

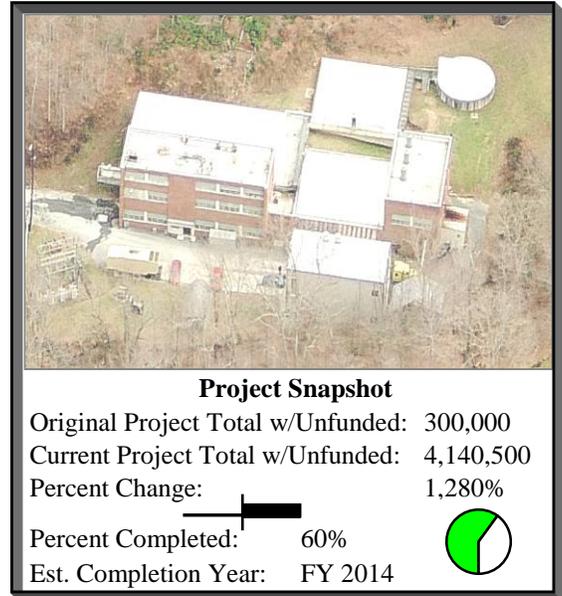
**Project Name:** Water Plant Upgrades  
**Project Number:** 210-850-4A40  
**Program Area:** Utilities

**Prior Appropriations:** 4,140,500  
 Add New Appropriations: -  
 Add Future Appropriations: -  
**Current Project Total:** 4,140,500  
 Add Unfunded: -  
**Current Project Total with Unfunded:** 4,140,500

**Status of Prior Year Appropriations as of 05/01/12:**

**Prior Year Appropriations:** 4,140,500  
 Less Expended: 1,457,149  
**Prior Year Funds Carried Over:** 2,683,351  
 Add New Appropriations: -  
**Total FY 2013 Appropriations:** 2,683,351

**Percent Expended:** 35%



**Description:** This project funds the analysis, study, design and construction of a new 57-ft diameter gravity thickener. The new thickener will expand the Water Treatment Plant's capacity to better manage the solids and recycled water flows during optimized plant system operations for removal of organics and other Disinfection Byproduct precursors.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	
Plan/Design/Insp	1,804,500	-	-	-	-	-	-	1,804,500
Construction	2,336,000	-	-	-	-	-	-	2,336,000
<b>Total</b>	<b>4,140,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,140,500</b>

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	
Water Fund	255,500	-	-	-	-	-	-	255,500
Bond Proceeds (Water)	3,885,000	-	-	-	-	-	-	3,885,000
<b>Total</b>	<b>4,140,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,140,500</b>

Unfunded Schedule	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs
Water Fund	-	15,000	-	-	-	-

**Explanation of impact:** This project added \$10,000 to the FY 2011 and will add \$15,000 to the FY 2014 operating budgets for chemicals, electricity and maintenance.

**Schedule:** Prior years work to be completed — Construct solids handling (57-ft diameter thickener) improvements.

**Status:** Implementation. Construction award is planned for Summer 2012 and construction completion is planned for Summer 2013. This project first appeared in the FY 2004 CIP. Full scale coagulant testing for plant implementation is complete; optimized plant improvements will be implemented in Water System Facility Improvements (210-850-1C34).

**Coordination:** MDE; Water System Facility Improvements (210-850-1C34).

**Staff contact:** Department of Public Works. Dan Kane, Civil Engineer II, 240-314-8523.

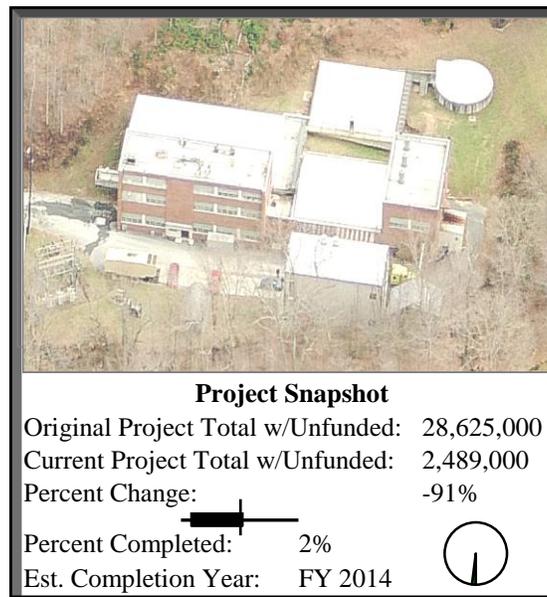
**Project Name:** Water System Facility Improvements  
**Project Number:** 210-850-1C34  
**Program Area:** Utilities

**Prior Appropriations:** 1,229,000  
 Add New Appropriations: 1,260,000  
 Add Future Appropriations: -  
**Current Project Total:** 2,489,000  
 Add Unfunded: -  
**Current Project Total with Unfunded:** 2,489,000

**Status of Prior Year Appropriations as of 05/01/12:**

**Prior Year Appropriations:** 1,229,000  
 Less Expended: 12,789  
**Prior Year Funds Carried Over:** 1,216,211  
 Add New Appropriations: 1,260,000  
**Total FY 2013 Appropriations:** 2,476,211

**Percent Expended:** 1%



**Description:** This project funds a phased study, design and construction of water system improvements to improve water quality, increase production capacity and rehabilitate/replace aging components, that are at the end of their life cycle. The air scour system replaces the nonfunctional surface wash system and will improve the treatment and operational effectiveness of the filters. These improvements will comply with environmental regulations from the Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE). Optimization of the existing water treatment, storage and distribution systems will be needed to meet the new EPA Stage 2 Disinfection Byproducts Rule (DBPR). The 2011 *Water Quality Study* presents a detailed alternatives analysis to identify the most cost-effective means of maintaining regulatory compliance, while looking to increase system capacity to meet future demands. Key projects from this study are to use Ferric Chloride (FeCl), a more effective coagulant, and the potential need to use enhanced filtration through the use of Granulated Activated Carbon (GAC) to ensure EPA Stage 2 DBPR compliance.

Appropriation Schedule	Prior Approps	New Approps	Future Appropriation Schedule					Current Total
			FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	
Plan/Design/Insp	600,000	60,000	-	-	-	-	-	660,000
Construction	629,000	1,200,000	-	-	-	-	-	1,829,000
<b>Total</b>	<b>1,229,000</b>	<b>1,260,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,489,000</b>

Funding Schedule	Prior Funding	New Funding	Future Funding Schedule					Current Total
			FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	
Water Fund	600,000	-	-	-	-	-	-	600,000
Bond Proceeds (Water)	629,000	1,260,000	-	-	-	-	-	1,889,000
<b>Total</b>	<b>1,229,000</b>	<b>1,260,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,489,000</b>

Unfunded Schedule	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Unfunded	-	-	-	-	-	-	-

Operating Cost Impact	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs
Water Fund	-	120,000	-	-	-	-

**Explanation of impact:** This project will add \$120,000 to the FY 2014 operating budget to fund additional operating costs for chemicals and electricity for the change of coagulant to FeCl.

**Schedule:** Prior years work to be completed — Complete air scour for filters and design FeCl enhanced coagulation changes at the Water Treatment Plant to comply with Stage 2 DBPR. FY 2013 — Construct FeCl improvements at the Water Treatment Plant.

**Status:** Implementation. The air scour construction award is planned for Summer 2012 and construction completion is planned for Summer 2013. This project first appeared in the FY 2011 CIP. Based on the *Water Quality Study* staff will continue to monitor the level of DBPs within the distribution system to confirm that a GAC upgrade, which would cost \$8.4 million to design and construct, will not be required.

**Coordination:** Washington Suburban Sanitary Commission; MDE; Water Plant Upgrades (210-850-4A40); Water Tank Improvements (210-850-7A34).

**Staff contact:** Department of Public Works. Ilene Lish, Civil Engineer II, 240-314-8516.