



CITY OF RICHMOND

Department of Public Utilities

November 30, 2023

Mr. Jerome Brooks
Regional Director
Piedmont Regional Office
Department of Environmental Quality
4949-A Cox Road
Glen Allen, Virginia 23060

Re: 2023 Financial Compliance & Progress Report, City of Richmond Virginia Special Order
by Consent and VPDES Permit VA0063177

Dear Mr. Brooks:

In compliance with SECTION A.4 of the STATE WATER CONTROL BOARD ENFORCEMENT ACTION SPECIAL ORDER BY CONSENT (Order) ISSUED TO THE CITY OF RICHMOND, Permit No. VA0063177, effective 17 March 2005, please accept this Financial Compliance & Progress Report describing progress made in the previous fiscal year in controlling Combined Sewer Overflows (CSOs) and plans for further implementation of the Long Term Control Plan (LTCP) in the near and long term future. This report contains all the elements required in SECTION A.4. listed in the Order as follows:

“1. An independent rate consultant report that includes schedules and other material designed to demonstrate compliance with the above funding and spending criteria. At a minimum, the independent rate consultant’s report will include:

- a. A schedule of sewer rates and charges in effect during the year and an explanation of any changes in the sewer rates and charges during the year;***
- b. A schedule that calculates the current year annual sewer bill for a residential customer with a 7 ccf average monthly sewer use and the percentage of such bill to median household income in the City;***
- c. A schedule detailing sewer related revenues, operation and maintenance expenses, net revenues, debt service, reserve funds and the sewer debt service coverage ratio for the previous year;***



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- d. A schedule detailing amounts borrowed, grants, and other sources of capital funds, and the amount of capital funds obligated for water quality projects during the previous year; and,*
 - e. A schedule displaying the industrial rate structure and progress toward the goal of parity between industrial and residential rates.*
- 2. An accounting of all sums expended on implementation of specific CSO projects contained in the LTCP in the previous fiscal year and in each fiscal year since the effective date of this Order.*
 - 3. An accounting of all sums obligated in the current fiscal year, and funds projected to be obligated within the next five years for implementation of specific CSO projects contained in the LTCP.*
 - 4. A narrative report of the status of each CSO project identified in the LTCP including projected completion dates contingent upon funding availability.*
 - 5. A status report of progress being made in procuring state and federal grants and low interest loans for the purpose of implementing specific elements of the LTCP.”*

COMPLIANCE STATEMENT

Based on information referenced in Attachment No. 1 (Exhibits 1 through 3) of this report, we confirm to you the following:

1. Effective July 1, 2023, the sewer rates and charges were adjusted in accordance with Section A.1 of Appendix A to the CSO Special Order. See Exhibit 1 for a summary of the sewer rate changes for the most recent five year period.
2. The Special Order required the City to increase sewer rates such that the annual sewer bill for a typical residential customer with 7 ccf of average monthly sewer use will be at least 1.25% of MHI. As of July 1, 2023, the annual sewer bill for residential customers with 7 ccf average monthly sewer use was 1.60% of MHI for the City of Richmond. See Exhibit 2 for details.
3. For the year ended June 30, 2023, the debt coverage ratio in the City's Sewer Fund was 2.08 compared with the 1.75 maximum limit stipulated in the Special Order. See Exhibit 3 for details.



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4. During the year ended June 30, 2023, the City obtained the following capital funds that were used for CSO and water quality project appropriations.

Revenue bonds	\$32,517,165
Grants/Construction-in-Aid funds	1,517,499
Working capital transfers	<u>20,058,545</u>
Total	<u>\$54,093,209</u>

Attachments No. 2 through No. 4 provide a status report on information required by the Order in Sections A.4.2. through A.4.5.

As required by the Order, the City agrees to meet with the Department of Environmental Quality in December 2023 to discuss the status of the CSO projects required under this Order. By way of this letter, the City requests such a meeting. Please contact this office at (804) 646-5205 to schedule the meeting at a mutually convenient date and time.

Sincerely,

April N. Bingham

April N. Bingham
Senior Director

cc: Robert C. Steidel, Deputy Chief Administrative Officer, Operations, City of Richmond
John Vaughan, Jr, Deputy Department Director Senior, City of Richmond
Emily J. Messer, Assistant City Attorney, City of Richmond
Karen Doran, Manager, Clean Water Financing & Assistance Program, DEQ-Central Office
Jaime Robb, Deputy Regional Director, DEQ – PRO,
Heather Deihs, Water Compliance & Monitoring Manager, DEQ-PRO
Jefferson Reynolds, Enforcement Manager, DEQ-PRO



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Attachments

Attachment No. 1

(SECTION A.4.1.) An independent rate consultant report and Exhibit 1, Exhibit 1a, Exhibit 1b , Exhibit 2 and Exhibit 3.

Attachment No. 2

(SECTION A.4.2.) An accounting of all sums expended on implementation of specific CSO projects contained in the LTCP in the previous fiscal year and in each fiscal year since 17 March 2005 and, Exhibit 4.1 and Exhibit 4.2.

Attachment No. 3

(SECTION A.4.3.) An accounting of all sums obligated in the current fiscal year, and funds projected to be obligated within the next five years for implementation of specific CSO projects contained in the LTCP and Exhibit 5.

Attachment No. 4

(SECTION A.4.4. and SECTION A.4.5.) A narrative report of the status of each CSO project identified in the LTCP including projected completion dates contingent upon funding availability and a status report of progress being made in procuring state and federal grants and low interest loans for the purpose of implementing specific elements of the LTCP.

Attachment No. 5

In accordance with 2020 Va. Acts 634, 2020 Va. SB 1064, this report to DEQ contains information on the level and sources of funding and financing DPU has applied to the CSO system in each of the past five fiscal years as well as an assessment of funding needs in future years. See Exhibit 6 and Exhibit 7 for details.

WASTEWATER CHARGES FOR SERVICES

Per Section A.4. Requirement 1.a.
See Explanatory notes on Exhibit 1b

	<u>7/1/2019</u>	<u>7/1/2020</u>	<u>7/1/2021</u>	<u>7/1/2022</u>	<u>7/1/2023</u>
Volume Charge - Residential	7.295	7.295	7.587	7.985	8.504
Volume Charge - Commercial	7.295	7.295	7.587	7.985	8.504
Volume Charge - Industrial	7.295	7.295	7.587	7.985	8.504
Volume Charge - Municipal	7.295	7.295	7.587	7.985	8.504
Monthly Service Charge (5/8" Meter)	18.21	18.21	18.94	19.93	21.23
Private Water Supply (non-meter)	65.6	65.6	68.22	71.8	76.47
Strong Wastewater Charge (275 mg/l)	0.2247	0.2247	0.43	0.45	0.48
Strong Wastewater Charge (250 mg/l)	0.2763	0.2763	0.41	0.43	0.458
Nitrogen Surcharge	0.969	0.969	1.73	1.82	1.94
Phosphorus Surcharge	1.2403	1.2403	2.44	2.57	2.74

Exhibit 1

WASTEWATER CHARGES FOR SERVICES

Per Section A.4. Requirement 1.a.

See Explanatory notes on Exhibit 1b

	<u>7/1/2019</u>	<u>7/1/2020</u>	<u>7/1/2021</u>	<u>7/1/2022</u>	<u>7/1/2023</u>
Commercial and Industrial Wastewater Rates					
Monthly Service Charge (5/8" Meter)	\$18.21	\$18.21	\$18.94	\$19.93	\$21.23
Monthly Service Charge (3/4" Meter)	\$25.98	\$25.98	\$27.02	\$28.44	\$30.29
Monthly Service Charge (1" Meter)	\$41.53	\$41.53	\$43.19	\$45.46	\$48.41
Monthly Service Charge (1-1/2" Meter)	\$80.41	\$80.41	\$83.63	\$88.02	\$93.74
Monthly Service Charge (2" Meter)	\$127.05	\$127.05	\$132.13	\$139.07	\$148.11
Monthly Service Charge (3" Meter)	\$251.44	\$251.44	\$261.50	\$275.23	\$293.12
Monthly Service Charge (4" Meter)	\$391.38	\$391.38	\$407.04	\$428.41	\$456.26
Monthly Service Charge (6" Meter)	\$780.10	\$780.10	\$811.30	\$853.89	\$909.39
Monthly Service Charge (8" Meter)	\$1,246.56	\$1,246.56	\$1,296.42	\$1,364.48	\$1,453.17
Monthly Service Charge (10" Meter)	\$1,790.77	\$1,790.77	\$1,862.40	\$1,960.18	\$2,087.59
Volume Charge (Commercial)	7.295	7.295	7.587	7.985	8.504
Volume Charge (Industrial)	7.295	7.295	7.587	7.985	8.504

WASTEWATER RATE HISTORY

Explanation of Rates

- 1. Sewer use is typically billed at the appropriate volume rate. Generally usage is based on metered water consumption. In cases where the customer uses a private water supply, a flat rate is charged for sewer services.**

- 2. In addition to charges for usage, customers are charged a capacity charge that is dependent on the size of the meter that is required to service the customer. Meters range from 5/8 inch to 10 inches in diameter and service charges vary from \$21.23 to \$2,087.59 per month.**

- 3a. Strong wastewater charges (275mg/l) are to cover treatment costs when wastes, containing concentrations of suspended solids that exceed 275 milligrams per liter, are discharged into the City's wastewater system.**

- 3b. Strong wastewater charges (250mg/l) are to cover treatment costs when wastes, containing concentrations of BOD (Biochemical Oxygen Demand) that exceed of 250 milligrams per liter, are discharged into the City's wastewater system.**

- 3c. Nitrogen surcharges (30mg/l) are to cover treatment costs when wastes, containing concentrations of nitrogen that exceed 30 milligrams per liter, are discharged into the City's wastewater system.**

- 3d. Phosphorus surcharges (12mg/l) are to cover treatment costs when wastes, containing concentrations of nitrogen that exceed 12 milligrams per liter, are discharged into the City's wastewater system.**

ANNUAL WASTEWATER BILL AS A PERCENT OF MHI

Per Section A.4. Requirement 1.b.

ANNUAL RESIDENTIAL WASTEWATER BILL:		<u>7/1/2023</u>
Effective rate		\$8.504
Average monthly use in ccf	x	<u>7</u>
Volume charge		59.53
Monthly service charge		<u>21.23</u>
Total monthly wastewater bill		80.76
	x	<u>12</u>
Annual wastewater bill		<u><u>\$969.12</u></u>
MEDIAN HOUSEHOLD INCOME (MHI) CALCULATION		
2022 MHI per U.S.Census Bureau Quick Facts		\$58,988
CPI index from Dec 2022 to July 2023 (296.797 to 305.691)	x	1.030
2023 estimated MHI		<u><u>\$60,758</u></u>
ANNUAL WASTEWATER BILL AS A % OF MHI		<u><u>1.60%</u></u>

Notes:

1. CPI data from US Department of Labor:
December 2022 Index = 296.797
July 2023 Index = 305.691

DEBT SERVICE COVERAGE

Per Section A.4. Requirement 1.c.

	Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023
REVENUES:					
Operating Revenues	85,644,469	86,821,333	84,026,578	93,819,299	102,062,493
Connection Fees	511,200	2,953,000	692,450	939,988	1,517,499
Interest Income	2,950,811	3,178,469	714,634	713,135	9,036,199
Total Revenues	89,106,480	92,952,802	85,433,662	95,472,422	112,616,191
OPERATING & NON-OPERATING EXPENSES					
Operating Expenses	22,344,950	21,694,393	20,285,893	21,449,320	25,065,226
Salaries & Wages	11,024,023	13,236,183	19,127,192	12,362,713	13,344,318
Materials & Supplies	1,192,949	1,421,650	1,216,539	1,141,669	1,561,515
Rents & Utilities	4,596,604	4,353,988	4,942,221	4,864,265	6,808,998
Maintenance & Repairs	6,248,906	7,915,383	10,587,005	6,734,469	9,555,064
Taxes & Licenses					
Total Operating & Non-Operating Expenses	45,407,432	48,621,597	56,158,850	46,552,436	56,335,121
NET REVENUES	43,699,048	44,331,205	29,274,812	48,919,986	56,281,070
DEBT SERVICE					
General Obligation Bonds (100%)	726,203	708,500	725,202		
Revenue Bonds (115%)	22,119,881	21,320,766	26,242,874	27,365,098	27,066,120
Total Debt Service	22,846,084	22,029,266	26,968,076	27,365,098	27,066,120
DEBT COVERAGE	1.91	2.01	1.09	1.79	2.08

PROJECT APPROPRIATIONS

Projects are normally appropriated at the beginning of each fiscal year when the City’s Capital Improvement Program (CIP) is approved by the City Council. City staff is authorized to expend money on individual projects after project construction bids are received and approved. Since July 1, 2000, the City has appropriated \$1,455,646,086 for CSO and other water quality projects. A summary of these amounts is shown below:

	CSO	Water Quality	Total
Prior to FY 2019 Expenditures	197,713,444	434,169,613	631,883,057
FY 2019 Expenditures	14,392,781	25,241,254	39,634,035
FY 2020 Expenditures	1,616,226	21,406,301	23,022,527
FY 2021 Expenditures	6,186,201	21,238,073	27,424,274
FY 2022 Expenditures	14,394,879	27,828,576	42,223,455
FY 2023 Expenditures	17,466,436	36,626,773	54,093,209
Unexpended Authorizations	147,319,785	490,045,744	637,365,529
Totals	\$399,089,752	\$1,056,556,334	\$1,455,646,086

Exhibit 4.1 contains an itemization of project expenditures and unexpended authorizations from July 1, 2000 to June 30, 2023. Unexpended authorizations represent the remaining budgets on projects not completed as of June 30, 2023. Appropriations to be authorized represent approved CIP amounts that have not been authorized for specific projects at June 30, 2023. This occurs because project bids cannot always be received and approved in the same year that projects are appropriated.

PROJECT EXPENDITURES

1. CSO Projects Authorized

Per Section A.4. Requirement 2.

Project Description	Work Order No.	Prior to FY 19 Expenditures	FY 19 Expenditures	FY 20 Expenditures	FY 21 Expenditures	FY 22 Expenditures	FY 23 Expenditures	Cumulative Expenditures	Unexpended Amount
CSO Phase III - 4 Lower Gillies Creek 28E and 28A	102150 + 102151	9,615,710	1,794,332	0	0	0	0	\$11,410,043	2,847,404
Shockoe Diversion Structure & Miscellaneous Improvements	100336	1,276,766	0	0	0	0	0	\$1,276,766	0
CSO Phase III - 1 Regulators 24,25,26	X110	2,947,787	0	0	0	0	0	\$2,947,787	0
CSO Phase III - 5 Oakwood In-Line Equalization	X094	2,174,634	0	0	0	0	0	\$2,174,634	0
CSO Phase III - 2 Separation Design Orleans & Nicholson Sts	100338 103881	891,188	0	0	0	0	0	\$891,188	0
CSO Phase III - 2 Separation Design Maury Street	X092	2,104,370	0	0	0	0	0	\$2,104,370	0
CSO Phase III - 2 Separation Design Fulton Bottom	103879	727,368	0	0	0	0	0	\$727,368	0
CSO Phase III - PPP	103878	828,667	0	0	0	0	0	\$828,667	0
CSO Re-Evaluation Study	103850	649,757	0	0	0	0	0	\$649,757	0
Swirl Concentrators	X028071U	1,756,805	0	0	0	0	0	\$1,756,805	0
CSO 4&5 - Hampton Street Retention Tunnel	103849	51,563,190	0	0	0	0	0	\$51,563,190	0
James River Monitoring	X022071U	1,758,663	0	0	0	0	0	\$1,758,663	0
Shockoe Retention System Basin	103845, X083171U, 103909	6,065,100	0	0	0	0	0	\$6,065,100	0
CSO Phase III - 3 Regulators Design 12,14,39	100337	6,285,679	(15,103)	0	0	0	0	\$6,270,576	0
Shockoe Reten Basin - Elevator	104614	64,664	0	0	0	0	0	\$64,664	0
Flow Regulators#X157172U	100350	110,299	65,205	17,942	41,194	2,475	0	\$237,115	80,664
MIS Phase III	100326	412,498	94,661.48	94,476.04	170,345.92	86,605	41,513	\$900,100	\$3,633,413
Shockoe Retention System	100355	544,164	32,822	24,899	92,631	84,770	82,329	\$861,614	18,934,386
Shockoe Diversion Structure Crest Gates and Arch Sewer Emergency Gates	100356	340,964	0	103,888	141,287	88,581	148,100	\$822,821	17,856,179
CSO S.O #14 - WWTP Wet Weather Primary Disinfection Facility	102099	3,143,741	12,125,362	915,071	244,586	0	0	\$16,428,761	836,239
CSO S.O. #15 - WWTP Screening and Grit Facility.	102130	2,340,537	281,722	216,205	1,988,350	11,192,346	13,962,072	\$29,981,232	9,838,124
Shockoe Roof Replacement	102535	126,971	13,779	0	0	0	0	\$140,750	0
Lower Gillies Creek Conveyance CSO 004	103901	204,319	0	0	64,130	127,858	57,635	\$453,943	10,546,057
Shockoe Retention System	105937	0	0	0	158,343	62,933	0	\$221,276	4,724
Security Package at Shockoe	106065	0	0	102,949	109,475	901	6,896	\$220,221	0
CSO LTCP Study	106841	0	0	30,255	2,088,849	874,864	0	\$2,993,967	901,945
Odor Control System Improvements - Haxall Canal, Hampton Flushing Structure, and McCloy F	106821	0	0	0	33,730	0	0	\$33,730	86,270
Shockoe Retention Basin Aeration Upgrades	106845	0	0	110,540	40,796	25,092	69,158	\$245,587	2,254,413
CSO Vehicles	106860	0	0	0	87,804	0	0	\$87,804	0
Real Time monitoring Equipment: Flow Meter and Rain Gauge Equipment	106866	0	0	0	276,588	0	0	\$276,588	0
CSO Real Time Decision Support System	106906	0	0	0	275,633	808,621	539,167	\$1,623,421	4,576,579
McCloy P.S. Improvements	106910	0	0	0	278,415	81,287	398,479	\$758,181	1,591,819
CSO Vehicle/SUV Purchase	107151	0	0	0	29,489	0	0	\$29,489	0
Shockoe Hook Truck	107201	0	0	0	0	0	0	\$0	354,000
Replace gate at CSO 21	107206	0	0	0	0	71,206	0	\$71,206	(7,206)
Shockoe Pump & Impellers	107258	0	0	0	0	93,907	0	\$93,907	0
CSO Replace #11-3810	107282	0	0	0	64,555	0	0	\$64,555	0
CSO 36" cast iron flap gate	107378	0	0	0	0	15,020	0	\$15,020	(910)
Replace gates 01, 02 and 03 at Shockoe	107383	0	0	0	0	38,832	0	\$38,832	(2,352)
Replace Circuit breaker at Shockoe	107387	0	0	0	0	9,510	0	\$9,510	0
CSO Ford F-250	107498	0	0	0	0	42,185	0	\$42,185	0
CSO Interim Plan Projects	107541	0	0	0	0	563,267	448,588	\$1,011,855	17,317,152
750KVA Dry Transformer	107719	0	0	0	0	111,674	77,556	\$189,230	0

Exhibit 4.1

PROJECT EXPENDITURES

1. CSO Projects Authorized
Per Section A.4. Requirement 2.

Project Description	Work Order No.	Prior to FY 19 Expenditures	FY 19 Expenditures	FY 20 Expenditures	FY 21 Expenditures	FY 22 Expenditures	FY 23 Expenditures	Cumulative Expenditures	Unexpended Amount
Shockoe Gatehouse Manway Replacements (3)	107924	0	0	0	0	12,945	17,023	\$29,968	180,032
Hampton PS MCC/Controls Replacement	107927	0	0	0	0	0	61,682	\$61,682	92,818
Sewer Model Database	107988	0	0	0	0	0	449,581	\$449,581	1,750,000
Shockoe Retention Basin Roof Improvements	108116	0	0	0	0	0	71,830	\$71,830	500,000
CSO Regulator Improvements	108158	0	0	0	0	0	62,834	\$62,834	450,000
Shockoe&McCloy Tunnel Cleaning	107423	0	0	0	0	0	0	\$0	2,000,000
FY23 WW-Shockoe Wheel Loader	108339	0	0	0	0	0	297,315	\$297,315	0
CSO Program Management	108360	0	0	0	0	0	614,992	\$614,992	1,385,009
FY23 PS Upgrades-Genr	108430	0	0	0	0	0	8,513	\$8,513	2,308,987
FY23 WWTP CSO Flap Gate	108470	0	0	0	0	0	25,210	\$25,210	0
CSO 031 Storage Tank	108532	0	0	0	0	0	5,168	\$5,168	1,014,832
Shockoe Retention Basin Elevator Replacement	108228	0	0	0	0	0	20,794	\$20,794	479,206
Tandem Dump Truck (FY23)	Pending	0	0	0	0	0	0	\$0	150,000
Shockoe Reten Basin Elevator Replacement	Pending	0	0	0	0	0	0	\$0	500,000
Brown Mechanism Replacements	Pending	0	0	0	0	0	0	\$0	450,000
Regulator 06e Access Improvements	Pending	0	0	0	0	0	0	\$0	50,000
Shockoe Creek Sewer Entrance Bar Screen Replacement	Pending	0	0	0	0	0	0	\$0	100,000
Shockoe Creek Short Term Detention Improvements	Pending	0	0	0	0	0	0	\$0	2,000,000
CSO 24 Partial Separation	Pending	0	0	0	0	0	0	\$0	1,000,000
Shockoe Gatehouse Manway Replacements (3)	Pending	0	0	0	0	0	0	\$0	210,000
Dock St PS Electrical/Controls Upgrades	Pending	0	0	0	0	0	0	\$0	250,000
Hampton PS MCC/Controls Replacement	Pending	0	0	0	0	0	0	\$0	300,000
Hampton, Douglasdale, Dock St, Shockoe Permanent Generators & Portable Set for Gates	Pending	0	0	0	0	0	0	\$0	2,000,000
CSO 12 Separation	Pending	0	0	0	0	0	0	\$0	20,000,000
CSO 31 Storage Facility	Pending	0	0	0	0	0	0	\$0	10,000,000
CSO 6 Tidal Mitigation Improvements	Pending	0	0	0	0	0	0	\$0	8,000,000
SUV - replacement of vehicle #17-3750	Pending	0	0	0	0	0	0	\$0	50,000
DumpTruck - New vehicle request Shockoe	Pending	0	0	0	0	0	0	\$0	200,000
Dump Truck - replacement of vehicle #04-3715 CSO	Pending	0	0	0	0	0	0	\$0	200,000
SUV - New vehicle request CSO	Pending	0	0	0	0	0	0	\$0	50,000
Total CSO Projects		\$95,933,840	\$14,392,781	\$1,616,226	\$6,186,201	\$14,394,879	\$17,466,436	\$149,990,362	\$147,319,785
Projects Authorized prior to 07/01/2000		101,779,604						101,779,604	
		\$197,713,444	\$14,392,781	\$1,616,226	\$6,186,201	\$14,394,879	\$17,466,436	\$251,769,966	\$147,319,785

PROJECT EXPENDITURES

2. Other Water Quality Projects Authorized
Per Section A.4. Requirement 2.

Project Description	Prior to FY 19 Expenditures	FY 19 Expenditures	FY 20 Expenditures	FY 21 Expenditures	FY 22 Expenditures	FY 23 Expenditures	Cumulative Expenditures	Unexpended Amount
Lift Stations Upgrade	\$814,124	\$0	\$0	\$0	0	0	\$814,124	\$0
Secondary Grit Removal	\$78,038	0	0	0	0	0	\$78,038	\$0
Replace VFD's-Main/Supplemental Pumping	\$1,936,120	0	0	0	0	0	\$1,936,120	\$0
Main Pump Station Replacements	\$339,930	0	0	0	0	0	\$339,930	\$0
Blower Switchgear/DC System Replacements	\$1,300,943	0	0	0	0	0	\$1,300,943	\$0
Master Plans & Floodwall Study	\$1,336,037	0	0	0	0	0	\$1,336,037	\$0
Plant Projects Consolidation	\$1,340,130	0	0	0	0	0	\$1,340,130	\$0
Chlorine Slide Gate Replacements #2 thru #6	\$268,119	0	0	0	0	0	\$268,119	\$0
Primary Sedimentation Facility Improvements	\$7,124,723	0	0	0	0	0	\$7,124,723	\$0
Final Sedimentation Facility Improvements	\$7,840,559	0	0	0	0	0	\$7,840,559	\$0
Security Enhancements	\$1,363,103	0	0	0	0	0	\$1,363,103	\$0
Scum Study	\$93,236	0	0	0	0	0	\$93,236	\$0
Reliability & Upgrade of Sewer Crossing	\$79,312	0	0	0	0	0	\$79,312	\$0
CSO PROJECT SHOCKOE RETENTION	\$59,941	0	0	0	0	0	\$59,941	\$0
CSO PHASE III-3 REGULATORS 12, 14 & 39	\$3,965,719	0	0	0	0	0	\$3,965,719	\$0
Shockoe Reten Basin - Elevator	\$199,351	0	0	0	0	0	\$199,351	\$0
Odor Control Basis of Design	\$8,713	0	0	0	0	0	\$8,713	\$0
Database Integration	\$86,931	0	0	0	0	0	\$86,931	\$0
Interim Chlorination/Dechlorination	\$20,912	0	0	0	0	0	\$20,912	\$0
WWTP Emergency Chemical Piping	\$511,898	0	0	0	0	0	\$511,898	\$0
Sixth Street Sewer Repair Project	\$1,000,000	0	0	0	0	0	\$1,000,000	\$0
Lady Bird Hat Company Sewer Relocation	\$302,694	0	0	0	0	0	\$302,694	\$0
WWTP Shockoe Bottom Drainage Projects SBD 1 thru 7	\$18,750,653	0	0	0	0	0	\$18,750,653	\$0
WWTP Battery Park Drainage Projects/TS Ernesto	\$31,113,163	0	0	0	0	0	\$31,113,163	\$0
WWTP Outfall Tide Gate Inspection and Repair	\$237,977	0	0	0	0	0	\$237,977	\$0
Collection System Master Plan Upgrade	\$866,061	0	0	0	0	0	\$866,061	\$1,083,939
Biological Nutrient Removal Phase I	\$116,583,998	(123,783)	0	(50,000)	0	0	\$116,410,215	\$1,729,485
1801 Commerce Rd Operations Facility	\$3,831,353	481,266	0	0	0	0	\$4,312,619	\$1,721,381
Administration Building HVAC	\$769,740	(298,700)	0	0	0	0	\$471,040	\$226,365
Dewatering Building Rehabilitation	\$402,369	986,764	174,178	192,102.83	253,150.24	1,345,244.07	\$2,008,564	\$44,591,436
Sludge Thickening Building Roof	\$221,707	15,984	0	0	0	0	\$237,690	\$0
WWTP Integrated Plan for Projects - CWA Compliance	\$4,384,174	514,484	28,430	0	0	0	\$4,927,088	\$921,252
Upgrade Sewer Crossing	\$71,996	0	0	0	837,717.04	550,087.12	\$909,713	\$2,070,287
WWTP Utility Water System Rehabilitation	\$64,048	142,875	28,805	64,483.26	1,667,177.36	1,899,587.74	\$1,967,389	\$2,732,611
Sludge Storage Slab	\$25,281	39,415	97,805	32,357.52	35,255.38	(1,260.84)	\$230,114	\$3,091,886
Primary Sludge Pump Station Upgrade	\$0	0	1,709,318	103,481.77	0.00	0.00	\$1,812,800	\$187,200
Sludge Thickening Building Improvements	\$0	779,727	176,169	205,022.92	197,776.07	693,342.60	\$1,358,695	\$15,679,305
Douglasdale Pump Station VFD	\$0	0	0	31,400.95	21,337.40	151,649.39	\$52,738	\$867,262
Main Pumping Station	\$0	0	0	23,201.19	226,730.14	74,981.13	\$249,931	\$49,750,069
WWTP Admin Building	\$0	0	0	26,430.15	464,761.41	363,407.53	\$491,192	\$26,858,808
Nitratax Sens Effl. Anal. Tank	\$0	0	0	0	17,930.33	0	\$17,930	\$0
WW I&C-(1) Rtk IQ20 actuator	\$0	0	0	0	13,920.00	0	\$13,920	\$0
WW-I&C (4) EIM Control Panels	\$0	0	0	0	21,740.00	0	\$21,740	\$0
Annual Sanitary Sewer Rehabilitation (City Wide)	\$139,036,259	13,291,988	13,339,819	13,571,831	14,395,789.47	13,076,721.18	\$193,635,686	\$115,300,301

PROJECT EXPENDITURES

2. Other Water Quality Projects Authorized

Per Section A.4. Requirement 2.

Project Description	Prior to FY 19 Expenditures	FY 19 Expenditures	FY 20 Expenditures	FY 21 Expenditures	FY 22 Expenditures	FY 23 Expenditures	Cumulative Expenditures	Unexpended Amount
Annual Sanitary Sewer Emergency Repairs (City Wide)	\$39,924,877	6,058,072	4,908,935	3,941,554	7,560,926.54	6,943,210.43	\$62,394,365	\$47,588,228
WWTP Trunk and Interceptor Sewer Inspection & Repair	\$9,026,723	3,258,651	808,235	1,940,949	1,428,683.15	10,392,776.50	\$16,463,242	\$102,262,023
Sanitary Sewer Ancillary Projects (City Wide)	\$3,612,675	0	0	0	0	0	\$3,612,675	\$2,444,598
Miscellaneous Treatment Plant Upgrades	\$576,026	94,512	134,607	1,155,259	685,681.82	1,137,026.48	\$2,646,085	(\$618,349)
Sludge Control Building #1	\$0	0	0	0	0	0	\$0	\$2,340,000
Sludge Control Building #2	\$0	0	0	0	0	0	\$0	\$3,794,000
Effluent Filter Rehabilitation	\$0	0	0	0	0	0	\$0	\$12,000,000
Bio-Reactor Refurbishment	\$0	0	0	0	0	0	\$0	\$11,000,000
Secondary Clarifier Influent Valve Replacements	\$0	0	0	0	0	0	\$0	\$1,000,000
WWTP Warehouse Roof Replacement	\$0	0	0	0	0	0	\$0	\$3,000,000
WWTP Security Enhancements	\$0	0	0	0	0	0	\$0	\$1,500,000
Grit Storage Pad	\$0	0	0	0	0	0	\$0	\$2,500,000
Valve Actuator Replacement	\$0	0	0	0	0	0	\$0	\$500,000
Primary Clarifiers Upgrade	\$0	0	0	0	0	0	\$0	\$10,000,000
Biosolids Upgrades	\$0	0	0	0	0	0	\$0	\$1,000,000
Primary Grit Removal Station Upgrade	\$0	0	0	0	0	0	\$0	\$5,000,000
(FY24) Kenworh T880 Tandum Dump Truck (Replacement vehicle # 75-3790)	\$0	0	0	0	0	0	\$0	\$253,594
(FY24) Ford F-250 Crew Cab pickup 4x4 w/snow prep kit (Replacement vehicle # 03-3884)	\$0	0	0	0	0	0	\$0	\$50,000
(FY24) Ford F-250 Crew Cab pickup 4x4 w/snow prep kit (Replacement vehicle # 12-3825)	\$0	0	0	0	0	0	\$0	\$50,000
(FY24) Ford F-250 Crew Cab pickup 4x4 w/snow prep kit (Replacement vehicle # 07-3728)	\$0	0	0	0	0	0	\$0	\$50,000
Upgrade Electrical Switchgear in Control1 ground level Electrical room	\$0	0	0	0	0	0	\$0	\$100,000
Replacement for Filter Building Staco UPS System	\$0	0	0	0	0	0	\$0	\$50,000
Replace Aeration Tank Mixers with Wilo upgrade (24@10,000/ea)	\$0	0	0	0	0	0	\$0	\$240,000
Digester Area Access Building Small Swichgear upgrade	\$0	0	0	0	0	0	\$0	\$40,000
UPS installed into Shockoe Retention 2400V Switchgear	\$0	0	0	0	0	0	\$0	\$25,000
Outer Pump Station and Plant Roadway Lighting LED upgrades	\$0	0	0	0	0	0	\$0	\$75,000
I.M.L.R. mixers in Aeration Tank replacement (6@27,255/ea)	\$0	0	0	0	0	0	\$0	\$163,530
Installation of Air/Climate control in Blower Building Aux. Xformer room	\$0	0	0	0	0	0	\$0	\$40,000
(FY24) Hook Lift Truck	\$0	0	0	0	0	0	\$0	\$250,170
P2000 Product Consolidation into Software House C-CURE 9000	\$0	0	0	0	0	0	\$0	\$23,726
(FY24) 930 M 3VFS Front End Wheel Loader	\$0	0	0	0	0	0	\$0	\$252,636
Fairbank Morse 42" Sewer Pump	\$0	0	0	0	0	0	\$0	\$973,000
Elevator Replacement (5) - Main Pumping, Dewatering, Blower, Effluent Filter East, Effluent Filter West	\$0	0	0	0	0	0	\$0	\$4,430,000
HVAC Replacment for WWTP Administration Building	\$0	0	0	0	0	0	\$0	\$2,000,000
WWTP Flood Mitigation	\$0	0	0	0	0	0	\$0	\$8,857,000
Total Water Quality Projects Expenditures	\$399,569,613	\$25,241,254	\$21,406,301	\$21,238,073	\$27,828,576	\$36,626,773	\$1,567,236,668	\$490,045,743
Projects Authorized prior to 07/01/2000	\$34,600,000						\$34,600,000	
	\$434,169,613	\$25,241,254	\$21,406,301	\$21,238,073	\$27,828,576	\$36,626,773	\$1,601,836,668	\$490,045,743
Total All Projects (Sum of Exhibits 4.1 and 4.2)	\$448,562,394	\$39,634,035	\$23,022,527	\$27,424,275	\$42,223,455	\$54,093,209	\$1,853,606,634	\$637,365,529

Project	Description	Milestone dates	Status	Completion date
2005 Long Term Control Plan Projects				
CSO Disinfection Study				Jun-05
Phase III Program Project Plan				Dec-06
Solids & Floatable control for CSO #024				Mar-08
Solids & Floatable control for CSO #025				Apr-08
Solids & Floatable control for CSO #026				May-08
Solids & Floatable control for CSO #039				Jan-10
Fulton Bottom Urban Renewal Separation				Dec-10
Peripheral In-line flow equalization at Oakwood				Dec-10
Solids & Floatable control for CSO #012				Dec-10
Maury St. Separation				May-11
Orleans and Nicholson St Separations				May-13
Solids & Floatable control for CSO #014				Nov-16
Lower Gillies Creek Conveyance System (CSO #028, #028A)				Nov-18
Wet weather flow & solids improvement at WWTP				Apr-21
Wet Weather Disinfection to 300 MGD	Increases WWTP wet weather capacity to 300 MGD; controls CSO 021 to 4 overflows per year; upgrades WWTP screening & grit removal facilities; upgrades WWTP Main Pumping Station capacity; additional 160 MGD wet weather disinfection facility.		Construction of new screenings & grit removal facility ongoing. Other elements of this project are being re-evaluated under the Final Plan and will likely be modified or substituted with other projects.	Expected mid-2024
Expand Secondary Wet weather flow treatment			10 interim plan projects were substituted for this project in July 2021	
Adapt Shockoe Retention basin for pass through wet weather flow	Improve trash raking system, solids removal, reconfigure aeration basin to slope, provide flushing system to clean basin after every storm		Separated cross over chamber, replaced sluice and flap gates at E/W Shockoe. Design complete and construction contract awarded for bascule gates, trash raking system replacements	Construction NTP 7/31/23. Est completion July 2026
Expand Shockoe Retention basin by 15 MG			10 interim plan projects were substituted for this project in July 2021	
Shockoe Retention Basin Wet Weather Disinfection Facility Project	Provides disinfection for new Shockoe outfall CSOs to decrease bacteria loading to the James River		This project are being re-evaluated under the Final Plan and may be modified or substituted with other projects.	Final Plan due to DEQ July 2024

Projects	Description	Milestone dates	Status	Projected completion date
Interim Plan Projects				
CSO #004	Construct new solids and floatables control regulator structure, increase in line storage and increase wet weather flow conveyance to WWTP	Design complete 2023	In construction	Construction NTP 6/26/23. Est completion Dec 2024
CSO #019A	Diversion of additional wet weather flow to Hampton-McCloy tunnel	Design complete 2023	Design at 95%	Construction begins 2024
CSO #019 B	Diversion of additional wet weather flow to Hampton-McCloy tunnel	Design complete 2023	Design at 95%	Construction begins 2024
CSO #021 wet weather controls	Increase wet weather storage in existing pipe	Design complete 2023	Design at 90%	Construction begins 2024
CSO #040 -1	Increase wet weather storage in existing pipe	Design complete 2023	Design at 90%	Construction begins 2024
CSO #024	Divert additional wet weather flow to Gillies Creek interceptor	Design complete 2023	Design at 90%	Construction begins 2024
CSO #039	Divert additional wet weather flow to Gillies Creek interceptor	Design complete 2024	Design at 90%	Construction begins 2024
Level 1 Shockoe Retention basin Controls	Automates drainage of Shockoe Retention Basin to improve operation	Design complete 2024	Design at 50%	Construction begins 2024
CSO #020	Diversion of additional wet weather flow to Hampton-McCloy tunnel	Design complete 2024	Design at 50%	Construction begins 2024
Level 2 Shockoe Retention basin controls	Provides automated decision logic and operation of WWTP Main Pump Station to optimize utilization of 140 mgd wet weather treatment	Design complete 2024	Design at 10%	Construction begins late 2024 or early 2025

PROJECT EXPENDITURES

3. CSO Capital Improvement Projects

Per Section A.4. Requirement 3.

NOTE: All amounts are in (000's)

	TOTAL PRIOR AUTH.	FY24	FY25	FY26	FY27	FY28	TOTAL
Closed Projects	\$181,980	\$0	\$0	\$0	\$0	\$0	\$181,980
CSO Phase III - 4 Lower Gillies Creek 28E and 28A	\$14,257	0	0	0	0	0	\$14,257
Flow Regulators#X157172U	\$318	0	0	0	0	0	\$318
MIS Phase III, #X105I70U	\$4,492	0	0	0	0	0	\$4,492
CSO Shockoe Trash Rack	\$19,796	10,328	500	0	0	0	\$30,624
SDS Crest & Arch Gates	\$18,679	10,707	500	0	0	0	\$29,886
CSO Special Order #14	\$17,265	0	0	0	0	0	\$17,265
CSO Ph III Screen/Grit Fac	\$39,819	10,000	3,880	0	0	0	\$53,699
CSO PH III-4 GILLIES,X128I71L	\$11,000	3,000	0	0	0	0	\$14,000
CSO- Shockoe Retention Basin	\$226	0	0	0	0	0	\$226
Security Package-WWTP Shockoe	\$220	0	0	0	0	0	\$220
CSO LTCP	\$3,896	0	0	0	0	0	\$3,896
FY20-WW-Odor Control Sys Impr	\$120	0	0	0	0	0	\$120
SRB Aeration Upgrades	\$2,500	0	0	0	0	0	\$2,500
CSO RT-DSS	\$6,200	0	0	0	0	0	\$6,200
McCloy P.S. Improvements	\$2,350	0	0	0	0	0	\$2,350
FY21 Shockoe Divrs.Hook Truck.	\$354	0	0	0	0	0	\$354
FY21 Replace gate at CSO 21	\$64	0	0	0	0	0	\$64
CSO 36" cast iron flap gate	\$14	0	0	0	0	0	\$14
Repl. gates 01,02,03 @Shockoe	\$36	0	0	0	0	0	\$36
CSO Regulator Improvements	\$18,329	0	0	0	0	0	\$18,329
FY22 750KVA Dry Trasformer	\$189	0	0	0	0	0	\$189
FY22 Shockoe Mwy Replac.	\$210	0	0	0	0	0	\$210
FY22 Hampton PS MCC Replacem	\$155	0	0	0	0	0	\$155
Sewer Model Database	\$2,000	0	0	0	0	0	\$2,000
SRB ROOF & CNTRL BLDG ROOF	\$500	0	0	0	0	0	\$500
FY23 Rplc of CSO regulators	\$450	0	0	0	0	0	\$450
Shockoe&McCloy Tunnel Cleaning	\$2,000	0	0	0	0	0	\$2,000
FY23 WW-Shockoe Wheel Loader	\$297	0	0	0	0	0	\$297
CSO Program Management	\$2,000	0	0	0	0	0	\$2,000
FY23 PS Upgrades-Genr	\$2,318	0	0	0	0	0	\$2,318
FY23 WWTP CSO Flap Gate	\$25	0	0	0	0	0	\$25
CSO 031 Storage Tank	\$1,020	0	0	0	0	0	\$1,020
FY23 SRB Elevator Replacement	\$500	0	0	0	0	0	\$500
Tandem Dump Truck (FY23)	\$150	0	0	0	0	0	\$150
Shockoe Reten Basin Elevator Replacement	\$500	0	0	0	0	0	\$500
Brown Mechanism Replacements	\$450	0	0	0	0	0	\$450
Regulator 06e Access Improvements	\$50	50	0	0	0	0	\$100
Shockoe Creek Sewer Entrance Bar Screen Replacement	\$100	0	0	0	0	0	\$100
Shockoe Creek Short Term Detention Improvements	\$2,000	0	0	0	0	2,000	\$4,000
CSO 24 Partial Separation	\$1,000	1,000	0	0	0	0	\$2,000
Shockoe Gatehouse Manway Replacements (3)	\$210	0	0	0	0	0	\$210
Dock St PS Electrical/Controls Upgrades	\$250	0	0	0	0	0	\$250
Hampton PS MCC/Controls Replacement	\$300	0	0	0	0	0	\$300
Hampton, Douglasdale, Dock St, Shockoe Permanent Generators & Portable Set for Gates	\$2,000	0	0	0	0	0	\$2,000
CSO 12 Separation	\$20,000	5,000	10,000	5,000	0	0	\$40,000
CSO 31 Storage Facility	\$10,000	2,500	5,000	2,500	0	0	\$20,000
CSO 6 Tidal Mitigation Improvements	\$8,000	8,000	0	0	0	0	\$16,000
SUV - replacement of vehicle #17-3750	\$50	50	0	0	0	0	\$100
Dump Truck - New vehicle request Shockoe	\$200	200	0	0	0	0	\$400
Dump Truck - replacement of vehicle #04-3715 CSO	\$200	200	0	0	0	0	\$400
SUV - New vehicle request CSO	\$50	50	0	0	0	0	\$100
	\$399,090	\$51,085	\$19,880	\$7,500	\$0	\$2,000	\$479,555

Compliance with 2020 Va. Acts 634, 2020 Va. SB 1064

§ 3. Any such owner or operator of a CSO system shall report annually to the Department on its progress pursuant to § 1 and § 2, with the first annual report due no later than December 1, 2020, and the final annual report due after completion of (i) the construction activities pursuant to the final plan required in subsection B of § 1 and (ii) additional actions identified in subsection D of § 2.

The report, which may be included as part of any annual report required under a consent special order issued by the Department to the owner or operator regarding the CSO system, shall include information on the level and sources of funding and financing such owner or operator has applied to the CSO system in each of the past five fiscal years, as well as an assessment of funding needs in future years with a request that appropriation amounts sufficient to carry out the purposes of this act be included in the budget bill.

In accordance with Chapter 634 signed by Governor Northam on April 2, 2020, the City of Richmond is required to report annually to DEQ on progress related to requirements to develop Interim and Final Plans to address combined sewer overflows, as well as requirements of the Special Order by Consent issued by the State Water Control Board for the combined sewer system (CSS). This report shall cover the following:

1. Progress on the Interim and Final Plans
2. Level and sources of funding and financing applied to the CSS in each of the past five fiscal years
3. Assessment of funding needs in future years with a request for appropriations to effect the Interim and Final Plans

The City of Richmond Department of Public Utilities (DPU) submitted a report with the above information to Department of Environmental Quality Director on November 1, 2023. See the CSO Level and Sources of Funding, attached as Exhibit 7.

The City of Richmond is working to implement the Interim Plan while developing the Final Plan that will be submitted to DEQ no later than July 1, 2024. This work involves many things –sampling of storm events, evaluation of data and updates to models used in assessing proposed projects for water quality improvements and reduction in overflow volume and number of events.

DPU has continued extensive communication with its stakeholders via the RVAH2O stakeholder group, which was founded in 2014. DPU has convened another stakeholder group that has participation from every council district in the city and has met regularly since spring of 2022. The group provides feedback to DPU from their constituency and informs the plan that will be submitted in 2024. DPU has also been meeting bi-monthly to update DEQ Staff on timelines and progress.

The General Assembly has mandated that that City complete Interim and Final Plan projects by 2035, a goal estimated to cost upward of \$650 million. The City received a \$50 million ARPA fund appropriation from the General Assembly in 2021 with a \$50 million local match. The City received an additional \$100 million ARPA fund appropriation from the General Assembly in 2022. These funds will be applied to plans that are underway to initiate Capital Improvement Projects identified in the Interim Plan, as well as two Final Plan projects. The Interim Plan includes ten projects to be completed over the next five years that will cut combined sewer overflow volume by 182 million gallons per year. These funds will also be used to develop and implement the Final Plan by 2035. The City of Richmond is grateful for the state investment to-date but the city and its ratepayers cannot do it alone. The General Assembly is requested to provide consistent grant funding in successive state budgets to enable the City to complete this project by 2035 as mandated.

As noted, the projected costs for implementing the Final Plan projects at the conceptual stage and using ACEE Class 5 ranges are upward of \$650 million in 2022 dollars. As required by SB 1064, the City requests grant funding appropriations in the General Assembly’s regular budget bill sufficient to stay on schedule financially and to carry out the purposes of SB 1064.

CSO Level and Sources of Funding

Per Virginia SB 1064 1. § 3

	FY 19	FY 20	FY 21	FY 22	FY 23	Five Year Totals
Total CSO Expenditures	\$14,392,781	\$1,616,226	\$6,186,201	\$14,394,879	\$17,466,436	\$54,056,523
Virginia Revolving Loan Fund	\$0	\$0	886,551	3,867,832	12,669,050	\$17,423,433
Grant Receipts	\$10,008,717	\$10,351,801	\$0	\$1,271,149	\$983,193	\$22,614,860
Wastewater Revenue Bonds/Operating Cash	\$4,384,064	(\$8,735,575)	\$5,299,650	\$9,255,898	\$3,814,193	\$14,018,230
Total CSO Funding Sources	\$14,392,781	\$1,616,226	\$6,186,201	\$14,394,879	\$17,466,436	\$54,056,523