Resolution No.: 18-156  
Introduced: May 21, 2015  
Adopted: May 21, 2015

COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND

By: County Council

SUBJECT: Approval of the FY 2016-2021 Capital Improvements Program for the Washington Suburban Sanitary Commission

Background

1. As required by Section 23-304 of the Public Utilities Article of the Maryland Code, before October 1 of each year, the Washington Suburban Sanitary Commission (WSSC) must prepare and submit to the County Executive and County Council of Montgomery County a 6-year Capital Improvements Program (CIP) for water and sewer facilities.


3. On January 15, 2015, the County Executive transmitted his recommendations regarding the FY 2016-2021 WSSC CIP.

4. Section 23-306 of the Public Utilities Article of the Maryland Code authorizes the Council to approve, disapprove, or modify the WSSC CIP.

5. Section 23-305 of the Public Utilities Article of the Maryland Code requires that before final action on the WSSC CIP is taken, public hearings must be held on the Program. The Council held a public hearing on the CIP on February 24, 2015.

6. The Council considered the recommendations of the Executive and the Montgomery County Planning Board regarding the CIP and reviewed the project description forms.

7. The Council recognizes that the information and documentation contained in the CIP are an integral part of the Comprehensive Water Supply and Sewerage Systems Plan which must be submitted to the State Department of the Environment in accordance with Section 9-501 et seq. of the Environment Article of the Maryland Code.

8. On May 7, 2015, the Montgomery County and Prince George's County Councils jointly reviewed their respective proposed additions to, deletions from, increases to, and decreases in the WSSC capital and operating budgets and further considered all proposed changes. The Councils agree on changes to the WSSC Proposed CIP.
Action

The County Council for Montgomery County, Maryland approves the following resolution for the Washington Suburban Sanitary Commission:

1. The Council approves the projects in the WSSC Proposed CIP for FY 2016-2021 as transmitted on October 1, 2014, except those projects which are approved as modified by the Montgomery and Prince George’s County Councils. Amended project description forms are attached to this resolution and are identified by the following WSSC project numbers:

   S-22.06, S-22.07, S-22.09, S-22.10, S-22.11, S-96.15, S-96.16

2. The Council approves the close out of the projects in Part I.

This is a correct copy of Council action.

Linda M. Lauer, Clerk of the Council
### A. Identification and Costing Information

- **Project Number/Agency Number**: 088411
- **Update Code**: Change
- **Project Name**: Blue Plains WWTP
- **Program**: Sanitation
- **Agency**: WSRC
- **Planning Area**: Bi-County

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

<table>
<thead>
<tr>
<th>Cost Elements</th>
<th>(9) Total FY 14</th>
<th>(10) Thr 06/30/14</th>
<th>(11) Total FY 15</th>
<th>(12) Year 1 FY 16</th>
<th>(13) Year 2 FY 17</th>
<th>(14) Year 3 FY 18</th>
<th>(15) Year 4 FY 19</th>
<th>(16) Year 5 FY 20</th>
<th>(17) Year 6 FY 21</th>
<th>(18) Beyond 9 Years</th>
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<tbody>
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<td>Site Improvements &amp; Utilities</td>
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<td>196</td>
<td>94</td>
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<td>16,924</td>
<td>16,596</td>
<td>9,828</td>
<td>8,021</td>
<td>6,870</td>
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</table>

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

- **WSRC Bonds**: 322,661, 224,454, 117,902, 75,802, 7,000, 10,000, 17,787, 19,003, 8,598, 5,278, 11,878
- **City of Rockville**: 16,000, 13,271, 822, 4,502, 440, 873, 1,091, 1,104, 523, 381, 820

### D. Description & Justification

**DESCRIPTION**

This project provides funding for WSRC's share of Blue Plains liquid train projects for which construction began after June 30, 1985. Major projects include: Filtration and Disinfection Rehabilitation, Raw-Water Pumping Station No. 2, Dual-Purpose Sedimentation Basins Rehabilitation, Primary Treatment Facility Upgrade Phase II, and Hachet-Chamber Bypass 1.2. The service area is Bi-County Area, with a capacity of 370 MGD.

**JUSTIFICATION**

- **Plains & Studies**: Blue Plains Intermunicipal Agreement of 2012, the DCWASA Master Plan (1999), and the DCWASA Approved FY 2014 Capital Improvements Program.
- **Specific Data**: This is a continuation of the DCWASA's upgrading of the Blue Plains Westwater Treatment Plant.
- **Cost Change**: Cost increases are primarily due to revised estimates for the Dual-Purpose Sedimentation Basins Rehabilitation, Filtration/Disinfection Plant Rehab Phase II, Effluent Filter Upgrades, Replated Upgrade Filter screens. Several projects within this program also experienced higher than estimated expenditures caused by project changes.

**STATUS**: Not Applicable

**OTHER**

The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast of spending and DCWASA's latest project management data, and fully reflects DCWASA's current cost estimates and expenditure schedule. This open-ended nature of the Blue Plains projects, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

**COORDINATION**

City of Rockville (responsible for a share of funding), District of Columbia Water & Sewer Authority (responsible for design and construction), and WSRC Project E-22.20, Blue Plains WWTP: Enhanced Nutrient Removal.

**NOTE**: This project supports 50% System Improvement.
A. Identification and Coding Information

1. Project Number Agency Number Update Code
   954812 S-22.07 Change

2. Date: October 1, 2014

3. Project Name: Blue Plains WWTP: Biosolids Management, Part 2

4. Program: Sanitation 6. Planning Area: Bi-County

5. Agency: WSSC

B. Expenditure Schedule (600's)

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<tr>
<th>Cost Elements</th>
<th>(6) Total</th>
<th>(7) Thru FY 14</th>
<th>(8) Estimate FY '15</th>
<th>(9) Total 5 Yrs</th>
<th>(10) 6 Yrs</th>
<th>(11) Year 1 FY '16</th>
<th>(12) Year 2 FY '17</th>
<th>(13) Year 3 FY '18</th>
<th>(14) Year 4 FY '19</th>
<th>(15) Year 5 FY '20</th>
<th>(16) Year 6 FY '21</th>
<th>(17) Beyond 8 Years</th>
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<td>Planning, Design &amp; Supervision</td>
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<td>124,504</td>
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<td>1,144</td>
<td>511</td>
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<td>1,425</td>
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<td>Site Improvements &amp; Utilities</td>
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</tr>
<tr>
<td>Construction</td>
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<td>35,410</td>
<td>24,585</td>
<td>3,199</td>
<td>5,873</td>
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<td>2,720</td>
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<td>C. Funding Schedule (600's)</td>
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<td>WSSC Bonds</td>
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</table>

C. Description & Justification

DESCRIPTION
This project provides funding for WSSC's share of the Blue Plains biosolids handling projects for which construction began after June 30, 1983. Major projects include: new Digestion Facilities, Gravity Thickeners Facilities, and Solids Processing Building/Dewatered Sludge Loading Facility.

Service Area: Bi-County Area

Capacity: 370 MGD

JUSTIFICATION
Plants & Studies
The Blue Plains Intermunicipal Agreement of 2012; the DOWASA Master Plan (1986); EPMC IV Facility Plan, CH2MHILL (2001); the Biosolids Management at DOWASA Blue Plains Wastewater Treatment Plant Phase II - Design and Cost Considerations for Treatment Alternatives Report (December 2007); and the DOWASA Approved FY 2014 Capital Improvement Program.

Specific Data
This project is needed to implement a set of facilities which will provide a permanent biosolids management program for Blue Plains.

Cost Change
Cost increase is due to revised higher estimates for Gravity Thickeners Upgrade(s) and Dewatering Additional Centrifuges, and the addition of Combined Heat and Power as backup power project.

STATUS
Not Applicable

OTHER
The project scope has remained the same. Project costs are derived from the DOWASA Capital & Operating Budget 10-year forecast of spending and DOWASA's latest project management data, and fully reflect DCWASA's current cost estimates and expenditure schedules. Given the open-ended nature of the Blue Plains projects, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

COORDINATION
City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

NOTE
This project supports 100% System Improvement.
**B. Expenditure Schedule (000's)**

<table>
<thead>
<tr>
<th>Cost Elements</th>
<th>(8) Total</th>
<th>(9) FY '14</th>
<th>(10) FY '15</th>
<th>(11) FY '16</th>
<th>(12) FY '17</th>
<th>(13) FY '18</th>
<th>(14) FY '19</th>
<th>(15) FY '20</th>
<th>(16) FY '21</th>
<th>(17) Beyond 6 Years</th>
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</thead>
<tbody>
<tr>
<td>Planning, Design &amp; Supervision</td>
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<td>Site Improvements &amp; Utilities</td>
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<td>4,974</td>
<td>6,204</td>
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<td>9,618</td>
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<td>59</td>
<td>63</td>
<td>64</td>
<td>86</td>
<td>214</td>
<td>140</td>
<td>310</td>
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<td>4,965</td>
<td>6,827</td>
<td>6,478</td>
<td>21,677</td>
<td>14,775</td>
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</table>

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

| WSSC Bonds                        | 270,780   | 171,853    | 9,706       | 58,790      | 5,049       | 6,027       | 6,117       | 8,211       | 20,393      | 13,398              | 29,630              |
| City of Rockville                  | 16,727    | 9,970      | 564         | 3,472       | 326         | 350         | 355         | 477         | 1,184       | 778                | 1,721               |

**D. Description & Justification**

**Description**
This project provides funding for WSSC's share of Blue Plains plant-wide projects for which construction began after June 30, 1993. Major projects include: Plant-wide Program Management; comprehensive Management Program; Electrical Power Systems - Switch Gear; Instrumentation, Control, and Electric Engineering Project Management Consultant; New Warehouse Facility; and Control Office Facility (COF) Renovations and Additions. Control System Replacement and Upgrades have been added to this project.

**Service Area** Bi-County Area

**Capacity** 370 MGD

**JUSTIFICATION**

**Plans & Studies**
The Blue Plains Intermunicipal Agreement of 2012; the WASA Master Plan (1998); and the DCWASA Approved FY 2014 Capital Improvement Program.

**Specific Data**
This is a continuation of the DCWASA's upgrading of the Blue Plains Wastewater Treatment Plant.

**Cost Change**
Cost increase is due to the addition of Control System upgrade projects and revised higher estimates for other projects in the program.

**STATUS** Not Applicable

**OTHER**
The project scope has remained the same. Project costs are derived from the DCWASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost.

**COORDINATION**
City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

**NOTE** This project supports 100% System Improvement.
A. Identification and Coding Information
1. Project Number: 083800
2. Agency Number: S-22 10
3. Project Name: Blue Plains WWTP: Enhanced Nutrient Removal
4. Program: Sanitation
5. Agency: WSSC

B. Expenditure Schedule (000's)

<table>
<thead>
<tr>
<th>Cost Elements</th>
<th>(8) Total</th>
<th>(9) Thru FY 14</th>
<th>(10) FY 15</th>
<th>(11) Total 9 Years</th>
<th>(12) Year 1</th>
<th>(13) Year 2</th>
<th>(14) Year 3</th>
<th>(15) Year 4</th>
<th>(16) Year 5</th>
<th>(17) Year 6</th>
<th>(18) Beyond 6 Years</th>
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<tr>
<td>Construction</td>
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<td>910</td>
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<td>Total</td>
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<td>644</td>
<td>1,030</td>
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</table>

C. Funding Schedule (000's)

| WSSC Bonds                           | 161,872   | 33,930         | 38,143     | 86,688             | 40,911       | 28,412      | 19,585      | 1,271       | 230         | 217         | 973                 |
| State Aid                            | 215,108   | 150,034        | 21,230     | 43,840             | 21,997       | 9,159       | 8,968       | 2,047       | 1,357       | 314         |                    |
| City of Rockville                    | 9,391     | 1,971          | 2,215      | 5,148              | 2,376        | 1,534       | 1,138       | 74          | 13          | 13          | 57                  |

D. Description & Justification
DESCRIPTION
This project provides funding for WSSC's share of the Blue Plains Enhanced Nutrient Removal projects required to achieve nutrient removal to levels below BNR levels to meet the Chesapeake Bay water quality targets determined in the 2006 Tributary Strategies Process. Sub-projects include: Nitrogen Removal Facilities, Centrate Treatment, Enhanced Clarification Facility, Blue Plains Tunnel and Dewatering Pumping Station, and Program Management.

SERVICE AREA: Bi-County Area

CAPACITY: 370 MGD

JUSTIFICATION

- Planes & Studies
  Chesapeake Bay Program Tributary Strategies Process (2005); Blue Plains Strategic Process Study, Metcalf & Eddy (2003); Selection of the Enhanced Nitrogen Removal Process Alternative for the Blue Plains Advanced Wastewater Treatment Facility, Metcalf & Eddy (2009); DCWASA Approved FY 2014 Capital Improvement Program, and the Blue Plains Inter-municipal Agreement of 2012.

- Specific Data
  The funding schedule reflects the final cost sharing agreement with the Maryland Department of the Environment.

- Cost Change
  Not applicable.

- STATUS
  Not Applicable (WSSC Contract Nos. CB4168L05, CB4168Q05).

- OTHER
  The project scope has remained the same. Project costs are derived from the DCWASA Capital Operating Budget 10-year forecast and latest project management data, and reflect DCWASA's current expenditure estimates and schedules. Total Nitrogen Secondary Treatment Upgrades will take place after 2021. Projects extending beyond those supported by State Aid include rehabilitation and upgrades to older projects.

- COORDINATION
  Maryland Department of the Environment, U.S. Environmental Protection Agency, Region III and District of Columbia Water & Sewer Authority (responsible for design and construction).

- NOTE
  This project supports 100% Environmental Regulation.

E. Annual Operating Budget Impact (000's)

<table>
<thead>
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<th>Other</th>
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<tr>
<td>Facility Costs</td>
<td>Maintenance</td>
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<td>Total Costs</td>
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Impact on Water or Sewer Rate: 29

F. Approval and Expenditure Data (000's)

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<th>FY 06</th>
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<td>FY 07</td>
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<td>Cost Estimate Last FY</td>
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<td>Present Cost Estimate</td>
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<tr>
<td>Approved Request, Last FY</td>
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<td>Total Expenditures &amp; Encumbrances</td>
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<td>Approval Request FY 18</td>
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<td>Supplemental Approval Request Current FY 15</td>
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G. Status Information

- Land Status: Not applicable
- % Project Completion: On-Going
- Est. Completion Date: On-Going

H. Map

- Map Reference Code:

MAP NOT AVAILABLE
### A. Identification and Coding Information
- **Project Number** 113645
- **Agency Number** 0.0
- **Update Code** S-22.11
- **Revised** May 7, 2015

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

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<th>10</th>
<th>11</th>
<th>12</th>
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<th>18</th>
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<td>152</td>
<td>872</td>
<td>218</td>
<td>195</td>
<td>127</td>
<td>136</td>
<td>117</td>
<td>78</td>
<td>209</td>
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<tr>
<td>Site Improvements &amp; Utilities</td>
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<td>42,792</td>
<td>10,272</td>
<td>68,303</td>
<td>17,130</td>
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<td>9,802</td>
<td>11,007</td>
<td>9,327</td>
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<tr>
<td>Construction</td>
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<td>152</td>
<td>872</td>
<td>218</td>
<td>195</td>
<td>127</td>
<td>136</td>
<td>117</td>
<td>78</td>
<td>209</td>
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<tr>
<td>Total</td>
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<td>54,284</td>
<td>15,369</td>
<td>88,034</td>
<td>22,007</td>
<td>19,815</td>
<td>12,801</td>
<td>13,748</td>
<td>11,808</td>
<td>7,865</td>
<td>21,104</td>
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</tr>
</tbody>
</table>

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

- **WSSE Bonds**
  - 172,317 | 53,012 | 14,950 | 85,141 | 21,557 | 19,129 | 12,174 | 13,182 | 11,465 | 7,834 | 19,214 |

### D. Description & Justification

**DESCRIPTION**

This project provides funding for WSSE’s share of Blue Plains-associated projects which are “outside the fence” of the treatment plant. Major projects include: Potomac Interceptor Rehabilitation; Upper Potomac Interceptor; Potomac Sewage Pumping Station Rehabilitation; influent Sewers Rehabilitation; and projects associated with the Combined Sewer Overflow (CSO) Long Term Control Plan (e.g., Anacostia Tunnel).

**JUSTIFICATION**

- **Plans & Studies**
  - Blue Plains Intermunicipal Agreement of 2012; WASA Master Plan (1996); Technical Memorandum No. 1, Multi-Jurisdictional Use Facilities Capital Cost Allocation, (June 2013); and the DCCWASA Approved FY 2014 Capital Improvement Program.
- **Specific Data**
  - This is a continuation of DCCWASA’s upgrading of the Blue Plains-associated projects outside the fence.
- **Cost Change**
  - Cost increase is due to revised higher estimates for projects to rehabilitate DCCWASA interceptor sewers and pumping stations that carry WSSC wastewaters to the Blue Plains WWTP, and the addition of creekbed sewer rehabilitation projects.

**STATUS**

Not Applicable

**OTHER**

The project scope has remained the same. Project costs are derived from the DC-WASA Capital & Operating Budget 10-year forecast and latest project management data, and reflect WASA’s current expenditure estimates and schedules. Given the open-ended nature of the project, this PDF does not fully reflect the total project costs. These projects are, in fact, expected to continue indefinitely. As new sub-projects are added to the Blue Plains facility plans, the associated costs will be added to this project. The funding schedule also indicates the calculated Rockville share of the cost which varies by project based on the City's relative share of WSSC's flow as derived in the Multi-Jurisdiction Use Facilities Study.

**COORDINATION**

City of Rockville (responsible for a share of funding) and District of Columbia Water & Sewer Authority (responsible for design and construction).

**NOTE**

This project supports 45% System Improvement and 55% Environmental Regulation.
### B. Expenditure Schedule (000's)

<table>
<thead>
<tr>
<th>Cost Elements</th>
<th>(8)</th>
<th>(9) Total FY '14</th>
<th>(10) Estimate FY '15</th>
<th>(11) Total 6 Years</th>
<th>(12) Year 1</th>
<th>(13) Year 2</th>
<th>(14) Year 3</th>
<th>(15) Year 4</th>
<th>(16) Year 5</th>
<th>(17) Year 6</th>
<th>(18) Beyond 6 Years</th>
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</thead>
<tbody>
<tr>
<td>Planning, Design &amp; Supervision</td>
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<td>8,000</td>
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<td>Land</td>
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<td>Site Improvements &amp; Utilities</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Construction</td>
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<td>5,600</td>
<td>5,600</td>
<td>1,800</td>
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<td>659</td>
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<td>7,139</td>
<td>2,357</td>
<td>765</td>
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</table>

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

| WSSC Bonds                             | 20,966| 66               | 20,900               | 1,485             | 1,375        | 7,249        | 7,139        | 2,357        | 765          |              |                     |

### D. Description & Justification

**DESCRIPTION**

This project will provide for the planning, design and construction of a Post-Lime Stabilization Plant for the treatment of post-clarified wastewater at the Prince George's County Biosolids Master Plan, Post Buoys Site. The facilities will be designed to handle 2 mgd of average daily flow at a concentration of 30 mgd, and include a new solids building, sludge thickening and dewatering facility, and post lime stabilization. The design will include a new odur control equipment added to the headworks facilities. The Service Area is Piscataway Creek Drainage Basin.

**JUSTIFICATION**

Plots & Studies

Update to the Prince George's County Biosolids Master Plan, Post Buoys Site. Conceptual Design- Western Branch SSI Upgrades, HDR (February 2014)

Specific Data

Piscataway WWTP's solids handling system consists of two stage sludge gravity thickeners (primary sludge and waste sludge in the first stage), where lime and water (slaked lime) is added (pumped) and mixed between the first and second stage thickeners. The pre-lime stabilization system was constructed during the 1970's, before the post lime stabilization was developed commercially.

Numerous studies have shown that it is more cost effective to add lime after dewatering than to add lime in the liquid solids. Lime added to liquid solids creates much more solids to dispose of and is very abrasive to equipment. Additionally, it takes much more lime to increase the solids to pH+11 when added to the liquid solids. The disadvantages of the pre-lime system have been: additional routine maintenance, reduced equipment service life, use of more lime, and increased biosolids trucking and hauling costs.

In addition, the high concentration of lime and other components in the dewatering sidestream returned to the Piscataway Raw WWTP has caused reduction in capacity of the plant drain system and reduction in capacity of the Piscataway Raw WWTP which could lead to Sanitary Sewer Overflows during wet weather events.

**Cost Change**

Not applicable.

**STATUS**

Planning

**OTHER**

The project scope was developed for the FY 2016 CIP and has a total estimated cost of $20,966,000. Expenditure and schedule projections shown in Block B above are Order of Magnitude estimates and are expected to change as the project moves into design.
D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 96.15
Project Name: Placatwey WWTP Post Lime Stabilization

and construction. This project had been deferred pending a decision on the final siting for the new Anaerobic Digester/Combined Heat & Power project. It now must be included in the FY 2016 CIP so that preliminary planning work can begin. In the event that WSSC project S-103.02, Anaerobic Digester/Combined Heat & Power is approved to proceed to design in FY 2015 this project will not be needed, the project may be removed from the CIP, and the capital cost will be avoided.

COORDINATION

Prince George's County Government, Maryland Department of the Environment and WSSC Projects S-103.02, Anaerobic Digestion/Combined Heat & Power and S-96.14, Placatwey WWTP Facility Upgrades.

NOTE
This project supports 100% System Improvement.
### A. Identification and Coding Information
- **Date:** October 1, 2014
- **Agency:** WSSC
- **Project Number:** S-56.10
- **Project Name:** Piscataway WWTP Backup Generators
- **Program:** Sanitation
- **Planning Area:** Accokeek P.A. 83

### B. Expenditure Schedule (000’s)

<table>
<thead>
<tr>
<th>Cost Elements</th>
<th>(8) Total</th>
<th>(9) Thru FY 14</th>
<th>(10) Estimate FY 15</th>
<th>(11) Total 6 Years</th>
<th>(12) Year 1 FY 16</th>
<th>(13) Year 2 FY 17</th>
<th>(14) Year 3 FY 18</th>
<th>(15) Year 4 FY 19</th>
<th>(16) Year 5 FY 20</th>
<th>(17) Year 6 FY 21</th>
<th>(18) Beyond 6 Years</th>
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</thead>
<tbody>
<tr>
<td>Planning, Design &amp; Supervision</td>
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</tr>
<tr>
<td>Site Improvements &amp; Utilities</td>
<td>21,873</td>
<td>65</td>
<td>21,808</td>
<td>1,207</td>
<td>7,250</td>
<td>12,086</td>
<td>1,285</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>21,873</strong></td>
<td><strong>65</strong></td>
<td><strong>21,808</strong></td>
<td><strong>1,207</strong></td>
<td>7,250</td>
<td>12,086</td>
<td>1,285</td>
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</tbody>
</table>

### C. Funding Schedule (000’s)
- **WSSE Bonds:** 21,873
  - Thru FY 14: 65
  - Estimate FY 15: 21,808
  - Total 6 Years: 1,207
  - Year 1 FY 16: 7,250
  - Year 2 FY 17: 12,086
  - Year 3 FY 18: 1,285

### D. Description & Justification
**DESCRIPTION:**
This project provides for the planning, design, and construction of an on-site diesel generation facility at the Piscataway WWTP Treatment Plant. The facility will consist of two (2) 2,725 kW engine-generator sets, rated at 2,725 kW total capacity.

**Service Area:** Piscataway Creek Drainage Basin

**JUSTIFICATION:**
- **Plants & Studies:** Power Reliability Analysis and Conceptual Design for the Piscataway WWTP backups.
- **Groups & Associates (June 2013):**
- **Specific Data:**
  - In recent years, WSSC has experienced an increase in power outages, at the site. This increase in the number of outages, at critical treatment and pumping facilities, the consequences of such power outages can be disruptive to the overall service delivery to a potential compromise of public health and safety, and also include emission of pollution into the environment.
  - Potential line failures, potential loss of power to treatment plants, and increased regulatory involvement. To address these concerns, WSSC has undertaken a comprehensive analysis of emergency power supply needs for major pumping stations and treatment facilities for both water and wastewater.
  - Piscataway WWTP is currently supplied by SMECO through four 12.47 kV lines, all four lines are fed from the same high voltage source. In October 2010 and August 2011, the plant experienced complete power outages (all four 12.47 kV lines disrupted at the same time). The analysis revealed that the existing small diesel generator at the Piscataway WWTP is inadequate to provide power to the entire facility during a power outage.
  - The analysis revealed that the selection of two (2) 2,725 kW generators to supply electricity to plant processes in the event of a complete utility power outage. A priority ranking was assigned to each facility that was studied during the analysis, with the facilities receiving higher priority rankings to be upgraded first. The Piscataway WWTP was ranked 2nd of the twenty-two facilities which were ranked, behind only the Potomac Water Filtration Plant.
- **Cost Change:** Not applicable.

**STATUS:** Planning

**OTHER:**
The project scope was developed for the FY 2016 CIP and has a total estimated cost of $21,873,000. Expenditure and schedule projections shown in Block B above are planning level estimates and are expected to change as the project moves into design and construction. The need for this project was first identified in WSSC Project W-73.18 Power Reliability and Arc Flash Implementation. Expenditures shown in FY ‘15 were transferred from the Power Reliability project. This project has been deferred pending a decision.

### E. Annual Operating Budget Impact (000’s)

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<th>FY of Impact</th>
<th>Program Costs</th>
<th>Staff</th>
<th>Facility Costs</th>
<th>Maintenance</th>
<th>Debt Service</th>
<th>Total</th>
<th>Impact on Water or Sewer Rate</th>
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</thead>
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### F. Approval and Expenditure Data (000’s)

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<td>Date First Approved</td>
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<td>Initial Cost Estimate</td>
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<td>Cost Estimate Last FY</td>
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<tr>
<td>Present Cost Estimate</td>
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<tr>
<td>Approved Request, Last FY</td>
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<tr>
<td>Total Expenditures &amp; Encumbrances</td>
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</tr>
<tr>
<td>Approval Request FY 16</td>
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</tr>
<tr>
<td>Supplemental Approval Request</td>
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</tr>
<tr>
<td>Current FY (15)</td>
<td></td>
</tr>
</tbody>
</table>

### G. Status Information
- **Land Status:** No land or ROW required
- **% Project Completion:** P-75%
- **Est. Completion Date:** FY 2019

### H. Map
- **Map Reference Code:**
- **MAP NOT APPLICABLE**
D. DESCRIPTION & JUSTIFICATION (CONT.)

Agency Number: S - 96.16  
Project Name: Piscataway WWTP Backup Generator

on the final siting for the new Anaerobic Digester/Combined Heat & Power project. It now must be included in the FY 2016 CIP so that preliminary planning work can begin. In the event that WSSC project S-103.02, Anaerobic Digester/Combined Heat & Power is approved to proceed to design in FY 2015 this project will not be needed, the project may be removed from the CIP, and the capital cost will be avoided.

COORDINATION

Prince George's County Government, Maryland Department of the Environment and WSSC Projects S-103.02, Anaerobic Digester/Combined Heat & Power and S-96.14, Piscataway WWTP Facility Upgrades.

NOTE  This project supports 100% System Improvement.
PART I: WASHINGTON SUBURBAN SANITARY COMMISSION
CAPITAL PROJECTS TO BE CLOSED OUT

The Washington Suburban Sanitary Commission has authorized the close out of the following Montgomery County and Bi-County Projects.

<table>
<thead>
<tr>
<th>COUNTY NUMBER</th>
<th>CATEGORY</th>
<th>PROJECTS</th>
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<tr>
<td>023800</td>
<td>Montgomery</td>
<td>Laytonsville Elevated Tank &amp; Pumping Station</td>
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<tr>
<td>123800</td>
<td>Montgomery</td>
<td>Montgomery College Germantown Campus Sewer</td>
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<tr>
<td>033811</td>
<td>Bi-County</td>
<td>Potomac WFP Improvements</td>
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<tr>
<td>973817</td>
<td>Bi-County</td>
<td>Blue Plains WWTP: Biological Nutrient Removal</td>
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Washington Suburban Sanitary Commission