

BOWC Approved
December 18, 2013

FY 2015 Water Supply 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, Chief Operating Officer

Nicolette Bateson, Chief Financial Officer

Syed Ali, P.E., Manager
Capital Management Group

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Gabe Leland

Janice M. Winfrey, City Clerk

**Water Supply System
Capital Improvement Program
Fiscal Years 2014-15 Through 2018-19**

BOWC Approved
December 18, 2013

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.....	22
Pending Close-Out.....	28
New Projects.....	31

Executive Management Team

Sue F. McCormick, Director
Darryl A. Latimer, Deputy Director
Nicolette Bateson, Chief Financial Officer
Cheryl Porter, Assistant Director, Water Supply Operations Group
Samuel A. Smalley, P.E., Assistant Director, Wastewater Operations Group
Dan Rainey, Information Technology Director
William Wolfson, General Counsel/Chief Operating Officer
W. Barnett Jones, Chief Security Officer
Terri Conerway, Manager, Process and Quality Control

Capital Management Group

Syed Ali, P.E., Manager
Corey Thomas

**Water Supply System
Detroit Water and Sewerage Department
Capital Improvement Programs**

BOWC Approved
December 18, 2013

OVERVIEW

The attached report summarizes the capital planning agenda for the DWSD Water Supply 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.

**Water Supply System
Detroit Water and Sewerage Department
Capital Improvement Programs**

BOWC Approved
December 18, 2013

Projects Under Procurement: is a project that has an assigned DRMS number and has not been issued the 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
- CTA - Common To All

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 Water Supply System's portion of the project. Refer to the Sewage Disposal System CIP for project costs financed by the Sewage Disposal System.

**Water Supply System
Capital Improvement Program
CIP Executive Summary**

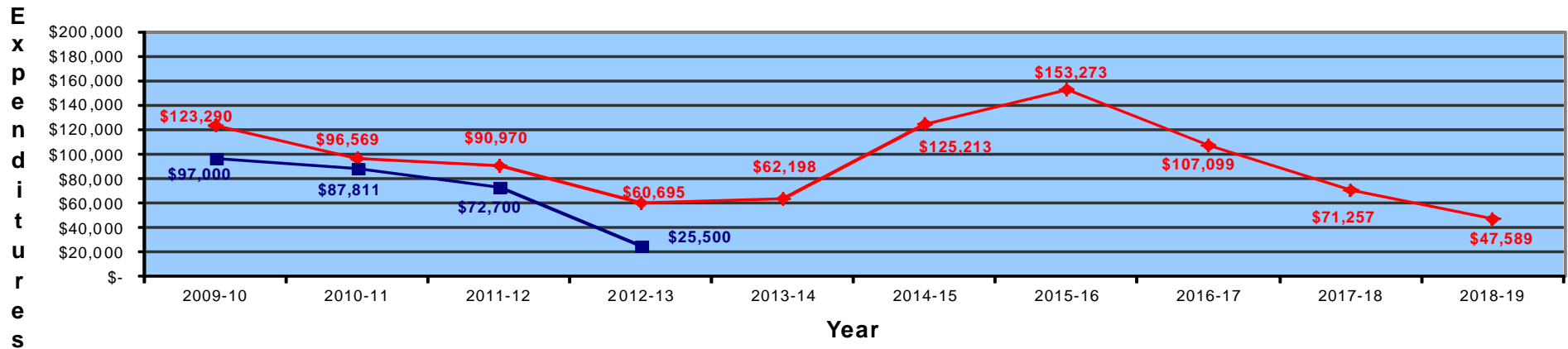
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December 18, 2013

(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	28,467	33,318	17	34,008	20,999	12,757	3,389	104,471	7,547	112,018
Under Procurement	10,600	45,060	9	38,765	29,100	5,000	0	117,925	4	117,929
Pending Close-out	6,931	35	7	0	0	0	0	35	0	35
Ongoing Total	45,998	78,413	33	72,773	50,099	17,757	3,389	222,431	7,551	229,982
New Projects Total	16,200	46,800	8	80,500	57,000	53,500	44,200	282,000	10	282,010
Total CIP	\$ 62,198	\$ 125,213	41	\$ 153,273	\$ 107,099	\$ 71,257	\$ 47,589	\$ 504,431	\$ 7,561	\$ 511,992

Actual and Projected Expenditures by Fiscal Year



■ 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

**Water Supply System
Capital Improvement Program**

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December 18, 2013

**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>
Facilities							
Metro Area Construction	40,705	44,300	25,100	10,000	10,000		130,105
Urban System Improvements	30,615	14,265	10,000	10,000	10,000		74,880
Computer Systems	6,831	2,293	1,500	1,500	1,500		13,624
	<u>\$78,151</u>	<u>\$60,858</u>	<u>\$36,600</u>	<u>\$21,500</u>	<u>\$21,500</u>		<u>\$218,609</u>
Plant Replacement and Renovation							
General Plant	14,931	11,430	6,300	800		2	33,463
Water Works Park	5,000	11,000	14,000	5,000			35,000
Springwells	23,236	61,660	45,654	40,550	22,984	2	194,086
Northeast						6,356	6,356
Southwest	10					5	15
Lake Huron	2,500	5,000	1,000				8,500
Pumping Stations and Reservoirs	1,385	3,325	3,545	3,407	3,105	1,196	15,963
	<u>\$47,062</u>	<u>\$92,415</u>	<u>\$70,499</u>	<u>\$49,757</u>	<u>\$26,089</u>	<u>\$7,561</u>	<u>\$293,383</u>
Ongoing Projects	78,413	72,773	50,099	17,757	3,389	7,551	229,982
New Projects	46,800	80,500	57,000	53,500	44,200	10	282,010
TOTAL CAPITAL COSTS	<u>\$125,213</u>	<u>\$153,273</u>	<u>\$107,099</u>	<u>\$71,257</u>	<u>\$47,589</u>	<u>\$7,561</u>	<u>\$511,992</u>

Projected Expenditures Spread by Fiscal Year

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
(000)**

BOWC Approved
December 18, 2013

	<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>
Facilities							
Metro Area Construction							
Ongoing	20,705	24,300	15,100				60,105
New	20,000	20,000	10,000	10,000	10,000		70,000
	<u>\$40,705</u>	<u>\$44,300</u>	<u>\$25,100</u>	<u>\$10,000</u>	<u>\$10,000</u>		<u>\$130,105</u>
Urban System Improvements							
Ongoing	20,615	4,265					24,880
New	10,000	10,000	10,000	10,000	10,000		50,000
	<u>\$30,615</u>	<u>\$14,265</u>	<u>\$10,000</u>	<u>\$10,000</u>	<u>\$10,000</u>		<u>\$74,880</u>
Computer Systems							
Ongoing	3,831	793					4,624
New	3,000	1,500	1,500	1,500	1,500		9,000
	<u>\$6,831</u>	<u>\$2,293</u>	<u>\$1,500</u>	<u>\$1,500</u>	<u>\$1,500</u>		<u>\$13,624</u>
Facilities Total							
Ongoing Projects	45,151	29,358	15,100				89,609
New Projects	33,000	31,500	21,500	21,500	21,500		129,000
	<u>\$78,151</u>	<u>\$60,858</u>	<u>\$36,600</u>	<u>\$21,500</u>	<u>\$21,500</u>		<u>\$218,609</u>
Plant Replacement and Renovation							
General Plant							
Ongoing	4,931	1,430	1,300	800		2	8,463
New	10,000	10,000	5,000				25,000
	<u>\$14,931</u>	<u>\$11,430</u>	<u>\$6,300</u>	<u>\$800</u>		<u>\$2</u>	<u>\$33,463</u>
Water Works Park							
Ongoing	5,000	11,000	14,000	5,000			35,000
	<u>\$5,000</u>	<u>\$11,000</u>	<u>\$14,000</u>	<u>\$5,000</u>			<u>\$35,000</u>
Springwells							
Ongoing	21,936	27,660	16,154	8,550	284	1	74,585
New	1,300	34,000	29,500	32,000	22,700	1	119,501
	<u>\$23,236</u>	<u>\$61,660</u>	<u>\$45,654</u>	<u>\$40,550</u>	<u>\$22,984</u>	<u>\$2</u>	<u>\$194,086</u>

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
(000)**

BOWC Approved
December 18, 2013

	<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>
Northeast							
Ongoing						6,352	6,352
New						4	4
						<u>\$6,356</u>	<u>\$6,356</u>
Southwest							
Ongoing	10					1	11
New						4	4
	<u>\$10</u>					<u>\$5</u>	<u>\$15</u>
Lake Huron							
New	2,500	5,000	1,000				8,500
	<u>\$2,500</u>	<u>\$5,000</u>	<u>\$1,000</u>				<u>\$8,500</u>
Pumping Stations and Reservoirs							
Ongoing	1,385	3,325	3,545	3,407	3,105	1,195	15,962
New						1	1
	<u>\$1,385</u>	<u>\$3,325</u>	<u>\$3,545</u>	<u>\$3,407</u>	<u>\$3,105</u>	<u>\$1,196</u>	<u>\$15,963</u>
<u>Plant Replacement and Renovation Total</u>							
Ongoing Projects	33,262	43,415	34,999	17,757	3,389	7,551	140,373
New Projects	13,800	49,000	35,500	32,000	22,700	10	153,010
	<u>\$47,062</u>	<u>\$92,415</u>	<u>\$70,499</u>	<u>\$49,757</u>	<u>\$26,089</u>	<u>\$7,561</u>	<u>\$293,383</u>
Summary - Total Costs							
Ongoing Projects	78,413	72,773	50,099	17,757	3,389	7,551	229,982
New Projects	46,800	80,500	57,000	53,500	44,200	10	282,010
TOTAL CAPITAL COSTS	<u>\$125,213</u>	<u>\$153,273</u>	<u>\$107,099</u>	<u>\$71,257</u>	<u>\$47,589</u>	<u>\$7,561</u>	<u>\$511,992</u>

Summary of Mandate and Allocation Status by Fiscal Year

**Water Supply System
Capital Improvement Program
Summary of Primary Project Purpose & Allocation Status
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

(000)

SUMMARY BY PRIMARY PROJECT PURPOSE AND ALLOCATION	<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>
Projects Mandated by Regulatory Requirements to Maintain Compliance								
Common to All	38,046	81,660	119,706	62,654	35,550	15,184	6,364	239,458
Projects Required to Maintain or Improve System Reliability and/or Capacity								
Detroit Only	30,615	14,265	44,880	10,000	10,000	10,000	0	74,880
Common to All	51,197	55,573	106,770	32,945	24,207	20,905	1,197	186,024
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness								
Common to All	5,355	1,775	7,130	1,500	1,500	1,500	0	11,630
TOTAL	<u>\$125,213</u>	<u>\$153,273</u>	<u>\$278,486</u>	<u>\$107,099</u>	<u>\$71,257</u>	<u>\$47,589</u>	<u>\$7,561</u>	<u>\$511,992</u>

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

BOWC Approved
December 18, 2013

SUMMARY BY ALLOCATION STATUS	<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	30,615	14,265	44,880	10,000	10,000	10,000	0	74,880
Common to All	94,598	139,008	233,606	97,099	61,257	37,589	7,561	437,112
TOTAL	<u><u>\$125,213</u></u>	<u><u>\$153,273</u></u>	<u><u>\$278,486</u></u>	<u><u>\$107,099</u></u>	<u><u>\$71,257</u></u>	<u><u>\$47,589</u></u>	<u><u>\$7,561</u></u>	<u><u>\$511,992</u></u>
Detroit Only	24%	9%	16%	9%	14%	21%	0%	15%
Common to All	76%	91%	84%	91%	86%	79%	100%	85%

**Water Supply System
Capital Improvement Program
Summary of Primary Project Purpose & Allocation Status
Projected Expenditures Spread by Fiscal Year**

**BOWC Approved
December 18, 2013**

(000)

SUMMARY BY PRIMARY PROJECT PURPOSE	<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>
Projects Mandated by Regulatory Requirements to Maintain Compliance	38,046	81,660	119,706	62,654	35,550	15,184	6,364	239,458
Projects Required to Maintain or Improve System Reliability and/or Capacity	81,812	69,838	151,650	42,945	34,207	30,905	1,197	260,904
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness	5,355	1,775	7,130	1,500	1,500	1,500	0	11,630
TOTAL	<u>\$125,213</u>	<u>\$153,273</u>	<u>278,486</u>	<u>\$107,099</u>	<u>\$71,257</u>	<u>\$47,589</u>	<u>\$7,561</u>	<u>\$511,992</u>
RELATIVE PERCENTAGE								
Projects Mandated by Regulatory Requirements to Maintain Compliance	30%	53%	43%	59%	50%	32%	84%	47%
Projects Required to Maintain or Improve System Reliability and/or Capacity	65%	46%	54%	40%	48%	65%	16%	51%
Projects that Utilize Technological Advances to Improve Operational Efficiency, Worker Productivity and/or Management Effectiveness	4%	1%	3%	1%	2%	3%	0%	2%

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

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

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December 18, 2013

**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
Urban System Improvements														
1 Department-wide General Engineering Services on an As-needed Basis (1)	004337	1026	CS-1499	D	500	600	500					1,100	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>														
2 Water Systems Improvements - Various Streets Throughout the City of Detroit	004360	1202	WS-680	C	1,500	1,650	300					1,950	3	D
<i>This project consists of the replacement of approximately 28,925 linear feet of existing six-inch, eight-inch, twelve-inch and sixteen-inch water main with eight-inch, twelve-inch and sixteen-inch ductile iron water mains along with appurtenances in various streets throughout the city of Detroit.</i>														
Computer Systems														
3 Data Center Reliability/Availability Improvements (1)	004366	1206	DWS-881	DB	1,500	1,100	275					1,375	4	CTA
<i>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.</i>														
4 SCADA Radio Network Upgrade (1)	004368	1207	DWS-882	DB	2,300	1,525	231					1,756	3	CTA
<i>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.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

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**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
5	Consolidated Process Control System Upgrades (1)	004392	1153	PC-773C	DBI	3,000	951	287					1,238	3	CTA
	<i>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.</i>														
6	As Needed Technical Services (1)	004400	1255	CS-1476	DB	550	250						250	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 encuesta application.</i>														
General Plant															
7	As-needed Engineering Services (1)	003450	54	CS-1345	D	505	220						220	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>														
8	General Engineering Services (1)	004206	1031	CS-1432A	D	500	330	30					360	3	CTA
	<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>														
9	As-needed CIP Implementation Assistance and Related Services (1)	004217	956	CS-1433	S/D/CM	500	500	500	500	100			1,600	3	CTA
	<i>This project provides for multi-discipline Engineering services on an "as-needed basis" to support DWSD's Water & Sewer Systems.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

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Active Projects

* For information purposes only. Not counted in Total.

(000)

	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
10	General Engineering Services (1)	004292	1182	CS-1481	D	850	181						181	3	CTA
	<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>														
11	As-needed Engineering Services for Concrete Testing, Geotechnical Soil Borings, other Testing Services, and Related Services (1)	004294	1147	CS-1488	D/C	913	1,100	900	800	700			3,500	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>														
12	Geotechnical and Related Services on an As-Needed Basis (1)	004306	1164	CS-1490	D	600	400						400	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>														
13	Comprehensive Water Master Plan Update	004440	1233	CS-1528	S	1,000	1,200						1,200	3	CTA
	<i>Scope of work includes updating of the current Water Master Plan, which will include review of previous/ongoing studies, regulatory mandates under the Clean Water Act/MDNRE, obligations by DWSD to the customers through the model contract, and DWSD policies.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

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Active Projects

* For information purposes only. Not counted in Total.

(000)

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
Springwells														
14 Springwells Water Treatment Plant 1958 Filter Rehabilitation and Auxiliary Facilities Improvements	004100	917	CS-1425	S/D/CA	699	550	440	329	111			1,430	2	CTA
<i>Provide study, design, and construction assistance services for the following projects. Project A: Relocation of Phosphoric Acid Feed System. Project B: Rehabilitation of 1958 Filters including HVAC and Architectural updates of 1930 and 1958 Buildings. Project C: Auxiliary Facilities Improvements for 1930 Plant. Project D: Update of existing O & M manuals and preparing On-line Manuals for DWSD web site. Project E: Oversight services for the 1930 plant failed filters.</i>														
15 Springwells Water Treatment Plant - 1958 Filter Rehabilitation and Auxiliary Facilities Improvements	004100	917	SP-563	C	12,000	21,000	27,000	15,000	8,000			71,000	2	CTA
<i>Provide construction services to furnish and install new filter media, underdrains, filter valves, and rate controllers; replace the existing filter control consoles, hydraulic control valves with electric control valves, enclosures; add appurtenances to enable automatic backwashing of the filters; provide a Filter Aid Polymer System to the 1930 and 1958 filter complexes; PLC based controls for automatic control of the polymer system; install a local instrumentation and controls system.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

**BOWC Approved
December 18, 2013**

Active Projects

* For information purposes only. Not counted in Total.

(000)

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
16 Replacement of High Lift and Low Lift Pumping Units at Springwells Water Treatment Plant	004234	1071	CS-1474	S/D/CA	350	386	220	825	439	284		2,154	2	CTA

The scope of work includes study, design, and construction assistance services to replace pumps, motors, and valves in both the Low Lift and the High Lift Pumping Station, replace electrical switchgear, VFDs for several of the pumps in both pumping stations, a local instrumentation and control system to monitor and operate equipment at the Low Lift and High Lift Station, and installation of a computerized control system based on a hierarchical design consisting of a main control station and remote control station and remote control stations linked to multiple PLC based local control panels throughout the SPWTP (i.e., at the laboratories, filter plant, chemical areas, and other process related areas). The work further involves constructing isolation valve chambers for each of the seven High Lift discharge lines, replacing Dewatering Pumping Units and valves, and upgrading the vacuum priming system.

Northeast

17 Northeast Water Treatment Plant - Rehabilitation of Filtration System	004113	1077	CS-1430	S/D/CA	0						572	572	2	CTA
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Provide design services, contract documents, and construction assistance services for improvements to the following: Valves, backwash pumping units, Electrical, Instrumentation and Control System, Administration Building HVAC, Service Water System, and Low Lift Exciter at Northeast Water Treatment Plant.

This project is on hold and being re-evaluated.

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

**BOWC Approved
December 18, 2013**

Active Projects

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(000)

	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
18	Sludge Treatment and Flocculation/ Sedimentation Basins Upgrade at Northeast Water Treatment Plant	004235	931	CS-1475	S/D/CA	0						3,700	3,700	2	CTA
	<i>The scope of work consists of installing continuous sludge removal systems in the settling basins and constructing a process facility for the sludge. The scope of Flocculation and Sedimentation basins upgrade includes increasing the flocculation zone length, replacing the Flocculation equipment, installation of new inlet baffles, and inclined plate settlers.</i>														
	<i>This project is on hold and being re-evaluated.</i>														
19	Northeast Water Treatment Plant - Chemical Process, Electrical and Mechanical Improvements	004316	1119	CS-1494	S/D/CA	0						2,079	2,079	2	CTA
	<i>Provide design services, contract documents, and construction assistance services for the electrical/mechanical system and I & C improvements to the process in the Chemical Building, and replacement of the filter media.</i>														
	<i>This project is on hold and being re-evaluated.</i>														

Southwest

20	Southwest Water Treatment Plant - Filtration Improvements	004314	1067	IH-106	S/D/CA	0						1	1	2	CTA
	<i>The work provides for design services, documents, and const. assist. services to replace the transfer washwater supply pumps, motors and related appurtenances; add Variable Frequency Drives; provide PLC based controls for the pumps; and provide electronic actuators for all valves. The work also includes installing a local instrumentation and controls system to monitor and operate the equipment; replace orifice plates with rate control valves and perform structural repairs.</i>														
	<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

**BOWC Approved
December 18, 2013**

Active Projects

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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
Pumping Stations and Reservoirs														
21 Booster Stations and Reservoirs Inspection, Rehabilitation and Inspection Repair Program Management	004297	1170	DWS-874	PM	1,200	1,375	3,325	3,545	3,407	3,105	1,195	15,952	3	CTA
<i>The work provides for all Pumping Stations, study, design, and construction contract documents for rehabilitation and upgrades, and management services related to construction including award of contract, inspection during construction, and furnishing all construction work through provisional allowance for subagreements.</i>					<u><u>\$28,467</u></u>	<u><u>\$33,318</u></u>	<u><u>\$34,008</u></u>	<u><u>\$20,999</u></u>	<u><u>\$12,757</u></u>	<u><u>\$3,389</u></u>	<u><u>\$7,547</u></u>	<u><u>\$112,018</u></u>		

UP - Projects Under Procurement

A Project Under Procurement has:

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

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
Projects Under Procurement**

**BOWC Approved
December 18, 2013**

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(000)

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
Metro Area Construction														
1	96" Main Relocation - 24 Mile Road and Dequindre	001841	153	WS-622	C	0	5,000	9,000	3,700			17,700	3	CTA
	<i>This project provides for the installation of approximately 25,000 linear feet of 96-inch diameter prestressed concrete embedded steel cylinder pipe with rubber and steel joints (SP-12).</i>													
2	Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road	004373	1112	WS-681	C	2,000	10,000	13,000	11,400			34,400	3	CTA
	<i>This project will provide for the installation of approximately 35,650 feet of parallel 42-Inch diameter prestressed embedded concrete cylinder pipe (PCCP) and approximately 1070 linear feet of 36-inch diameter of PCCP in 24 Mile Road from Rochester Station to Romeo Plank Road. The work will also provide for all interconnections and valves.</i>													
3	36-inch Water Main in Telegraph Road	004419	1230	WS-684	C	2,000	5,000	2,300				7,300	3	CTA
	<i>This project includes installation of approximately 10,530 feet of 36-inch dia. water main in Telegraph Road from Cherry Hill to Warren Ave.</i>													
4	Replacement of Five (5) PRV Pits of DWSD Treated Water Transmission System	004427	1216	DWS-891	C	600	700					700	3	CTA
	<i>The scope of work consists of replacement of five (5) existing defective Pressure Release Valves (PRV), improve accessibility to the pits, install isolation valves for the PRV pit, provide new sump pumps as needed, and other necessary improvements.</i>													

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
Projects Under Procurement**

BOWC Approved
December 18, 2013

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counted in Total.

(000)

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
Urban System Improvements														
5 Water Main Replacement in Various Streets Throughout the City	004170	1108	WS-648A	C	2,000	3,560						3,560	3	D
<i>This project work consists of the replacement, installation, or abandonment of existing eight-inch, twelve-inch, and sixteen-inch water mains with approximately 5,800 linear feet (L.F.) of eight-inch, 1,400 L.F. of twelve-inch, and 1,100 L.F. of sixteen-inch ductile iron pipe, including an eight-mil polyethylene wrap, all appurtenances, and related structures.</i>														
6 Water System Improvements, Various Streets Throughout the City of Detroit	004428	463	WS-686	C 3	1,000	7,400	1,000					8,400	3	D
<i>This project includes replacement of approx. 38,390 feet of the existing 6-inch, 8-inch, and 12-inch water mains by 8-inch and 12-inch ductile iron pipes and fittings. Designed under CS-1240 Task #40 & 48.</i>														
7 Water System Improvements - Various Streets Throughout the City of Detroit	004430	463	WS-685	C 4	2,000	7,400	2,465					9,865	3	D
<i>This project includes replacement of approx. 42,428 feet of existing 6-inch, 8-inch, and 16-inch water mains with 8-inch and 12-inch ductile iron pipe and fittings. Design under As Needed Engineering Services Contracts CS-1240 Task 49, and CS-1372 Task 64.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
Projects Under Procurement**

**BOWC Approved
December 18, 2013**

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(000)

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 Plant														
8 Vulnerability Assessment Recommended Upgrades	004230	1062	DWS-862A	DB	0						1	1	2	CTA
<i>This project will provide for the installation of intrusion detection software; installation of cameras at the pumping stations, Clear Well, Main Transformer Station, and the Emergency Generators; perform video assessment wherever there are alarm points; install interior and exterior detection devices. This project also provide other miscellaneous security devices and monitoring systems to secure DWSD's properties.</i>														
<i>The project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														
9 Central Services Facility (CSF) Improvements (1)	004398	1188	DWS-884A	C	1,000	1,000						1,000	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>														
10 Metering Improvements at Southwest & Northeast WTPs	004418	1168	DWS-888	C I	0						1	1	2	CTA
<i>This project includes rehabilitation of venturi meter pits with ventilation, lighting, easy access, new flow transmitters and data monitors using ovation sytem at both Southwest WTP and Northeast WTP.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
Projects Under Procurement**

**BOWC Approved
December 18, 2013**

* For information purposes only. Not counted in Total.

(000)

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
Water Works Park														
11 Yard Piping, Valves and Venturi Meters Replacement at Water Works Park	004296	1166	WW-536	C	0	5,000	11,000	14,000	5,000			35,000	2	CTA
<i>The work provides for the replacement of yard piping from 24 inch to 72 inch diameter, pressure reducing valves improvements, replacing venturi meters, water supply valves, 48 inch HLPS suction gate valves, discharge header isolation valves and reburish valve manholes. The work also provides for other miscellaneous improvements.</i>														
Springwells														
12 Springwells Water Treatment Plant Discharge Header Pipe System Replacement	004266	1157	SP-567	DB	0						1	1	2	CTA
<i>The work consists of designing, furnishing and installing a complete functional double header system (replacement in kind). This includes field investigations, prepare basis of design, design and replacement of discharge header system, pipe support, valves replacement, and other ancillary work to provide a complete and fully functional system.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year
Projects Under Procurement**

**BOWC Approved
December 18, 2013**

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(000)

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
Northeast														
13 Northeast Water Treatment Plant - Rehabilitation of Filtration System	004370	1077	NE-378	C	0						1	1	2	CTA
<i>Provide construction services for Valves replacement, rehabilitation or replacement of backwash pumping units, Electrical, Instrumentation and Control System improvements, Administration Building HVAC, Service Water System, and Low Lift Exciter improvements at Northeast Water Treatment Plant.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														
						<u>\$10,600</u>	<u>\$45,060</u>	<u>\$38,765</u>	<u>\$29,100</u>	<u>\$5,000</u>	<u>\$0</u>	<u>\$4</u>	<u>\$117,929</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

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

Projects Pending Close-out

* For information purposes only. Not
counted in Total.

(000)

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
Metro Area Construction														
1 Parallel 42-Inch Main in 24 Mile Road from Foss Road to Fairchild Road	004226	1111	WS-674	C 2	686	5						5	3	CTA
<i>This project will provide for the installation of approximately 13,900 linear feet of 42-inch diameter ductile iron pipe in 24 Mile Road, parallel to the existing 36-inch main from Foss Road to Fairchild Road. The work will also provide for all interconnections and valves.</i>														
Urban System Improvements														
2 Water System Improvements, Various Streets Throughout the City	004240	1156	WS-668	C	140	5						5	3	D
<i>This project work consists of the replacement of 16,996 linear feet (L.F.) of six-inch and eight-inch diameter of existing old water main by eight-inch diameter ductile iron pipe and fittings. It also includes the installation of 55 L.F. of diameter ductile iron water main in 16-inch diameter steel casing by Jack & Bore through Warren Ave.</i>														
Computer Systems														
3 Customer Billing and Management System (CBMS) Upgrade (1)	004219	1139	CS-1465	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>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

**BOWC Approved
December 18, 2013**

Projects Pending Close-out

* For information purposes only. Not counted in Total.

(000)

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	
Southwest															
4 Oversight of Waste Washwater and Sludge Disposal at Lake Huron, Southwest, Northeast and Springwells Plants	001999	269	CS-1305	D/CA	574	5						5	2	CTA	
<i>This project provides oversight services for the design/build contract for treatment facilities for the disposal of waste washwater at the Lake Huron WTP and sludge collection, treatment and disposal of alum sludge and treatment of waste washwater at the Southwest, Springwells, Northeast WTPs.</i>															
5 Southwest Water Treatment Plant, Sludge Treatment & Waste Washwater Treatment Facilities	003466	262	SW-548	C	3,444	5						5	2	CTA	
<i>This project involves the continuous sludge removal from the settling basins and filter waste Backwash Water Treatment with coagulation, flocculation, sedimentation and thickening, and removal of alum sludge to the Treatment Facilities. The effluent flow will be monitored and sampled prior to the Sexton-Kilfoil drain.</i>															
Pumping Stations and Reservoirs															
6 Wick Road Station Rehabilitation	004224	1047	DWS-858	DB	1,337	5						5	3	CTA	
<i>This project provides for the design, furnishing, installing, and testing of a new building. The work also provides for transformers, switchgear, variable frequency drives, starters, motors, pumps, heating, cooling and ventilation, lighting, controls, power monitoring, ovation system modifications, fire alarm, security, and training. This project further provides for complete documentation of installed system and revised O & M manuals.</i>															
7 Rochester Pump Suction Improvements	004432	1230	DWS-893	C 1	750	5						5	3	CTA	
<i>The scope of work includes upsizing of Rochester pump suction line from 24-inch to 42-inch.</i>															
					\$6,931	\$35	\$0	\$0	\$0	\$0	\$0	\$35			

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

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
Metro Area Construction														
1 Parallel 48-Inch Main from Wick Station to Hannan Road		2005	1113	C	0	10,000	10,000					20,000	3	CTA
<i>This project will provide for the installation of approximately 15,000 feet of 48-Inch main, parallel to the existing 48-Inch and 42-Inch mains, from Wick Station to Hannan Road. The work will also provide for all interconnections and valves.</i>														
2 Water Transmission Allowance/Pump Station Improvements		2010	1230	D/C	5,000	10,000	10,000	10,000	10,000	10,000		50,000	3	CTA
<i>This project is a yearly funding allocation for the design and/or construction work for the rehabilitation or replacement/construction of aging water transmission lines and all appurtenances, connections and related structures. This allowance will also be used to fund critical pump station upgrades.</i>														
Urban System Improvements														
3 Water Main Replacement Allowance			463	D/C	6,000	10,000	10,000	10,000	10,000	10,000		50,000	3	D
<i>This project is a yearly funding allocation for the design and/or construction work for the maintenance, replacement and/or construction of aging water mains and all appurtenances, connections and related structures in the City.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
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Computer Systems

4	IT Systems Allowance (1)		2013	1262	DB	0	3,000	1,500	1,500	1,500	1,500	9,000	4	CTA
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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.

General Plant

5	Water Treatment Plant Allowance		2012	1256	D/C	5,000	10,000	10,000	5,000			25,000	2	CTA
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This is an Allowance for unplanned critical projects, equipment replacement/rehabilitation, critical asset replacement, energy saving project, etc. at the Water Treatment Plants and other Water Operation Facilities.

Springwells

6	Springwells Water Treatment Plant - Low Lift and High Lift Pump Station		2004	1071	C	0	1,100	33,000	27,500	22,000	14,900	98,500	2	CTA
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The scope of work includes construction for the replacement of High Lift and Low Lift pumps, motors, and valves, a 4800-volt switchgear, VFDs for several of the pumps in both High Lift and Low Lift Pumping Station, a local instrumentation and control system to monitor and operate equipment at the Low Lift and High Lift Station, and installation of computerized control system based on a hierarchical design consisting of a main control station and remote control stations linked to multiple PLC based local panels throughout the SPWTP (i.e., at the laboratories, filter plant, chemical areas, and other process related areas). The work will further involve constructing isolation valve chambers for each of the seven High Lift discharge lines, replacing Dewatering Pumping Units and valves, and upgrading the vacuum priming system.

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
7 Springwells Water Treatment Plant - Pre-treatment Improvements		2004	1075	D/CA	0						1	1	2	CTA
<p><i>Provide design and construction assistance services for the installation of two new raw water conduits from Low Lift Pump to 1958 plant, and a local instrumentation and controls system to operate and monitor equipment at the Pre-treatment and Chemical facilities. This also includes construction of new rapid mix facilities and installing new turbine flocculators, and a new superstructure above the 1958 Sedimentation Basins. This project further will entail demolishing portions of the 1958 Settling Basins, demolishing the 1930s pre-treatment facility, the Sanitary Sewer Lift Station, and other performing rehabilitation work.</i></p> <p><i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i></p>														
8 Springwells Water Treatment Plant - Pre-treatment Improvements		2004	1075	C	0						1	1	2	CTA
<p><i>Provide construction services for the installation of two new raw water conduits from Low Lift Pump to 1958 plant, and a local instrumentation and controls system to operate and monitor equipment at the Pre-treatment and Chemical facilities. This also includes construction of new rapid mix facilities and installing new turbine flocculators, and a new superstructure above the 1958 Sedimentation Basins. This project further will entail demolishing portions of the 1958 Settling Basins, demolishing the 1930s pre-treatment facility, the Sanitary Sewer Lift Station, and other performing rehabilitation work.</i></p> <p><i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i></p>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
9 Steam, Condensate, Compressed Air and Yard Piping Improvements at Springwells WTP		2012	1248	S/D/C	0	200	1,000	2,000	10,000	7,800		21,000	3	CTA
<i>This project includes replacement of steam lines, condensate return lines and pumps, compressed air lines, gates, valves, and yard piping system at Springwells Water Treatment Plant.</i>														

Northeast

10 Northeast Water Treatment Plant - Design Services for Major Pumping Equipment Improvements		2002	927	D/CA	0						1	1	2	CTA
<i>Provide design services, contract documents, and construction assistance services for the following: upgrading the Low Lift Pump Station (LLPS) and High Lift Pump Station (HLPS) pump; replacing the suction gate valves, cabinet unit heaters, sump pumps and rails; refurbish supply fans, and steam coils in the LLPS and the HLPS; provide motor floor exhaust and install oil water separator for high lift building.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														
11 Northeast Water Treatment Plant - Construction Services for Major Pumping Equipment Improvements		2002	927	C	0						1	1	2	CTA
<i>Provide construction services for upgrading the Low Lift Pump Station (LLPS) and High Lift Pump Station (HLPS) pumps; replacing the suction gate valves, ductwork heaters, cabinet unit heaters, sump pumps and rails; refurbish supply fans and steam coils in the LLPS and the HLPS; provide motor floor exhaust and install oil water separator for high lift building.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
12 Sludge Treatment and Flocculation/Sedimentation Basins Upgrade at Northeast Water Treatment Plant <i>Provide construction services for the rehabilitation of the Flocculation/Sedimentation basins at Northeast Water Treatment Plant. The tasks include, but are not limited to, increasing the flocculation zone length, replacing existing drives, motors, and starter per basin, adding intermediate and end baffle walls, and constructing a continuous sludge collection system including treating and disposal for the sludge collected.</i> <i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>	NE-374	2002	931	C	0						1	1	2	CTA
13 Northeast Water Treatment Plant - Chemical Process, Electrical and Mechanical Improvements <i>Provide construction services for the electrical/mechanical system and I & C improvements to the process in the Chemical Building, and replacement of the filter media.</i> <i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>		2005	1119	C	0						1	1	2	CTA
14 Northeast Water Treatment Plant - High Pressure Zone Pumping Units <i>This work consists of the replacement of existing four (4) high lift pumps with higher head pumps, two (2) of them with variable speed drives and improve building ventilation to meet the higher horse power motor needs.</i> <i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>		2009	1211	C	0						1	1	2	CTA

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
Southwest														
15 Southwest Water Treatment Plant Improvements - High Lift and Low Lift Pump Station, Administration Building, Chemical Building and System		2004	1065	D/CA	0						1	1	2	CTA
<i>Provide design services, contract documents, and construction assistance services for installing a low lift pump, motor and controls; new traveling screen controls and flushing system; and sluice gates for isolation of Equalization Chamber and High Lift Suction Flume. The work will also include High and Low Lift Building structural and architectural rehabilitation.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														
16 Southwest Water Treatment Plant Improvements - High Lift and Low Lift Pump Station, Administration Building, Chemical Building and System		2004	1065	C	0						1	1	2	CTA
<i>Provide construction services for installing a low lift pump, motor and controls; new traveling screen controls and flushing system; and sluice gates for isolation of Equalization Chamber and High Lift Suction Flume. The work will also include High and Low Lift Building structural and architectural rehabilitation.</i>														
<i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>														

**Water Supply System
Capital Improvement Program
Projected Expenditures Spread by Fiscal Year**

BOWC Approved
December 18, 2013

**New Projects
(000)**

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
17 Southwest Water Treatment Plant - Filtration Improvements - Construction		2004	1067	C	0						1	1	2	CTA
<p><i>Provide construction services to replace the transfer washwater supply pumps, motors and related appurtenances; add Variable Frequency Drives; provide PLC based controls to enable automatic control of the pumps; and provide electronic actuators for all valves. The work will also include installing a local instrumentation and controls system to monitor and operate the equipment; replace orifice plates with rate control valves and perform structural repairs, etc.</i></p> <p><i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i></p>														
18 Southwest Water Treatment Plant - Electrical and Instrumentation and Controls - Design		2004	1068	D/CA	0						1	1	2	CTA
<p><i>Provide design services, contract documents, and construction assistance services for the installation of a computerized control system based on a hierarchical design and consisting of a main control station and remote multiple PLC (Programmable Logic Control) based local control panels throughout the SWWTP; replace PCB type surge protection capacitors and most of the existing low voltage electrical system and lighting facilities throughout the plant.</i></p> <p><i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i></p>														

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**New Projects
(000)**

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
19 Southwest Water Treatment Plant - Electrical and Instrumentation and Controls - Construction <i>Provide construction services for the installation of a computerized control system based on a hierarchical design and consisting of a main control station and remote control stations linked to multiple PLC (Programmable Logic Control) based local control panels throughout the SWWTP; replace PCB type surge protection capacitors and most of the existing low voltage electrical system and lighting facilities throughout the plant.</i> <i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>		2004	1068	C	0						1	1	2	CTA
20 MCCs and Lighting Panels at Southwest Water Treatment Plant <i>The scope of work consists of the study, design, and replacement of four (4) motor control centers (MCCs), lighting panels and associated conduits and wiring at the Southwest Water Treatment Plant.</i> <i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i>		2010	1234	S/D/C	0						1	1	3	CTA

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Lake Huron															
21 Lake Huron Water Treatment Plant Replacement of Pumping Unit No. 4 and Furnishing Variable Frequency Drive and Replacement of Switchgear at Joy Road Pumping Station		2010	1227	C	200	2,500	5,000	1,000				8,500	3	CTA	
<p><i>The scope of work consists of designing and replacing the existing pumping unit for the low lift pump No. R4 and equipping it with a Variable Frequency Drive with a by pass starter. Work will also include verifying the HVAC for displacement of heat being generated from proposed VFD, and integration with the ovation system.</i></p> <p><i>This project also includes replacement of switchgear at Joy Rd Pumping Station and its associated work.</i></p>															
Pumping Stations and Reservoirs															
22 Ready Road Pump Station and Reservoir	DWS-892	2010	1228	C	0						1	1	3	CTA	
<p><i>The scope of work consists of the construction of a five (5) million gallon (MG) portable water storage tank and reservoir pump station; and an unmanned mechanical and electrical/ control system. The work will also include the construction of a 11.5 mile length water main from the existing 24" Ready Road main extending to, and along Wil-Carleton Road to connect both Ash Township meters to the DWSD network.</i></p> <p><i>This project is being re-evaluated. Changes in scope of work, cost, and schedule are likely.</i></p>															
						<u>\$16,200</u>	<u>\$46,800</u>	<u>\$80,500</u>	<u>\$57,000</u>	<u>\$53,500</u>	<u>\$44,200</u>	<u>\$14</u>	<u>\$282,014</u>		