



Anne Arundel County recently completed the construction of the Central Sanitation Facility in Millersville, Maryland near the intersection of East-West Boulevard and Maxwell Frye Road within the County complex. The County complex includes Fire, Police, Animal Control, Garage, and Central Water Facility headquarters. The construction includes the creation of both administrative and maintenance facilities within the limits of the existing Central Water Facility complex with innovative stormwater management for a redevelopment site as well as the restoration of a severely degraded perennial stream which serves as the project outfall. The innovative stormwater management system includes various stormwater micro practices designed to exceed the environmental site design sizing criteria. These practices include, but are not limited to impervious surfaces disconnection through conservation buffers, rain gardens and bioretention facilities to treat the building and portions of the parking area. Further



regenerative groundwater recharge is provided through an underground cobble reservoir placed under newly constructed parking areas that outlets to large sand/woodchip/compost lined open swales. These swales provide additional treatment by infiltrating, filtering and/or storing the larger storm events. The treated discharge then travels to an onsite step pool storm conveyance system before it is discharged to approximately half a mile of stream that is restored by connecting the incised channel to its historic floodplain by utilizing native boulders and cobble for grade control weirs and energy dissipation habitat pools. It is estimated that these retrofits have restored hydrology and recharged the groundwater elevations by more than 4 ft on average. Additionally, a seventeen (17)

acre forest conservation easement, with over 1,600 new trees mixed with the existing forest, was established for stream channel protection and to provide a buffer for the neighboring Shipley's Choice community.

### Project Information

**Design Project Manager:** Phil Guyer  
410-224-1276

**Design Consultant:** Wheeler Goodman Masek,  
Architecture and Interiors

**Contractor:** Morgan- Keller, Inc.

**Inspection Manager:** Arcadis

**Project Cost:** \$27.3M

**Design -**

**Notice to Proceed :** September 2005

**Construction -**

**Notice to Proceed:** August 2009

**Completion Date:** March 2012

**Site Size:** 24 acres (LOD)



A key element to the Central Sanitation Facility project is the two-story Administration Building that includes offices, meeting rooms, shops for electric, instrumentation and water meter testing, worker locker rooms, and training rooms. This facility serves as a centralized operational base for the County's water and wastewater utility operation field staff. The Administrative Building and surrounding site comprise the County's first LEED (Leadership in Energy and Environmental Design) Silver Rating project for its sustainable design elements. These elements include:

- innovative stormwater management (i.e., addressing environmental site design volume and quantity control);
- water efficiency (i.e., graywater storage and use to reduce water usage on site);
- energy and atmosphere (i.e., high efficiency mechanical units to minimize energy consumption, geothermal, and solar heating units);
- materials and resource (i.e., contractor construction waste management plan to maximize quantity of recycled materials from construction processes);
- indoor environmental quality (i.e., low-emitting materials [extreme limited VOC's] throughout building); and
- innovation and design process (i.e., public education, storm management system as a teaching tool).



The Central Sanitation Facility provides efficient service to the citizens of Anne Arundel County as a centralized operation base for the County's water and wastewater operation field staff; and, therefore, represents sustainable infrastructure by providing a LEED certified building, implementing innovative stormwater management, restoring a degraded stream system, and protecting and enhancing the existing forest area as well as providing additional protection for the Severn River and the Chesapeake Bay.



For additional information regarding Central Sanitation Facility, please see the following web links:

[http://www.aacounty.org/DPW/Resources/WGM\\_Central\\_Sanitation\\_Presentation\\_20100630.pdf](http://www.aacounty.org/DPW/Resources/WGM_Central_Sanitation_Presentation_20100630.pdf)

<http://www.aacounty.org/DPW/Watershed/Central%20Sanitation%20Facility%20RSPSC%20June%202011.pdf>

<http://www.aacounty.org/DPW/Watershed/CentralSanitationSPSC.pdf>