

**A. Identification and Coding Information**

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

2. Date: October 1, 2011

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

Revised:

3. Project Name: Damascus WWTP Enhanced Nutrient Removal

5. Agency: **WSSC**

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

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

Cost Elements	(8) Total	(9) Thru FY '11	(10) Estimate FY '12	(11) Total 6 Years	(12) Year 1 FY '13	(13) Year 2 FY '14	(14) Year 3 FY '15	(15) Year 4 FY '16	(16) Year 5 FY '17	(17) Year 6 FY '18	(18) Beyond 6 Years
Planning, Design & Supervision	2,207	1,138	804	265	265						
Land											
Site Improvements & Utilities											
Construction	4,290		2,500	1,790	1,790						
Other	804		496	308	308						
<b>Total</b>	<b>7,301</b>	<b>1,138</b>	<b>3,800</b>	<b>2,363</b>	<b>2,363</b>						

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

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
WSSC Bonds	416	64	217	135	135						
State Aid	6,885	1,074	3,583	2,228	2,228						

**D. Description & Justification**

**DESCRIPTION**

**2018** This project provides for the planning, design, and construction of improvements at the Damascus WWTP necessary to meet the requirements of the Maryland Department of the Environment (MDE) Enhanced Nutrient Removal (ENR) Program. The project will convert the existing basin configuration to Bardenpho process and provide methanol feed capability. The existing two process trains will be divided into four process trains which will provide tankage/process redundancy for periodic maintenance. Splitting the existing process trains into four trains also allows the treatment capacity to closer match the current influent flows. The carbon source will be designed for methanol and several other biodiesel byproducts. Additional improvements will include modifications to reactors, Final Clarifier Distribution Box, Supplemental Carbon Feed Facilities, Supplemental Carbon Feed Building, demolition of existing facilities, instrumentation, and associated site work.

**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); Maryland Department of the Environment, Eligibility Determination Letter (December 22, 2008).

**Specific Data**

The Bay Restoration Fund Enhanced Nutrient Removal (ENR) Program's purpose is to meet the commitments under the 2000 Chesapeake Bay Agreement. Reductions of nutrient pollutants from all sources including sewage treatment plants are necessary. The ENR strategy builds on the success of the Biological Nutrient Removal (BNR) Program already in place. The MDE is using the Bay Restoration Fund to upgrade the 66 major wastewater treatment plants which discharge to the Chesapeake Bay with ENR technologies. Once upgraded, these plants are expected to reduce nitrogen and phosphorus in the wastewater down to 3 mg/l total nitrogen and 0.3 mg/l total phosphorus, achieving approximately one-third of the needed reduction under the Chesapeake Bay 2000 Agreement. Other pollutants will continue to be reduced by more than 90%.

**Cost Change**

The cost estimate was increased to reflect the current construction cost.

**STATUS** Under Construction (WSSC Contract No. CD4261A05, ).

**OTHER**

The project scope has remained the same. The expenditures and schedule projections shown in Block B are based upon bids received. The funding schedule reflects the final cost sharing agreement with the MDE.

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

FY of Impact

Program Costs	Staff .....	.....	
	Other .....	.....	
Facility Costs	Maintenance .....	.....	
	Debt Service .....	35	14
<b>Total Costs</b> .....		35	14
Impact on Water or Sewer Rate.....			

**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	7,054
Present Cost Estimate	7,301
Approved Request, Last FY	3,815
Total Expenditures & Encumbrances	1,138
Approval Request FY 13	2,363
Supplemental Approval Request Current FY (12)	

**G. Status Information**

Land Status: No land or R/W required  
 % Project Completion: C-0%  
 Est. Completion Date: October 2012

**H. Map Map Reference Code:**

**MAP NOT AVAILABLE**

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

**Agency Number: S - 94.12**

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

The anticipated project start date is July 1, 2011, which corresponds to the draft NPDES permit start date. The WSSC will request a waiver of the NPDES permit requirements if necessary.

**COORDINATION**

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

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