

Ensure Financial Stability	
Reconciled Bank Account Balances	Refer to attached Reconciled Bank Account Balances as of 10/31/2023.
Monthly Financial Statements	Provided separately to Board of Directors.
Monthly Financial Dashboard	Provided separately to Board of Directors.
AP Check Reconciliation Register	Provided separately to Board of Directors.
Capital Improvement Projects for Drinking Water	Provided separately to Board of Directors.
Capital Improvement Projects for Wastewater	Provided separately to Board of Directors.
Grant Management	Refer to attached Grant Management Report.
Ensure Revenues are Consistent with System Usage	
Water Shut-offs	There were 24 water shut-offs for non-payment and 36 service shut-off requests.
Repair/Replace Meters/MXUs/Batteries	Drinking Water Distribution staff replaced 15 water meters, 44 batteries, and 24 MXUs.
Reduce Wet Weather Impacts to Infrastructure, Community, and Receiving Waters	
Negotiate with PADEP/U.S. EPA/DOJ on Past and Future Practices	No update.
Develop Necessary Planning for Implementation of Green Infrastructure	<ul style="list-style-type: none"> • Phase 4 Stormwater Pro-Fi construction is ongoing. The contractor is currently working on the Boys and Girls Club GSI and 4th and Harris Street GSI, and 4th and Pepper Street GSI. • Design and planning for next phase of GSI (2024-2027) is underway.
Joint Pollutant Reduction Plan - Collaborate with Suburban Partners on MS4	No update.
Obtain and Comply with Individual MS4 Permit	No update.
Operate Facilities with a High Standard of Care	
Permit Compliance	<p>The Drinking Water department met all primary and secondary Safe Drinking Water Act permit parameters for the month of October.</p> <p>The AWTF met all NPDES permit parameters for the month of October. One Dry Weather Overflow and one Sanitary Sewer Overflow were reported.</p>
Notice of Violations (NOVs)	<p>There was a late reporting NOV for a missed result which is identified in the Drinking Water Department Monthly Report for October.</p> <p>There were no NOVs received by the Wastewater department in October.</p>
Preventative Maintenance	<p>The Drinking Water Maintenance group conducted all scheduled preventative maintenance for the month to the water treatment plant equipment. Specific facility maintenance activities are outlined within the Drinking Water Department Monthly Report for October.</p> <p>The Wastewater department completed all regularly scheduled preventative maintenance in the month of October, including nearly all semi-annual CSO preventative maintenance and AWTF pump and motor lubrications.</p>
CCTV	A total of 146 feet (0.03 miles) of sewer pipes were assessed by closed circuit television (CCTV) footage during the month of October. A total of 2,050 feet (0.39 miles) of sewer pipes were flushed as well. Footage was low due to heavy focus on completing nearly all CSO semi-annual preventative maintenance throughout the month.

	<p>InfoAsset Planner Year 2 Implementation activity report:</p> <ul style="list-style-type: none"> Next steps include repointing data model to CRW's databases. <p>Other activities:</p> <ul style="list-style-type: none"> Continue to collaborate with the Lead Service Line Inventory, internal land development and permitting process, Cityworks Optimization with Risk Management and 10-Year Anniversary Committee.
Development Review Summary	For details, see attached Development Stormwater Management Review Summary spreadsheet for November.

Undertake Capital Improvement Projects - Refer to attached Capital Improvement Projects Report

Professional & Contractor Services	<p>Recommend Board approval of the following Resolutions, Task Orders, Change Orders and Agreements:</p> <p>Drinking Water:</p> <ul style="list-style-type: none"> Timber Product Harvest/Sale Extension Agreement [REDACTED] Change Order No. 1 - 2023 Street Restoration Project [REDACTED] <p>Wastewater:</p> <ul style="list-style-type: none"> Change Order No. 2 - Front Street Interceptor Rehabilitation Phase 2 Project [REDACTED] Task Order 2023-05-02: Engineering Services for 2024 IDIQ Management with [REDACTED] <p>Stormwater: None.</p>
Stormwater O&M Agreements	Recommend Board approval of the following: None
AWTF Primary Digesters Rehabilitation	No update. Closeout of the general construction contract is dependent upon resolution of the contractor's time delay claim.
AWTF Primary Clarifiers Improvements	A design kick off meeting was held on 11/9/2023.
AWTF Energy Recovery Improvements	No update. The project is currently advertised and bids will be opened on 12/6/2023.
Front Street Pumping Station Improvements	Closeout of the general construction contract is dependent upon resolution of the contractor's time delay claim.

Undertake Renewal and Replacement Projects

2022 Water System Improvements	All work is complete and the final walk through with the contractor is scheduled for 11/15/2023.
Cameron Street Water Main - Phase 4	The contractor has installed several segments of cured-in-place pipe (CIPP) liner in the 20-inch water main. The contractor will remobilize in the spring to complete the remaining work.
2023 Sewer System Improvements (Excavation)	The contractor has completed the majority of the work and the contract is expected to be closed out in December.
2023 Sewer System Improvements (Trenchless)	The contractor, Standard Pipe Services, is resuming cured-in-place pipe (CIPP) liner work the week of 11/13/2023, and is expected to be complete by the end of the year.
Arsenal Boulevard Sewer Improvements	The Right-of-Entry document with the Department of General Services will be signed by mid-November. The project will be advertised for bids in November.
Front Street Interceptor Rehabilitation - Phase 2	The contractor is performing concrete work and demobilizing from the work site. The project is expected to be closed in December.
Water Facility Maintenance	The Water Maintenance group completed various repairs throughout the Water Treatment Facility, pumping stations, and at the Administrative Offices throughout the month. A narrative is provided in the Drinking Water Department Monthly Report for October.

Wastewater Facility Maintenance	The Wastewater Maintenance group completed various repairs throughout the Advanced Wastewater Treatment Facility (AWTF), pumping stations, and at the Administrative Offices throughout the month. A narrative is provided in the Wastewater Department Monthly Report for October.
Sinkhole Program	Two (2) sinkholes were investigated by CRW in the month of October. None were due to failure of wastewater assets.
Inlet Cleaning	A total of 33 stormwater inlets were cleaned during the month of October, and 32 stormwater inlet inspections were performed. The Field Construction group repaired 26 inlets at various locations throughout the facility.

Operate as an Efficient, Sustainable and Resilient Water Utility

DeHart Property Stewardship	In accordance with the DeHart Property Forest Management Plan, a regeneration harvest is underway in MUs 20, 34, 36, and 37 (approximately 155 acres). Harvest will improve forest health and release regeneration of a more desirable understory. <i>See related Issue Brief for Extension Agreement.</i> Harvest commenced in MUs 40 and 42 (approximately 135 acres). Harvest prescription supports overstory removal to release regeneration.
Sustainability	No update.
Internal Communications	Intranet (Sharepoint) site continues to be used. Q4 all-employee CRW meetings were held at each facility in October.

Inform and Listen to Customers and Encourage Stewardship of our Systems

Media Relations - Press and Social Media	PRESS RELEASES: October 23: "CAPITAL REGION WATER TO OPERATE BACKUP WATER SUPPLY." SOCIAL MEDIA TOPICS: Facebook/Instagram: 3 New Organic Followers (1,649 Facebook / 716 Instagram). Four (4) Posts; Highest Engaged Post: "Annual River Run" (344 Reachs, 36 Reactions, 1 Share, 1 comment); Other topics: Customer Service Week, Front Street Pump Station Open House, Customer Service Center reminder and Service Line Inventory Survey. Twitter: 0 Tweets; Month overview: 28 total Impressions; 1 New Follower. Nextdoor: Stats: 7,046 Total Members (114 New members); One (1) Post. -"Annual River Run" - 538 Impressions, 1 like. 2023 Demographics: Most Active Age-range: 25-54; Gender division: 62% women / 37% Men; Locations: Harrisburg, Penbrook, Mechanicsburg, Steelton, Linglestown, Camp Hill and Lancaster.
Community Relations	Community Outreach: <ul style="list-style-type: none"> • One (1) community event was attended: Front Street Pump Station Open House on 10/12/2023. • Zero (0) facility tours. • Two (2) community meetings: CRW Community Ambassador Meeting on 10/18/2023; and Construction Overview Meeting with UPMC Harrisburg on 10/25/2023. • Delivered five (5) sets of door-to-door notifications impacting approximately two hundred fifty-eight (258) customers. Included two (2) courtesy construction notices; three (3) fats, oils, and grease notifications. • Two (2) Everbridge alerts: One (1) Boil Water Advisory; one (1) Lift Boil Water Advisory. Twelve (12) Lead Risk Mitigation notifications, impacting approximately twelve (12) addresses.
Public Communications	WHAT'S ON TAP COMMUNICATION: The October monthly bill stuffer was distributed as a bill insert. Topics included: Homeowners Responsibility and Customer Drinking Water Service Line Survey.
Business Diversity	No update.

Administrative	
Risk Management	<p>Executive Summary: <u>Total Claims:</u> 30 Open: 10 Closed: 20</p> <p><u>Insurance Line Claim Count:</u> Auto: 2 General Liability: 16 Public Officials: 2 Workers Compensation: 10</p>
Human Resources	For details, see attached Recruiting Status Report.
Procurement	<p>Procurement continues to assist staff in identifying vendors and requesting quotes for goods and services, as requested.</p> <p>Current bid opportunities: PROJECT NUMBER 2023 – 214 - Water Treatment Chemicals, PennBid PROJECT NUMBER 2023 – 211 – Janitorial Services</p> <p>Recommend Board approval of the following:</p> <ul style="list-style-type: none"> • Procurement of Zinc Orthophosphate (SLI-321L) [REDACTED] a Sole Source Provider. • Procurement of Sludge Removal from Backwash Tank [REDACTED] through COSTARS. • Procurement of six (6) Replacement Overhead Garage Doors with installation [REDACTED] through COSTARS.
Information Technologies (IT)	[REDACTED]

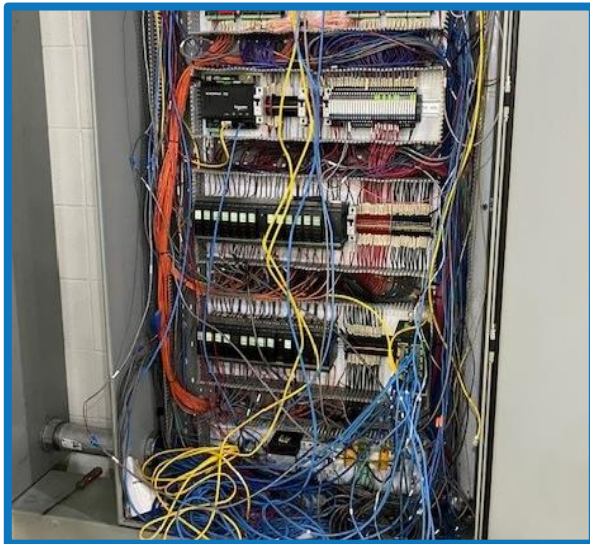
<p>Office Management and Admin Professional Services and Construction</p>	<p>Incoming Correspondence Report: Refer to attached Incoming Correspondence Report for October 2023.</p> <p>Street/Sidewalk-Cut Permits: Six (6) Drinking Water and five (5) Wastewater permits were issued. Three (3) Drinking Water and one (1) Wastewater permit were successfully completed, inspected, and closed by the City of Harrisburg's Engineer.</p> <p>Fleet Management (Acquisitions):</p> <ul style="list-style-type: none"> • CRW accepted delivery of C-95 (2024 International MV607 SBA Main Break Truck) on 10/24/2023. (Drinking Water) • CRW accepted delivery of G-93 (2023 Ford Transit High-Roof [CCTV] Cargo Van) on 8/10/2023. Installation of the camera upfit was received on 10/25/2023.(Wastewater) • CRW accepted delivery of G-80 (2023 Ford F-350 Super Duty 4X4 Cab with Utility Body Upfit) on 11/7/2023. (Wastewater) • CRW accepted delivery of C-104 (2023 Ford Escape) on 11/13/2023. (Drinking Water)
<p>Right-to-Know Requests</p>	<p>CRW has received and responded to zero (0) Right-to-Know requests during the period 10/19/2023 through 11/14/2023. Other informational requests were identified as not being formal RTK requests and/or were transferred to the Customer Service Center for appropriate response throughout the month,</p> <p>OOB Training: The Open Records Officer and Assistant Open Records Officer participated in the Annual OOR Training on 11/15/2023.</p>



CAPITAL REGIONTM

WATER

DRINKING WATER DEPARTMENT MONTHLY REPORT



Refurbished PLC control panel 16/16A.

October 2023

100 Pine Drive, Harrisburg, PA 17103 | 888-510-0606
capitalregionwater.com

Plant Operations

Capital Region Water's (CRW) Drinking Water department met all Federal Safe Drinking Water Act water quality standards for the month of October.

The DeHart water source was in service for 31 days. The Susquehanna River water source was in service for 9 days.

Specific water quality results are summarized in Exhibit A. A total of 192.132 MG, averaging 6.198 MGD was withdrawn from the DeHart water supply source for treatment. A total of 30.960 MG, averaging 3.440 MGD was withdrawn from the Susquehanna River for treatment as shown in Exhibit B, a total of 220.329 MG, averaging 7.107 MGD, of finished drinking water was pumped to the distribution system.

The DeHart Watershed had below average rainfall in October (Exhibit C) and the DeHart Reservoir water level decreased (Exhibit D). An estimated 215.85 MG of water was released from the DeHart Reservoir to Clark Creek, averaging 6.96 MGD for the month. This downstream flow, which is received by remote flow monitoring from the weir location and actual staff gauge readings, met the flow required by the State Water Allocation Permit (Exhibit E).

Operations staff started the annual river run on the October 23rd and it will be completed in the beginning of November. The annual river run allows us to test and operate our backup system to ensure its reliability, as well as confirm it can be utilized when needed and in the event of a potential emergency.

Plant Maintenance

The Maintenance team performed 42 maintenance work orders and nine corrective maintenance work orders for the month of October using the Cityworks maintenance management system for all water treatment plant equipment, pumping stations, and fleet vehicles.

- The DeHart Dam watershed was patrolled daily and maintained.
- The Water Service Center (WSC) took delivery of C-95 main break truck, and applied all branding, reflective tape, and identifiers to vehicle.
- Installed conduit/wiring and actuators and remote heads for the backwash valves 405 and 407.
- Completion of the BACTI-Lab Office. Installed surface mount receptacle circuits, pulled data cabling, painting of walls and epoxy flooring, installed cabinets, and office furniture.
- The maintenance team refurbished the exiting PLC control panels 16/16A for better trouble shooting and component access.

-
- Continued to do landscaping duties at the pump houses, water treatment plant, Administrative Offices, and DeHart Dam facility.
 - Assisted customer service with postings and shut offs.

Distribution

The Distribution group completed the following work during the month of October:

- Repaired three leaking services during the month of October, totaling 20,160 gallons of unmetered water.
- Repaired two water main breaks in October, totaling 2,940,797 gallons of unmetered water.
- Repaired one fire hydrant.
- Completed 373 work orders.
- Completed 521 water, sewer, and stormwater locates.
- Exercised 71 street valves.
- Worked with contractors on several water, sewer, and stormwater Capital Improvement projects.

Water Quality

In addition to overseeing the operation of both the accredited and process laboratories, the Water Quality Administrator also:

- Ensured collection of monthly, quarterly, and river run regulatory samples for Total Coliform, and E. Coli, THM, HAA, IOCs, TOC, Alkalinity, VOCs, and nitrate.
- No taste or odor complaints.
- Received a late reporting violation due to subcontract laboratory error. Dioxin was collected during the 3rd quarter as required and analyzed by the subcontract laboratory. The laboratory missed reporting it by October 10, 2023. This will result in a Tier 3 Public Notice. It will be included in the next CCR.



CAPITAL REGION™

WATER

Drinking Water Exhibits

EXHIBIT A Water Quality Analysis - 2023

PARAMETERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average	MCL Limits
Total Coliform: Presence/Absence														
Distribution System	A	A	A	A	A	A	A	A	A	A	A	A	A	5% P
Chlorine Residual, mg/L Free														
Filter Plant Effluent	2.00	1.98	2.01	1.99	1.95	1.98	1.99	1.99	1.91	1.96			1.98	0.2 - 4.0
Distribution System	1.40	1.43	1.42	1.31	1.21	1.19	1.10	1.07	1.02	1.14			1.23	>0.20
Turbidity, NTU														
Influent from DeHart	1.20	0.98	0.71	0.61	0.77	1.02	1.05	0.80	0.97	1.44			0.95	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.64				NA
Filter Plant Effluent	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03			0.03	0.30
pH, Std Units														
Influent from DeHart	6.4	6.5	6.5	6.4	6.1	6.0	5.9	5.8	5.8	5.8			6.10	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.8				NA
Filter Plant Effluent	7.6	7.5	7.9	7.7	7.5	7.4	7.4	7.4	7.5	7.5			7.54	6.5 - 8.5*
Distribution System	7.1	7.7	8.1	8.0	8.0	7.4	7.9	8.0	7.9	7.8			7.78	6.5 - 8.5*
Total Alkalinity, mg/L as CaCO3														
Influent DeHart	5	5	5	5	5	5	5	5	6	6			5.20	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	41				NA
Filter Plant Effluent	15	14	13	15	16	18	20	24	26	23			18.46	NA
Distribution System	13	14	15	14	15	14	20	25	28	26			18.42	NA
Temperature, degrees C														
Influent from DeHart	5.9	5.4	7.3	10.0	13.0	14.2	16.8	17.9	18.1	16.4			12.50	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	16.4				NA
Filter Plant Effluent	6.6	6.4	7.2	9.8	12.0	13.3	15.4	16.4	17.4	17.7			12.21	NA
Distribution System	14.1	13.2	13.6	16.8	18.3	20.9	22.4	23.7	22.2	19.6			18.48	NA
Fluoride, mg/L														
Filter Plant Effluent	0.95	1.02	1.00	0.88	0.69	0.77	0.75	0.83	0.71	0.73			0.83	2
Aluminum, mg/L														
Filter Plant Effluent	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.03	0.03	0.02			0.02	0.2*
Iron, mg/L														
Influent from DeHart	0.11	0.06	0.04	0.05	0.07	0.13	0.24	0.42	0.62	0.54			0.23	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.18				NA
Filter Plant Effluent	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.02	0.01			0.02	0.3*
Distribution System	0.07	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.02			0.01	0.3*
Total Dissolved Solids, mg/L														
Influent from DeHart	15	15	16	16	16	17	17	18	27	19			17.67	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	139				NA
Filter Plant Effluent	37	34	35	37	39	42	45	51	52	54			42.56	500*
Distribution System	39	36	34	38	40	44	46	52	55	78			46.24	500*
Total Hardness, mg/L														
Influent from DeHart	8	8	8	8	8	8	8	8	8	8			8.00	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	71				NA
Filter Plant Effluent	8	8	8	8	8	8	8	8	9	9			8.29	NA
Distribution System	10	6	6	6	6	7	7	7	7	20			8.08	NA
Orthophosphate, mg/L														
Filter Plant Effluent	1.20	1.24	1.27	1.27	1.20	1.22	1.17	1.24	1.15	1.18			1.21	0.7 - 1.3*
Distribution System	1.21	1.19	1.12	1.27	1.21	1.18	1.12	1.27	1.19	1.06			1.18	0.7 - 1.3*
**Total Trihalomethanes, ug/L														
Distribution System	34.2	NA	NA	42.8	NA	NA	57.0	NA	NA	66.8			50.2	80.0
**Total Haloacetic Acids, ug/L														
Distribution System	36.8	NA	NA	48.4	NA	NA	51.4	NA	NA	60.7			49.3	60.0
Total Organic Carbon, mg/L														
Influent from DeHart	2.16	NA	NA	1.90	NA	NA	2.10	NA	NA	2.00			2.04	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA	NA	***				NA
Filter Plant Effluent	1.22	NA	NA	1.20	NA	NA	1.20	NA	NA	1.20			1.21	NA
Average Filter Run, Hours	115	112	120	119	112	109	112	113	112	113			113.72	NA

*** Not Available at Time of Report

* Values are related to DEP Secondary MCL

** Running Annual Quarterly Average

EXHIBIT B

Water Production Data - 2023

DeHart Withdrawal			River Withdrawal		Total Withdrawal		Treated Water		Process Water		Finished Water	
Month	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)
January	233.562	7.534	0.000	0.000	233.562	7.534	239.964	7.741	6.487	0.210	229.172	7.393
February	202.799	7.243	0.000	0.000	202.799	7.243	210.336	7.513	4.938	0.176	202.279	7.224
March	235.779	7.606	0.000	0.000	235.779	7.606	233.913	7.546	6.770	0.218	223.545	7.211
April	228.546	7.618	0.000	0.000	228.546	7.618	226.774	7.559	10.158	0.339	216.616	7.221
May	225.428	7.272	0.000	0.000	225.428	7.272	232.974	7.515	6.110	0.197	222.530	7.178
June	226.317	7.544	0.000	0.000	226.317	7.544	226.356	7.545	6.117	0.204	215.490	7.185
July	238.920	7.707	0.000	0.000	238.920	7.707	239.368	7.722	5.935	0.191	228.528	7.372
August	235.092	7.584	0.000	0.000	235.092	7.584	240.323	7.752	6.166	1.199	248.488	8.016
September	219.933	7.331	0.000	0.000	219.933	7.331	222.412	7.413	5.979	0.199	212.208	7.073
October	192.132	6.198	30.960	3.440	223.092	7.197	231.371	7.464	6.189	0.200	220.329	7.107
November												
December												
Total	2238.508		30.960		2269.468		2303.791		64.849		2219.185	
Average	223.851	7.364	3.096	0.344	226.947	7.464	230.379	7.577	6.485	0.313	221.919	7.298

Peak Day Water Use
Minimum Day Water Use

(MG) = Million Gallons
(MGD) = Million Gallons per Day

EXHIBIT C

Rainfall at the DeHart Reservoir - 2023
(inches)

Date	January	February	March	April	May	June	July	August	September	October	November	December	Annual Total
2023 Total	2.70	1.09	2.93	3.71	2.63	3.85	7.85	2.66	5.00	2.07			34.49
Daily Average	0.087	0.039	0.095	0.124	0.085	0.128	0.253	0.086	0.166	0.067			1.130
Ten Year Average	3.028	2.558	3	3.672	4.531	4.518	5.576	3.831	4.589	3.931	2.544	3.002	44.78
2022 Total	2.74	3.14	1.67	5.03	6.55	5.84	2.16	2.67	4.16	3.43	2.94	6.63	46.96

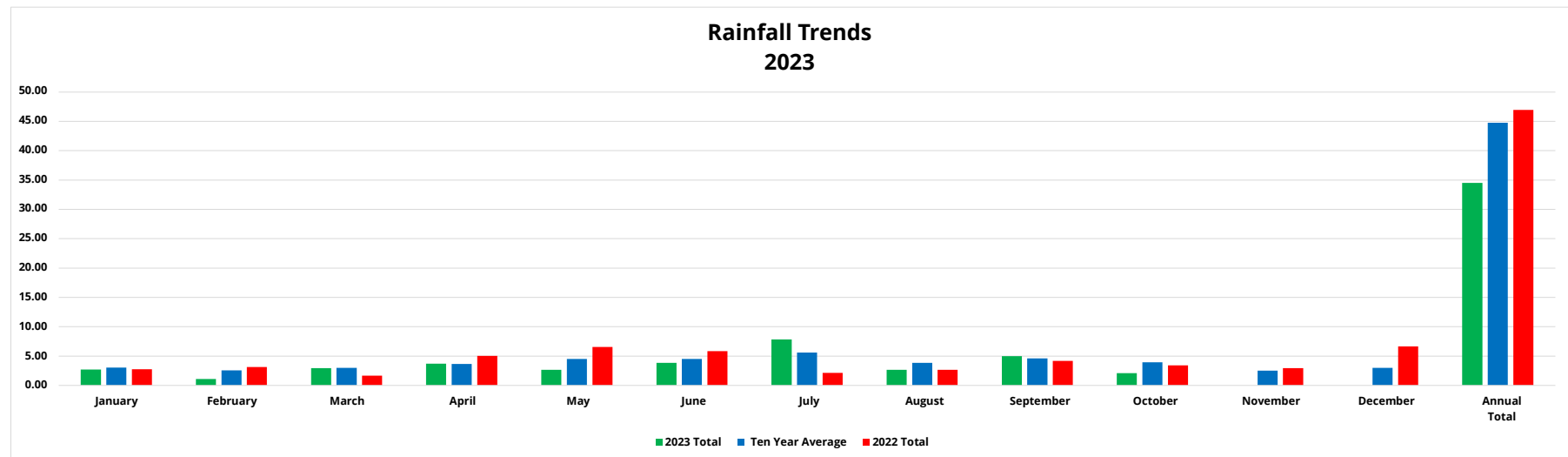


EXHIBIT D

Water Level at the DeHart Reservoir - 2023
(Inches from Spillway)

Date	January	February	March	April	May	June	July	August	September	October	November	December
2023 AVG	-162.9	-58.6	-98.7	1.1	1.8	-10.0	-20.1	-32.3	-49.3	-55.9		
Ten Year AVG	-22.6	-19.4	-19.5	-8.0	-2.1	-2.9	-7.2	-18.1	-26.2	-39.1	-44.5	-42.5
2022 AVG	1.9	3.1	3.2	4.6	4.1	7.2	-12.1	-34.1	-48.5	-68.9	-80.6	-58.9

DeHart Reservoir Water Level Trends
2023

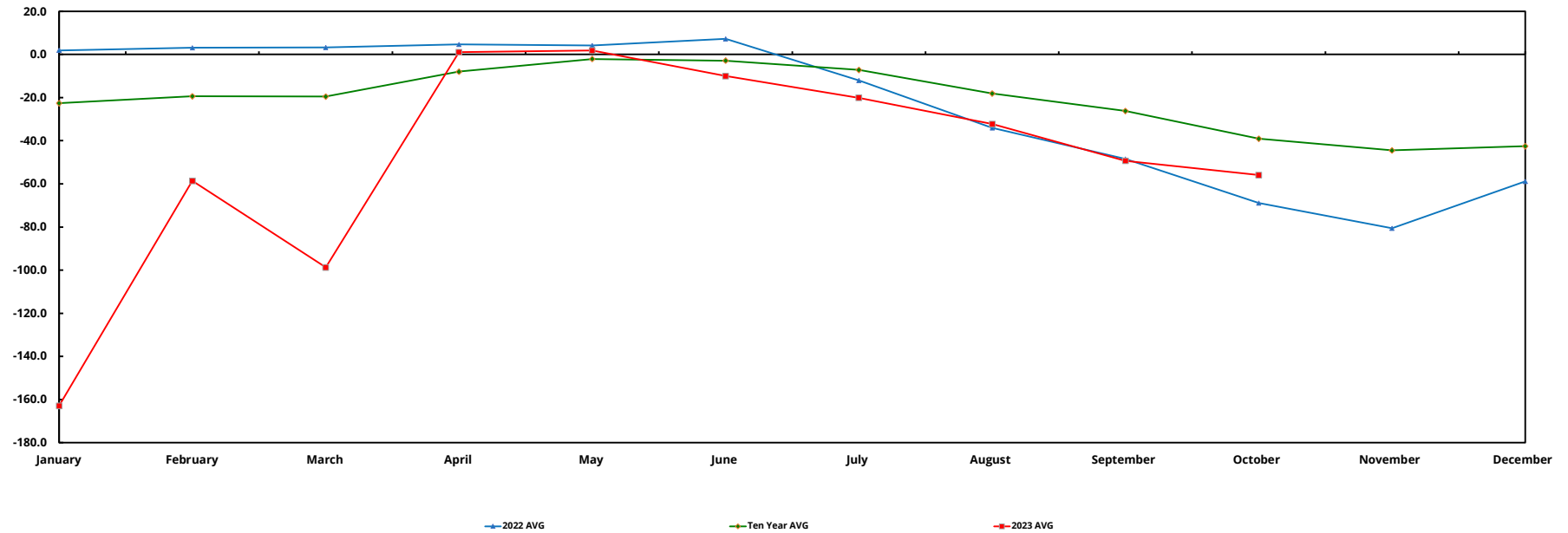


EXHIBIT E

Daily Conservation Release - 2023

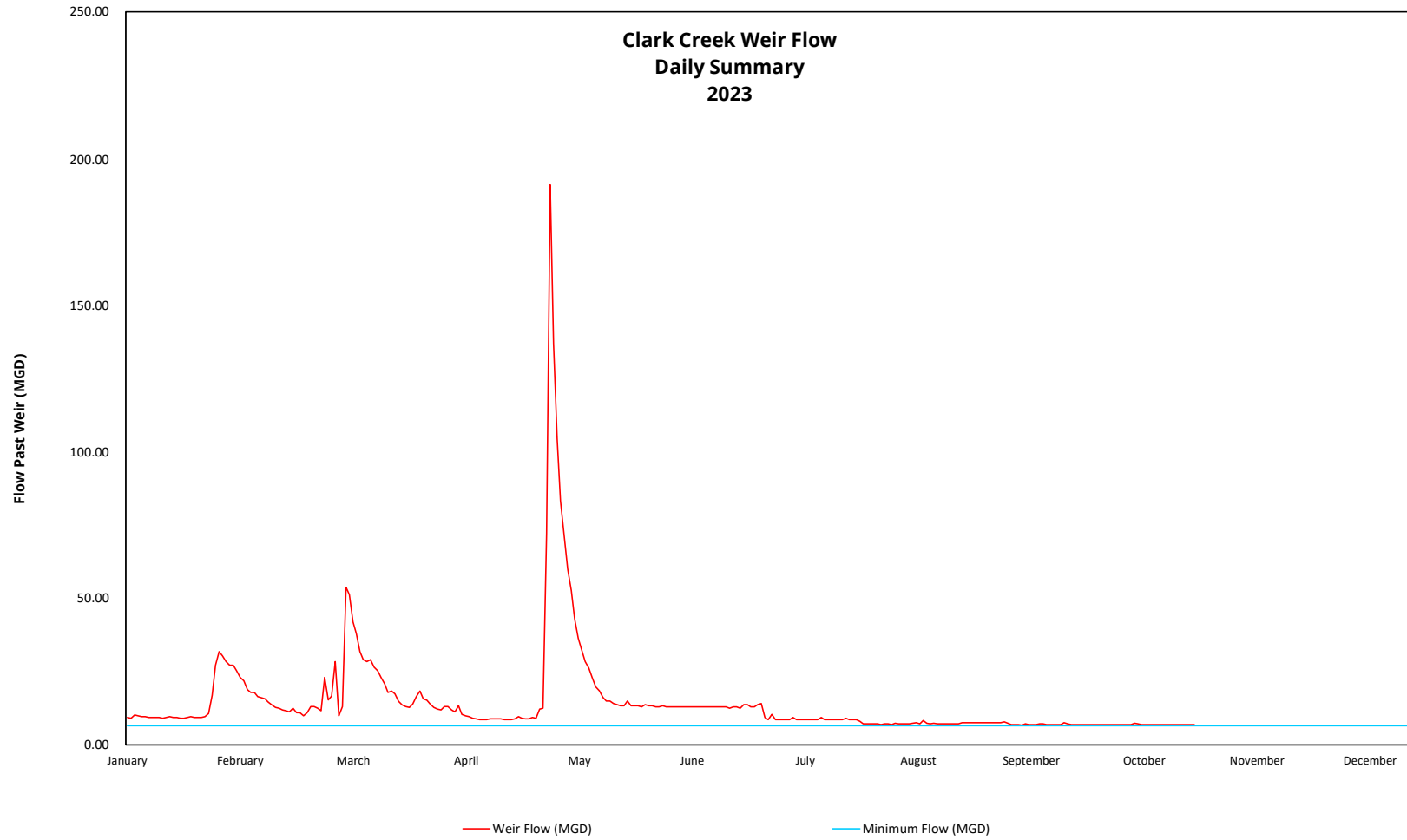




EXHIBIT F
Utility Usage - 2023

Location / Utility	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Water Services Center														
Electric Transmission														
Total, kWh	214,200	172,800	198,000	174,600	122,400	135,000	127,800	135,000	196,200				164,000	1,476,000
Cost, Dollars	\$16,812.87	\$8,947.67	\$10,245.05	\$9,131.12	\$7,335.72	\$8,306.81	\$8,063.86	\$8,273.09	\$10,790.55				\$9,767.42	\$87,906.74
Electric Generation														
Total, kWh	214,200	172,800	198,000	174,600	122,400	135,000	127,800	135,000	196,200	187,200			166,320	1,663,200
Cost, Dollars	\$1,253.64	\$1,180.73	\$1,168.47	\$1,159.78	\$981.51	\$1,058.66	\$870.88	\$1,037.51	\$1,101.23	\$1,085.38			\$1,089.78	\$10,897.79
Natural Gas														
Total, Cu Ft	13,533	13,229	11,509	8,795	1,475	1,920	1,604	1,514	1,514	1,898			5,699	56,991
Cost, Dollars	\$12,244.94	\$11,133.40	\$9,875.88	\$8,238.84	\$1,838.65	\$1,880.96	\$1,852.79	\$1,490.85	\$1,519.21	\$2,011.46			\$5,208.70	\$52,086.98
Sewer														
Total, Gal	7,710,000	6,070,000	7,288,000	7,213,000	6,490,000	7,000,000	6,498,000	6,609,000	7,100,000	6,817,000			6,879,500	68,795,000
Cost, Dollars	\$71,240.40	\$56,086.80	\$67,341.12	\$66,359.60	\$59,967.60	\$64,680.00	\$60,041.52	\$61,067.16	\$65,604.00	\$62,989.08			\$63,537.73	\$635,377.28
Refuse														
Cost, Dollars	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70			\$967.70	\$8,709.30
Reservoir Park Pump Station														
Electric Transmission														
Total, kWh	88,000	92,400	85,600	93,200	93,200	80,800	82,800	89,200	88,800				88,222	794,000
Cost, Dollars	\$3,704.13	\$3,935.15	\$3,650.18	\$3,737.99	\$3,808.93	\$3,292.40	\$3,201.41	\$3,565.72	\$3,483.68				\$3,597.73	\$32,379.59
Electric Generation														
Total, kWh	88,000	92,400	85,600	93,200	93,200	80,800	82,800	89,200	88,800	**			87,600	700,800
Cost, Dollars	\$1,350.22	\$1,214.10	\$1,215.18	\$1,292.31	\$1,417.70	\$1,323.10	\$1,465.66	\$1,456.76	**	**			\$1,341.88	\$10,735.03
Natural Gas														
Total, Cu Ft	982	629	473	466	9	0	0	0	0	39			260	2,598
Cost, Dollars	\$903.79	\$626.39	\$509.26	\$456.90	\$36.03	\$28.36	\$28.36	\$28.36	\$28.36	\$71.69			\$271.75	\$2,717.50
Wassukuhina River Pump Station														
Electric Transmission														
Total, kWh	1,200	1,200	600	1,200	600	1,200	1,200	600	**				975	7,800
Cost, Dollars	\$20.90	\$67.18	\$46.15	\$72.56	\$52.12	\$67.11	\$74.62	\$52.25	**				\$56.61	\$452.89
Electric Generation														
Total, kWh	1,200	1,200	600	**	600	1,200	1,200	600	1,200	**			975	7,800
Cost, Dollars	\$98.68	\$71.83	\$70.50	**	\$70.69	\$72.82	\$103.45	\$70.92	\$95.75	**			\$81.83	\$654.64
Natural Gas														
Total, Cu Ft	580	499	499	389	53	2	0	0	0	0			225	2,022
Cost, Dollars	\$543.32	\$515.95	\$524.07	\$378.07	\$75.04	\$30.13	\$28.36	\$28.36	\$28.36	\$28.36			\$239.07	\$2,151.66
Union Square Booster Station														
Electric Transmission														
Total, kWh	3,340	2,744	2,483	1,559	744	441	522	566	**				1,550	12,399
Cost, Dollars	\$305.46	\$132.56	\$138.65	\$118.51	\$52.69	\$43.91	\$46.96	\$52.98	**				\$111.47	\$891.72
Electric Generation														
Total, kWh	3,340	2,744	2,483	1,559	380	441	522	566	338				1,375	12,373
Cost, Dollars	\$130.77	\$113.42	\$101.36	\$95.50	\$81.60	\$70.49	\$70.68	\$70.81	\$77.75				\$90.26	\$812.38
DeHart Facilities														
Electric Transmission														
Total, kWh	3,131	2,289	2,308	2,945	2,396	1,346	2,137	2,362	**				2,364	18,914
Cost, Dollars	\$168.70	\$167.37	\$165.82	\$158.03	\$134.07	\$94.26	\$120.70	\$124.46	**				\$141.68	\$1,133.41
Electric Generation														
Total, kWh	3,131	2,289	2,308	2,945	2,396	1,346	2,137	2,307	2,257	1,675			2,279	22,791
Cost, Dollars	\$102.80	\$83.69	\$161.05	\$63.55	\$89.12	\$84.90	\$104.57	\$85.27	\$96.51	\$90.42			\$96.19	\$961.88
Fuel Oil														
Total, Gals.	2,251	0	0	0	0	0	1,370	0	0				402	3,621
Cost, Dollars	\$5,768.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,232.03	\$0.00	\$0.00				\$1,222.23	\$11,000.03
City Island Heat Trace														
Electric Transmission														
Total, kWh	40	140	147	116	0	0	0	0	**				55	443
Cost, Dollars	\$7.57	\$16.44	\$9.59	\$8.42	\$4.36	\$11.70	\$2.74	\$3.77	**				\$8.07	\$64.59
Electric Generation														
Total, kWh	40	140	147	116	0	0	0	0	0				49	443
Cost, Dollars	\$61.81	\$61.93	\$119.36	\$61.83	\$61.47	\$61.44	\$61.39	\$61.39	\$61.36				\$68.00	\$611.98
Expenditures YTD													\$87,898	\$859,545

** Not available at time report was developed

Total Transmission	\$122,829
Total Generation	\$24,674
Total Refuse	\$8,709
Total Gas	\$56,956
Total Sewer	\$635,377
Total Fuel Oil	\$11,000
Total Utilities	\$850,836

Exhibit G

Hydro-Turbine Generator Performance - 2023

Month	Kilowatt-hour (KWH)	Anticipated Savings *
January (Out of Service)	0	\$0
February (Out of Service)	0	\$0
March (Out of Service)	0	\$0
April	38,680	\$5,725
May	77,840	\$11,520
June	72,100	\$10,671
July	57,020	\$8,438
August	38,300	\$5,668
September	0	\$0
October	80	\$12
November		
December		
Average	28,402	\$4,203
Year to Date	284,020	\$42,034

* Estimated savings based on electrical rate of \$0.148 per KWH

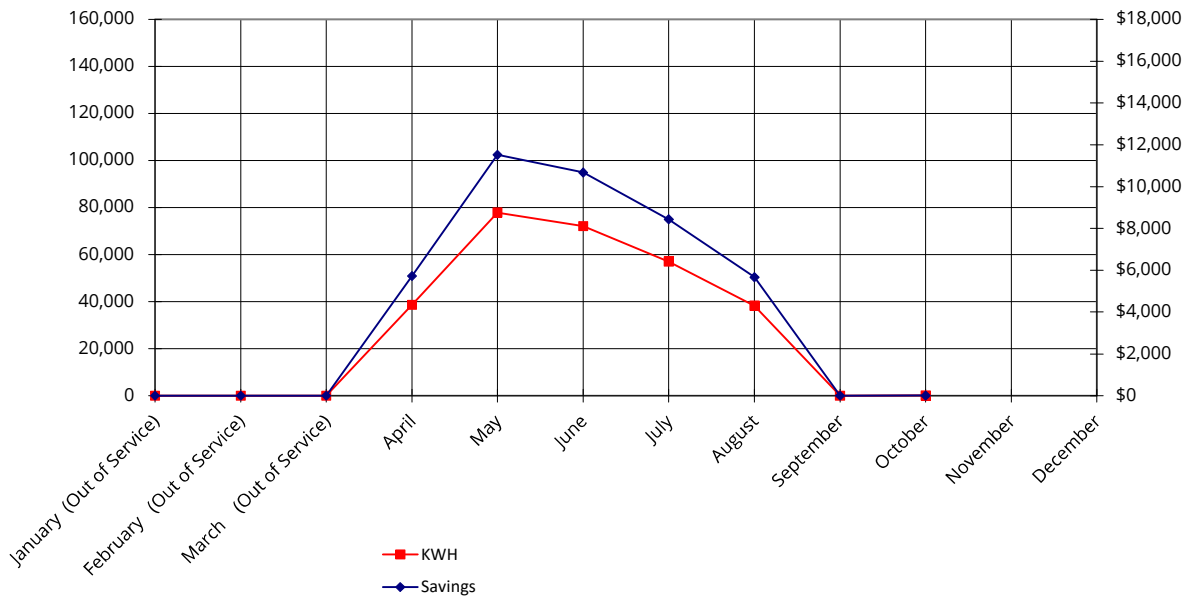


EXHIBIT H
Treatment Chemical Usage - 2023

Chemical	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Chlorine														
Total Lbs.	6,294	5,518	5,991	5,949	6,112	5,938	6,279	6,117	5,834	6,069			6,010	60,101
Average, Chlorine Lbs./Day	203	197	193	198	197	198	203	197	194	195			197.5	197.5
Average, Chlorine Dose, mg/L	6.9	1.6	2.6	3.2	3.4	3.2	3.1	3.2	3.1	3.1			3.1	3.3
Chlorine Cost, \$/Lbs.	\$1,639	\$1,639	\$1,639	\$1,639	\$1,639	\$1,639	\$1,639	\$1,639	\$1,639	\$1,639			\$1,639	1.6
Chlorine Total Cost, Dollars	\$10,316	\$9,044	\$9,819	\$9,750	\$10,018	\$9,732	\$10,291	\$10,026	\$9,562	\$9,947			\$9,850.53	\$98,505.32
Alum 48.5%														
Total Lbs.	26,829	16,763	19,163	21,756	20,615	19,942	19,413	19,606	18,709	24,880			20,768	207,676
Average, Alum, Lbs./Day	866	599	618	725	665	664	626	632	623	803			682.1	682.1
Average, Alum, mg/L	10.7	7.7	12.0	11.8	11.0	10.4	10.0	10.0	10.2	14.2			10.8	10.8
Alum Cost, \$/Lbs.	\$0.121	\$0.121	\$0.121	\$0.121	\$0.121	\$0.121	\$0.121	\$0.121	\$0.121	\$0.121			\$0.121	0.1
Alum Total Cost, Dollars	\$3,246	\$2,028	\$2,319	\$2,632	\$2,494	\$2,413	\$2,349	\$2,372	\$2,264	\$3,010			\$2,512.79	\$25,127.86
Lime														
Total Lbs.	0	0	0	0	0	0	0	0	0	0			0	0
Average Lime, Lbs./Day	0	0	0	0	0	0	0	0	0	0			0.0	0.0
Average, Lime Dose, mg/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0
Lime Cost, \$/Lbs.	\$0.86	\$0.86	\$0.86	\$0.86	\$0.86	\$0.86	\$0.86	\$0.86	\$0.86	\$0.86			\$0.86	\$0.86
Lime Total Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$0.00	\$0.00
Soda Ash														
Total Lbs.	17,400	12,350	13,050	13,650	17,400	20,350	23,950	23,803	27,590	25,400			19,494	194,943
Average Soda Ash, Lbs./Day	561	441	421	455	561	678	772	767	919	819			639.4	639.4
Average, Soda Ash Dose, mg/L	19.2	13.5	19.0	7.2	9.0	10.8	12.1	12.1	15.0	15.8			13.4	13.4
Soda Ash Cost, \$/Lbs.	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368			0.4	0.4
Soda Ash Total Cost, Dollars	\$6,403	\$4,545	\$4,802	\$5,023	\$6,403	\$7,489	\$8,814	\$8,760	\$10,153	\$9,347			\$7,173.86	\$71,738.62
Fluoride														
Total Lbs.	2,240	1,965	1,965	1,660	1,167	1,133	1,198	1,167	1,112	1,158			1,477	14,765
Average, Fluoride Lbs./Day	72	70	63	55	38	38	38	37	37	37			48.4	48.4
Average, Fluoride (F-) Dose, mg/L	1.1	1.1	1.0	0.9	0.6	0.7	0.7	0.7	0.6	0.6			0.8	0.8
Fluoride Cost, \$/Lbs.	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30			\$0.30	\$0.30
Fluoride Total Cost, Dollars	\$672	\$590	\$590	\$498	\$350	\$340	\$359	\$350	\$334	\$347			\$443.05	\$4,430.50
Sodium Hydroxide 50%														
Total NaOH 50% dry Lbs.	35,623	31,225	33,907	33,665	34,585	33,603	35,534	17,449	36,912	35,647			32,815	328,150
Average NaOH 50%, dry Lbs./Day	1,149	1,115	1,094	1,122	1,116	1,120	1,146	562	1,230	1,150			1,080	1,080
Average, NaOH 50%, mg/L	19.2	15.7	19.2	8.9	8.8	8.9	8.9	8.9	19.9	18.5			13.7	13.7
NaOH 50% Cost, dry \$/Lbs	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450			0.5	0.5
NaOH 50% Total Cost, Dollars	\$16,030	\$14,051	\$15,258	\$15,149	\$15,563	\$15,121	\$15,990	\$7,852	\$16,610	\$16,041			\$14,766.66	\$147,666.60
Zinc Orthophosphate														
Total Zn3(PO4)2, wet Lbs.	4,802	4,239	4,565	4,539	4,559	4,246	4,788	4,669	4,446	4,616			4,547	45,469
Average Zn3(PO4)2, wet Lbs./Day	155	151	147	151	147	142	154	150	148	148			149.3	149.3
Average, Zn3(PO4)2 Dose, mg/L	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.5	2.5	2.5			2.5	2.5
Zn3(PO4)2 Cost, wet \$/Lbs.	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724			1.7	1.7
Zn3(PO4)2 Total Cost, Dollars	\$8,279	\$7,308	\$7,870	\$7,825	\$7,860	\$7,320	\$8,255	\$8,049	\$7,665	\$7,958			\$7,838.85	\$78,388.51
Potassium Permanganate														
Total KMnO4, Lbs.	0	0	0	0	0	0	0	0	0	496			50	496
Average KMnO4, Lbs./Day	0	0	0	0	0	0	0	0	0	62			6.2	6.2
Average, KMnO4 Dose, mg/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2			0.0	0.0
KMnO4 Cost, \$/Lbs.													#DIV/0!	
KMnO4 Total Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$0.00	\$0.00
Expenditure													\$42,585.74	\$425,857.41
Average Treated Cost per (MG)														
Total Treated Flow (MGD)														0.000
Average Treated Flow (MGD)														230.379

EXHIBIT I

DISTRIBUTION DEPARTMENT ACTIVITIES - 2023

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
PA One Call Locates	501	430	550	520	497	485	546	523	492	521			5,065	507
Street Restorations	0	0	7	1	15	6	1	0	0	1			31	3
Leak Detection Assessment Percent of Distribution System	8	8	8	8	8	8	8	8	8	8			80	8
Main Break Repair - Detected Non-Surfacing	0	0	0	0	0	0	0	0	0	2			2	0
Main Breaks Repaired - Emergency	2	1	1	0	1	3	1	1	0	2			12	1
Service Line Leaks Detected	0	0	0	0	0	0	0	0	0	0			0	0
Service Line Leaks Repaired	1	0	10	7	4	2	6	7	4	7			48	5
Valves - Exercised	0	0	0	21	1	0	55	88	60	71			296	30
Valves - Replaced	0	0	0	0	0	0	1	3	0	0			4	0
Hydrant Flow Tests	0	8	1	2	7	6	4	1	1	2			32	3
Hydrants Returned to Service	0	0	0	0	1	2	2	0	0	0			5	1
Water Tap - Disconnected	2	0	11	13	4	0	6	1	0	4			41	4
Water Tap - New Connection	2	0	0	0	0	0	5	0	2	1			10	1
Water Shutoffs - Delinquent Accounts	0	0	0	0	0	0	0	0	0	0			0	0
Water Shutoffs - Other	24	11	21	62	48	56	56	31	46	36			391	39
Water Shutoffs - Non Payment	0	0	21	41	31	43	42	37	30	24			269	27
Water Restoration Turn on Other	24	22	23	33	23	55	41	19	42	33			315	32
Water Turn on - Non Payment	0	1	6	24	4	38	21	19	24	0			137	14

EXHIBIT J

Metering Activities - 2023

Board Monthly Report	Distribution Monthly Report														
Activity	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
Meter Installations															
Replacement	Missing	6	3	4	5	7	6	1	6	9	7			54	5
	Leaking	2	3	2	5	2	2	2	0	0	2			20	2
	Frozen	20	4	3	1	1	1	0	0	1	2			33	3
	Non-registering	6	6	9	4	8	10	16	10	9	4			82	8
	Large Meters ¹	0	0	0	0	0	0	0	0	0	0			0	0
New Service	New Installation	2	0	0	0	0	0	0	0	0	0			2	0
Meter Service															
MXU's Replaced	MXU's Replaced	47	43	40	22	34	66	34	40	36	24			386	39
Batteries Replaced	Batteries Replaced	45	323	113	65	80	134	75	67	48	44			994	99
Meter Pits Serviced	Meter Pits Serviced	0	0	0	0	1	0	0	0	0	0			1	0
Meter Calibrations															
Small Meters ²	Calibrated meters	0	0	0	0	0	0	0	1	0	0			1	0

1 Large Meters are Meters 3" or greater that are calibrated at the customer's location by a contracted calibration service, assisted and witnessed by CRW staff

2 Small Meters are Meters 2" or less that are calibrated at the Water Services Center by CRW staff on a certified calibration stand

EXHIBIT K

Miscellaneous Water Usage (gals) - 2023

Category of Water Use	Description	Jan	Feb	Mar	APR	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
Process Water	Process Water	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A
Billed Metered Exported	Bulk Water Hauling	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A
Billed Metered	Hydrant Connections	0	0	113,557	4,500	407	448	11,883	0	1,494	495			132,784	13,278
Billed Unmetered	Hydrant Flow Tests	0	12,300	4,000	4,305	14,094	14,304	9,450	12,200	11,600	36,450			118,703	11,870
Unbilled Unmetered	Hydrant Flushing (and Unbilled Authorized)	48,449	51,011	40,285	3,479,672	5,975,003	39,060	277,818	34,248	138,253	103,605			10,187,404	1,018,740
Leakage on Distribution Mains	Main Leaks	1,318,637	2,836,746	95,144	0	109,685	383,537	370,363	19,274	0	2,940,797			8,074,183	807,418
Leakage on Service Lines	Service Leaks	2,321,113	41,760	568,560	135,444	95,040	17,280	312,960	241,920	80,640	20,160			3,834,877	383,488
	Total	3,688,199	2,941,817	821,546	3,623,921	6,194,229	454,629	982,474	307,642	231,987	3,101,507			22,347,951	2,234,795



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WASTEWATER DEPARTMENT MONTHLY REPORT



Tour group during the 2023 CPWQA Trade Fair.

October 2023

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Overview

The Wastewater department continued budget refinements throughout the month of October with several coordination sessions and updates to figures in the capital budget. A budget workshop was held in early November with a public presentation of the proposed 2023 budget on November 15th.

A sale of Nitrogen Credits resulting from the “Food Slurry as Supplemental Carbon” was executed in October. A total of 32,093 credits were sold at \$2.83 per credit for a total revenue of \$90,823.19. While we had hoped to generate more credits in the 2023 water year, CRW was able to attract more hauled in waste throughout the year. As more ammonia-laden wastes are brought in, N credit generation becomes more difficult. The additional revenue generated from hauled-in wastes far exceeded what was hoped for in credit generation, thereby leaving CRW in a much better financial position. As reported below, revenue of the Contract Waste Hauling program has continued to set monthly record on a remarkable upward trend.

Operations

During the month of October, the AWTF met all monthly average NPDES requirements. One Dry Weather Overflow (DWO) and one Sanitary Sewer Overflow (SSO) were reported.

Hydraulic loading to the AWTF averaged 15.7 million gallons per day (MGD). The treatment process achieved removal reductions of 97.4 percent CBOD, 96.9 percent Suspended Solids, 54.7 percent Phosphorus, and 98.2 percent Ammonia (Exhibit A).

The Contract Waste Hauling program collected \$144,699.70 in revenue from 2,629,410 gallons discharged (Exhibit G). Modern Landfill, NSP, and White Pines Landfill combined to discharge over 2 million gallons of leachate. This is the fourth time this program has eclipsed the \$100k revenue mark and the second consecutive month it has set the record for waste hauling.

The Cogeneration facility experienced a run time of 13 percent in October. Revenue is estimated at \$2,256.90 on 15,300 kilowatt-hours generated for the month. Low runtime was due to the unit being out of service for most of the month while waiting for a replacement part.

Laboratory

- Continued to improve and fix bugs in WIMS. Working on fixing reports and making sure we are monitoring all necessary variables on monthly data entry forms.
- Completed and passed annual Ethics training for all laboratory personnel.

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- Received a certificate of excellence from ERA Waters for 100 percent pass rate on annual PT testing to maintain laboratory accreditation.
 - Ran several digester profiles (solids analyses) as requested by Operations to determine whether sufficient mixing was occurring in newly rehabbed Primary Digesters.

Pretreatment

- Completed all third quarter self-monitoring report reviews and have a majority of Industrial Users in complete compliance with pretreatment standards.
- Continuing to complete facility inspections through the end of the year.

Plant Maintenance

- Worked with Operations and the Lab to determine whether sufficient mixing is occurring in the newly rehabbed Primary Digesters. Lab analysis showed that Digester No. 2 is not getting properly mixed. The management staff is coordinating potential causes and repairs with the manufacturer.
- Completed annual pump and motor lubrication throughout the facility and pump stations.
- Repaired conveyor pans which were causing tracking issues on discharge conveyor on the Belt Filter Press.
- Completed Ferric Chloride tank safety regulatory upgrade at the Chemical Storage building.
- Performed annual maintenance to corner sweeps for Final Clarifier Nos. 4, 5, and 6.
- Serviced Dezurik check valves at Front Street Pump Station.
- Excavated and repaired the 6-inch ductile discharge line which was compromised from erosion of pipe exterior surface at the Grease Pit.
- Installed the repaired screw auger at the Hydrogritter.
- Serviced standby generators and ran full load tests at Market Street and Spring Creek Pump Stations.
- Pumped, cleaned, and serviced sludge mechanism on Primary Tank No. 1.
- Continuing electrical upgrades for Primary Clarifier Nos. 3 and 4.
- Performed vehicle repairs in preparation for state Inspections.
- Provided weekly maintenance on JCB loader.
- Performed daily service for vehicular related repairs, bulbs, batteries, tires, A/C, lube oil and filters, and flat tires.
- Performed maintenance tasks per request at Administrative Offices.

Field Construction

- Repaired 26 inlets in various locations throughout the city.

-
- Blanked six inlets in various locations throughout the city to combat trash from entering the system.
 - Addressed all street plates and set them sub surface for the winter plowing season.
 - Repaired 10 feet of 8-inch sewer pipe at 16th and Wayne Streets.
 - Installed two feet of 6-inch SDR to the new Broad Street Market structure.
 - Replaced sidewalk inlet top at the southeast corner of the intersection at 17th and Regina Streets.

Field Operations

- Performed CCTV assessment of 146 feet (0.03 miles) of pipe. Footage was low due to heavy focus on completing nearly all CSO semi-annual PM throughout the month.
- Flushed 2,050 feet (0.39 miles) of sewer pipe.
- Responded to five backup and overflow calls. CRW was responsible for one in the 500 block of Maclay Street. The blockage was due to excessive quantities of grease being discharged from an upstream apartment complex. Outreach contacted property maintenance staff and distributed educational materials.
- Responded to two sinkhole calls which were not the responsibility of CRW.
- Cleaned 33 stormwater inlets and performed detailed inspection of 32 of them.
- Two Dry Weather Overflows (DWO) occurred this month: one at CSO #013 – Front and Cumberland Streets (structural failure) and one at CSO #016 – Front and Liberty Streets (debris in gate).
- Setup bypass pumping at Front and Cumberland Streets and fuel bypass pump daily.
- Monitored bypass pumping skids for 22nd and Kensington Street site and fuel daily.
- Cleaned Pista Grit No. 2.
- Flushed line at Grease Pit No. 2.
- Completed 56 semi-annual CSO PM's.
- Received new CCTV truck. Awaiting computer and software components before commissioning.

Environmental Compliance

- Completed 14 inspections of FOG dischargers. Inspection will continue through the remainder of the year.
- Ensuring former vendors of the Broad Street Market have proper installation of grease traps and interceptors as they relocate to the temporary tent building.
- Investigated illicit discharge/SSO report along the Susquehanna River. The discharge was clean water from the recently flushed FSI project bypass piping.



Street Sweeping

- Received two complaints this month. All issues were resolved.
- Completed 724.48 miles of scheduled street sweeping within the City of Harrisburg.
- Water usage this month was approximately 8,800 gallons.
- Continued to assist cleaning storm inlets in scheduled sweeping areas.
- Attended the Green Stormwater Infrastructure meeting.
- Continued to cover FOG Program Inspections.
- When the days of the month fall on a fifth week, there is no scheduled sweeping. CRW did not perform any unscheduled sweeping in the month of October.



CAPITAL REGION™

WATER

Wastewater Exhibits

EXHIBIT A

**CAPITAL REGION WATER
ADVANCED WASTEWATER TREATMENT FACILITY**

Process Control - 2023

Parameters	January	February	March	April	May	June	July	August	September	October	November	December	Average	NPDES Limits
Volume, MGD	22.0	16.8	19.3	19.1	20.3	16.2	21.0	16.0	17.8	15.7			18.4	37.7
Carbonaceous Biochemical Oxygen Demand														
Influent, mg/L	97	139	114	198	165	193	145	161	160	161			153	-----
Effluent, mg/L	4	3	4	4	3	3	3	3	3	3			3	25
Percent Removal, %	95.6	97.4	96.7	98.3	98.1	98.2	97.7	98.2	97.1	97.4			97.5	-----
Effluent Loading, lb/d	681	469	596	821	507	470	582	393	488	400			541	7,860
Suspended Solids:														
Influent, mg/L	156	222	173	187	175	212	168	185	180	176			183	-----
Effluent, mg/L	8	3	3	4	4	6	4	4	6	5			5	30
Percent Removal, %	95.0	98.5	98.1	96.6	97.5	96.8	97.2	97.6	96.3	96.9			97.1	-----
Effluent Loading, lb/d	1,447	412	582	1,043	660	954	827	588	958	717			819	9,433
Nitrogen														
Total-N														
Influent, mg/L	26	33	26	30	26	30	23	24	24	29			27	-----
Effluent, mg/L	5.0	4.0	5.7	4.3	3.7	5.2	4.5	3.1	6.3	8.8			5	Monitor
Percent Removal, %	80.5	87.9	78	85.6	85.5	82.8	80.3	80.3	80.3	80.3			82.2	-----
Effluent Loading, lb/d	993	548	846	652	861	717	730	542	942	1,076			791	-----
NH3-N														
Influent mg/L	17	21	17	16	13	15	12	14	15	17			16	-----
Effluent, mg/L	1.9	1.2	1.4	1.6	0.4	1.1	0.5	0.9	0.3	0.3			1	11 (2)
Percent Removal, %	88.5	94.3	91.8	89.7	97.0	92.6	95.9	93.8	98.0	98.2			94.0	-----
Effluent Loading, lb/d	359	168	248	258	74	150	86	118	53	39			155	4,716
Phosphorus:														
Influent, mg/L	2.9	4.2	3.5	3.8	3.5	4.0	3.1	3.6	3.6	3.6			3.6	-----
Effluent, mg/L	0.8	1.6	1.2	1.6	1.4	1.6	1.7	1.6	1.6	1.6			1.5	2.0
Percent Removal, %	70.3	61.3	64.4	55.6	59.0	58.1	43.5	52.8	52.8	54.7			57.3	-----
Effluent Loading, lb/d	152	222	194	237	215	223	301	220	218	210			219	629
pH:														
Influent, Std. Units	7.4	7.3	7.3	7.3	7.4	7.4	7.4	6.8	7.4	7.5			7.3	-----
Effluent, Std. Units	7.4	7.4	7.4	7.4	7.5	7.5	7.4	7.6	7.5	7.5			7.5	6.0 - 9.0
Dissolved Oxygen:														
Effluent Minimum, mg/L	8.0	8.8	7.8	8.3	7.6	6.5	6.1	7.2	6.7	7.0			7.4	5.0 Min.
Fecal Coliform:														
Effluent, No./100 ml	25	3	5	3	2	2	4	7	11	217			28	200/100 ml (1)
Chlorine Residual:														
Effluent, mg/L	0.22	0.18	0.20	0.22	0.43	0.44	0.45	0.37	0.39	0.39			0.33	0.50

(1) Seasonal limit 2,000/100 ml Oct. 1 to Apr. 30 and 200/100 ml May 1 to Sept. 30.

(2) Seasonal Limit May 1 to Nov.1.

EXHIBIT B

**CAPITAL REGION WATER
ADVANCED WASTEWATER TREATMENT FACILITY**

Flow Monitoring Information, MGD - 2023

Month	Total			City Regions					Suburb Regions					Total Precip inches
	Flow	City	Suburbs	1	2	3	4	5	6	7	8	9	10	
January	22.000	8.622	13.378	8.110	0.192	0.300	-0.160	0.180	1.400	5.280	2.208	4.060	0.430	2.450
February	16.800	6.480	10.320	5.480	0.150	0.300	0.410	0.140	1.200	3.950	1.720	3.100	0.350	1.010
March	19.300	7.696	11.604	6.670	0.176	0.300	0.390	0.160	1.300	4.250	2.024	3.670	0.360	2.560
April	19.100	8.076	11.024	7.140	0.166	0.300	0.270	0.200	1.300	4.130	1.914	3.320	0.360	5.890
May	20.300	8.151	12.149	6.780	0.191	0.300	0.600	0.280	1.500	4.320	2.199	3.730	0.400	0.200
June	16.200	5.883	10.317	5.130	0.173	0.300	0.130	0.150	1.300	3.820	1.987	2.900	0.310	4.250
July	21.000	7.382	13.618	6.740	0.212	0.300	(0.060)	0.190	1.400	4.770	2.438	3.970	1.040	6.380
August	16.000	5.979	10.021	5.120	0.139	0.300	0.280	0.140	1.300	3.680	1.601	3.080	0.360	2.230
September	17.800	7.246	10.554	6.120	0.156	0.300	0.460	0.210	1.300	3.730	1.794	3.260	0.470	5.800
October	15.700	5.515	10.185	5.040	0.145	0.300	(0.120)	0.150	1.200	3.970	1.665	2.980	0.370	2.330
November														
December														
Average	18.42	7.10	11.32											3.31
Percent	100.00	38.56	61.44											33.10

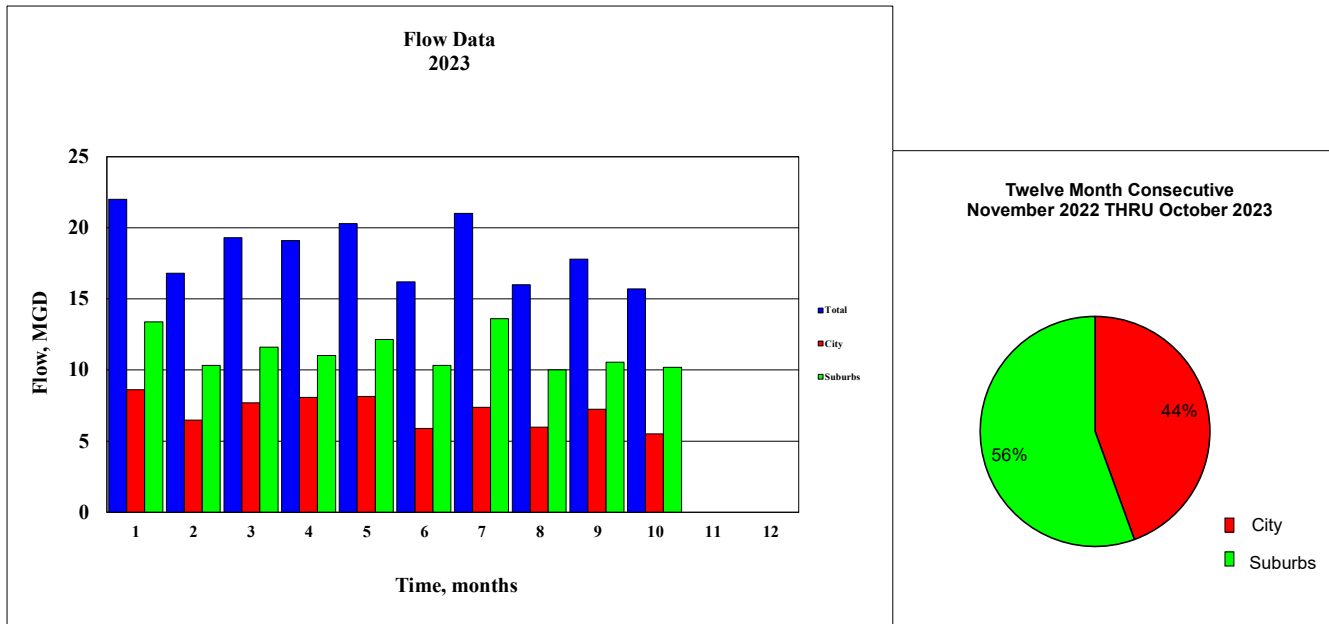


EXHIBIT C

**CAPITAL REGION WATER
ADVANCED WASTEWATER TREATMENT FACILITY**

Treatment Utility and Chemical Usage - 2023

Utility / Chemical	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Electric														
Total, kWh	1,158,900	1,028,400	1,033,800	1,089,000	994,800	977,100	1,103,700	1,016,400	963,600	*			936,570	9,365,700
Average, kWh/Day	37,384	36,729	33,348	36,300	32,090	32,570	35,603	32,787	32,120	*			34,326	-----
Cost, Dollars	\$98,628.52	\$60,520.22	\$60,192.18	\$63,307.22	\$59,395.55	\$58,647.46	\$65,379.99	\$59,269.04	\$56,654.02	*			\$58,199.42	\$581,994.20
Natural Gas														
Total, Cu Ft	621.9	554.8	287.6	27.4	0.8	0.6	0.1	1.1	0.3	*			149	1,495
Average, Cu Ft/Day	20	20	9	1	0	0	0	0	0	*			6	-----
Cost, Dollars	\$6,237.14	\$5,423.45	\$3,026.40	\$377.30	\$147.32	\$147.14	\$142.69	\$151.59	\$146.22	*			\$1,579.93	\$15,799.25
Water														
Total, Gal.	1,187,000	1,298,000	928,000	977,000	932,000	1,218,000	1,020,000	946,000	851,999	*			1,039,778	9,357,999
Average, Gal./Day	38,290	46,357	29,935	32,567	30,065	40,600	32,903	30,516	28,400	*			34,404	-----
Cost, Dollars	\$15,616.58	\$16,764.32	\$12,938.52	\$13,445.18	\$12,979.88	\$15,937.12	\$13,889.80	\$13,124.64	\$12,152.67	*			\$12,684.87	\$126,848.71
MicroC														
Total, Gal.	0	0	0	0	258	0	0	0	0	0			26	258
Average, Gal./Day	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	-----
Cost, Dollars	\$0	\$0.00	\$0	\$0	\$1,029	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102.94	\$1,029.42
Sodium Hydroxide														
Total, Gal.	0	0	0	0	0	0	0	0	0	0			0	0
Average, Gal./Day	0	0	0	0	0	0	0	0	0	0			0	-----
Cost, Dollars	0	0	0	0	0	0	0	0	0	0			\$0.00	\$0.00
Chlorine Disinfection														
Total, Lbs.	13,115	5,973	6,830	5,240	10,940	8,630	11,170	8,309	10,055	6,530			8,679	86,792
Average, Lbs./Day	423	223	220	175	353	288	360	268	335	210			285	-----
Avg Residual, mg/L	0.22	0.18	0.20	0.22	0.43	0.44	0.45	0.39	0.39	0.39			0.33	-----
Cost, \$/Lbs.	\$1.64	\$1.64	\$1.64	\$1.64	\$1.64	\$1.64	\$1.64	\$1.64	\$1.64	\$1.64			\$1.64	-----
Total Cost, Dollars	\$21,508.60	\$9,795.72	\$11,201.20	\$8,593.60	\$17,941.60	\$14,153.20	\$18,318.80	\$13,626.76	\$16,490.20	\$10,709.20			\$14,233.89	\$142,338.88
Phosphorous Removal														
Total FeCl3, Gals.	3,113	2,950	3,113	3,589	4,429	3,156	4,231	4,997	5,263	6,072			4,091	40,913
Avg FeCl3, Gals./Day	100	105	100	120	143	105	136	161	175	196			134	-----
FeCl3 Cost, \$/Gal.	\$1.74	\$1.74	\$1.74	\$1.74	\$1.74	\$1.74	\$1.74	\$1.74	\$1.74	\$1.74			\$1.74	-----
FeCl3 Total Cost, Dollars	\$5,416.97	\$5,133.00	\$5,416.62	\$6,244.86	\$7,706.46	\$5,491.44	\$7,361.94	\$8,694.78	\$9,157.62	\$10,565.28			\$7,118.90	\$71,188.97

* No data at time of report

EXHIBIT D

**CAPITAL REGION WATER
ADVANCED WASTEWATER TREATMENT FACILITY**

Cogeneration Electrical Production: 2022-2023

	Period	Percent Run Time	Daily Avg Kilowatt	Kilowatt Hours Produced	Estimated Revenue
January 2022		2	58	1,800	\$210.51
February 2022		37	1,093	30,600	\$3,578.67
March 2022		33	958	29,700	\$3,473.42
April 2022		43	1,710	51,300	\$5,999.54
May 2022		53	1,687	52,200	\$6,104.79
June 2022		23	510	15,300	\$1,789.34
July 2022		33	1,190	36,900	\$4,315.46
August 2022		28	697	21,600	\$2,526.12
September 2022		12	450	13,500	\$1,578.83
October 2022		34	1,365	42,300	\$4,946.99
November 2022		21	870	26,100	\$3,052.40
December 2022		20	726	22,500	\$2,631.38
<hr/>					
Total - 2022				343,800	\$40,207.41
Monthly Average - 2022		28	943	28,650	\$3,350.62
<hr/>					
January 2023		2	58	1,800	\$210.51
February 2023		58	2,250	63,000	\$7,367.85
March 2023		75	3,135	97,200	\$14,337.97
April 2023		25	960	28,800	\$4,248.29
May 2023		38	1,713	53,100	\$7,832.78
June 2023		5	120	3,600	\$531.04
July 2023		32	1,103	34,200	\$5,044.84
August 2023		0	0	0	\$0.00
September 2023		0	0	0	\$0.00
October 2023		13	4,936	15,300	\$2,256.90
November 2023					
December 2023					
<hr/>					
Total - 2023				297,000	\$41,830.18
Monthly Average - 2023		25	1,427	29,700	\$4,183.02

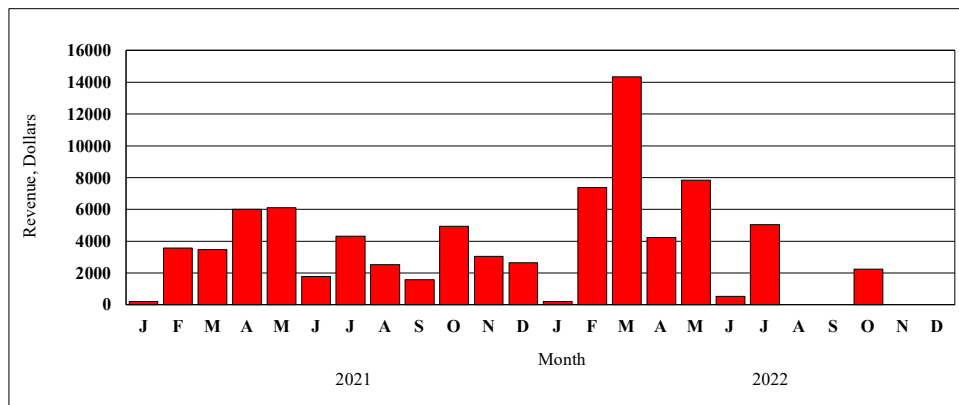


EXHIBIT E

**CAPITAL REGION WATER
ADVANCED WASTEWATER TREATMENT FACILITY**

Sludge Handling Information - 2023

Process	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Solids Removal														
Process, Lbs.	704,819	890,443	1,557,518	1,554,485	1,206,679	964,105	1,146,178	786,642	505,711	608,037			992,462	9,924,616
CWH Program, Lbs.	196,727	230,186	125,669	137,543	502,270	446,289	315,199	412,091	586,445	697,323			364,974	3,649,742
Total Solids, Lbs.	901,546	1,120,629	1,683,187	1,692,028	1,708,949	1,410,394	1,461,377	1,198,733	1,092,156	1,305,360			1,357,436	13,574,359
Sludge Dewatering														
Feed Volume, Gals.	5,489,000	4,398,000	3,878,000	5,322,000	4,268,000	5,185,000	4,945,000	5,373,000	4,460,000	5,147,000			4,846,500	48,465,000
Feed Solids, %	1.5	1.5	1.5	1.4	1.5	1.4	1.5	1.8	1.9	1.6			1.5	-
Labor, Hours	635	519	531	651	691	671	688	602	639	1224			685	6,850
Operations, Hours	1,181	977	1,014	672	691	671	1,104	1,130	892	617			895	8,949
Total Cake, Dry Tons	208	168	162	181	197	228	238	213	224	237			206	2,056
Total Cake, Wet Tons	1,264	1,089	1,040	1,164	1,223	1,421	1,485	1,267	1,335	1,509			1,280	12,797
Cake TS, %	16.5	15.9	15.6	15.6	16.1	16.1	16.0	16.9	16.9	16.2			16.2	-
Press Rate, Lbs./Hour	2,140	2,228	2,052	3,465	3,539	4,237	2,690	2,242	2,993	4,889			3,048	30,477
Polymer Dosage, Lbs	4,299	4,556	4,533	5,031	5,765	7,226	5,208	3,947	3,200	3,809			4,757	47,574
Polymer Dosage, Lbs/Dry Ton	20.7	27.1	28.0	27.8	29.3	31.7	21.9	18.5	15.0	17.2			23.7	-
Disposal Cost														
Labor, Dollars	\$12,208.54	\$9,982.89	\$10,200.05	\$12,502.61	\$13,282.94	\$12,890.85	\$13,223.36	\$11,570.44	\$12,281.58	\$23,517.59			\$13,166.09	\$131,660.86
Electrical, Dollars	\$519.82	\$430.06	\$445.98	\$295.64	\$304.08	\$295.11	\$485.76	\$497.20	\$392.48	\$271.61			\$393.77	\$3,937.74
Polymer, Dollars	\$8,383.05	\$8,885.16	\$8,839.35	\$9,810.45	\$11,241.75	\$14,090.70	\$10,155.60	\$7,696.65	\$6,240.00	\$7,427.55			\$9,277.03	\$92,770.26
Disposal, Dollars	\$47,358.20	\$52,886.50	\$47,998.60	\$25,793.27	\$70,097.60	\$60,858.30	\$143,251.00	\$52,571.30	\$41,776.90	\$57,836.00			\$60,042.77	\$600,427.67
Total Cost, Dollars	\$68,469.61	\$72,184.61	\$67,483.99	\$48,401.97	\$94,926.38	\$88,134.96	\$167,115.72	\$72,335.59	\$60,690.96	\$89,052.75			\$82,879.65	\$828,796.53
Cost Per Dry Ton, Dollars	\$329.18	\$429.67	\$416.57	\$267.41	\$481.86	\$386.56	\$702.17	\$339.60	\$270.94	\$375.75			\$399.97	

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Conveyance Utility Usage - 2023

Location / Utility	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Front Street Pump Station														
Electric														
Total, kWh	153,600	97,200	78,000	61,200	96,000	54,000	76,800	68,400	56,400	*			82,400	741,600
Average, kWh/Day	4,955	3,471	2,516	2,040	3,097	1,800	2,477	2,206	1,880	*			2,716	-----
Cost, Dollars	#####	\$6,179.35	\$5,794.20	\$4,760.30	\$6,808.76	\$5,640.08	\$6,454.65	\$6,101.73	\$5,816.54	*			\$6,414.16	\$57,727.48
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$0.00
Water														
Total, Gals.	284,000	318,000	276,000	291,000	326,000	355,000	336,000	340,000	307,000	*			314,778	2,833,000
Average, Gal./Day	9,161	11,357	8,903	9,700	10,516	11,833	10,839	10,968	10,233	*			10,390	-----
Cost, Dollars	\$3,633.08	\$3,984.64	\$3,550.36	\$3,705.46	\$4,067.36	\$4,367.22	\$4,170.76	\$4,212.12	\$3,870.90	*				\$35,561.90
Spring Creek Pump Station														
Electric														
Total, kWh	38,400	50,240	40,640	38,400	56,320	49,600	54,080	48,320	46,080	*			46,898	422,080
Average, kWh/Day	1,239	1,794	1,311	1,280	1,817	1,653	1,745	1,559	1,536	*			1,548	-----
Cost, Dollars	\$1,274.90	\$3,346.91	\$3,295.83	\$3,158.30	\$4,604.53	\$3,047.64	\$4,356.37	\$3,775.67	\$3,437.65	*			\$3,366.42	\$30,297.80
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water														
Total, Gals.	90,000	104,000	86,000	105,000	118,000	137,000	141,000	117,000	115,000	*			112,556	1,013,000
Average, Gal./Day	2,903	3,714	2,774	3,500	3,806	4,567	4,548	3,774	3,833	*			3,713	-----
Cost, Dollars	\$1,006.59	\$1,151.35	\$965.23	\$1,161.69	\$1,296.11	\$1,492.57	\$1,533.93	\$1,285.77	\$1,265.09	*			\$1,239.81	\$11,158.33
Market Street Pump Station														
Electric														
Total, kWh	1,320	1,200	1,200	960	1,080	720	840	840	720	*			987	8,880
Average, kWh/Day	43	43	39	32	35	24	27	27	24	*			33	-----
Cost, Dollars	\$151.91	\$153.90	\$174.52	\$157.79	\$253.89	\$207.36	\$208.98	\$185.03	\$146.63	*			\$182.22	\$1,640.01
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
City Island Pump Station														
Electric														
Total, kWh	40	40	40	40	40	40	0	40	40	*			36	320
Average, kWh/Day	1	1	1	1	1	1	0	1	1	*			1	-----
Cost, Dollars	\$42.43	\$62.63	\$64.36	\$64.11	\$64.27	\$83.86	\$62.57	\$64.16	\$64.70	*			\$63.68	\$573.09

* No Data at time of report

EXHIBIT G

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Contract Waste Hauling Program 2022 - 2023

Month	Process		Septic		Total	
	Gallons	Revenue	Gallons	Revenue	Gallons	Revenue
January	557,788	\$18,254.25	78,450	\$2,770.20	636,238	\$21,024.45
February	1,253,749	\$35,714.94	150,975	\$5,336.00	1,404,724	\$41,051.04
March	1,266,410	\$37,456.11	168,400	\$5,918.40	1,434,810	\$43,374.51
April	832,860	\$24,607.44	189,750	\$6,795.00	1,022,610	\$31,402.44
May	1,599,990	\$46,377.27	250,650	\$8,874.90	1,850,640	\$55,252.17
June	583,370	\$18,218.79	315,100	\$11,217.60	898,470	\$29,436.39
July	352,570	\$12,137.31	252,900	\$8,969.40	605,470	\$21,106.71
August	248,100	\$8,169.21	287,600	\$10,209.60	535,610	\$18,378.81
September	1,589,990	\$44,824.05	311,600	\$11,046.60	1,901,590	\$55,870.65
October	1,738,680	\$48,922.56	342,650	\$12,173.40	2,081,330	\$61,095.96
November	1,412,550	\$39,494.61	293,700	\$10,537.20	1,706,250	\$50,031.81
December	1,776,820	\$50,682.24	158,050	\$5,586.30	1,934,870	\$56,268.54
Total - 2022	13,212,877	\$384,858.78	2,799,825	\$99,434.60	16,012,612	\$484,293.48
Monthly Average - 2022	1,101,073	\$32,071.57	233,319	\$8,286.22	1,334,384	\$40,357.79
January	2,332,260	\$65,162.88	208,150	\$7,173.90	2,540,410	\$72,336.78
February	1,424,370	\$47,326.95	191,150	\$6,694.20	1,615,520	\$54,021.15
March	944,920	\$28,533.96	265,650	\$9,491.40	1,210,570	\$38,025.36
April	579,580	\$19,060.38	265,600	\$9,473.40	845,180	\$28,533.78
May	1,273,220	\$68,101.35	267,600	\$9,588.60	1,540,820	\$77,689.95
June	1,329,280	\$68,218.26	326,700	\$11,626.20	1,655,980	\$79,844.46
July	1,372,660	\$59,957.87	262,650	\$9,411.30	1,635,310	\$69,369.17
August	1,883,530	\$87,631.96	314,650	\$11,214.90	2,198,180	\$98,846.86
September	2,137,570	\$105,510.75	276,550	\$9,849.60	2,414,120	\$115,360.35
October	2,340,860	\$134,366.80	288,550	\$10,332.90	2,629,410	\$144,699.70
November						
December						
Total - 2023	15,618,250	\$683,871.16	2,667,250	\$94,856.40	18,285,500	\$778,727.56
Monthly Average - 2023	1,561,825	\$68,387.12	266,725	\$9,485.64	1,828,550	\$77,872.76

