, with safe bypass for larger storms. The proposed bio-filtration facilities will be located along the northwestern and southwestern corners of the school. These facilities will improve water quality by removing common stormwater pollutants, including sediment, oil and grease, nutrients, and heavy metals.



Example of micro bio-retention facility built in Montgomery County with native vegetation.



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