



City of Detroit
Water & Sewerage Department
Finance Division

DATE: February 12, 2015 **REVISED – March 3, 2015**

TO: Board of Water Commissioners (BOWC) Operations, Regulatory, Compliance
and Procurement (ORCAP) Committee
Director
Chief Financial Officer

FROM: Syed Ali, Head Engineer, Capital Management Group

**RE: **FY 2016 Sewage Disposal System CIP
Brief Summary/Highlights and Review Comments Response****

Attached is the FY 2016 Sewage Disposal System CIP for your review and consideration. The “Preliminary” CIP was presented to the ORCAP Committee and BOWC Workshop for review and discussion on December 22, 2014, and January 14, 2015 respectively. The CIP was again presented to the ORCAP Committee for review on February 12, 2015. An update was also provided to the BOWC Finance Committee on February 17, 2015. Review comments from customers, BOWC Technical Advisor and BOWC commissioners were reviewed by DWSD and incorporated in the final version of the CIP, if appropriate.

There are no changes in the Sewer CIP since it was presented to the ORCAP committee on February 12, 2015, except the following:

- New City Council member Janeé Ayers has been added on the cover page.

Given below is the brief summary/major highlights.

Revisions made since January 14, 2015 BOWC Workshop presentation are shown in *italics*. *No changes in the highlights since February 12, 2015 presentation.*

Sewage Disposal System (SDS)

- *Total Sewer CIP plan (5 year + Remaining) is \$463.3 million and the 5-year CIP plan is \$434.8 million.*
- A shaded column with FY 2014-15 updated expenditure projections is provided in the CIP for information purposes only; it is not counted in the sub- total or total and is not a part of the 5-year plan.
- **New for this year** - contract amount, start date and completion date have been added in the CIP.
- Five (5) new project proposals totaling approximately \$81.6 million have been added.

- Total 5- year “Wastewater Treatment Plant Allowance” is \$50.0 million (\$10.0 million each) (CIP #1257, item 9, page 40).
- Total 5- year “Interceptor Allowance” is \$25.0 million (\$5.0 million each FY) (CIP #1263, item 11, page 41). *FY 2015 Allowance is reduced to \$1.0 million from \$5.0 million.*
- *Total 5- year “Sewer Replacement Allowance” is \$84.0 million (CIP #448, item 13, page 41). FY 2015 Allowance adjusted to \$1.4 million. FY 2016 Allowance adjusted to \$4.0 million.*
- Total 4- year “IT Systems Allowance” is \$7.5 million (CIP #1262, item 16, page 42).
- *PC-791 Sewage Sludge Incinerator Air Quality Improvements projections revised (item 7, page 18).*
- *PC-792 Biosolids Dry Facility projections revised (item 8, page 18).*
- *CS-1490 Geotechnical and Related Services projections revised (item 15, page 21).*
- *The sewer lining contract DWS-889 added (item 5, page 26). This project came out of the Lateral Sewer Replacement Allowance. Allowance adjusted.*
- *The sewer lining contract DWS-890 added (item 7, page 27). This project came out of the Lateral Sewer Replacement Allowance. Allowance adjusted.*
- *The sewer lining contract DWS-900 added (item 6, page 27). This project came out of the Lateral Sewer Replacement Allowance. Allowance adjusted.*
- *The sewer lining contract DWS-901 added (item 8, page 27). This project came out of the Lateral Sewer Replacement Allowance. Allowance adjusted.*
- *Start date, completion date, and contract price for some of the contracts have been corrected.*
- Following projects that existed in FY 2015 CIP have been deleted, *as these projects are either complete, no more needed or closed by Accounting:*
 - PC-756 New Troughs and Weirs for Primary Clarifiers 13-16 – Project is complete.
 - PC-784A Sewer Meter Replacement – Project is complete.
 - PC-748 Baby Creek CSO Facility – Project is complete.
 - CS-1364/PC-755 Oakwood CSO Facility and Pump Station – Project is complete.
 - PC-772 Fischer PS Improvements - Project is complete.
 - CS-1465 Customer Billing and Management System (CBMS) Upgrade - Project is complete.
 - CS-1476 As Needed Technical Services - Project is complete.
 - CS-1541(Design) and Construction (CIP #1250) of RRO 2 Conduit (totaling \$88.0 million). This project is no more needed because of MDEQ approving the DWSD proposed alternative project estimated approximately \$28.0 million.
 - DWS-886 East Side Sewer Rehabilitation in City of Detroit (totaling \$16.4 million) – Cancelled/Construction contract not procured.
 - DWS-887 West Side Sewer Rehabilitation in City of Detroit (totaling \$16.4 million) – Cancelled/Construction contract not procured.
 - Process Improvements for the Secondary Treatment at WWTP (CIP #1195) - No more needed.

- Following projects have been moved from the “Active” category to “Pending Closeout” category as the projects are anticipated to be completed and closed out. Contract expenditures (unaudited numbers) up to the end of FY 2014 are shown below. Projects marked with * are 50/50 combined water and sewer projects; sewer portions of the contract expenditures are shown here.
 - PC-774 Complex I & II Incinerator Improvements (item 2, page 29) - \$30,330,339.
 - PC-780 Rehabilitate Sludge PS 1 & 2 (item 4, page 30) - \$5,854,353.
 - PC-786 Rouge River Outfall No.2 (RRO-2) Segment 1 - WWTP Modifications (item 5, page 30) - \$11,048,814.
 - *CS-1345 As-needed Engineering Services (item 6, page 31) - \$4,012,396.
 - CS-1443 Plant-wide Fire Alarm System Upgrade/Integration and Fire Protection Improvements – WWTP (item 7, page 31) - \$624,791.
 - PC-782 Plant-wide Fire Alarm System Upgrade/Integration and Fire Protection Improvements (item 8, page 32) - \$2,923,401.
 - *CS-1499 Department-wide General Engineering Services on an As-needed Basis (item 10, page 33) - \$4,192,136.
 - *DWS-884A Central Services Facility (CSF) Improvements (item 11, page 33) - \$520,873.
 - CS-1421 Fisher Pumping Station Improvements (item 13, page 34) - \$2,787,895.
 - PC-788 Hubbell-Southfield CSO Control Facility & In-System Storage Gate Improvements (item 14, page 34) - \$10,830,143.
 - DWS-876 East Side City of Detroit Sewer Repair Contract for Inspection and In-Place Rehabilitation of Existing Circular and Non-Circular Sewers (item 15, page 35) - \$42,242,001.
 - DWS-877 West Side City of Detroit Sewer Repair Contract for Inspection and In-Place Rehabilitation of Existing Circular and Non-Circular Sewers (item 16, page 35) - \$41,882,188.
 - DWS-899 Emergency Sewer Repair/Rehabilitation (item 17, page 36) - \$0.

- Following projects have been moved from the “New” category to “Under Procurement” category as a result of approval of authorization to proceed to procure the services:
 - PC-757 Rehabilitation of Primary Rectangular Clarifiers and Pipe Gallery (item 2, page 25)
 - PC-796 Aeration System Improvements (item 3, page 26).
 - *CS-1701 Rehabilitation of Central Offload Facility (CIP #1221, item 4, page 26).*

- Projects’ expenditures have been revised based on the current status in terms of the progress/schedule and cost, and the input/information provided by the project managers.

PROJECTION ANALYSIS – SEWAGE

FY 2016 CIP Vs. FY 2015 CIP

	Sewage Disposal System							Not counted in Sub Total or Total. For information only.		
	'(000)									
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	5 Year Sub Total	Remaining	Total
Per FY 15 Sewer CIP	113,652	193,684	113,813	96,503	76,375	72,700		553,075	56,449	609,524
Per FY 16 Sewer CIP		188,016	128,326	98,507	94,525	67,800	45,650	434,808	28,443	463,251
Comparison: FY 16 CIP vs. FY 15 CIP		(5,668)	14,513	2,004	18,150	(4,900)		(118,267)	(28,006)	(146,273)
Comparison %: FY 16 CIP vs. FY 15 CIP		-2.93%	12.75%	2.08%	23.76%	-6.74%		-21.38%	-49.61%	-24.00%

FY 2016 CIP Vs. FY 2016 Preliminary CIP

	Sewage Disposal System							Not counted in Sub Total or Total. For information only.		
	'(000)									
	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	5 Year Sub Total	Remaining	Total	
Per FY 16 Preliminary Sewer CIP	186,216	129,581	104,957	95,275	65,550	45,000	440,363	28,443	468,806	
Per FY 16 Sewer CIP	188,016	128,326	98,507	94,525	67,800	45,650	434,808	28,443	463,251	
Comparison: FY 16 CIP vs. FY 16 Preliminary CIP	1,800	(1,255)	(6,450)	(750)	2,250		(5,555)	-	(5,555)	
Comparison %: FY 16 CIP vs. FY 16 Preliminary CIP	0.97%	-0.97%	-6.15%	-0.79%	3.43%		-1.26%	0.00%	-1.18%	

CIP Review Comment and DWSD Response

The proposed new projects were presented and discussed with the TAC/AWG group on October 7, 2014 and the “Preliminary” CIP was sent on December 22, 2014 for review and comments.

DWSD did not receive any comments from Sewer customers.

The following summarizes BOWC Technical Advisor review comments on the FY 2016 “Preliminary” Sewer CIP and the DWSD response.

Page No.	Description	Comments	DWSD Response
4 of 40	Pending Close-out	A total of 18 projects pending for close-out; \$30M for 2014-2015 and \$153,000 for 2015-	Yes, except DWS-899 Emergency Repair and Rehabilitation (Sewer Lining Contract, Contract Price

		2016. Are these totals included in the \$974M list of closed out projects that are not capitalized?	\$2.9 million).
4 of 40	Ongoing Projects	Are the projects totaling \$160M all included in the monthly project updates?	No. The updates list includes only those projects that are managed by the construction unit of water operations group and wastewater operations group. The updates do not include the projects managed by other DWSD operations/units like field services, and IT, and also do not include projects under procurement.
9 of 40 40 of 40	Information Technology Information Technology Systems Allowance	Sewer CIP \$14.5M IT capital over 5 years seems low. Allowance of \$7.5M over 5 years.	\$14.5 million is only sewer portion of IT. Another \$9.6 million is budgeted on the water side.
19 of 40	CS-1448 Study, Design, and Construction of Modified DRO2	The current project has \$5.6M remaining. Will funds be credited back to the department now that the Disinfection project RRO is upcoming project- page 37 item 5 (\$27.8M)?	Yes, remaining funds will be credited back to the Department.
39 of 40	Lateral Sewer Replacement DWS-899,889,890,900, and 901	See attached Spreadsheet for Detroit Total Lateral Sewer Replacement Costs and % Complete, Tarolyn Buckles prepared. Please confirm if the sewer lining projects will be capitalized. Costs are \$90M (\$5M, \$10M increments each FY). Current Total of Sewer Lining costs are \$15,301,790. See Attached Buckles Spreadsheets.	Sewer lining work is generally capitalized.
38 of 40	Interceptor Allowance	There is a \$25M allowance over 5 years for evaluation and rehabilitation of interceptors and large diameter sewers. Is the condition assessment for the interceptors leading to the	The WWTP is coordinating the condition assessment with Field Services. Preliminary reports are completed. Field Services will update on next steps for repairs.

		WWTP completed? High volatiles were reported.	
	Wastewater Master Plan	Is the Wastewater Master Plan potential project included in the CIP?	No. Master plan project will be added in the next year CIP (FY 2017 CIP).
	GDRSS Model	Will plans for completion of the Sewer GDRSS Model be included in the CIP?	No. Updates are made to GDRSS model as projects are designed and constructed. (e.g. GDRSS model is currently being updated with calibration data from the Upper Rouge project)
	Sewer Pumping Stations	Will a condition assessment be planned for all Sewer pumping stations and CSO basins? ORCAP observed severe corrosion on the piping and equipment at the NESPS during a tour conducted October 2014.	Yes. Previous condition assessment was completed in 2013 needs assessment study. Next condition assessment is planned for 2016.