

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

# FY 2015 Sewage Disposal System Capital Improvement Program

Fiscal Years 2015 Through 2019

**Mike Duggan, Mayor**  
City of Detroit

Administration

Sue F. McCormick, Director  
Darryl A. Latimer, Deputy Director  
William Wolfson, General Counsel/  
Chief Administrative/Compliance Officer  
Nicolette Bateson, Chief Financial Officer  
Cheryl Porter, Chief Operating Officer  
Syed Ali, P.E., Head Engineer  
Capital Management Group

Board of Water Commissioners

James Fausone, Esq., Chairperson  
Bradley Kenoyer, Vice Chairperson  
Fred Barnes, P.E.  
Mary E. Blackmon  
Linda D. Forte  
Conrad L. Mallett Jr.  
J. Bryan Williams

Detroit City Council

Brenda Jones, President  
George Cushingberry Jr., President Pro Tem  
Saunteel Jenkins.  
James Tate  
Scott Benson  
Andre' L. Spivey  
Mary Sheffield  
Raquel Castaneda-Lopez  
Gabe Leland

Janice M. Winfrey, City Clerk

**Sewage Disposal System  
Capital Improvement Program  
Fiscal Years 2014-15 Through 2018-19**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**Table of Contents**

Executive Management Team .....	1
Overview and Definitions .....	2
Capital Improvement Program Executive Summary.....	4
Summary of Projected Expenditures Spread by Fiscal Year .....	5
Projected Expenditures Spread by Fiscal Year .....	7
Summary of Mandate and Allocation Status by Fiscal Year.....	10
Project Detail Sections.....	14
Ongoing Projects .....	14
Active .....	14
Under Procurement.....	25
Pending Close-Out.....	28
New Projects.....	33

## **Executive Management Team**

**Sue F. McCormick, Director**  
**Darryl A. Latimer, Deputy Director**  
**Nicolette Bateson, Chief Financial Officer**  
**William Wolfson, General Counsel/Chief Administrative/Compliance Officer**  
**Cheryl Porter, Chief Operating Officer**  
**Dan Rainey, Information Technology Director**  
**W. Barnett Jones, Chief Security Officer**  
**Terri Conerway, Organizational Development Director**

## **Capital Management Group**

**Syed Ali, P.E., Head Engineer**  
**Corey Thomas**

**Sewage Disposal System  
Detroit Water and Sewerage Department  
Capital Improvement Programs**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**OVERVIEW**

The attached report summarizes the capital planning agenda for the DWSD Sewage Disposal System. This should be considered a planning document – the CIP is a dynamic and evolving plan that requires continual review and modification during the course of each year. The estimates indicated in the early years of the attached report are likely more precise than those in the later years. The project descriptions represent brief synopses of the entire project scope; these descriptions are generally more precise for ongoing active projects than for planned new projects, where specific project activities may have yet to be determined.

**DEFINITIONS**

**Funded Portion of the Programs**

The Water System and Sewerage System capital improvement programs cover a five fiscal year planning horizon. However, only the first year or two of the programs are actually funded. The Department uses the pay as you go method of capital project funding rather than financing projects 100% in advance. The Department's capital financing strategy is designed to align capital project financing sources with program requirements in a framework that balances multiple goals, including: (a) recover the costs of capital investment over the useful lives of the capital assets; (b) minimize the impact of the capital programs on water and sewerage rates; and (c) protect and enhance the Department's financial position.

**Projected Expenditures Spread by Fiscal Year**

In the Water System and Sewerage System capital improvement programs, when project funding requirements are displayed spread by fiscal year, the dollar amount shown for the projects is the estimated expenditures for each fiscal year throughout the life of the projects. This type of presentation identifies what the financial requirements would be, using the pay as you go method of financing, which is the method currently in use by DWSD.

**Project Types**

The typical capital project consists of three distinct phases: study, design and construction. In some cases, phases are combined, such as study/design or design/construction. For capital program purposes, each phase is considered a separate project. Financing is committed only for the current project phase, and not for any subsequent phase until that phase has been authorized to start. Project identified as ongoing have been authorized to start by the director and the work is underway. Project identified as new have not yet started.

**Project Detail Sections**

Active Project: is a project that has an assigned DRMS number, been issued the Notice to Start Work, had expenditures in the last fiscal year and has projected expenditures of more than \$100,000 in the current fiscal year.

Project On Hold: is a project that may or may not have an assigned DRMS number, experienced expenditures or no expenditures in previous fiscal year(s), and/or has no projected expenditures in the current fiscal year or future fiscal years.

**Sewage Disposal System  
 Detroit Water and Sewerage Department  
 Capital Improvement Programs**

Amended FY 2015 CIP  
 BOWC Approved  
 July 9, 2014

Projects Under Procurement: is a project that has an assigned DRMS number and has not been issued Notice to Start Work.

Projects Pending Close-out: is a project that has an assigned DRMS number, been issued the Notice to Start Work, has projected expenditures for the current fiscal year equal to \$100,000 or less – with no further projected expenditures, and has been substantially completed.

New Project: is a project that does not have an assigned DRMS number, has a proposal, and has never had expenditures charged to it.

**Primary Project Purpose**

- 1 – Directly mandated projects (Specific projects mandated by regulatory agencies or court ordered)
- 2 – Projects mandated by regulatory requirements to maintain compliance
- 3 – Projects required to maintain or improve system reliability and/or capacity
- 4 – Projects that utilize technological advances to improve operational efficiency, worker productivity and/or managerial effectiveness
- 5 – Projects required for new service

**Allocation Status**

- D – Detroit Only
- S – Suburban Only
- M – Macomb Only
- C/O – Clinton/Oakland Only
- C/O & M – Clinton/Oakland and Macomb
- 83/17 – New Wet Weather Facility
- CTA - Common To All
- OMID – Oakland Macomb Interceptor District

**Project Types**

- S – Study; S/D – Study and Design; S/D/C – Study, Design and Construction;
- S/D/CA – Study, Design and Construction Assistance
- D – Design; DB – Design Build; DBA – Design Build Assistance;
- D/C – Design and Construction; D/CA – Design and Construction Assistance
- C – Construction; CA – Construction Assistance;
- CM – Construction Management
- C/CA – Construction and Construction Assistance
- IT – Information Technology Systems
- LS – Legal Services
- PO – Purchase Order

**Legend**

(1) Costs shown represent the Sewage Disposal System’s portion of the project. Refer to the Water CIP for project costs financed by the Water Supply System.

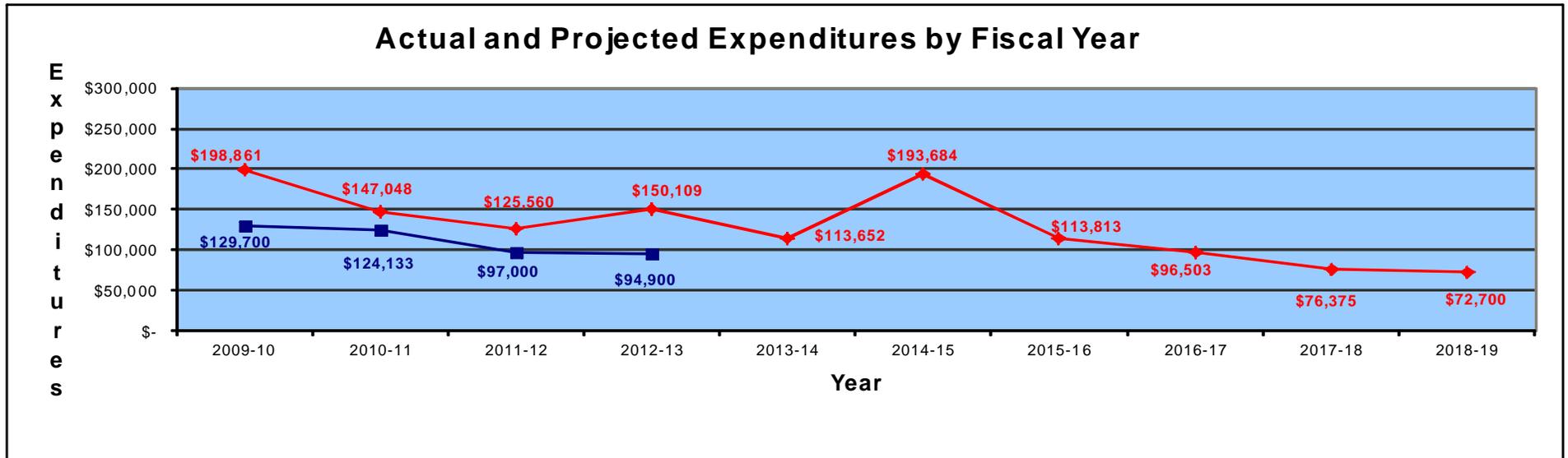
**Sewage Disposal System  
Capital Improvement Program  
CIP Executive Summary**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

(000)

\* For information purposes only. Not  
counted in Total.

Ongoing	Update* 2013-14	2014 - 15	# of Projects	2015 - 16	2016 - 17	2017 - 18	2018 - 19	5 Year Sub Total	Remaining	Total
Active	101,311	164,999	30	62,838	18,378	4,071	0	250,286	5,248	255,534
Under Procurement	200	9,300	3	12,375	13,575	5,254	2,000	42,504	2,200	44,704
Pending Close-out	8,041	185	12	0	0	0	0	185	0	185
<b>Ongoing Total</b>	<b>109,552</b>	<b>174,484</b>	<b>45</b>	<b>75,213</b>	<b>31,953</b>	<b>9,325</b>	<b>2,000</b>	<b>292,975</b>	<b>7,448</b>	<b>300,423</b>
<b>New Projects Total</b>	<b>4,100</b>	<b>19,200</b>	<b>5</b>	<b>38,600</b>	<b>64,550</b>	<b>67,050</b>	<b>70,700</b>	<b>260,100</b>	<b>49,001</b>	<b>309,101</b>
<b>Total CIP</b>	<b>\$113,652</b>	<b>\$ 193,684</b>	<b>50</b>	<b>\$ 113,813</b>	<b>\$ 96,503</b>	<b>\$ 76,375</b>	<b>\$ 72,700</b>	<b>\$ 553,075</b>	<b>\$ 56,449</b>	<b>\$ 609,524</b>



■ Projected Expenditures      ■ Actual (unaudited) Expenditures

**Notations:**

2009-10 thru 2012-13 totals are projected and actual (unaudited) expenditures  
2013-14 thru 2018-19 are projected expenditures

# Summary of Projected Expenditures Spread by Fiscal Year

**Sewage Disposal System  
Capital Improvement Program**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**Summary of Projected Expenditures Spread by Fiscal Year for Ongoing and New Projects**

(000)

	<u>2014 - 15</u>	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>Remaining</u>	<u>Total</u>
<b>Plant</b>							
<b>Primary Treatment</b>	6,998	12,225	12,525	4,047			35,795
<b>Secondary Treatment</b>	6,085	6,847	10,700	7,900		1	31,533
<b>Solids Handling</b>	112,398	51,580	13,628	1,968			179,574
<b>Disinfection</b>	3,201	1,589	4,950	10,200	29,000	51,448	100,388
<b>General Purpose</b>	29,843	15,973	18,100	21,760	17,200		102,876
	<u>\$158,525</u>	<u>\$88,214</u>	<u>\$59,903</u>	<u>\$45,875</u>	<u>\$46,200</u>	<u>\$51,449</u>	<u>\$450,166</u>
<b>Facilities</b>							
<b>Sewer Interceptor System</b>	5,005	5,000	5,000	5,000	5,000		25,005
<b>Combined Sewer System</b>	7,459	6,000	5,100				18,559
<b>Lateral Sewer Replacement</b>	4,972						4,972
<b>Urban System Improvements</b>	9,800	11,000	25,000	24,000	20,000		89,800
<b>Information Technology</b>	7,923	3,599	1,500	1,500	1,500	5,000	21,022
	<u>\$35,159</u>	<u>\$25,599</u>	<u>\$36,600</u>	<u>\$30,500</u>	<u>\$26,500</u>	<u>\$5,000</u>	<u>\$159,358</u>
<b>Ongoing Projects</b>	174,484	75,213	31,953	9,325	2,000	7,448	300,423
<b>New Projects</b>	19,200	38,600	64,550	67,050	70,700	49,001	309,101
<b>TOTAL CAPITAL COSTS</b>	<u>\$193,684</u>	<u>\$113,813</u>	<u>\$96,503</u>	<u>\$76,375</u>	<u>\$72,700</u>	<u>\$56,449</u>	<u>\$609,524</u>

# Projected Expenditures Spread by Fiscal Year

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
(000)**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

	<u>2014 - 15</u>	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>Remaining</u>	<u>Total</u>
<b>Plant</b>							
<b>Primary Treatment</b>							
Ongoing	6,998	8,375	7,025	2,397			24,795
New		3,850	5,500	1,650			11,000
	<u>\$6,998</u>	<u>\$12,225</u>	<u>\$12,525</u>	<u>\$4,047</u>			<u>\$35,795</u>
<b>Secondary Treatment</b>							
Ongoing	6,085	1,347	200	200			7,832
New		5,500	10,500	7,700		1	23,701
	<u>\$6,085</u>	<u>\$6,847</u>	<u>\$10,700</u>	<u>\$7,900</u>		<u>\$1</u>	<u>\$31,533</u>
<b>Solids Handling</b>							
Ongoing	112,198	49,680	10,728	968			173,574
New	200	1,900	2,900	1,000			6,000
	<u>\$112,398</u>	<u>\$51,580</u>	<u>\$13,628</u>	<u>\$1,968</u>			<u>\$179,574</u>
<b>Disinfection</b>							
Ongoing	3,201	1,039	2,200	1,100	2,000	7,448	16,988
New		550	2,750	9,100	27,000	44,000	83,400
	<u>\$3,201</u>	<u>\$1,589</u>	<u>\$4,950</u>	<u>\$10,200</u>	<u>\$29,000</u>	<u>\$51,448</u>	<u>\$100,388</u>
<b>General Purpose</b>							
Ongoing	19,843	2,673	1,800	660			24,976
New	10,000	13,300	16,300	21,100	17,200		77,900
	<u>\$29,843</u>	<u>\$15,973</u>	<u>\$18,100</u>	<u>\$21,760</u>	<u>\$17,200</u>		<u>\$102,876</u>
<b>Plant Total</b>							
Ongoing Projects	148,325	63,114	21,953	5,325	2,000	7,448	248,165
New Projects	10,200	25,100	37,950	40,550	44,200	44,001	202,001
	<u>\$158,525</u>	<u>\$88,214</u>	<u>\$59,903</u>	<u>\$45,875</u>	<u>\$46,200</u>	<u>\$51,449</u>	<u>\$450,166</u>
<b>Facilities</b>							
<b>Sewer Interceptor System</b>							
Ongoing	5						5
New	5,000	5,000	5,000	5,000	5,000		25,000
	<u>\$5,005</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>	<u>\$5,000</u>		<u>\$25,005</u>

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
(000)**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

	<u>2014 - 15</u>	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>Remaining</u>	<u>Total</u>
<b>Combined Sewer System</b>							
Ongoing	7,459						7,459
New		6,000	5,100				11,100
	<u>\$7,459</u>	<u>\$6,000</u>	<u>\$5,100</u>				<u>\$18,559</u>
<b>Lateral Sewer Replacement</b>							
Ongoing	4,972						4,972
	<u>\$4,972</u>						<u>\$4,972</u>
<b>Urban System Improvements</b>							
Ongoing	8,800	10,000	10,000	4,000			32,800
New	1,000	1,000	15,000	20,000	20,000		57,000
	<u>\$9,800</u>	<u>\$11,000</u>	<u>\$25,000</u>	<u>\$24,000</u>	<u>\$20,000</u>		<u>\$89,800</u>
<b>Information Technology</b>							
Ongoing	4,923	2,099					7,022
New	3,000	1,500	1,500	1,500	1,500	5,000	14,000
	<u>\$7,923</u>	<u>\$3,599</u>	<u>\$1,500</u>	<u>\$1,500</u>	<u>\$1,500</u>	<u>\$5,000</u>	<u>\$21,022</u>
<b><u>Facilities Total</u></b>							
Ongoing Projects	26,159	12,099	10,000	4,000			52,258
New Projects	9,000	13,500	26,600	26,500	26,500	5,000	107,100
	<u>\$35,159</u>	<u>\$25,599</u>	<u>\$36,600</u>	<u>\$30,500</u>	<u>\$26,500</u>	<u>\$5,000</u>	<u>\$159,358</u>
<b>Summary - Total Costs</b>							
Ongoing Projects	174,484	75,213	31,953	9,325	2,000	7,448	300,423
New Projects	19,200	38,600	64,550	67,050	70,700	49,001	309,101
<b>TOTAL CAPITAL COSTS</b>	<u><u>\$193,684</u></u>	<u><u>\$113,813</u></u>	<u><u>\$96,503</u></u>	<u><u>\$76,375</u></u>	<u><u>\$72,700</u></u>	<u><u>\$56,449</u></u>	<u><u>\$609,524</u></u>

# Summary of Mandate and Allocation Status by Fiscal Year

**Sewage Disposal System  
Capital Improvement Program  
Summary of Primary Project Purpose & Allocation Status  
Projected Expenditures Spread by Fiscal Year  
(000)**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

<b>SUMMARY BY PRIMARY PROJECT PURPOSE AND ALLOCATION</b>	<u>2014 - 15</u>	<u>2015 - 16</u>	<u>Funded</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>Remaining</u>	<u>Total</u>
<b>Directly Mandated Projects</b>								
New Wet Weather Facility	15	0	15	0	0	0	0	15
Common to All	3,201	1,039	4,240	2,200	9,100	29,000	51,448	95,988
<b>Projects Mandated by Regulatory Requirements to Maintain Compliance</b>								
Detroit Only	159	0	159	0	0	0	0	159
New Wet Weather Facility	7,285	0	7,285	0	0	0	0	7,285
Common to All	136,267	74,002	210,269	44,903	20,115	1,800	1	277,088
<b>Projects Required to Maintain or Improve System Reliability and/or Capacity</b>								
Detroit Only	15,661	11,000	26,661	25,000	24,000	20,000	0	95,661
Common to All	25,361	25,539	50,900	22,900	21,660	20,400	0	115,860
<b>Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness</b>								
Common to All	5,735	2,233	7,968	1,500	1,500	1,500	5,000	17,468
<b>TOTAL</b>	<u>\$193,684</u>	<u>\$113,813</u>	<u>\$307,497</u>	<u>\$96,503</u>	<u>\$76,375</u>	<u>\$72,700</u>	<u>\$56,449</u>	<u>\$609,524</u>

**Sewage Disposal System  
 Capital Improvement Program  
 Summary of Primary Project Purpose & Allocation Status  
 Projected Expenditures Spread by Fiscal Year  
 (000)**

<b>SUMMARY BY ALLOCATION STATUS</b>	<u>2014 - 15</u>	<u>2015 - 16</u>	<u>Funded</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>Remaining</u>	<u>Total</u>
Detroit Only	15,820	11,000	26,820	25,000	24,000	20,000	0	95,820
New Wet Weather Facility	7,300	0	7,300	0	0	0	0	7,300
Common to All	170,564	102,813	273,377	71,503	52,375	52,700	56,449	506,404
<b>TOTAL</b>	<u><u>\$193,684</u></u>	<u><u>\$113,813</u></u>	<u><u>\$307,497</u></u>	<u><u>\$96,503</u></u>	<u><u>\$76,375</u></u>	<u><u>\$72,700</u></u>	<u><u>\$56,449</u></u>	<u><u>\$609,524</u></u>
Detroit Only	8%	10%	9%	26%	31%	28%	0%	16%
New Wet Weather Facility	4%	0%	2%	0%	0%	0%	0%	1%
Common to All	88%	90%	89%	74%	69%	72%	100%	83%

**Sewage Disposal System  
Capital Improvement Program  
Summary of Primary Project Purpose & Allocation Status  
Projected Expenditures Spread by Fiscal Year  
(000)**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

<b>SUMMARY BY PRIMARY PROJECT PURPOSE</b>	<u>2014 - 15</u>	<u>2015 - 16</u>	<u>Funded</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>Remaining</u>	<u>Total</u>
Directly Mandated Projects	3,216	1,039	4,255	2,200	9,100	29,000	51,448	96,003
Projects Mandated by Regulatory Requirements to Maintain Compliance	143,711	74,002	217,713	44,903	20,115	1,800	1	284,532
Projects Required to Maintain or Improve System Reliability and/or Capacity	41,022	36,539	77,561	47,900	45,660	40,400	0	211,521
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness	5,735	2,233	7,968	1,500	1,500	1,500	5,000	17,468
<b>TOTAL</b>	<u>\$193,684</u>	<u>\$113,813</u>	<u>307,497</u>	<u>\$96,503</u>	<u>\$76,375</u>	<u>\$72,700</u>	<u>\$56,449</u>	<u>\$609,524</u>
<b>RELATIVE PERCENTAGE</b>								
Directly Mandated Projects	2%	<1%	1%	2%	12%	40%	91%	16%
Projects Mandated by Regulatory Requirements to Maintain Compliance	74%	65%	71%	47%	26%	2%	<1%	47%
Projects Required to Maintain or Improve System Reliability and/or Capacity	21%	32%	25%	50%	60%	56%	0%	35%
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness	3%	2%	3%	2%	2%	2%	9%	3%

# A - Active Projects

An Active Project is a project that has:

1. an assigned DRMS number
2. been issued the Notice to Start Work
3. had expenditures in the last fiscal year
4. expenditures of more than \$100,000 in the current fiscal year

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 <b>Rehabilitation of Primary Clarifiers, Drain Lines, Hot Water, and Scum Lines</b>	004290	1141	CS-1484	S/D/CA	51	50	100	50	22			222	2	CTA
<i>This project includes rehabilitation of scum collectors, replacement of hot water pipes on scum lines and conveyors for clarifiers # 1 through 12, replacement of sludge conveyance equipment, and sludge cross collectors for clarifiers #5 through 8, and rehabilitation of 12 drain lines from rectangular clarifiers Nos. 3-12. The scope of work shall also include concrete crack repair on floor, wall, and ceiling and clarifiers, etc., installation of large manhole with sum pumps to collect drainage and discharge to clarifier and interceptor to avoid plugging issue.</i>														
2 <b>Pump Station 1 Rack &amp; Grit and MPI Sampling Station 1 Improvements</b>	004420	1189	PC-789	C	748	6,900	6,900	5,600	2,221			21,621	2	CTA
<i>The scope of work includes modifications and improvements of the existing grit and screening handling system at pump stations 1 and MPI Sampling Station 1.</i>														
<b>Secondary Treatment</b>														
3 <b>Secondary Clarifiers, RAS Pumps and MCCs Improvements</b>	004211	1100	PC-776	C	6,291	5,885	1,247					7,132	2	CTA
<i>This project provides new power supply cable to/from the secondary clarifiers and substation MCCs, provide new MCCs at each secondary clarifier, provide short-circuit analysis and fault rating, provide 25 RAS pumps at the secondary clarifiers and complete all miscellaneous electrical work such as replacement of cables, conduit, pull boxes, panels and junction boxes, etc.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
<b>4 Aeration System Improvements</b>	<b>004336</b>	<b>1194</b>	<b>CS-1498</b>	S/D/CA	890	200	100	200	200			700	2	CTA
<i>The scope of work includes study, design, and construction assistance for the oxygen baffle on Bay 10 of A1 &amp; A2 decks, replacement of influent, RAS piping, isolation gate and valves for decks nos. 3 &amp; 4, replace RAS &amp; influent magmeters for ILP nos. 3,4, &amp; 7. The work will also include replacement of influent gates and operators on aeration deck no. 1 &amp; 2.</i>														
<b>Solids Handling</b>														
<b>5 Complex I and Complex II Incinerator Improvements</b>	<b>004169</b>	<b>965</b>	<b>PC-774</b>	DB	7,309	7,594						7,594	2	CTA
<i>This project provides for the designbuild replacement of the Opacity monitors, improvements for Yellow plume reduction and rehabilitation of refractory, brick work and internal components of complex I and II incinerators at the Waste Water Treatment Plant.</i>														
<b>6 Rehabilitate Sludge Pump Stations 1 and 2</b>	<b>004225</b>	<b>607</b>	<b>PC-780</b>	C	952	374						374	2	CTA
<i>This project will provide for general rehabilitation of the Sludge Pump Station Nos. 1 and 2, including sludge pump improvements to meet future sludge loads, heating and ventilation improvements and other miscellaneous building and utility improvements.</i>														
<b>7 Replacement of Upper Level Belt Filter Presses for Complex I &amp; II Dewatering</b>	<b>004284</b>	<b>1144</b>	<b>CS-1483</b>	S/D/CA	136	225	200	31				456	2	CTA
<i>The work will consist of replacement of 10 Belt Filter Presses for Complex I and 12 Upper Level Belt Filter Presses for Complex II Dewatering, SFE booster pumps, sludge belt conveyors, sludge grinders, and all related supportive equipment including control panels and associated wiring.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
<b>8 Replacement of Belt Filter Presses for Complex I and Upper Level Complex II</b>  <i>The work will consist of replacement of 10 Belt Filter Presses for Complex I and 12 Upper Level Belt Filter Presses for Complex II Dewatering, SFE booster pumps, sludge belt conveyors, sludge grinders, and all related supportive equipment including control panels and associated wiring.</i>	<b>004397</b>	<b>1144</b>	<b>PC-787</b>	C	6,918	7,000	4,480	1,331				12,811	2	CTA
<b>9 Sewage Sludge Incinerator Air Quality Improvements at WWTP</b>  <i>This project involves the design and construction for sludge incinerator air quality improvements at Complex I and Complex II Incinerator Facility at WWTP. The scope of work includes installation of new scrubber, ID fan, noise reduction modification, burner train upgrade, installation of conveyance system from Complex I to Complex II as necessary, and air quality control and monitoring equipment.</i>	<b>004426</b>	<b>1253</b>	<b>PC-791</b>	DB	3,776	13,000	12,000	7,000	968			32,968	2	CTA
<b>10 Biosolids Dryer Facility at WWTP</b>  <i>This project provides for study, design and construction of a thermal dryer facility to treat 250 dtpd. The scope of work also includes a conveyance system from Complex I to Complex II and installation of quality control equipment.</i>	<b>004439</b>	<b>1254</b>	<b>PC-792</b>	DB	26,495	84,000	33,000	2,366				119,366	2	CTA

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Disinfection</b>														
11 <b>Study, Design, &amp; Construction Management Services for Modified Detroit River Outfall No. 2 - WWTP</b>	004178	1117	CS-1448	S/D/CA	97	131	5				5,248	5,384	1	CTA
<i>This project will involved limited study, detailed design, preparation of construction plans, and construction management services necessary to implement the modified Detroit River Outfall No. 2 in accordance with NPDES Permit requirements.</i>														
<i>This contract is being used to provide study, design and construction assistance services for RRO-2 Segment 1.</i>														
12 <b>Rouge River Outfall No. 2 (RRO-2) Segment 1 - WWTP Modifications</b>	004395	1235	PC-786	C	3,399	2,570	34					2,604	1	CTA
<i>The scope of work includes installation of new SL-8 Gates, modification of Movable DAM MD-1, and installation of new power pack building. This project will also provide for a hydraulic actuation system for gates MD-3 A/B, MD-4 A/B and SG 41-44, modification of stop logs SL-1 A/B, and replace Chlorination/dechlorination tank car emergency shutoff valves. The project will further include modification of PLC based control system with an Ovation based or Rockwell control system, capping abandon PC-709 entrance shaft, and removal of PC-709 precast tunnel lining segments.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>General Purpose</b>														
13 <b>As-needed Engineering Services (1)</b>	003451	54	CS-1345	D	229	168						168	3	CTA
<i>This project provides rapid design turn-around for a variety of small scale projects which have not been initiated due to lack of in-house engineering staff.</i>														
14 <b>Plant-wide Fire Alarm Systems Upgrade/ Integration and Fire Protection Improvements</b>	004180	1028	CS-1443	S/D/CA	40	112						112	3	CTA
<i>This project involves the necessary study, design, and construction assistance for the installation of an Integrated Plant Wide Fire Alarm System in the approximately 100 buildings (of which 50 + have a standalone fire alarm system) at the WWTP in order to facilitate centralized monitoring and assure faster corrective action. The new system will be interfaced with the existing WWTP Control System so that signals associated with this system can be transmitted over the existing fiber optic cables as a physical media for interconnection of the standalone systems.</i>														
15 <b>Plant-wide Fire Alarm Systems Upgrade/ Integration and Fire Protection Improvements</b>	004180	1028	PC-782	C	3,455	2,869						2,869	3	CTA
<i>This project involves the installation of an Integrated Plant Wide Fire Alarm System in the approximately 100 buildings (of which 50 + have a stand-alone fire alarm system) at the WWTP in order to facilitate centralized monitoring and assure faster corrective action. The new system will be interfaced with the existing WWTP Control System so that signals associated with this system can be transmitted over the existing fiber optic cables as a physical media for interconnection of the standalone systems.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
<b>16 Underground Electrical Duct Bank Repair and EB-1, EB-2, and EB-10 Primary Power Service Improvements - WWTP</b>  <i>This project will include replacement of 15kv Primary Switch Gears A &amp; B, unit substation EB-1, EB-2, and EB-10, unit 5kv substation and switchgear DE-1, and two outdoor 3-phase primary transformers; and repair of building structure and associated components. The work will also include site preparation, installation of new ducts, placement of new electrical cable, coordination of system shut-down, and coordination of system reconnection with new cables.</i>	<b>004181</b>	<b>366</b>	<b>PC-783</b>	C	10,806	10,707						10,707	2	CTA
<b>17 General Engineering Services (1)</b>  <i>This project involves the study, design and construction assistance services for a variety of disciplines including, but not limited to, civil, architectural, structural, geotechnical, hydraulics, mechanical, piping, electrical, and instrumentation in a variety of tasks on an as-needed basis. Further tasks involve one or more DWSD facilities including, but not limited to water treatment plants, water distribution system including booster stations, wastewater treatment plant, wastewater collection systems including pumping stations, combined sewer overflow facilities, and administrative and logistical support facilities.</i>	<b>004207</b>	<b>1031</b>	<b>CS-1432A</b>	D	782	511	222					733	3	CTA
<b>18 As-needed CIP Implementation Assistance and Related Services (1)</b>  <i>This project provides for multi-discipline Engineering services on an "as-needed basis" to support DWSD's Water &amp; Sewer Systems.</i>	<b>004218</b>	<b>956</b>	<b>CS-1433</b>	S/D/CM	849	1,300	851	700	50			2,901	3	CTA
<b>19 General Engineering Services (1)</b>  <i>This project provides for rapid design turn-around for a variety of small scale projects on an as needed basis providing multi disciplinary professional services.</i>	<b>004293</b>	<b>1182</b>	<b>CS-1481</b>	D	972	1,000	1,000	500	323			2,823	3	CTA

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project No.	Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
						2013 - 14									
20	<b>As-needed Engineering Services for Concrete Testing, Geotechnical Soil Borings, other Testing Services, and Related Services (1)</b>	<b>004295</b>	<b>1147</b>	<b>CS-1488</b>	D/C	196	600	600	600	287			2,087	3	CTA
	<i>The scope of work provides for as-needed engineering services for concrete testing, geotechnical soil borings, and other testing and related services.</i>														
21	<b>Geotechnical and Related Services on an As-Needed Basis (1)</b>	<b>004307</b>	<b>1164</b>	<b>CS-1490</b>	D	109	401						401	3	CTA
	<i>The work includes consultant services for geotechnical work on as needed basis. The work also provides for additional engineering/technical services as requested by DWSD.</i>														
22	<b>Department-wide General Engineering Services on an As-needed Basis (1)</b>	<b>004338</b>	<b>1026</b>	<b>CS-1499</b>	D	741	889						889	3	D
	<i>This project involves designing water main and lateral sewer replacement projects for aging and dysfunctional water mains and sewers throughout Detroit under different tasks on an as-needed basis. The work also includes civil, structural, architectural, hydraulics, mechanical, electrical, surveying, instrumentation and piping design services.</i>														
23	<b>Central Services Facility (CSF) Improvements (1)</b>	<b>004399</b>	<b>1188</b>	<b>DWS-884A</b>	C	835	1,207						1,207	4	CTA
	<i>The scope of work includes HVAC system improvements, overhead doors replacement and other structural, mechanical and electrical rehabilitative work at the Central Services Facility (CSF).</i>														

**Sewage Disposal System  
 Capital Improvement Program  
 Projected Expenditures Spread by Fiscal Year  
 Active Projects  
 (000)**

\* For information purposes only. Not  
 counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
<b>Combined Sewer System</b>														
24 Fischer Pumping Station Improvements	004174	1093	CS-1421	S/D/CA 2	275	149						149	2	D
<i>This project involves study, design, and construction assistance services for the rehabilitation of the Fischer Pumping Station.</i>														
25 Hubbell-Southfield CSO Control Facility & In-System Storage Gate Improvements	004424	1190	PC-788	C	12,152	7,285						7,285	2	83/17
<i>The scope of work includes selective repair and rehabilitation of Hubbell-Southfield CSO facility. The work also includes in-system storage gate improvements, upgrades of select process and control equipment installed at Puritan/Fenkell, 7 mile, and Conner Creek RTBs.</i>														
<b>Lateral Sewer Replacement</b>														
26 East Side City of Detroit Sewer Repair Contract for Inspection and In-place Rehabilitation of Existing Circular and Non-Circular Sewers	004341	1201	DWS-876	DB	3,531	2,303						2,303	3	D
<i>This project will provide for inspection and in-place rehabilitation of existing sewers using the construction process, procedures, methods and equipment of trenchless pipeline rehabilitation techniques on an as-needed basis.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Active Projects  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
27 <b>West Side City of Detroit Sewer Repair Contract for Inspection and In-place Rehabilitation of Existing Circular and Non-Circular Sewers</b>	<b>004342</b>	<b>1200</b>	<b>DWS-877</b>	DB	5,449	2,669						2,669	3	D

*This project will provide for inspection and in-place rehabilitation of existing sewers using the construction process, procedures, methods and equipment of trenchless pipeline rehabilitation techniques on an as-needed basis.*

**Information Technology**

28 <b>Data Center Reliability/Availability Improvements (1)</b>	<b>004367</b>	<b>1206</b>	<b>DWS-881</b>	DB	660	1,500	733					2,233	4	CTA
---	---------------	-------------	----------------	----	-----	-------	-----	--	--	--	--	-------	---	-----

*The scope of work consists of designing and building data centers, which will provide system improvements for both power and UPS systems, environmental service, fire protection, structural wiring, and monitoring. This includes the SCC, WBB, Switch Room Central Services Facility, Switch Room WWTP-NAB-B1, Data Center Central Service Facility - IS-226, and Data Center WWTP-K303.*

29 <b>SCADA Radio Network Upgrade (1)</b>	<b>004369</b>	<b>1207</b>	<b>DWS-882</b>	DB	1,980	1,900	446					2,346	3	CTA
---	---------------	-------------	----------------	----	-------	-------	-----	--	--	--	--	-------	---	-----

*The scope of work consists of installing and upgrading the Department's new SCADA Radio network including low voltage wiring, radio wiring and cable, data connections, antenna mounting and connections, instrument wiring, network wiring, and fiber networks. It also includes system improvements and planning, system and material procurement in support of the activities required for completing each task.*

**Sewage Disposal System  
 Capital Improvement Program  
 Projected Expenditures Spread by Fiscal Year  
 Active Projects  
 (000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
30 <b>Consolidated Process Control System Upgrades (1)</b>	<b>004393</b>	<b>1153</b>	<b>PC-773D</b>	DB1	1,188	1,500	920					2,420	3	CTA
					<u>\$101,311</u>	<u>\$164,999</u>	<u>\$62,838</u>	<u>\$18,378</u>	<u>\$4,071</u>	<u>\$0</u>	<u>\$5,248</u>	<u>\$255,534</u>		

*This project involves integrating the control and monitoring network throughout all of the DWSD facilities with the new SCADA system installed under PC-713. The work includes control system hardware, software, and firmware upgrade or replacement, also troubleshooting, installation, start-up, testing, and repair services.*

# UP - Projects Under Procurement

A Project Under Procurement has:

1. an assigned DRMS number
2. not been issued the Notice to Start Work

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Projects Under Procurement  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 Pump Station No. 2 Pumping Improvements	004215	961	PC-795	C	0		1,375	1,375	154			2,904	2	CTA
<i>This project will restore the pumping capacity during wet weather events based on study/design that is underway.</i>														
<b>Disinfection</b>														
2 Rouge River Outfall No. 2 (RRO-2) Segment 2-Conduit	004461	1250	CS-1541	S/D/CA	0	500	1,000	2,200	1,100	2,000	2,200	9,000	1	CTA
<i>This project includes study, design, and construction assistance services by consultant for approximately 1,000 mgd capacity gravity flow outfall conduit to the Rouge River. Also included in the scope of work are outfall gates, connection to the existing outfall conduit, chlorination and dechlorination equipments, pumps, and actuators.</i>														
<b>Urban System Improvements</b>														
3 West Side City of Detroit Sewer Repairs Contract for Inspection and In-Place Rehabilitation of Existing Circular and Non-Circular Sewers	004422	1246	DWS-887	DB	100	4,400	5,000	5,000	2,000			16,400	3	D
<i>This project provides for in-place rehabilitation of existing sewers using the construction process, procedures, methods and equipment of the trenchless pipeline rehabilitation techniques for circular and non circular sewers on the West-side of Detroit on an as-needed basis.</i>														

**Sewage Disposal System  
 Capital Improvement Program  
 Projected Expenditures Spread by Fiscal Year  
 Projects Under Procurement  
 (000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
					2013 - 14									
4 <b>East Side City of Detroit Sewer Repairs Contract for Inspection and In-Place Rehabilitation of Existing Circular and Non-Circular Sewers</b>	<b>004423</b>	<b>1245</b>	<b>DWS-886</b>	DB	100	4,400	5,000	5,000	2,000			16,400	3	D
					\$200	\$9,300	\$12,375	\$13,575	\$5,254	\$2,000	\$2,200	\$44,704		

*This project provides for in-place rehabilitation of existing sewers using the construction process, procedures, methods and equipment of the trenchless pipeline rehabilitation techniques for circular and non circular sewers on the East-side of Detroit on an as-needed basis.*

# PC - Projects Pending Close-Out

A Project Pending Close-Out is a project that has:

1. an assigned DRMS number
2. been issued the Notice to Start Work
3. been substantially completed
4. project expenditures for the current fiscal year equal to \$100,000 or less - with no projected expenditures

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Projects Pending Close-out  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 <b>New Troughs and Weirs for Primary Clarifiers 13-16</b>	004173	962	PC-756	C	4,342	43						43	2	CTA
<i>This project will involve rehabilitating or replacing troughs and weirs for Circular Primary Clarifiers (PCs) 13-16. For new troughs, the material used on PCs 17 and 18 (stainless steel) will be used on PCs 13-16.</i>														
2 <b>Pump Station No. 2 Pumping Improvements</b>	004215	961	CS-1444	S/D/CA	185	5						5	2	CTA
<i>This project involves evaluating and recommending alternatives for providing more reliable pumping capacity at Pump Station No. 2.</i>														
<b>Solids Handling</b>														
3 <b>Rehabilitate Sludge Pump Stations 1 and 2</b>	004225	607	CS-1467	D/CA	79	5						5	2	CTA
<i>This project will provide for general rehabilitation of the Sludge Pump Station Nos. 1 and 2, including sludge pump improvements to meet future sludge loads, heating and ventilation improvements and other miscellaneous building and utility improvements.</i>														

**Sewage Disposal System  
 Capital Improvement Program  
 Projected Expenditures Spread by Fiscal Year  
 Projects Pending Close-out  
 (000)**

\* For information purposes only. Not  
 counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
---------------	----------	---------	--------------	------	--------------------	-----------	-----------	-----------	-----------	-----------	-----------	-------	-------------------------	-------------------

**General Purpose**

4	<b>Underground Electrical Duct Bank Repair and EB-1, EB-2, and EB-10 Primary Power Service Improvements - WWTP</b>	004181	366	CS-1449	S/D/CA	164	79					79	2	CTA
---	--	--------	-----	---------	--------	-----	----	--	--	--	--	----	---	-----

*This project involves the necessary study, design, and construction assistance work for repairing the 15kv Primary Switch Gears A & B , unit substation EB-1, EB-2, and EB-10, unit 5kv substation and switchgear DE-1, and two outdoor 3-phase primary transformers; and repair of building structure and associated components. The work will also include site preparation, installation of new ducts, placement of new electrical cable, coordination of system shut-down, and coordination of system reconnection with new cables.*

**Sewer Interceptor System**

5	<b>Sewer Meter Replacement</b>	004291	1167	PC-784A	C	1,280	5					5	4	CTA
---	--------------------------------	--------	------	---------	---	-------	---	--	--	--	--	---	---	-----

*This project will provide for the implementation of the best sewer metering technology at several sewer metering locations. It will develop a control system configuration diagrams which will define the system components, communication structure, and operational interface, electrical interface, process flow diagrams, and process and instrumentation diagrams.*

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year  
Projects Pending Close-out  
(000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Combined Sewer System</b>														
<b>6 Baby Creek CSO Pilot Control Facility</b>	<b>003250</b>	<b>101</b>	<b>PC-748</b>	C	0	5						5	1	83/17
<i>Construction of a screening/ disinfecting/ regulating facility at the Baby Creek enclosure discharge point. Major elements of the work include deep excavation and temporary earth retention systems, new influent and effluent/ dewatering hydraulic structures, modification/ rehabilitation to existing interconnected hydraulic structures and erection of a Control and Screening Building and related site work.</i>														
<b>7 Oakwood CSO Control Facility and Pump Station</b>	<b>004063</b>	<b>420</b>	<b>CS-1364</b>	S/D/CA	185	5						5	1	83/17
<i>This project includes study, design, and construction assistance services for the Oakwood CSO control facility and the pump station to meet the MDEQ/NPDES permit requirement to provide adequate treatment, including disinfection, of combined sewage discharges to protect public health.</i>														
<b>8 Oakwood CSO Control Facility and Pump Station</b>	<b>004063</b>	<b>420</b>	<b>PC-755</b>	C	0	5						5	1	83/17
<i>This project includes construction of the Oakwood CSO control facility and the pump station to meet the MDEQ/NPDES permit requirement to provide adequate treatment, including disinfection, of combined sewage discharges to protect public health.</i>														
<b>9 Bluehill Pumping Station Rehabilitation</b>	<b>004067</b>	<b>637</b>	<b>PC-685</b>	C	67	5						5	2	D
<i>The work to be completed under this project includes: a new 120 MGD stormwater pump with VFD; replacement of three existing stormwater pumps of 250 MGD capacity each; replacement of stormwater dewatering pump; replacement of two 75 HP sanitary pumps; and replacement of switchgear. This project also includes structural, architectural, mechanical, electrical, and I/C modifications.</i>														

**Sewage Disposal System  
 Capital Improvement Program  
 Projected Expenditures Spread by Fiscal Year  
 Projects Pending Close-out  
 (000)**

\* For information purposes only. Not counted in Total.

Project Title	DRMS No.	CIP No.	Contract No.	Type	Update*	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status	
					2013 - 14										
<b>10 Fischer Pumping Station Improvements</b>	<b>004318</b>	<b>1093</b>	<b>PC-772</b>	C 2	552	5						5	2	D	
<i>This project will involve the construction for the Fischer Pumping Station Improvements.</i>															
<b>Information Technology</b>															
<b>11 Customer Billing and Management System (CBMS) Upgrade (1)</b>	<b>004220</b>	<b>1139</b>	<b>CS-1465</b>	DB	0	5						5	4	CTA	
<i>This project involves upgrading of the CBMS operating software to enQuesta 2006 (Version 3.5). The consultant will install and configure the software. This project will also involve ensuring that the existing interfaces are updated to perform with this new version and training end-users and support staff.</i>															
<b>12 As Needed Technical Services (1)</b>	<b>004401</b>	<b>1255</b>	<b>CS-1476</b>	DB	1,187	18						18	4	CTA	
<i>This project is for the implementation of Oracle WAM, which includes Oracle Financials (ebs) connectivity, interface to DWSD's ESRIGIS system and an interface to system's and software's enquesta application.</i>															
					<u>\$8,041</u>	<u>\$185</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$185</u>			

# N - New Projects

A New Project is a project that:

1. does not have an assigned DRMS number
2. has a proposal
3. has never had expenditures charged against it

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**New Projects  
(000)**

\* For information purposes only. Not  
counted in Total.

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 <b>Rehabilitation of Primary Clarifiers Rectangular Tanks, Drain Lines and Pipe Gallery</b>	PC-757	1999	291	C	0		3,850	5,500	1,650			11,000	2	CTA
<i>The work to be completed under this project will include installing ventilation and atmospheric control for the rectangular primary pipe gallery; providing new lights and emergency lights, etc. This work also includes rehabilitation of 12 drain lines from rectangular clarifiers 3 thru 12, installation of large manhole with sump pumps to collect drainage and discharge to clarifier, and concrete crack repairs.</i>														
<b>Secondary Treatment</b>														
2 <b>Aeration System Improvements</b>		2008	1194	C	0		5,500	10,500	7,700			23,700	2	CTA
<i>The scope of work includes the installation of oxygen baffle on Bay 10 of A1 &amp; A2 decks, replacement of influent, RAS piping, isolation gate and valves for decks nos. 3 &amp; 4, replace RAS &amp; influent magmeters for ILP nos. 3,4, &amp; 7. The work will also include replacement of influent gates and operators on aeration deck no. 1 &amp; 2.</i>														
3 <b>Process Improvements for the Secondary Treatment at WWTP</b>		2008	1195	C	0						1	1	2	CTA
<i>The scope of work involves the installation of chlorination distribution system at Complex B, procure on-line instrumentation with the ability to determine Phosphorus and Ammonia levels and Biochemical Oxygen demand in real time, and a ferric chloride addition to the secondary system.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**New Projects  
(000)**

\* For information purposes only. Not  
counted in Total.

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Solids Handling</b>														
4 <b>Rehabilitation of Central Offload Facility</b>		<b>2010</b>	<b>1221</b>	S/D/C	0	200	1,900	2,900	1,000			6,000	2	CTA
<i>The scope of work consists of the study, design, and rehabilitation / replacement of the following equipment: three (3) live Bottom Hoppers, three (3) Lime Silos, three (3) Lime mixers, all screw conveyors and related conveyors, electrical equipment, Scrubber system, HVAC, and other related equipment.</i>														
<b>Disinfection</b>														
5 <b>Replacement of Chlorination and Dechlorination Equipment at the WWTP</b>		<b>2010</b>	<b>1222</b>	C	0		550	2,750	1,100			4,400	2	CTA
<i>The work will consist of installation of sixteen (16) chlorinators, fourteen (14) sulfonators, and thirty (30) evaporators and related equipment mandated by regulatory requirements.</i>														
6 <b>Rouge River Outfall No. 2 (RRO-2) Segment 2-Conduit</b>		<b>2012</b>	<b>1250</b>	C	0				8,000	27,000	44,000	79,000	1	CTA
<i>This project includes construction of approximately 1,000 mgd capacity gravity flow outfall conduit to the Rouge River. Also included in the scope of work are outfall gates, connection to the existing outfall conduit, chlorination and dechlorination equipments, pumps, and actuators.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**New Projects  
(000)**

\* For information purposes only. Not  
counted in Total.

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>General Purpose</b>														
7 <b>Study/ Repair Potable Water, Screened Final Effluent, Natural Gas and Compressed Air Pipe Lines at the WWTP</b>		2006	1140	S/D/C	0		50	350	2,800	1,800		5,000	2	CTA
<i>This project will include the repair or replacement of the aging and corroded pipes, valves, and fittings for the potable water supply system, natural gas system, SFE system, and compressed air system. It also includes installation of a compressed air system to supply air to the pneumatic tools in the PS 2 facility.</i>														
8 <b>Rehabilitation of Grit and Screening System at PS # 2 and Rehabilitation of Sampling Sites at WWTP</b>		2010	1223	C	0		2,750	4,950	2,300			10,000	2	CTA
<i>The work consists of modifications and improvements of the existing grit and screening handling system at pump station #2. The work also includes removal, and installation of new samplers, pumps, piping, housing, and related equipment. Sampling sites include Jefferson, Oakwood, MPI 2, NEIA, PE, River Rouge Outfall, PEAS 1, 3 and 4, ML 1 thru 4, RAS 1 thru 4, and C2E 3 and 4. These improvements will enable WWTP to be in compliance with NPDES.</i>														
9 <b>Rehabilitation of the Main Plant Maintenance Building, Replacement of Various Plant Maintenance Areas and Work Environment Improvement</b>		2011	1237	S/D/C	0		500	1,000	6,000	5,400		12,900	3	CTA
<i>The scope of work consists of studying existing maintenance facilities and evaluation of suitable modifications to consolidate the maintenance areas and provide sufficient storage. The work also will provide for new maintenance areas, rehabilitate Primary Treatment maintenance areas: i.e., Main Plant Maintenance building, shops, work and storage areas for Pump Station no. 1, replace loading dock on the Rack and Grit building and Complex 1, rehabilitate basement of the Rack and Grit building for equipment storage, and provide work environment improvements at the Waste Water Treatment Plant.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**New Projects  
(000)**

\* For information purposes only. Not  
counted in Total.

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status
<b>10 Wastewater Treatment Plant Allowance</b>		<b>2012</b>	<b>1257</b>	D/C	4,000	10,000	10,000	10,000	10,000	10,000		50,000	3	CTA
<i>This is an Allowance for unplanned critical projects, equipment replacement/rehabilitation, critical asset replacement, energy saving project, etc. at the Wastewater Treatment Plant and other Wastewater Operation Facilities.</i>														
<b>Sewer Interceptor System</b>														
<b>11 Interceptor Allowance</b>		<b>2013</b>	<b>1263</b>	D/C	0	5,000	5,000	5,000	5,000	5,000		25,000	3	CTA
<i>Yearly allowance for evaluation and rehabilitation of the interceptors and other large diameter sewers.</i>														
<b>Combined Sewer System</b>														
<b>12 Fairview Pumping Station - Replace Four Sanitary Pumps</b>		<b>2011</b>	<b>1241</b>	C	0		6,000	5,100				11,100	3	CTA
<i>The scope of work consists of the study and design for four new pumping systems including inlet and discharge valves and wet well hydraulics. This will also include enlarging doorways, revamping roadways, and upgrade of electrical and control systems.</i>														
<b>Urban System Improvements</b>														
<b>13 Sewer Replacement Allowance</b>			<b>448</b>	D/C	100	1,000	1,000	15,000	20,000	20,000		57,000	3	D
<i>Yearly allowance to replace aging sewer lines in the City.</i>														
<b>Information Technology</b>														
<b>14 Replacement of LIMS / PIMS Software System</b>		<b>2010</b>	<b>1224</b>	S/D/C	0						5,000	5,000	4	CTA
<i>The scope of work consists of the study, design, purchase, and installation of the LIMS / PIMS software system. This will include identifying major tasks to be performed and customizing software requirements, testing, and training.</i>														

**Sewage Disposal System  
Capital Improvement Program  
Projected Expenditures Spread by Fiscal Year**

Amended FY 2015 CIP  
BOWC Approved  
July 9, 2014

**New Projects  
(000)**

\* For information purposes only. Not  
counted in Total.

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2013-14	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Remaining	Total	Primary Project Purpose	Allocation Status	
15 <b>IT Systems Allowance (1)</b>		<b>2013</b>	<b>1262</b>	DB	0	3,000	1,500	1,500	1,500	1,500		9,000	4	CTA	
					<u>\$4,100</u>	<u>\$19,200</u>	<u>\$38,600</u>	<u>\$64,550</u>	<u>\$67,050</u>	<u>\$70,700</u>	<u>\$49,001</u>	<u>\$309,101</u>			

*This is an allowance for the procurement of IT equipment or services for the replacement or upgrade of the department's computer systems, software licensing, and related IT items.*