

**A. Identification and Coding Information**

1. Project Number: 073801  
 Agency Number: S-94.12  
 Update Code: Change

2. Date: October 1, 2007  
 Revised:

7. Pre PDF Pg.No.:  
 8. Req. Adeq. Pub. Fac.:

3. Project Name: Damascus WWTP Enhanced Nutrient Removal  
 5. Agency: **WSSC**

4. Program: **Sanitation**  
 6. Planning Area: Damascus & Vicinity P.A. 11

**E. Annual Operating Budget Impact (000's)**

		FY of Impact
Program Costs	Staff .....	....
	Other .....	....
Facility Costs	Maintenance .....	....
	Debt Service .....	....
Total Costs.....		....
Impact on Water or Sewer Rate.....		....

**B. Expenditure Schedule (000's)**

Cost Elements	(8) Total	(9) Thru FY '07	(10) Estimate FY '08	(11) Total 6 Years	(12) Year 1 FY '09	(13) Year 2 FY '10	(14) Year 3 FY '11	(15) Year 4 FY '12	(16) Year 5 FY '13	(17) Year 6 FY '14	(18) Beyond 6 Years
Planning, Design & Supervision	595	163	200	232	180	52					
Land											
Site Improvements & Utilities											
Construction	1,092			1,092	300	792					
Other	229		30	199	72	127					
<b>Total</b>	<b>1,916</b>	<b>163</b>	<b>230</b>	<b>1,523</b>	<b>552</b>	<b>971</b>					

**C. Funding Schedule (000's)**

State Aid	1,916	163	230	1,523	552	971					
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**D. Description & Justification**

**DESCRIPTION**

This project provides for the planning, design, and construction of improvements at the Damascus WWTP necessary to meet the requirements of MDE's Enhanced Nutrient Removal (ENR) Program. The preliminary recommendation is to convert existing basin configuration to Bardenpho process and provide methanol feed capability.

**Service Area** Patuxent North Drainage Basin

**JUSTIFICATION**

**Plans & Studies**

ENR Alternatives for Damascus WWTP, Gannett Fleming (June, 2005); Maryland Department of the Environment, Feasibility Study Approval Letter (July 27, 2005)

**Specific Data**

As the result of an Executive Order issued by the Governor of Maryland in November, 2002 calling for Maryland wastewater plants to be upgraded to the "limits of technology" for nutrient removal, the Maryland Department of the Environment introduced the ENR Strategy in May, 2003. The ENR Strategy calls for assigning "load goals" to municipal wastewater treatment plants based on annual average effluent concentrations of total nitrogen (4 mg/l) and total phosphorous (0.3 mg/l), and permitted design capacity. These load goals have been incorporated into the Chesapeake Bay Program tributary strategies Maryland adopted in 2004.

The ENR Strategy also calls for wastewater treatment plants to continue optimizing nutrient removal performance and attempt to achieve an annual average effluent nitrogen concentration of 3 mg/l as a goal, not a permit limit. Maryland has proposed new water quality standards for the Chesapeake Bay. Once these standards have been adopted, the load goals of the ENR Strategy will be incorporated into NPDES permits as enforceable effluent limits. The more stringent concentration goals will remain as goals.

The ENR Strategy also calls for the creation of an ENR grant program to provide funding for the necessary wastewater treatment plant upgrades. The Chesapeake Bay Restoration Act was passed in 2004 and authorized the collection of a surcharge on water and sewer utility bills paid by Maryland residents and businesses. The funds are to be used largely to fund up to 100% of eligible planning, design, and construction costs for ENR upgrades, which are defined generally as the cost of converting a Biological Nutrient Removal (BNR) facility to an ENR facility. The definition of "eligible", while not specifically defined in the legislation, is interpreted as the necessary liquid treatment processes to meet the ENR program limits for total nitrogen and phosphorous.

**Cost Change**

The cost estimate for this project has increased due to the difference between preliminary planning stage budget estimates and preliminary design cost proposals..

**STATUS** Preliminary Design (WSSC Contract No. CD4261A05, ).

**F. Approval and Expenditure Data (000's)**

Date First in Capital Program	FY 07
Date First Approved	FY 07
Initial Cost Estimate	1,560
Cost Estimate Last FY	1,689
Present Cost Estimate	1,916
Approved Request, Last FY	91
Total Expenditures & Encumbrances	163
Approval Request FY 09	552
Supplemental Approval Request Current FY (08)	

**G. Status Information**

Land Status: No land or R/W required  
 % Project Completion: D-0%  
 Est. Completion Date: December 2009

**H. Map Map Reference Code:**

**MAP NOT AVAILABLE**

**D. DESCRIPTION & JUSTIFICATION (CONT.)**

**Agency Number: S - 94.12**

**Project Name: Damascus WWTP Enhanced Nutrient Removal**

**OTHER**

The project scope has remained the same. Expenditures shown in Block B are planning level estimates and may change based upon site specific conditions, design constraints and negotiations with the Maryland Department of the Environment.

**COORDINATION**

Montgomery County Government, Montgomery County Department of Environmental Protection and Maryland Department of the Environment.

**NOTE** This project supports 100% Environmental Regulation.