

PRELIMINARY  
12-22-2014

# FY 2016 Sewage Disposal System Capital Improvement Program

Fiscal Years 2016 Through 2020

**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

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Janice M. Winfrey, City Clerk

**Sewage Disposal System  
Capital Improvement Program  
Fiscal Years 2015-16 Through 2019-20**

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## **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**

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**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**

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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**

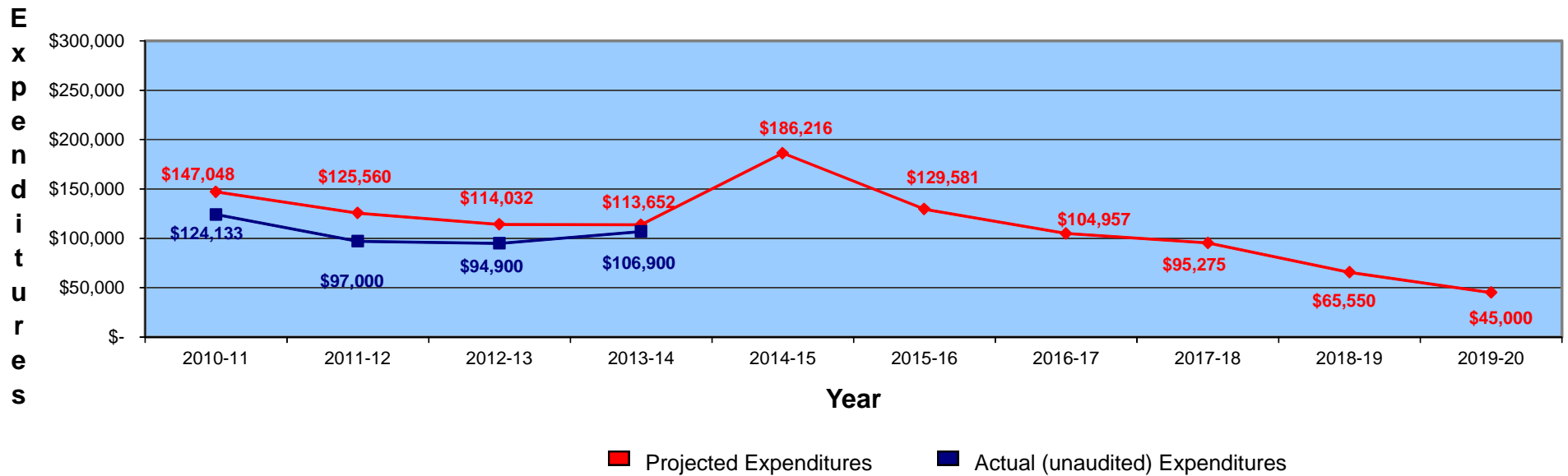
**PRELIMINARY  
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(000)

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

<b>Ongoing</b>	Update* 2014-15	2015 - 16	# of Projects	2016 - 17	2017 - 18	2018 - 19	2019 - 20	5 Year Sub Total	Remaining	Total
Active	130,677	64,678	16	13,357	4,325	0	0	82,360	5,661	88,021
Under Procurement	2,050	21,750	3	27,700	21,800	1,100	0	72,350	0	72,350
Pending Close-out	30,589	153	18	0	0	0	0	153	0	153
<b>Ongoing Total</b>	<u>163,316</u>	<u>86,581</u>	<u>37</u>	<u>41,057</u>	<u>26,125</u>	<u>1,100</u>	<u>0</u>	<u>154,863</u>	<u>5,661</u>	<u>160,524</u>
<b>New Projects Total</b>	22,900	43,000	13	63,900	69,150	64,450	45,000	285,500	22,782	308,282
<b>Total CIP</b>	<u>\$186,216</u>	<u>\$ 129,581</u>	<u>50</u>	<u>\$ 104,957</u>	<u>\$ 95,275</u>	<u>\$ 65,550</u>	<u>\$ 45,000</u>	<u>\$ 440,363</u>	<u>\$ 28,443</u>	<u>\$ 468,806</u>

**Actual and Projected Expenditures by Fiscal Year**



**Notations:**

2010-11 thru 2013-14 totals are projected and actual (unaudited) expenditures  
2014-15 thru 2019-20 are projected expenditures

# Summary of Projected Expenditures Spread by Fiscal Year

**Sewage Disposal System  
Capital Improvement Program**

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

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	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>2019 - 20</u>	<u>Remaining</u>	<u>Total</u>
<b>Plant</b>							
Primary Treatment	22,955	22,768	19,446	3,100	6,000	2,000	76,269
Secondary Treatment	6,519	8,612	5,640				20,771
Solids Handling	50,015	11,559	2,579			14,282	78,435
Disinfection	1,605	8,750	11,900	10,000		5,661	37,916
General Purpose	21,269	21,168	23,460	17,200	10,000		93,097
	<u>\$102,363</u>	<u>\$72,857</u>	<u>\$63,025</u>	<u>\$30,300</u>	<u>\$16,000</u>	<u>\$21,943</u>	<u>\$306,488</u>
<b>Facilities</b>							
Sewer Interceptor System	5,000	5,000	5,000	5,000	5,000		25,000
Combined Sewer System	6,015	5,100					11,115
Lateral Sewer Replacement	5						5
Urban System Improvements	10,210	21,000	25,000	30,000	24,000	1,500	111,710
Information Technology	5,988	1,000	2,250	250		5,000	14,488
	<u>\$27,218</u>	<u>\$32,100</u>	<u>\$32,250</u>	<u>\$35,250</u>	<u>\$29,000</u>	<u>\$6,500</u>	<u>\$162,318</u>
<b>Ongoing Projects</b>	86,581	41,057	26,125	1,100		5,661	160,524
<b>New Projects</b>	43,000	63,900	69,150	64,450	45,000	22,782	308,282
<b>TOTAL CAPITAL COSTS</b>	<u>\$129,581</u>	<u>\$104,957</u>	<u>\$95,275</u>	<u>\$65,550</u>	<u>\$45,000</u>	<u>\$28,443</u>	<u>\$468,806</u>



# Projected Expenditures Spread by Fiscal Year



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

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	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>2019 - 20</u>	<u>Remaining</u>	<u>Total</u>
<b>Combined Sewer System</b>							
Ongoing	15						15
New	6,000	5,100					11,100
	<u>\$6,015</u>	<u>\$5,100</u>					<u>\$11,115</u>
<b>Lateral Sewer Replacement</b>							
Ongoing	5						5
	<u>\$5</u>						<u>\$5</u>
<b>Urban System Improvements</b>							
Ongoing	10						10
New	10,200	21,000	25,000	30,000	24,000	1,500	111,700
	<u>\$10,210</u>	<u>\$21,000</u>	<u>\$25,000</u>	<u>\$30,000</u>	<u>\$24,000</u>	<u>\$1,500</u>	<u>\$111,710</u>
<b>Information Technology</b>							
Ongoing	1,988						1,988
New	4,000	1,000	2,250	250		5,000	12,500
	<u>\$5,988</u>	<u>\$1,000</u>	<u>\$2,250</u>	<u>\$250</u>		<u>\$5,000</u>	<u>\$14,488</u>
<b><u>Facilities Total</u></b>							
Ongoing Projects	2,018						2,018
New Projects	25,200	32,100	32,250	35,250	29,000	6,500	160,300
	<u>\$27,218</u>	<u>\$32,100</u>	<u>\$32,250</u>	<u>\$35,250</u>	<u>\$29,000</u>	<u>\$6,500</u>	<u>\$162,318</u>
<b>Summary - Total Costs</b>							
Ongoing Projects	86,581	41,057	26,125	1,100		5,661	160,524
New Projects	43,000	63,900	69,150	64,450	45,000	22,782	308,282
<b>TOTAL CAPITAL COSTS</b>	<u><u>\$129,581</u></u>	<u><u>\$104,957</u></u>	<u><u>\$95,275</u></u>	<u><u>\$65,550</u></u>	<u><u>\$45,000</u></u>	<u><u>\$28,443</u></u>	<u><u>\$468,806</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)**

**PRELIMINARY  
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<b>SUMMARY BY PRIMARY PROJECT PURPOSE AND ALLOCATION</b>	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>Funded</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>2019 - 20</u>	<u>Remaining</u>	<u>Total</u>
<b>Directly Mandated Projects</b>								
Common to All	1,055	6,000	7,055	10,800	10,000	0	5,661	33,516
<b>Projects Mandated by Regulatory Requirements to Maintain Compliance</b>								
Detroit Only	10	0	10	0	0	0	0	10
New Wet Weather Facility	5	0	5	0	0	0	0	5
Common to All	86,107	51,039	137,146	33,565	4,900	6,000	2,000	183,611
<b>Projects Required to Maintain or Improve System Reliability and/or Capacity</b>								
Detroit Only	10,220	21,000	31,220	25,000	30,000	24,000	1,500	111,720
Common to All	27,494	25,918	53,412	23,660	20,400	15,000	14,282	126,754
<b>Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness</b>								
Common to All	4,690	1,000	5,690	2,250	250	0	5,000	13,190
<b>TOTAL</b>	<u>\$129,581</u>	<u>\$104,957</u>	<u>\$234,538</u>	<u>\$95,275</u>	<u>\$65,550</u>	<u>\$45,000</u>	<u>\$28,443</u>	<u>\$468,806</u>

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**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>2015 - 16</u>	<u>2016 - 17</u>	<u>Funded</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>2019 - 20</u>	<u>Remaining</u>	<u>Total</u>
Detroit Only	10,230	21,000	31,230	25,000	30,000	24,000	1,500	111,730
New Wet Weather Facility	5	0	5	0	0	0	0	5
Common to All	119,346	83,957	203,303	70,275	35,550	21,000	26,943	357,071
<b>TOTAL</b>	<u>\$129,581</u>	<u>\$104,957</u>	<u>\$234,538</u>	<u>\$95,275</u>	<u>\$65,550</u>	<u>\$45,000</u>	<u>\$28,443</u>	<u>\$468,806</u>
Detroit Only	8%	20%	13%	26%	46%	53%	5%	24%
New Wet Weather Facility	<1%	0%	<1%	0%	0%	0%	0%	<1%
Common to All	92%	80%	87%	74%	54%	47%	95%	76%

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

**PRELIMINARY  
12-22-2014**

<b>SUMMARY BY PRIMARY PROJECT PURPOSE</b>	<u>2015 - 16</u>	<u>2016 - 17</u>	<u>Funded</u>	<u>2017 - 18</u>	<u>2018 - 19</u>	<u>2019 - 20</u>	<u>Remaining</u>	<u>Total</u>
Directly Mandated Projects	1,055	6,000	7,055	10,800	10,000	0	5,661	33,516
Projects Mandated by Regulatory Requirements to Maintain Compliance	86,122	51,039	137,161	33,565	4,900	6,000	2,000	183,626
Projects Required to Maintain or Improve System Reliability and/or Capacity	37,714	46,918	84,632	48,660	50,400	39,000	15,782	238,474
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness	4,690	1,000	5,690	2,250	250	0	5,000	13,190
<b>TOTAL</b>	<b>\$129,581</b>	<b>\$104,957</b>	<b>234,538</b>	<b>\$95,275</b>	<b>\$65,550</b>	<b>\$45,000</b>	<b>\$28,443</b>	<b>\$468,806</b>
<hr/>								
<b>RELATIVE PERCENTAGE</b>								
Directly Mandated Projects	<1%	6%	3%	11%	15%	0%	20%	7%
Projects Mandated by Regulatory Requirements to Maintain Compliance	66%	49%	58%	35%	7%	13%	7%	39%
Projects Required to Maintain or Improve System Reliability and/or Capacity	29%	45%	36%	51%	77%	87%	55%	51%
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness	4%	<1%	2%	2%	<1%	0%	18%	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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 Rehabilitation of Primary Clarifiers, Drain Lines, Hot Water, and Scum Lines	004290	1141	CS-1484 \$ 915,650	S/D/CA	55	50	68	49				167	2	CTA
<b>Start Date:</b> 08/11/2010 <b>Completion Date:</b> 02/09/2014														
<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 Pump Station 1 Rack & Grit and MPI Sampling Station 1 Improvements	004420	1189	PC-789 \$ 20,335,000	C	7,920	6,600	3,300	2,597				12,497	2	CTA

**Start Date:** 11/18/2013    **Completion Date:** 07/30/2017

*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.*

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Secondary Treatment</b>														
3 Secondary Clarifiers, RAS Pumps and MCCs Improvements	004211	1100	PC-776 \$ 26,562,000	C	5,500	950						950	2	CTA
<b>Start Date:</b> 08/23/2010 <b>Completion Date:</b> 05/09/2016														
<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>														
4 Aeration System Improvements	004336	1194	CS-1498 \$ 1,731,573	S/D/CA	330	119	112	40				271	2	CTA
<b>Start Date:</b> 02/12/2012 <b>Completion Date:</b> 02/21/2017														
<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>														

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Solids Handling</b>														
5 Replacement of Upper Level Belt Filter Presses for Complex I & II Dewatering	004284	1144	CS-1483 \$ 2,202,797	S/D/CA	236	300	139					439	2	CTA
<b>Start Date:</b> 01/11/2010 <b>Completion Date:</b> 12/31/2016														
<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>														
6 Replacement of Belt Filter Presses for Complex I and Upper Level Complex II	004397	1144	PC-787 \$ 30,216,000	C	6,120	6,000	388					6,388	2	CTA
<b>Start Date:</b> 05/12/2012 <b>Completion Date:</b> 08/03/2016														
<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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
7 Sewage Sludge Incinerator Air Quality Improvements at WWTP	004426	1253	PC-791 \$ 37,989,471	DB	13,000	12,000	6,000	979				18,979	2	CTA
<p><b>Start Date:</b> 12/17/2012    <b>Completion Date:</b> 06/30/2017</p> <p><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></p>														
8 Biosolids Dryer Facility at WWTP	004439	1254	PC-792 \$ 143,000,000	DB	84,000	31,000	1,532					32,532	2	CTA

**Start Date:** 05/23/2013    **Completion Date:** 10/13/2016

*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.*

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
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**Disinfection**

9	<b>Study, Design, &amp; Construction Management Services for Modified Detroit River Outfall No. 2 - WWTP</b>	004178	1117	<b>CS-1448</b> \$ 13,097,673	S/D/CA	114					5,661	5,661	1	CTA
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**Start Date:** 10/31/2006    **Completion Date:** 10/31/2015

*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.*

*This contract is being used to provide study, design and construction assistance services for RRO-2 Segment 1.*

**General Purpose**

10	<b>Underground Electrical Duct Bank Repair and EB-1, EB-2, and EB-10 Primary Power Service Improvements - WWTP</b>	004181	366	<b>PC-783</b> \$ 27,620,000	C	5,107	3,000					3,000	2	CTA
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**Start Date:** 05/21/2012    **Completion Date:** 05/21/2015

*This project will include replacement of 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.*

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
11 <b>General Engineering Services (1)</b>	<b>004207</b>	<b>1031</b>	<b>CS-1432A</b> \$ 6,384,611	D	495	220	18					238	3	CTA
<b>Start Date:</b> 12/12/2007 <b>Completion Date:</b> 01/23/2017														
<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>														
12 <b>As-needed CIP Implementation Assistance and Related Services (1)</b>	<b>004218</b>	<b>956</b>	<b>CS-1433</b> \$ 9,913,172	S/D/CM	1,300	851	700	50				1,601	3	CTA
<b>Start Date:</b> 02/08/2006 <b>Completion Date:</b> 07/24/2017														
<i>This project provides for multi-discipline Engineering services on an "as-needed basis" to support DWSD's Water &amp; Sewer Systems.</i>														
13 <b>General Engineering Services (1)</b>	<b>004293</b>	<b>1182</b>	<b>CS-1481</b> \$ 5,894,282	D	1,000	1,000	500	323				1,823	3	CTA
<b>Start Date:</b> 03/27/2008 <b>Completion Date:</b> 03/27/2015														
<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>														

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
14 <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> \$ 4,097,850	D/C	600	600	600	287				1,487	3	CTA

**Start Date:** 04/08/2009 **Completion Date:** 04/08/2018

*The scope of work provides for as-needed engineering services for concrete testing, geotechnical soil borings, and other testing and related services.*

**Information Technology**

15 <b>Data Center Reliability/Availability Improvements (1)</b>	<b>004367</b>	<b>1206</b>	<b>DWS-881</b> \$ 2,862,425	DB	1,500	685						685	4	CTA
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**Start Date:** 01/29/2013 **Completion Date:** 02/27/2016

*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.*

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
16 SCADA Radio Network Upgrade (1)	004369	1207	DWS-882 \$ 3,997,545	DB	1,900	383						383	3	CTA

Start Date: 03/26/2013 Completion Date: 03/26/2016

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.

17 Consolidated Process Control System Upgrades (1)	004393	1153	PC-773D \$ 3,280,158	DB1	1,500	920						920	3	CTA
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Start Date: 05/23/2013 Completion Date: 05/22/2016

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.

\$130,677	\$64,678	\$13,357	\$4,325	\$0	\$0	\$5,661	\$88,021
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# 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* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 <b>Rehabilitation of Primary Clarifiers Rectangular Tanks, Drain Lines, Electrical/Mechanical Building and Pipe Gallery</b>		291	PC-757	C	1,500	15,000	18,000	16,000	1,100			50,100	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, and rehabilitation work in Electrical/Mechanical Building.</i>														
2 <b>Pump Station No. 2 Pumping Improvements</b>	004215	961	PC-795	C	500	1,300	1,200	200				2,700	2	CTA
<i>The scope of work involves modification/refurbishment of existing constant speed Pump Nos. 11 and 14. The modifications consist of replacing the complete pump less casing and hand hole covers, worn out parts, suction head and stuffing box head to improve pump hydraulic conditions and replace the existing suction pipe with newly designed suction pipe with vanes based on the computerized flow dynamics (CFD) analysis.</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	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status	
<b>Secondary Treatment</b>															
3 Aeration System Improvements	004336	1194	PC-796	C	50	5,450	8,500	5,600				19,550	2	CTA	
<p><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></p>															
					<u>\$2,050</u>	<u>\$21,750</u>	<u>\$27,700</u>	<u>\$21,800</u>	<u>\$1,100</u>	<u>\$0</u>	<u>\$0</u>	<u>\$72,350</u>			

# 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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
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**Primary Treatment**

1 Pump Station No. 2 Pumping Improvements	004215	961	CS-1444 \$ 414,246	S/D/CA	7	5						5	2	CTA
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Start Date:

Completion Date:

*This project involves evaluating and recommending alternatives for providing more reliable pumping capacity at Pump Station No. 2.*

**Solids Handling**

2 Complex I and Complex II Incinerator Improvements	004169	965	PC-774 \$ 38,150,000	DB	7,976	5						5	2	CTA
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Start Date: 11/25/2010

Completion Date: 03/31/2015

*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.*

3 Rehabilitate Sludge Pump Stations 1 and 2	004225	607	CS-1467 \$ 950,000	D/CA	5	5						5	2	CTA
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Start Date: 04/01/2008

Completion Date: 07/09/2014

*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.*

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
4 Rehabilitate Sludge Pump Stations 1 and 2	004225	607	PC-780 \$ 6,199,525	C	61	5						5	2	CTA

Start Date: 08/15/2011 Completion Date: 10/12/2014

*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.*

**Disinfection**

5 Rouge River Outfall No. 2 (RRO-2) Segment 1 - WWTP Modifications	004395	1235	PC-786 \$ 13,117,000	C	2,220	55						55	1	CTA
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Start Date: 05/21/2012 Completion Date: 12/21/2015

*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.*

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./Contract Amount	Type	Update* 2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>General Purpose</b>														
6 <b>As-needed Engineering Services (1)</b>	003451	54	<b>CS-1345</b> \$ 169,230	D	168	5						5	3	CTA
<b>Start Date:</b> 03/14/2001		<b>Completion Date:</b> 01/19/2015												
<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>														
7 <b>Plant-wide Fire Alarm Systems Upgrade/ Integration and Fire Protection Improvements</b>	004180	1028	<b>CS-1443</b> \$ 710,668	S/D/CA	94	5						5	3	CTA
<b>Start Date:</b> 06/12/2008		<b>Completion Date:</b> 12/13/2015												
<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>														

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./Contract Amount	Type	Update*						Remaining	Total	Primary Project Purpose	Allocation Status
					2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20				
8 Plant-wide Fire Alarm Systems Upgrade/ Integration and Fire Protection Improvements	004180	1028	PC-782 \$ 5,749,000	C	3,108	5						5	3	CTA

Start Date: 04/15/2013 Completion Date: 09/05/2015

*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.*

9 Underground Electrical Duct Bank Repair and EB-1, EB-2, and EB-10 Primary Power Service Improvements - WWTP	004181	366	CS-1449 \$ 1,910,150	S/D/CA	165	18						18	2	CTA
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Start Date: 06/12/2008 Completion Date: 06/11/2016

*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.*



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./Contract Amount	Type	Update*						Remaining	Total	Primary Project Purpose	Allocation Status
					2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20				
10 <b>Geotechnical and Related Services on an As-Needed Basis (1)</b>	<b>004307</b>	<b>1164</b>	<b>CS-1490</b> \$ 2,500,000	D	400	5						5	3	CTA
<b>Start Date:</b> 01/14/2010		<b>Completion Date:</b> 01/14/2015												
<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>														
11 <b>Department-wide General Engineering Services on an As-needed Basis (1)</b>	<b>004338</b>	<b>1026</b>	<b>CS-1499</b> \$ 5,000,000	D	889	5						5	3	D
<b>Start Date:</b> 05/12/2010		<b>Completion Date:</b> 05/12/2015												
<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>														
12 <b>Central Services Facility (CSF) Improvements (1)</b>	<b>004399</b>	<b>1188</b>	<b>DWS-884A</b> \$ 1,853,981	C	1,466	5						5	4	CTA
<b>Start Date:</b> 11/04/2013		<b>Completion Date:</b> 11/30/2014												
<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  
Projects Pending Close-out  
(000)

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

Project Title	DRMS No.	CIP No.	Contract No./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Combined Sewer System</b>														
13 Bluehill Pumping Station Rehabilitation	004067	637	PC-685 \$ 18,524,855	C	0	5						5	2	D
<b>Start Date:</b> 04/26/2005		<b>Completion Date:</b> 01/30/2014												
<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>														
14 Fischer Pumping Station Improvements	004174	1093	CS-1421 \$ 2,923,014	S/D/CA 2	149	5						5	2	D
<b>Start Date:</b> 06/01/2007		<b>Completion Date:</b> 12/30/2015												
<i>This project involves study, design, and construction assistance services for the rehabilitation of the Fischer Pumping Station.</i>														
15 Hubbell-Southfield CSO Control Facility & In-System Storage Gate Improvements	004424	1190	PC-788 \$ 17,669,550	C	7,523	5						5	2	83/17
<b>Start Date:</b> 02/27/2013		<b>Completion Date:</b> 04/28/2015												
<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>														

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./Contract Amount	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
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**Lateral Sewer Replacement**

16	Emergency Sewer Repair and Rehabilitation	004487	448	DWS-899 \$ 2,900,000	DB	3,190	5					5	3	D
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Start Date: 07/14/2014      Completion Date: 03/14/2015

*Emergency sewer repair/rehabilitation work throughout the City of Detroit.*

**Urban System Improvements**

17	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 \$ 43,759,001	DB	1,547	5					5	3	D
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Start Date: 04/22/2010      Completion Date: 09/28/2014

*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.*

**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./Contract Amount	Type	Update*						Remaining	Total	Primary Project Purpose	Allocation Status
					2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20				
18 <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> \$ 43,471,188	DB	1,621	5						5	3	D
<b>Start Date:</b> 04/22/2010 <b>Completion Date:</b> 09/28/2014														
<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>														
					<u>\$30,589</u>	<u>\$153</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$153</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**

**PRELIMINARY  
12-22-2014**

**New Projects  
(000)**

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

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Primary Treatment</b>														
1 <b>Pump Station No. 2 Improvements Phase II at Wastewater Treatment Plant (WWTP)</b>		<b>2014</b>	<b>1287</b>	S/D/C	0		200	600	2,000	6,000	2,000	10,800	2	CTA
<i>The work includes study, design, and construction for the rehabilitation/rebuilding of 5 pumps namely 9, 12, 13, 15, and 16 at PS 2 facility, its control and any associated equipment, replacement of HVAC System, I&amp;C improvements, structural, architectural and electrical improvements at the facility.</i>														
<b>Solids Handling</b>														
2 <b>Rehabilitation of Central Offload Facility</b>		<b>2010</b>	<b>1221</b>	S/D/C	200	700	3,500	1,600				5,800	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>														
3 <b>Complex I Incinerators Demolition and Reusability at Wastewater Treatment Plant (WWTP)</b>		<b>2014</b>	<b>1284</b>	S/D/C	0						14,282	14,282	3	CTA
<i>The work includes demolition of the existing complex I incineration facility requiring study, plan, removal and relocation of the existing equipment. The work also includes future reusability plan recommendation for complex I incineration facility. This project is necessitated because of the anticipated non use of the facility due to the new biosolids dryer facility coming into operation in near future.</i>														

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

**PRELIMINARY  
12-22-2014**

**New Projects  
(000)**

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

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Disinfection</b>														
4 <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>														
5 <b>Rouge River Outfall (RRO) Disinfection (Alternative)</b>		<b>2014</b>	<b>1302</b>	S/D/C	200	1,000	6,000	10,800	10,000			27,800	1	CTA
<i>This is an alternative to RRO-2 Segment 2 Conduit, which will provide disinfection of excess wet weather flow at Detroit WWTP.</i>														
<b>General Purpose</b>														
6 <b>Study/ Repair Potable Water, Screened Final Effluent, Natural Gas and Compressed Air Pipe Lines at the WWTP</b>		<b>2006</b>	<b>1140</b>	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>														
7 <b>Rehabilitation of Grit and Screening System at PS # 2 and Rehabilitation of Sampling Sites at WWTP</b>		<b>2010</b>	<b>1223</b>	C	1,000	3,000	5,000	2,000				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>														

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

**PRELIMINARY  
12-22-2014**

**New Projects  
(000)**

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

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>8 Rehabilitation of the Main Plant Maintenance Building, Replacement of Various Plant Maintenance Areas and Work Environment Improvement</b>		<b>2011</b>	<b>1237</b>	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>														
<b>9 Wastewater Treatment Plant Allowance</b>		<b>2012</b>	<b>1257</b>	D/C	10,000	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>10 Relocation of Industrial Waste Division and Analytical Laboratory Operations</b>		<b>2014</b>	<b>1285</b>	C	0	2,000	3,000	2,000				7,000	3	CTA
<i>The work includes relocation of the industrial waste control division and analytical laboratory operations to Conner Creek CSO facility and WWTP 3rd floor respectively.</i>														

**Sewer Interceptor System**

<b>11 Interceptor Allowance</b>		<b>2013</b>	<b>1263</b>	D/C	5,000	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>														



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

**PRELIMINARY  
12-22-2014**

**New Projects  
(000)**

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

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Combined Sewer System</b>														
12 <b>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>														
13 <b>Sewer Replacement Allowance</b>			<b>448</b>	D/C	5,000	10,000	20,000	20,000	20,000	20,000		90,000	3	D
<i>Yearly allowance to replace aging sewer lines in the City.</i>														
14 <b>Oakwood District Relief Sewer Modification at Oakwood District</b>		<b>2014</b>	<b>1286</b>	S/D/C	0	200	1,000	5,000	10,000	4,000	1,500	21,700	3	D
<i>The work includes basis of design (study) report on alternative solution to proposed Oakwood District Relief Sewer, design for replacement of sewer lines, catch basins, diversion of stormwater flow, and construction assistance during construction phase of emerging projects etc.</i>														

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

**PRELIMINARY  
12-22-2014**

**New Projects  
(000)**

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

Project Title	Contract No.	Year Added	CIP No.	Type	Update* 2014-15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019 - 20	Remaining	Total	Primary Project Purpose	Allocation Status
<b>Information Technology</b>														
15 <b>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>														
16 <b>IT Systems Allowance (1)</b>		<b>2013</b>	<b>1262</b>	DB	1,500	4,000	1,000	2,250	250			7,500	4	CTA
<i>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.</i>														
					<u>\$22,900</u>	<u>\$43,000</u>	<u>\$63,900</u>	<u>\$69,150</u>	<u>\$64,450</u>	<u>\$45,000</u>	<u>\$22,782</u>	<u>\$308,282</u>		