

Ensure Financial Stability	
Reconciled Bank Account Balances	Refer to attached Reconciled Bank Account Balances as of 8/31/2023.
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 37 water shut-offs for non-payment and 31 service shut-off requests.
Repair/Replace Meters/MXUs/Batteries	Drinking Water Distribution staff replaced 16 water meters, 67 batteries, and 40 MXUs.
Reduce Wet Weather Impacts to Infrastructure, Community, and Receiving Waters	
Negotiate with PADEP/U.S. EPA/DOJ on Past and Future Practices	United States Department of Justice (USDOJ) entered the Modification to the Partial Consent Decree with the Court, making the agreement effective on 8/25/2023. CRW Staff is preparing the Semi-Annual Report due 9/30/2023.
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. • 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	CRW staff is preparing the third Annual MS4 Report (8/1/2022 - 7/31/2023) due 9/30/2023,
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 August.</p> <p>The AWTF met all NPDES permit parameters for the month of August. One Dry Weather Overflow was reported.</p>
Notice of Violations (NOVs)	<p>There were no NOVs received by the Drinking Water department in August.</p> <p>There were no NOVs received by the Wastewater department in August.</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 August.</p> <p>The Wastewater department completed all regularly scheduled preventative maintenance in the month of August.</p>
CCTV	A total of 10,769 feet (2.04 miles) of sewer pipes were assessed by closed circuit television (CCTV) footage during the month of August. A total of 1,457 feet (0.28 miles) of sewer pipes were flushed as well.
Incident Response	Wastewater responded to nine (9) backup and overflow calls from residents during the month of August. CRW was responsible for none.

Geographic Information System (GIS)	<ul style="list-style-type: none"> • Eleven (11) Pennsylvania One Call tickets were completed. Two (2) had no CRW assets in the project area and nine (9) required a map. • Bi-weekly meetings were held with KCI Technologies, Inc. • Progress continues with the development of the ESRI "Lead Service Line Inventory Solution". • Attended Operations (OPS) Challenge practices on 8/4/2023, 8/11/2023, 8/18/2023 and 8/25/2023. • Attended several meetings with the Lead Service Line Inventory group to collaborate with Strategic Initiatives in developing external data collection tools and workflow.
Cityworks	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
Asset Management	<p>Roadmap Implementation Activity Report:</p> <p>Decision Making Capital Planning Roadmap Implementation Group (RIG)</p> <ul style="list-style-type: none"> • No Update <p>Information System Data Management Roadmap Implementation Group RIG</p> <ul style="list-style-type: none"> • Work session planning has begun for Subtask 3.3, Integrations and Interface, an evaluation for optimizing links between CRW's core enterprise systems. <p>Operations & Maintenance Roadmap Implementation Group RIG</p> <ul style="list-style-type: none"> • Meetings held 8/23/2023 and 9/6/2023 to finalize the rehabilitation and replacement criteria inputs for the 20-year collection system capital improvements planning horizon. Projected 20-Year Capital Improvement Plan deliverable due 8/15/2023. • AWTF inventory and condition assessment project in progress, over 50% completion. <p>Organizational Framework Roadmap Implementation Group RIG</p> <ul style="list-style-type: none"> • Draft scope of work and budget for 2024 asset management and Innovyze - InfoAsset Planner activities developed. <p>InfoAsset Planner Year 2 Implementation Activity Report:</p> <ul style="list-style-type: none"> • Completed rehab and replacement schematics in support of the Collection System Asset Management Plan 20-Year Capital Improvement Plan. <p>Other activities:</p> <ul style="list-style-type: none"> • Finalized the dashboard tracking level of service statements and performance measurements related to the Collection System Asset Management Plan. • Recent collaborative efforts with the Lead Service Line Inventory working group, Strategic Initiatives, Distribution and Water Quality focused on tracking the procedures of post repair and replacement activities for compliance. • Presented Asset Management program to Community Ambassadors during 8/16/2023 meeting. • Design workflow diagram for tracking land development and service application procedures.
Development Review Summary	<p>For details, see attached Development Stormwater Management Review Summary spreadsheet for September.</p>

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"> Task Order 2022-18-02: Engineering Services for Advanced Metering Infrastructure Upgrade [REDACTED] <p>Wastewater: None.</p> <p>Stormwater: None.</p>
Stormwater O&M Agreements	Recommend Board approval of the following: Refer to Resolution No. 2023-015 Stormwater Operations & Maintenance Agreement - Bethel Village Associates, LLC
AWTF Primary Digesters Rehabilitation	Closeout of the general construction contract is dependent upon resolution of the contractor's time delay claim.
AWTF Energy Recovery Improvements	The biogas sale agreements are being finalized with UGI Energy Services. CRW is procuring specialized Pondus equipment in advance of the general construction contracts which will be advertised for bids this fall.
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	Water main and service line installation is expected to be completed by the end of September 2023.
Cameron Street Water Main - Phase 4	The contractor has installed a portion of the temporary water (bypass) main and will begin excavation of access pits in Cameron Street.
2023 Sewer System Improvements (Excavation)	The contractor continues excavation work around the area of Mulberry and Derry Streets.
2023 Sewer System Improvements (Trenchless)	A Stop Work Notice has been issued to Standard Pipe Services (contractor) due to defective cured-in-place pipe (CIPP) liner. The engineer is working with the contractor to address the issue.
Arsenal Boulevard Sewer Improvements	The Right-of-Entry document with the Department of General Services will be signed by mid-October. The project will be advertised for bids this fall.
Front Street Interceptor Rehabilitation - Phase 2	Cured-in-place pipe (CIPP) lining activities were completed as of 9/8/2023. Over the next month, the contractor is performing manhole rehabilitation work and removing the bypass pipe from the site.
Water Facility Maintenance	Drinking Water Maintenance staff performed repairs to various process units as described in the Drinking Water Department Monthly Report for August.
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 August.
Sinkhole Program	Six (6) sinkholes were investigated by CRW in the month of August. Three (3) were due to failure of wastewater assets.
Inlet Cleaning	A total of 162 stormwater inlets were cleaned during the month of August, and 156 stormwater inlet inspections were performed.

Operate as an Efficient, Sustainable and Resilient Water Utility	
DeHart Property Stewardship	<p>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.</p> <p>Notice to Proceed was provided to Hoffman Brothers Lumber, Inc. on 8/18/2023 for the harvest and sale of wood products within MU 40 and 42 (approximately 135 acres). Pre-harvest site work has commenced. Harvest prescription will support overstory removal to release regeneration.</p>
Sustainability	No update.
Internal Communications	Intranet (Sharepoint) site continues to be used. The Q3 newsletter, The Daily Flow, was issued on 7/13/2023.
Inform and Listen to Customers and Encourage Stewardship of our Systems	
Media Relations - Press and Social Media	<p>PRESS RELEASES: August 23rd: "MOTION TO ENTER THE MODIFICATION TO THE PARTIAL CONSENT DECREE".</p> <p>SOCIAL MEDIA TOPICS: Facebook/Instagram: 7 New Organic Followers (1,643 Facebook/ 712 Instagram). Nine (9) Posts; Highest Engaged Post: "BWA- Kittatinny & Nectarine St" (4,121 Reaches, 11 Reactions, 10 Shares, 7 post clicks); Other topics: Stormwater Week, Customer Service Center closed for training, Billing mistake, and Employee of the Month (Kendrick). Twitter: 0 Tweets; Month overview: 35 total Impressions; 1 New Followers. Nextdoor: Stats: 6,858 Total Members (59 New members); Three (3) Posts. <ul style="list-style-type: none"> • Boil Water Advisory - Active - 18 Impressions. • Boil Water Advisory - Lifted - 9 Impressions, 1 like. • Customer Delinquent Notice Error - 1,157 Impressions, 5 Reactions. 2023 Demographics: Most Active Age-range: 25-54; Gender division: 62% women / 37% Men; Locations: Harrisburg, Penbrook, Mechanicsburg, Steelton, Linglestown, Camp Hill and Lancaster.</p>
Community Relations	<p>Community Outreach:</p> <ul style="list-style-type: none"> • Three (3) community events were attended: National Night Out on 8/1/2023; Midtown Action Council Litter Cleanup on 8/15/2023; Harrisburg Young Professionals' Litter Cleanup on 8/26/2023. • One (1) facility tour: Messiah University Tour of the Water Services Center on 8/24/2023. • One (1) community meeting: CRW Community Ambassador Meeting on 8/16/2023. • Delivered twenty-three (23) door-to-door notifications impacting approximately two hundred seventy-eight (278) customers. Included fourteen (14) courtesy construction notices; six (6) lead risk mitigation notifications; one (1) fats, oils and grease notification; and two (2) boil water/lift notifications. • Two (2) Everbridge alerts: Boil Water Advisory on 8/23/2023 affecting five (5) customers; Boil Water Problem Corrected on 8/25/2023 affecting five (5) customers.
Public Communications	WHAT'S ON TAP COMMUNICATION: The August monthly bill stuffer was distributed as a bill insert. Topics included: Homeowner's Responsibility Guide, CRW is hiring!
Business Diversity	On 10/23/2023, we will be hosting our Capital Improvement Project Look-Ahead: Planning for 2024 event. This event will be held in our first-floor conference center. The afternoon will consist of detailed, project-specific presentations on our robust 2024 Capital Improvement Project schedule and PENNVEST requirements.

Administrative	
Risk Management	<p>Executive Summary: Total Claims: 22 New: 0* Open: 7 Closed: 15</p> <p><u>Insurance Line Claim Count:</u> Auto: 2 General Liability: 11 Public Officials: 2 Workers Compensation: 7 <i>Note *New count included in Open</i></p>
Human Resources	For details, see attached Recruiting Status Report.
Procurement	<p>Procurement staff continues to identify and assist in establishing contracts that include fixed rate pricing and discounts with frequently used vendors for goods and services. The Procurement Specialist completed the following contract extensions:</p> <p>Chemicals</p> <ul style="list-style-type: none"> • Liquid Ferric Chloride - Wastewater • Liquid Alum - Drinking Water • Liquid Chlorine - Drinking Water and Wastewater • Water Treatment (Caustic Soda, Liquid Hydrofluosilicic Acid) - Drinking Water <p>Other</p> <ul style="list-style-type: none"> • Uniforms • Grease Removal • Propane <p>Procurement staff continues to assist staff in identifying vendors and requesting quotes for goods and services, as requested. The Procurement Specialist is currently assisting with AEDs for organization-wide and Online pH Analyzers for Drinking Water.</p> <p>Recommend Board approval of the following:</p> <ul style="list-style-type: none"> • Project Number 2023 - 206 - Precipitation and Wastewater Flow Monitoring Services [REDACTED] • Project Number 2023 - 210 - Switchgear Replacement and Feeder Cables at AWTF [REDACTED] • Ratification of Change Order No. 1 for Cost Increase of Backwash/Finished Pumps 604B, 605A, 605D, 630A, and 630B Repair Services [REDACTED] through COSTARS • Change Order No. 1 for Cost Increase of Repairs of the Existing Salt Shed [REDACTED] through COSTARS

<p>Information Technologies (IT)</p>	<p>[REDACTED]</p>
<p>Office Management and Admin Professional Services and Construction</p>	<p>Incoming Correspondence Report: Refer to attached Incoming Correspondence Report for August 2023.</p> <p>Street/Sidewalk-Cut Permits: Two (2) Drinking Water and one (1) Wastewater permits were issued. One (1) Drinking Water permit was successfully completed, inspected, and closed by the City of Harrisburg's Engineer. One (1) Drinking Water and one (1) Wastewater street restoration failed to meet the City of Harrisburg's street restoration specifications.</p> <p>Fleet Management (Acquisitions):</p> <ul style="list-style-type: none"> • CRW accepted delivery on 8/10/2023 for the Wastewater department of (G-93) 2023 Ford Transit High-Roof Cargo Van from Keystone Ford. CCTV Upfit is underway at A&H Equipment. • CRW accepted delivery on 8/29/2023 for the Drinking Water department of (C-105) 2023 Ford F-150 XL Super Cab 4X4 Truck w/8-foot bed from Fred Beans Ford of Mechanicsburg with Ancillary Items Upfit from A&H Equipment. <p>Fleet Management (Dispositions thru Municibid):</p> <p>Drinking Water:</p> <ul style="list-style-type: none"> • (C-107) Nikon HFX-DX Microscope. Sold via Municibid for \$195. Bids closed on 8/22/2023 @ 2:50 p.m. and equipment was picked up on 8/24/2023. <p>Wastewater: None.</p>

<p>Right-to-Know Requests</p>	<p>CRW has received and responded to two (2) new and two (2) prior Right-to-Know requests during the period 8/17/2023 through 9/20/2023. 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>OOR Training: No update.</p>
	<p>RTK 2023-011 - Stephanie Vargas (SmartProcure) - Request for any and all purchasing records from 5/8/2023 to current. Specific information requested from the record-keeping system: (1) Purchase Order Number. If purchase orders are not used a comparable substitute is acceptable, i.e. invoice, encumbrance, or check number. (2) Purchase date. (3) Line item details (Detailed description of the purchase). (4) Line item quantity. (5) Line item price. (6) Vendor ID number, name, address, contact person and their email address. Response due: 8/9/2023. Response provided 8/9/2023 for 30-day extension until 9/8/2023. Final Response provided 8/25/2023.</p>
	<p>RTK 2023-012 - Dina Pinsky (AFSCME) - Requested minimum and maximum wages and job descriptions for the following job titles (or whatever jobs you have that most closely match): Plant Operators, Electronics Technicians, Engineering Support Technicians, and/or Customer Service Representatives. Response due: 8/18/2023. Response provided 8/11/2023 for 30-day Extension until 9/18/2023. Final Response provided: 8/29/2023.</p>
	<p>RTK 2023-013 - Brandon Russ - Requested a current list of residents and residential addresses that are subject to having their water shut off due to violations. Response due: 8/29/2023. Response provided 8/23/2023.</p>
	<p>RTK 2023-014 - Tom L. Bates - Requested engineering drawings for the old City Island Water Filtration Plant and Pumping Station from the original 1904 Plant and the 1924 Expansion. Response due: 9/14/2023. Response provided 9/12/2023.</p>



CAPITAL REGION
WATER

**DRINKING WATER DEPARTMENT
MONTHLY REPORT**



Installation of two (2) Mag Meters at Water Services Center.

August 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 August.

Specific water quality results are summarized in Exhibit A. A total of 235.092 MG, averaging 7.584 MGD was withdrawn from the water supply source for treatment. As shown in Exhibit B, a total of 248.488 MG, averaging 8.016 MGD, of finished drinking water was pumped to the distribution system.

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

The DeHart Watershed had below average rainfall in August (Exhibit C) and the DeHart Reservoir water level decreased (Exhibit D). An estimated 226.94 MG of water was released from the DeHart Reservoir to Clark Creek, averaging 7.32 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).

Plant Maintenance

The Maintenance team performed approximately 37 preventative maintenance work orders and nine corrective maintenance work orders for the month of August 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-105, the Distribution's team's F-150-Pickup truck and applied all branding and identifiers to vehicle.
- Installed conduit and wiring the two new remote heads for the two isolation valve actuators.
- Installed two (2) new 8-inch Magnetic Flow Meters and two (2) Remote Heads on the Domestic/Process Water lines.
- Continue to perform work on the lab renovations for the BACTI Lab and Amy's office relocate from the Lab Closet.
- Removed the old Aluminum Sulfate Chemical Feed System. The new one is in place and operational and in receipt of Operational Permit from PADEP.
- The Filter Building Window Replacement project via PennBid is complete.
- The Water Service Center Basin Railing project via PennBid is underway.
- DeHart Dam Control Building Parapet Wall Cap project via COSTARS is complete.

Distribution

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

- Repaired Six (6) leaking services during the month of August, totaling 241,920 gallons of unmetered water.
- Repaired one (1) water main break 51,840 gallons of unmetered water.
- Installed two (2) mag meters in water plant.
- Repaired two (2) fire hydrants.
- Completed 446 work orders.
- Completed 523 water, sewer, and stormwater locates.
- 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 regulatory samples for Total Coliform, and E. Coli.
- No taste or odor complaints.



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					1.99	0.2 - 4.0
Distribution System	1.40	1.43	1.42	1.31	1.21	1.19	1.10	1.07					1.27	>0.20
Turbidity, NTU														
Influent from DeHart	1.20	0.98	0.71	0.61	0.77	1.02	1.05	0.80					0.89	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	0.03	0.03	0.03	0.03	0.02	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					6.19	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	7.6	7.5	7.9	7.7	7.5	7.4	7.4	7.4					7.55	6.5 - 8.5*
Distribution System	7.1	7.7	8.1	8.0	8.0	7.4	7.9	8.0					7.76	6.5 - 8.5*
Total Alkalinity, mg/L as CaCO3														
Influent DeHart	5	5	5	5	5	5	5	5					5.00	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	15	14	13	15	16	18	20	24					16.89	NA
Distribution System	13	14	15	14	15	14	20	25					16.25	NA
Temperature, degrees C														
Influent from DeHart	5.9	5.4	7.3	10.0	13.0	14.2	16.8	17.9					11.31	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	6.6	6.4	7.2	9.8	12.0	13.3	15.4	16.4					10.88	NA
Distribution System	14.1	13.2	13.6	16.8	18.3	20.9	22.4	23.7					17.87	NA
Fluoride, mg/L														
Filter Plant Effluent	0.95	1.02	1.00	0.88	0.69	0.77	0.75	0.83					0.86	2
Aluminum, mg/L														
Filter Plant Effluent	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.03					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					0.14	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.02					0.02	0.3*
Distribution System	0.07	0.00	0.00	0.01	0.00	0.02	0.00	0.00					0.01	0.3*
Total Dissolved Solids, mg/L														
Influent from DeHart	15	15	16	16	16	17	17	18					16.31	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	37	34	35	37	39	42	45	51					40.00	500*
Distribution System	39	36	34	38	40	44	46	52					41.13	500*
Total Hardness, mg/L														
Influent from DeHart	8	8	8	8	8	8	8	18					9.21	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	8	8	8	8	8	8	8	51					13.49	NA
Distribution System	10	6	6	6	6	7	7	7					6.77	NA
Orthophosphate, mg/L														
Filter Plant Effluent	1.20	1.24	1.27	1.27	1.20	1.22	1.17	1.24					1.23	0.7 - 1.3*
Distribution System	1.21	1.19	1.12	1.27	1.21	1.18	1.12	1.27					1.20	0.7 - 1.3*
**Total Trihalomethanes, ug/L														
Distribution System	34.2	NA	NA	42.8	NA	NA	57.0	NA					44.7	80.0
**Total Haloacetic Acids, ug/L														
Distribution System	36.8	NA	NA	48.4	NA	NA	51.4	NA					45.5	60.0
Total Organic Carbon, mg/L														
Influent from DeHart	2.16	NA	NA	1.90	NA	NA	2.10	NA					2.05	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA	NA						NA
Filter Plant Effluent	1.22	NA	NA	1.20	NA	NA	1.20	NA					1.21	NA
Average Filter Run, Hours	115	112	120	119	112	109	112	113					114.03	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												
October												
November												
December												
Total	1826.443		0.000		1826.443		1850.008		52.681		1786.648	
Average	228.305	7.514	0.000	0.000	228.305	7.514	231.251	7.612	6.585	0.342	223.331	7.350

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					27.42
Daily Average	0.087	0.039	0.095	0.124	0.085	0.128	0.253	0.086					0.897
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

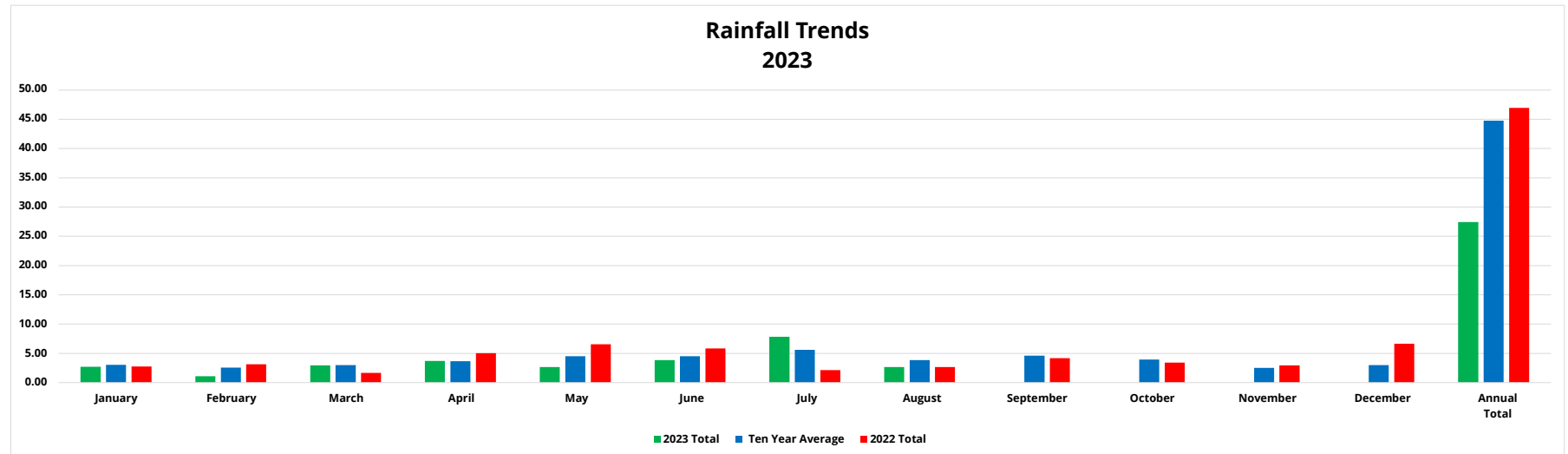


EXHIBIT D

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				
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

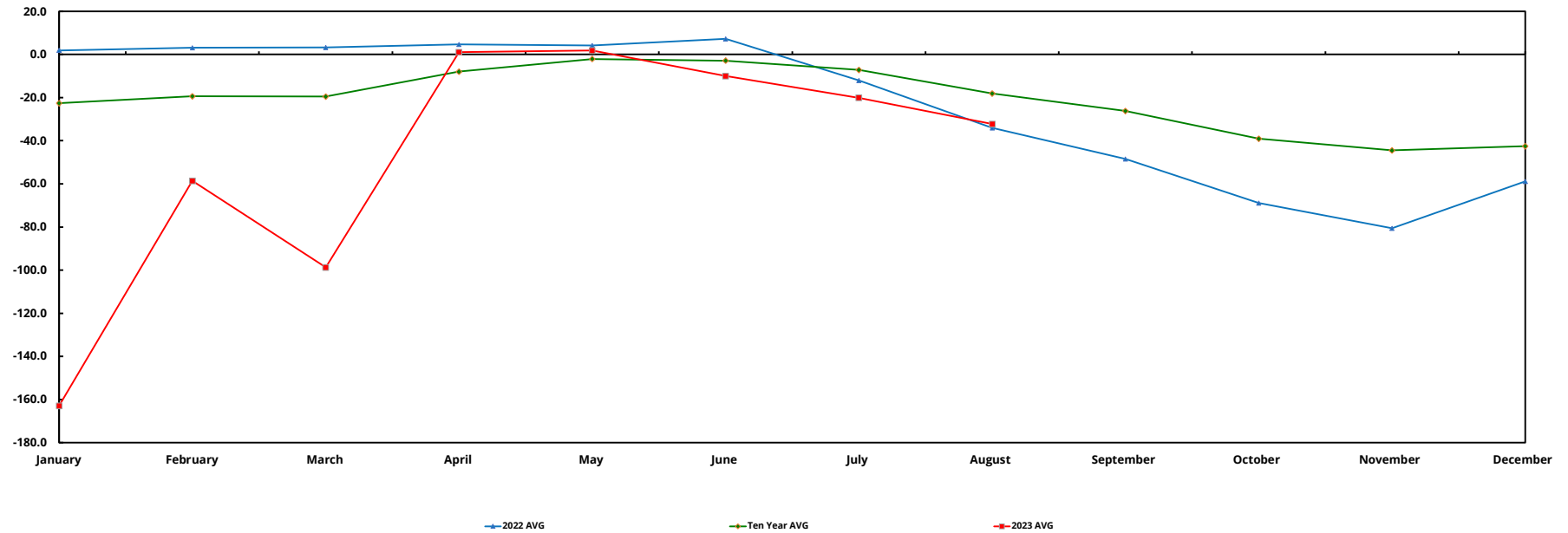


EXHIBIT E

Daily Conservation Release - 2023

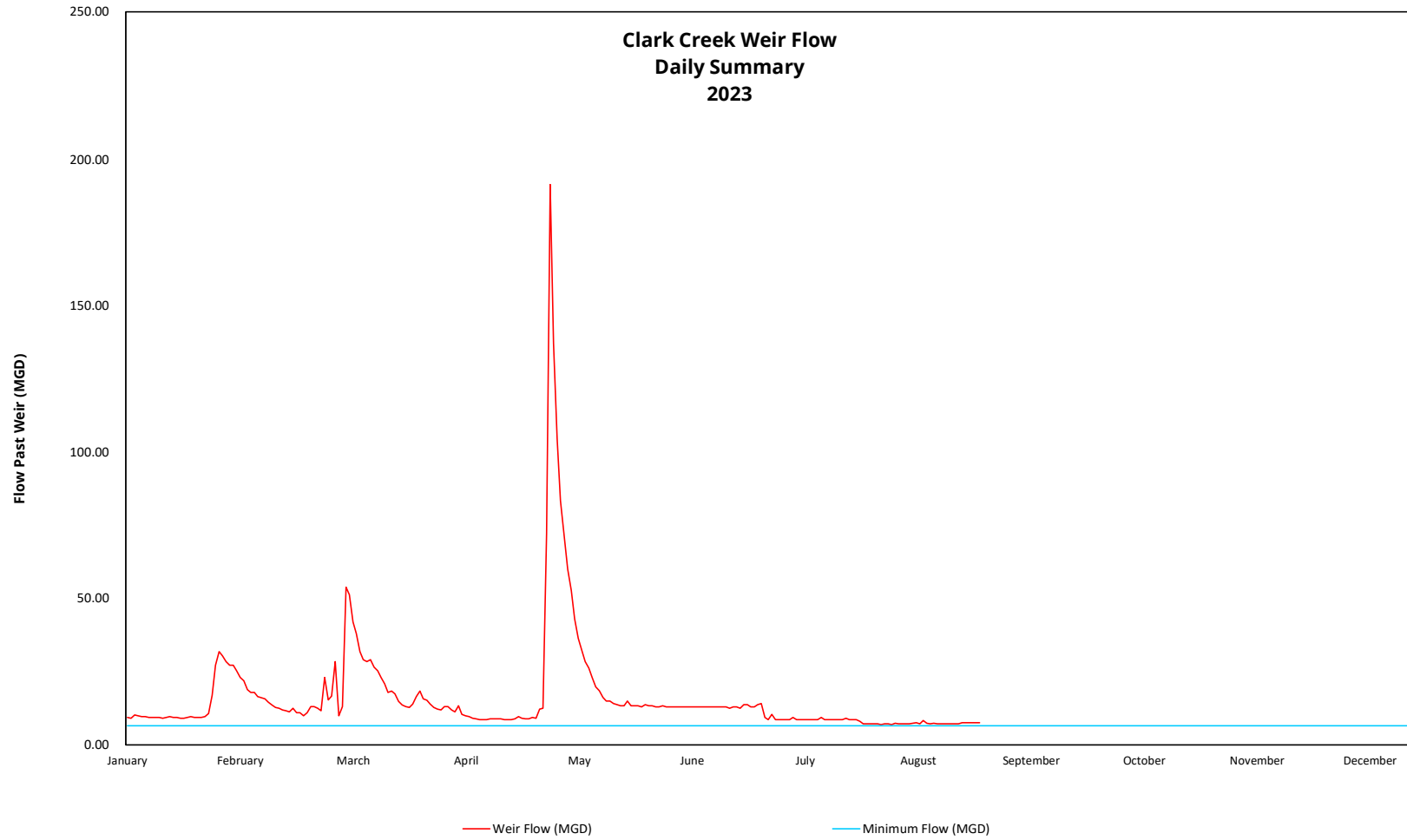




EXHIBIT F
Utility Usage - 2023

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	**					163,543	1,144,800
Cost, Dollars	\$16,812.87	\$8,947.67	\$10,245.05	\$9,131.12	\$7,335.72	\$8,306.81	\$8,063.86	**					\$9,834.73	\$68,843.10
Electric Generation														
Total, kWh	214,200	172,800	198,000	174,600	122,400	135,000	127,800	135,000					159,975	1,279,800
Cost, Dollars	\$1,253.64	\$1,180.73	\$1,168.47	\$1,159.78	\$981.51	\$1,058.66	\$870.88	\$1,037.51					\$1,088.90	\$8,711.18
Natural Gas														
Total, Cu Ft	13,533	13,229	11,509	8,795	1,475	1,920	1,604	1,514					6,697	53,579
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					\$6,069.54	\$48,556.31
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					6,859,750	54,878,000
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					\$63,348.03	\$506,784.20
Refuse														
Cost, Dollars	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70					\$967.70	\$7,741.60
Reservoir Park Pump Station														
Electric Transmission														
Total, kWh	88,000	92,400	85,600	93,200	93,200	80,800	82,800	**					88,000	616,000
Cost, Dollars	\$3,704.13	\$3,935.15	\$3,650.18	\$3,737.99	\$3,808.93	\$3,292.40	\$3,201.41	**					\$3,618.60	\$25,330.19
Electric Generation														
Total, kWh	88,000	92,400	85,600	93,200	93,200	80,800	82,800	**					87,429	612,000
Cost, Dollars	\$1,350.22	\$1,214.10	\$1,215.18	\$1,292.31	\$1,417.70	\$1,323.10	\$1,465.66	**					\$1,325.47	\$9,278.27
Natural Gas														
Total, Cu Ft	982	629	473	466	9	0	0	0					320	2,559
Cost, Dollars	\$903.79	\$626.39	\$509.26	\$456.90	\$36.03	\$28.36	\$28.36	\$28.36					\$327.18	\$2,617.45
Wassukuhina River Pump Station														
Electric Transmission														
Total, kWh	1,200	1,200	600	1,200	600	1,200	**	**					1,000	6,000
Cost, Dollars	\$20.90	\$67.18	\$46.15	\$72.56	\$52.12	\$67.11	**	**					\$54.34	\$326.02
Electric Generation														
Total, kWh	1,200	1,200	600	**	600	1,200	1,200	**					1,000	6,000
Cost, Dollars	\$98.68	\$71.83	\$70.50	**	\$70.69	\$72.82	\$103.45	**					\$81.33	\$487.97
Natural Gas														
Total, Cu Ft	580	499	499	389	53	2	0	0					253	2,022
Cost, Dollars	\$543.32	\$515.95	\$524.07	\$378.07	\$75.04	\$30.13	\$28.36	\$28.36					\$265.41	\$2,123.30
Union Square Booster Station														
Electric Transmission														
Total, kWh	3,340	2,744	2,483	1,559	744	441	**	**					1,885	11,311
Cost, Dollars	\$305.46	\$132.56	\$138.65	\$118.51	\$52.69	\$43.91	**	**					\$131.96	\$791.78
Electric Generation														
Total, kWh	3,340	2,744	2,483	1,559	744	441	522	**					1,638	11,469
Cost, Dollars	\$130.77	\$113.42	\$101.36	\$95.50	\$81.60	\$70.49	\$70.68	**					\$94.83	\$663.82
DeHart Facilities														
Electric Transmission														
Total, kWh	3,131	2,289	2,308	2,945	2,396	1,346	2,137	**					2,365	16,552
Cost, Dollars	\$168.70	\$167.37	\$165.82	\$158.03	\$134.07	\$94.26	\$120.70	**					\$144.14	\$1,008.95
Electric Generation														
Total, kWh	3,131	2,289	2,308	2,945	2,396	1,346	2,137	2,307					2,357	18,859
Cost, Dollars	\$102.80	\$83.69	\$161.05	\$63.55	\$89.12	\$84.90	\$104.57	\$85.27					\$96.87	\$774.95
Fuel Oil														
Total, Gals.	2,251	0	0	0	0	0	1,370	0					453	3,621
Cost, Dollars	\$5,768.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,232.03	\$0.00					\$1,375.00	\$11,000.03
City Island Heat Trace														
Electric Transmission														
Total, kWh	40	140	147	116	0	0	0	**					63	443
Cost, Dollars	\$7.57	\$16.44	\$9.59	\$8.42	\$4.36	\$11.70	\$2.74	**					\$8.69	\$60.82
Electric Generation														
Total, kWh	40	140	147	116	0	0	0	0					55	443
Cost, Dollars	\$61.81	\$61.93	\$119.36	\$61.83	\$61.47	\$61.44	\$61.39	\$61.39					\$68.83	\$550.62
Expenditures YTD													\$88,902	\$695,651

** Not available at time report was developed

Total Transmission	\$96,361
Total Generation	\$20,467
Total Refuse	\$7,742
Total Gas	\$53,297
Total Sewer	\$506,784
Total Fuel Oil	\$11,000
Total Utilities	\$687,909

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		
October		
November		
December		
Average	35,493	\$5,253
Year to Date	283,940	\$42,022

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

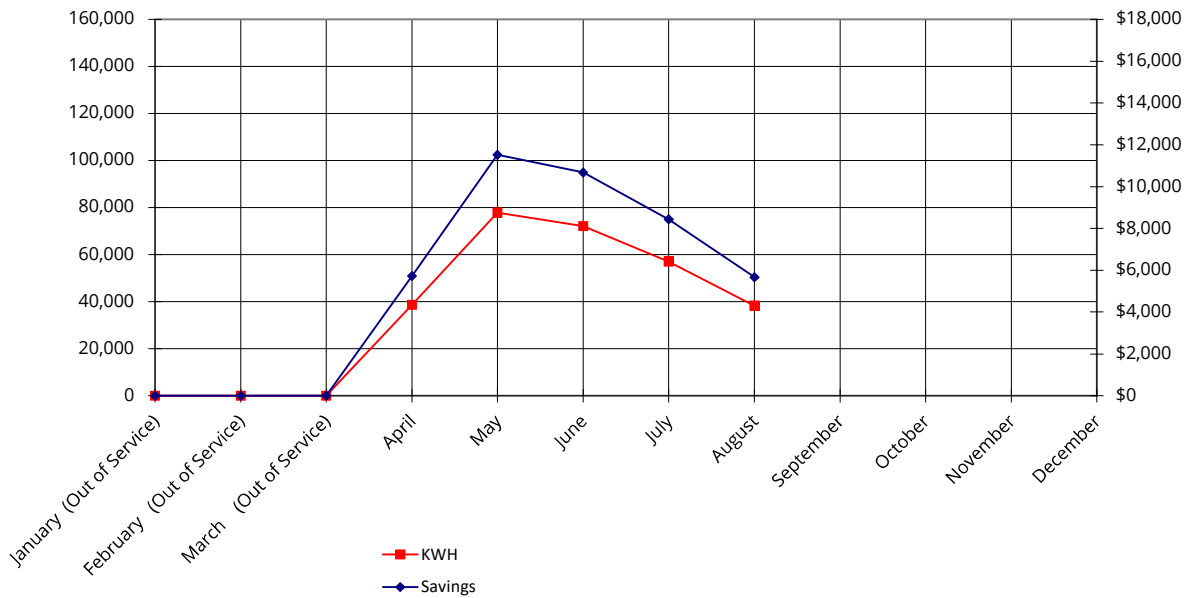


EXHIBIT H
Treatment Chemical Usage - 2023

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					6,025	48,198
Average, Chlorine Lbs./Day	203	197	193	198	197	198	203	197					198.2	
Average, Chlorine Dose, mg/L	6.9	1.6	2.6	3.2	3.4	3.4	3.1	3.2					3.4	
Chlorine Cost, \$/Lbs.	\$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					\$9,874.54	\$78,996.30
Alum 48.5%														
Total Lbs.	26,829	16,763	19,163	21,756	20,615	19,942	19,413	19,606					20,511	164,087
Average, Alum, Lbs./Day	866	599	618	725	665	664	626	632					674.4	
Average, Alum, mg/L	10.7	7.7	12.0	11.8	11.0	10.4	10.0	10.0					10.5	
Alum Cost, \$/Lbs.	\$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					\$2,481.70	\$19,853.59
Lime														
Total Lbs.	0	0	0	0	0	0	0	0					0	0
Average Lime, Lbs./Day	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	
Lime Cost, \$/Lbs.	\$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
Soda Ash														
Total Lbs.	17,400	12,350	13,050	13,650	17,400	20,350	23,950	23,803					17,744	141,953
Average Soda Ash, Lbs./Day	561	441	421	455	561	678	772	767					582.0	
Average, Soda Ash Dose, mg/L	19.2	13.5	19.0	7.2	9.0	10.8	12.0	12.1					12.8	
Soda Ash Cost, \$/Lbs.	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368	\$0.368					0.4	
Soda Ash Total Cost, Dollars	\$6,403	\$4,545	\$4,802	\$5,023	\$6,403	\$7,489	\$8,814	\$8,760					\$6,529.79	\$52,238.30
Fluoride														
Total Lbs.	2,240	1,965	1,965	1,660	1,167	1,133	1,198	1,167					1,562	12,495
Average, Fluoride Lbs./Day	72	70	63	55	38	38	38	37					51.3	
Average, Fluoride (F-) Dose, mg/L	1.1	1.1	1.0	0.9	0.6	0.7	0.7	0.7					0.8	
Fluoride Cost, \$/Lbs.	\$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					\$468.69	\$3,749.50
Sodium Hydroxide 50%														
Total NaOH 50% dry Lbs.	35,623	31,225	33,907	33,665	34,585	33,603	35,534	17,449					31,949	255,591
Average NaOH 50%, dry Lbs./Day	1,149	1,115	1,094	1,122	1,116	1,120	1,146	562					1,053	
Average, NaOH 50%, mg/L	19.2	15.7	19.2	8.9	8.8	8.9	8.9	8.9					12.3	
NaOH 50% Cost, dry \$/Lbs	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450	\$0.450					0.5	
NaOH 50% Total Cost, Dollars	\$16,030	\$14,051	\$15,258	\$15,149	\$15,563	\$15,121	\$15,990	\$7,852					\$14,376.88	\$115,015.05
Zinc Orthophosphate														
Total Zn3(PO4)2, wet Lbs.	4,802	4,239	4,565	4,539	4,559	4,246	4,788	4,669					4,551	36,407
Average Zn3(PO4)2, wet Lbs./Day	155	151	147	151	147	142	154	150					149.6	
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	
Zn3(PO4)2 Cost, wet \$/Lbs.	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724	\$1,724					1.7	
Zn3(PO4)2 Total Cost, Dollars	\$8,279	\$7,308	\$7,870	\$7,825	\$7,860	\$7,320	\$8,255	\$8,049					\$7,845.70	\$62,765.62
Potassium Permanganate														
Total KMnO4, Lbs.	0	0	0	0	0	0	0	0					0	0
Average KMnO4, Lbs./Day	0	0	0	0	0	0	0	0					0.0	
Average, KMnO4 Dose, mg/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
Expenditure													\$41,577.30	\$332,618.37
Average Treated Cost per (MG)														
Total Treated Flow (MGD)														0.000
Average Treated Flow (MGD)														231.251

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					4,052	507
Street Restorations	0	0	7	1	15	6	1	0					30	4
Leak Detection Assessment Percent of Distribution System	8	8	8	8	8	8	8	8					64	8
Main Break Repair - Detected Non-Surfacing	0	0	0	0	0	0	0	0					0	0
Main Breaks Repaired - Emergency	2	1	1	0	1	3	1	1					10	1
Service Line Leaks Detected	0	0	0	0	0	0	0	0					0	0
Service Line Leaks Repaired	1	0	10	7	4	2	6	7					37	5
Valves - Exercised	0	0	0	21	1	0	55	88					165	21
Valves - Replaced	0	0	0	0	0	0	1	3					4	1
Hydrant Flow Tests	0	8	1	2	7	6	4	1					29	4
Hydrants Returned to Service	0	0	0	0	1	2	2	0					5	1
Water Tap - Disconnected	2	0	11	13	4	0	6	1					37	5
Water Tap - New Connection	2	0	0	0	0	0	5	0					7	1
Water Shutoffs - Delinquent Accounts	0	0	0	0	0	0	0	0					0	0
Water Shutoffs - Other	24	11	21	62	48	56	56	31					309	39
Water Shutoffs - Non Payment	0	0	21	41	31	43	42	37					215	27
Water Restoration Turn on Other	24	22	23	33	23	55	41	19					240	30
Water Turn on - Non Payment	0	1	6	24	4	38	21	19					113	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					38	5
	Leaking	2	3	2	5	2	2	2	0					18	2
	Frozen	20	4	3	1	1	1	0	0					30	4
	Non-registering	6	6	9	4	8	10	16	10					69	9
	Large Meters ¹	0	0	0	0	0	0	0	0	0				0	0
New Service	New Installation	2	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					326	41
Batteries Replaced	Batteries Replaced	45	323	113	65	80	134	75	67					902	113
Meter Pits Serviced	Meter Pits Serviced	0	0	0	0	1	0	0	0					1	0
Meter Calibrations															
Small Meters ²	Calibrated meters	0	0	0	0	0	0	0	1					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
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
Billed Metered	Hydrant Connections	0	0	113,557	4,500	407	448	11,883	0					130,795	16,349
Billed Unmetered	Hydrant Flow Tests	0	12,300	4,000	4,305	14,094	14,304	9,450	12,200					70,653	8,832
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					9,945,546	1,243,193
Leakage on Distribution Mains	Main Leaks	1,318,637	2,836,746	95,144	0	109,685	383,537	370,363	19,274					5,133,386	641,673
Leakage on Service Lines	Service Leaks	2,321,113	41,760	568,560	135,444	95,040	17,280	312,960	241,920					3,734,077	466,760
	Total	3,688,199	2,941,817	821,546	3,623,921	6,194,229	454,629	982,474	307,642	0	0	0	0	19,014,457	2,376,807



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WASTEWATER DEPARTMENT MONTHLY REPORT



Nighttime view of the Final Clarifiers from the RAS Regeneration Tank. Photo by David Toth.

August 2023

1662 South Cameron Street, Harrisburg, PA 17104 | 888-510-0606
capitalregionwater.com

Overview

The Wastewater Department continued its steady march on WIMS implementation in August. Additional rounds sheets were created in RIO to pull Operator hand-reads directly into the database. Several sheets remain to be created in RIO. That work will continue through the fall.

The laboratory took a major step with the implementation of LabCal, another module within WIMS. This was the final step in the digitization of all laboratory data that is utilized for process control and regulatory reporting. August was spent as a test run to work out all glitches. Full implementation commenced on September 1st and the Laboratory is now almost entirely paperless.

Facility Operations continued and intensified a deep-cleaning project at the AWTF in preparation for the Central Pennsylvania Water Quality Association's Annual Trade Fair and Supertour which will take place on September 22nd. Operators spent significant time cleaning buildings and power washing concrete tankage. The Maintenance group has also been hard at work with cleaning and painting projects. The event presents an excellent opportunity to showcase the AWTF and Capital Region Water itself to regional industry professionals.

Operations

During the month of August, the AWTF met all monthly average NPDES requirements. One (1) Dry Weather Overflow (DWO) was reported.

Hydraulic loading to the AWTF averaged 16.0 million gallons per day (MGD). The treatment process achieved removal reductions of 98.2 percent CBOD, 97.6 percent Suspended Solids, 52.8 percent Phosphorus, and 93.8 percent Ammonia (Exhibit A).

The Contract Waste Hauling program collected \$98,846.86 in revenue from 2,198,180 gallons discharged (Exhibit G). This is the largest revenue month in two and a half (2 ½) years, continuing the high revenue trend from the previous four months. Increased leachate volume from NSP attributed to the revenue boost as they discharged nearly 1 million gallons.

The Cogeneration facility had no runtime in August. As such, no revenue was generated. The extraordinarily long lead time for a critical replacement part on the 39-year-old unit has kept it inactive since July.

Laboratory

- LabCal is set up and most of the bugs have been fixed. We used August to test run all components of WIMS for the lab: Data entry, QA/QC, and LabCal. We will go live on September 1st.
- Gathered more information on our part of the PFA pilot from the Kemira Team. Working on ordering supplies and getting a place to set up the extra equipment in the auxiliary lab.
- Successfully passed all PT samples for continued lab accreditation through PADEP. Received another Certificate of Excellence from ERA for our results.

Pretreatment

- Started organizing and going through all the Industrial User files left from the Pretreatment Coordinator for an easier experience during the next pretreatment inspection from the EPA.
- Started scheduling facility inspections for Industrial User's in September.
- Continuing to provide information to Durabond located in Steelton on the permitting process if they decide to discharge wastewater into the sewer system.

Plant Maintenance

- Continued annual pump and motor lubrication at the facility.
- Replaced worn conveyor belt segments on sludge conveyor at the Belt Filter Press.
- Removed washer compactor screens on both units to modify clearances to avoid grease buildup on screen at the Headworks Screening building.
- Continued curb painting and general cleaning at the facility in preparation of plant tours.
- Serviced standby generator full load test at Market Street and Spring Creek Pump Stations.
- Repaired drive assembly on Rotary Lobe Pump No. 2 and cleared debris lodged in lobes at the Waste Activated Sludge Pump Station.
- Repairing 16-inch pump discharge line where coupling was rusted thru at the Return Sludge Pump Station.
- Preparing for annual preventative maintenance and installation of new Unox Cooling Tower.
- 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 20 inlets in various locations throughout the city.
- Blanked eight (8) inlets in various locations throughout the city to combat trash from entering the system.
- Investigated inlet laterals on Walnut Street to identify potential leaks that were causing problems for the steam lines. The problem was identified and sent to the Engineering Department for IDIQ.
- Installed flow metering in flood chambers to monitor overflows during storm events as part of required study.
- Repaired 20 feet of 12-inch storm pipe on Summit Street. Also, replaced the inlet box and top with a new M top inlet.
- Replaced 10 feet of 10-inch sanitary sewer pipe on Luce Street.

Field Operations

- Performed CCTV assessment of 10,769 feet (2.04 miles) of pipe.
- Flushed 1,457 feet (0.28 miles) of sewer pipe.
- Responded to nine backup and overflow calls. None were the responsibility of CRW.
- Responded to six sinkhole calls. CRW was liable for three.
- Cleaned 162 inlets.
- Inspected 156 inlets.
- One Dry Weather Overflow (DWO) occurred this month at CSO #043 – Kittatinny and Cameron Streets.
- Assisted Land Studies at four sites for flow monitoring and sampling.
- Performed CCTV assessment for 2024 Sanitary Sewer Improvement Project.

Environmental Compliance

- CRW's Environmental Compliance Inspector (ECI) resigned his position to take another opportunity with the AWTF Facility Operations group. Much of the month was spent training other Wastewater managers on interim duties while CRW searches for a new ECI.
- There were no illicit discharges in the month of August.

Street Sweeping

- Received three (3) complaints in the month of August 2023. All complaints were addressed.
- Replaced the Beacon Light Bars on Sweepers SW-1 and SW-3.



- Replaced the main battery on Sweeper SW-3.
- Only completed morning routes on September 9, 2023, due to weather conditions.
- Completed 851.67 miles of Schedule Street Sweeping within the City of Harrisburg.
- Water usage was approximately 12,100 gallons.
- Continued to assist with the cleaning of storm inlets in scheduled sweeping area.
- Participated in Green Stormwater Infrastructure meetings.
- Started training for interim duties for Fats, Oils, and Grease program due to the resignation of the Environmental Compliance Inspector.
- When the days of the month fall on a 5th week there is no schedule sweeping. The Sweeping group will be assigned specific assignments throughout the City to continue the upkeep in high visible areas. At the end of August, there were three (3) days with a total of 106 miles swept (included with total miles.)



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					18.8	37.7
Carbonaceous Biochemical Oxygen Demand														
Influent, mg/L	97	139	114	198	165	193	145	161					152	----
Effluent, mg/L	4	3	4	4	3	3	3	3					3	25
Percent Removal, %	95.6	97.4	96.7	98.3	98.1	98.2	97.7	98.2					97.5	----
Effluent Loading, lb/d	681	469	596	821	507	470	582	393					565	7,860
Suspended Solids:														
Influent, mg/L	156	222	173	187	175	212	168	185					185	----
Effluent, mg/L	8	3	3	4	4	6	4	4					5	30
Percent Removal, %	95.0	98.5	98.1	96.6	97.5	96.8	97.2	97.6					97.2	----
Effluent Loading, lb/d	1,447	412	582	1,043	660	954	827	588					814	9,433
Nitrogen														
Total-N														
Influent, mg/L	26	33	26	30	26	30	23	24					27	----
Effluent, mg/L	5.0	4.0	5.7	4.3	3.7	5.2	4.5	3.1					4	Monitor
Percent Removal, %	80.5	87.9	78	85.6	85.5	82.8	80.3	80.3					82.7	----
Effluent Loading, lb/d	993	548	846	652	861	717	748	425					724	----
NH3-N														
Influent mg/L	17	21	17	16	13	15	12	14					16	----
Effluent, mg/L	1.9	1.2	1.4	1.6	0.4	1.1	0.5	0.9					1	11 (2)
Percent Removal, %	88.5	94.3	91.8	89.7	97.0	92.6	95.9	93.8					92.9	----
Effluent Loading, lb/d	359	168	248	258	74	150	86	118					183	4,716
Phosphorus:														
Influent, mg/L	2.9	4.2	3.5	3.8	3.5	4.0	3.1	3.6					3.6	----
Effluent, mg/L	0.8	1.6	1.2	1.6	1.4	1.6	1.7	1.6					1.4	2.0
Percent Removal, %	70.3	61.3	64.4	55.6	59.0	58.1	43.5	52.8					58.1	----
Effluent Loading, lb/d	152	222	194	237	215	223	301	220					221	629
pH:														
Influent, Std. Units	7.4	7.3	7.3	7.3	7.4	7.4	7.4	6.8					7.3	----
Effluent, Std. Units	7.4	7.4	7.4	7.4	7.5	7.5	7.4	7.6					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					7.5	5.0 Min.
Fecal Coliform:														
Effluent, No./100 ml	25	3	5	3	2	2	4	7					6	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					0.31	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														
October														
November														
December														
Average	18.84	7.28	11.55											3.12
Percent	100.00	38.67	61.33											24.97

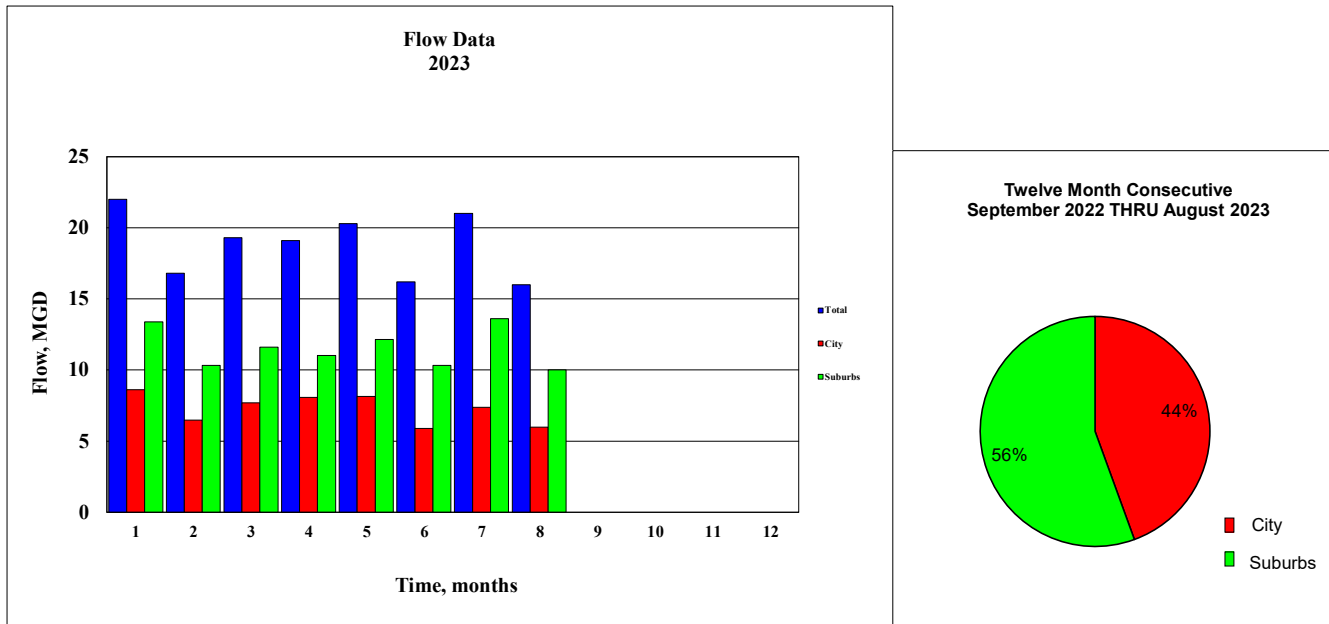


EXHIBIT C

**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					1,050,263	8,402,100
Average, kWh/Day	37,384	36,729	33,348	36,300	32,090	32,570	35,603	32,787					34,601	-----
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					\$65,667.52	\$525,340.18
Natural Gas														
Total, Cu Ft	621.9	554.8	287.6	27.4	0.8	0.6	0.1	*					187	1,493
Average, Cu Ft/Day	20	20	9	1	0	0	0	*					7	-----
Cost, Dollars	\$6,237.14	\$5,423.45	\$3,026.40	\$377.30	\$147.32	\$147.14	\$142.69	*					\$1,937.68	\$15,501.44
Water														
Total, Gal.	1,187,000	1,298,000	928,000	977,000	932,000	1,218,000	1,020,000	*					1,080,000	7,560,000
Average, Gal./Day	38,290	46,357	29,935	32,567	30,065	40,600	32,903	*					35,817	-----
Cost, Dollars	\$15,616.58	\$16,764.32	\$12,938.52	\$13,445.18	\$12,979.88	\$15,937.12	\$13,889.80	*					\$12,696.43	\$101,571.40
MicroC														
Total, Gal.	0	0	0	0	258	0	0	0					32	258
Average, Gal./Day	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0					1	-----
Cost, Dollars	\$0	\$0.00	\$0	\$0	\$1,029	\$0	\$0	\$0					\$128.68	\$1,029.42
Sodium Hydroxide														
Total, Gal.	0	0	0	0	0	0	0	0					0	0
Average, Gal./Day	0	0	0	0	0	0	0	0					0	-----
Cost, Dollars	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					8,776	70,207
Average, Lbs./Day	423	223	220	175	353	288	360	268					289	-----
Avg Residual, mg/L	0.22	0.18	0.20	0.22	0.43	0.44	0.45	0.39					0.32	-----
Cost, \$/Lbs.	\$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					\$14,392.44	\$115,139.48
Phosphorous Removal														
Total FeCl3, Gals.	3,113	2,950	3,113	3,589	4,429	3,156	4,231	4,997					3,697	29,578
Avg FeCl3, Gals./Day	100	105	100	120	143	105	136	161					121	-----
FeCl3 Cost, \$/Gal.	\$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					\$6,433.26	\$51,466.07

* 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
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					
October 2023					
November 2023					
December 2023					
<hr/>					
Total - 2023				281,700	\$39,573.28
Monthly Average - 2023		29	1,167	35,213	\$4,946.66

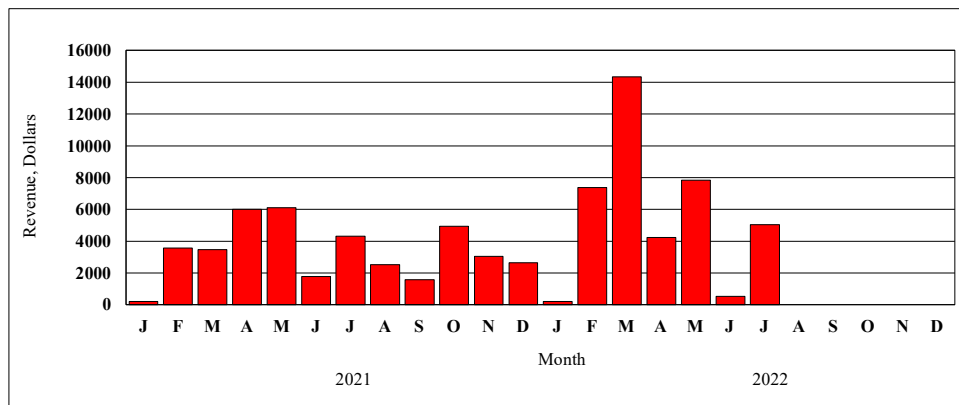


EXHIBIT E

**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					1,101,359	8,810,869
CWH Program, Lbs.	196,727	230,186	125,669	137,543	502,270	446,289	315,199	412,091					295,747	2,365,974
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					1,397,105	11,176,843
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					4,857,250	38,858,000
Feed Solids, %	1.5	1.5	1.5	1.4	1.5	1.4	1.5	1.8					1.5	-
Labor, Hours	635	519	531	651	691	671	1104	1130					741	5,932
Operations, Hours	1,181	977	1,014	672	691	671	688	602					812	6,496
Total Cake, Dry Tons	208	168	162	181	197	228	238	213					199	1,595
Total Cake, Wet Tons	1,264	1,089	1,040	1,164	1,223	1,421	1,485	1,267					1,244	9,953
Cake TS, %	16.5	15.9	15.6	15.6	16.1	16.1	16.0	16.9					16.1	-
Press Rate, Lbs./Hour	2,140	2,228	2,052	3,465	3,539	4,237	4,316	4,212					3,274	26,190
Polymer Dosage, Lbs	4,299	4,556	4,533	5,031	5,765	7,226	5,208	3,947					5,071	40,565
Polymer Dosage, Lbs/Dry Ton	20.7	27.1	28.0	27.8	29.3	31.7	21.9	18.5					25.6	-
Disposal Cost														
Labor, Dollars	\$12,208.54	\$9,982.89	\$10,200.05	\$12,502.61	\$13,282.94	\$12,890.85	\$21,224.65	\$21,712.83					\$14,250.67	\$114,005.37
Electrical, Dollars	\$519.82	\$430.06	\$445.98	\$295.64	\$304.08	\$295.11	\$302.76	\$264.70					\$357.27	\$2,858.15
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					\$9,887.84	\$79,102.71
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					\$62,601.85	\$500,814.77
Total Cost, Dollars	\$68,469.61	\$72,184.61	\$67,483.99	\$48,401.97	\$94,926.38	\$88,134.96	\$174,934.01	\$82,245.49					\$87,097.63	\$696,781.01
Cost Per Dry Ton, Dollars	\$329.18	\$429.67	\$416.57	\$267.41	\$481.86	\$386.56	\$735.02	\$386.13					\$429.05	

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					85,650	685,200
Average, kWh/Day	4,955	3,471	2,516	2,040	3,097	1,800	2,477	2,206					2,820	----
Cost, Dollars	#####	\$6,179.35	\$5,794.20	\$4,760.30	\$6,808.76	\$5,640.08	\$6,454.65	\$6,101.73					\$6,488.87	\$51,910.94
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0					0	0
Average, Gals./Day	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	\$0.00
Water														
Total, Gals.	284,000	318,000	276,000	291,000	326,000	355,000	336,000	*					312,286	2,186,000
Average, Gal./Day	9,161	11,357	8,903	9,700	10,516	11,833	10,839	*					10,330	----
Cost, Dollars	\$3,633.08	\$3,984.64	\$3,550.36	\$3,705.46	\$4,067.36	\$4,367.22	\$4,170.76	*						\$27,478.88
Spring Creek Pump Station														
Electric														
Total, kWh	38,400	50,240	40,640	38,400	56,320	49,600	54,080	48,320					47,000	376,000
Average, kWh/Day	1,239	1,794	1,311	1,280	1,817	1,653	1,745	1,559					1,550	----
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					\$3,357.52	\$26,860.15
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0					0	0
Average, Gals./Day	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
Water														
Total, Gals.	90,000	104,000	86,000	105,000	118,000	137,000	141,000	*					111,571	781,000
Average, Gal./Day	2,903	3,714	2,774	3,500	3,806	4,567	4,548	*					3,688	----
Cost, Dollars	\$1,006.59	\$1,151.35	\$965.23	\$1,161.69	\$1,296.11	\$1,492.57	\$1,533.93	*					\$1,229.64	\$8,607.47
Market Street Pump Station														
Electric														
Total, kWh	1,320	1,200	1,200	960	1,080	720	840	840					1,020	8,160
Average, kWh/Day	43	43	39	32	35	24	27	27					34	----
Cost, Dollars	\$151.91	\$153.90	\$174.52	\$157.79	\$253.89	\$207.36	\$208.98	\$185.03					\$186.67	\$1,493.38
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0					0	0
Average, Gals./Day	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
City Island Pump Station														
Electric														
Total, kWh	40	40	40	40	40	40	0	40					35	280
Average, kWh/Day	1	1	1	1	1	1	0	1					1	----
Cost, Dollars	\$42.43	\$62.63	\$64.36	\$64.11	\$64.27	\$83.86	\$62.57	\$64.16					\$63.55	\$508.39

* 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						
October						
November						
December						
Total - 2023	11,139,820	\$443,993.61	2,102,150	\$74,673.90	13,241,970	\$518,667.51
Monthly Average - 2023	1,392,478	\$55,499.20	262,769	\$9,334.24	1,655,246	\$64,833.44

