

May 2023 As of June 21, 2023 Page 1 of 8

Ensure Financial Stability	
Reconciled Bank Account Balances	Refer to attached Reconciled Bank Account Balances as of 5/31/2023.
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	Provided separately to Board of Directors.
Drinking Water	
Capital Improvement Projects for	Provided separately to Board of Directors.
Wastewater	
Grant Management	Refer to attached Grant Management Report.

Ensure Revenues are Consistent with Sy	stem Usage
Water Shut-offs	There were 31 water shut-offs for non-payment, and 48 service shut-off requests.
Repair/Replace Meters/MXUs/Batteries	Drinking Water Distribution staff replaced 18 water meters, replaced 80 batteries, and 34 MXUs.
Reduce Wet Weather Impacts to Infrast	ructure, Community, and Receiving Waters
Negotiate with PADEP/U.S. EPA/DOJ on	No update.
Past and Future Practices	
Develop Necessary Planning for	Phase 4 Stormwater Pro-Fi construction will commence at the beginning of July, starting with the Boys and Girls Club GSI.
Implementation of Green	Design and planning for next phase of GSI (2024-2027) is underway.
Infrastructure	
Joint Pollutant Reduction Plan -	The Paxton Creek Cooperative is actively working with PennDOT's vendor on the construction contract to determine a final change order to secure the additional sediment
Collaborate with Suburban Partners on	reduction required for the 2020-2025 Permit cycle.
MS4	
Obtain and Comply with Individual MS4	No update.
Permit	
Operate Facilities with a High Standard	of Care
Permit Compliance	The Drinking Water department met all primary and secondary Safe Drinking Water Act permit parameters for the month of May.
	The AWTF met all NPDES permit parameters for the month of May. One Dry Weather Overflow was reported. Details can be found in the AWTF Monthly Report for May.
Notice of Violations (NOVs)	There were no NOVs received by the Drinking Water department in May.
	On 5/2/2023 CRW received a Notice of Violation (NOV) from PADEP regarding events associated with the Front Street Interceptor Rehabilitation Project. On 3/21/2023, a

On Sizizozo CRW received a Notice of Violation (NOV) norm PADEP regarding events associated with the Front Street interceptor Rehabilitation Project. On Siz 1/2025, a	ł.
project contractor was attempting to relocate an active sewage bypass pipe when the pipe union broke and caused approximately 13,250 gallons of sewage to discharge to	ł
the surrounding grounds. An estimated 3,200 gallons of that discharge made its way by gravity to the Susquehanna River. There were additional incidents of illicit discharge	ł
of petroleum products on 3/24/2023, 3/30/2023 and 4/27/2023. All incidents were reported to PADEP immediately. On 5/17/2023 CRW provided a comprehensive NOV	ł
response letter that detailed corrective actions and preventative measures taken by the project team to prevent similar incidents from occuring during the remainder of the	ł
project schedule.	ł



May 2023 As of June 21, 2023 Page 2 of 8

Preventative Maintenance	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 May.
	The Wastewater department completed all regularly scheduled preventative maintenance in the month of May, including semi-annual preventative maintenance of the final
	three (3) CSO sites.
ссти	A total of 7,509 feet (1.42 miles) of sewer pipes were assessed by CCTV footage during the month of May. A total of 3,196 feet (0.61 miles) of sewer pipe were flushed as well.
Incident Response	Wastewater responded to seven (7) backup and overflow calls from residents during the month of May. CRW was responsible for none.
Geographic Information System (GIS)	• Fifteen (15) Pennsylvania One Call tickets were completed and all required maps to be created for the work area.
	Bi-weekly meetings were held with KCI Technologies, Inc.
	Progress continues with the development of the ESRI "Lead Service Line Inventory Solution".
	• One (1) in-person GIS update was held at AWTF.
	Attended Operations (OPS) Challenge practices on 5/5, 5/12 and 5/26/2023.
	• GPS'd approximately 75 assets.
	• Water linens mosaic was completed and added as a layer to Cityworks. This will give the field staff a spatially accurate view of the water linens while simultaneously
	displaying the current GIS data over top of them.
	Verification of current GIS data against 184 sewer linen pages is completed.
	Held a meeting on 5/16/2023 with Asset Management for progress updates on our Lead Service Line Solution.
Cityworks	



May 2023 As of June 21, 2023 Page 3 of 8

Asset Management	Roadmap Implementation activity report:
	Decision Making Capital Planning Roadmap Implementation Group (RIG) • Meetings held 5/22/2023 and 6/2/2023 to finalize draft design and construction contract language that defines the asset management data responsibilities and deliverables.
	Information System Data Management Roadmap Implementation Group RIG  • Facilitated training sessions 5/31/2023 and 6/1/2023 on CMMS updated workflows to support industry benchmarking and performance management.
	Operations & Maintenance Roadmap Implementation Group RIG
	AWTF inventory and condition assessment task held meetings on 5/26/2023 and 6/2/2023 to develop data collection process and perform field testing at the plant on 6/9/2023.
	• Data cleaning efforts continue for the Collection Asset Management Plan, completion due 6/30/2023. Plan workshops held 5/25/2023, 6/8/2023 and 6/15/2023.
	Organizational Framework Roadmap Implementation Group RIG
	Preliminary preparation for Roadmap Development Team meeting under way.
	Other Activities
	<ul> <li>Dashboard development group met 5/19/2023 and 6/5/2023 with focus on collection system performance indicators.</li> <li>The Lead Service Line Inventory working group status report meeting was held on 5/16/2023.</li> </ul>
	Collaboration with Safety and Risk Management to develop incident tracking in the Computerized Maintenance Management System (CMMS) and emergency response plan for North Front Street facility.
	Coordinate American Water Works Association (AWWA) Benchmarking survey edits and submital on 5/31/2023.
Development Review Summary	For details, see attached Development Stormwater Management Review Summary spreadsheet for May.



May 2023 As of June 21, 2023 Page 4 of 8

Undertake Capital Improvement Projec	ts - Refer to attached Capital Improvement Projects Report
Professional & Contractor Services	Recommend Board approval of the following Resolutions, Task Orders, Change Orders and Agreements:
	Drinking Water:
	2023 Street Restoration Project - Recommendation of Award
	Timber Product Harvest/Sale - Recommendation of Award
	Wastewater:
	Task Order 2020-14-02: Engineering Services for Clty Beautiful H2O Program Services
	Task Order 2023-08-02: Engineering Services for CBH2O Program Services – Water Quality Services
	Task Order 2023-12-01: Engineering Services for 2024 Sewer System Improvements
	Change Order No. 1 - Front Street Interceptor Rehabilittaion Phase 2 Project
	Interconnection Agreement and Transaction Confirmation
	Inflation Reduction Act Assistance
	Stormwater:
	• Resolution No. 2023–010 Authorization for Contribution Agreement with PennDOT for I-83 Expansion Project – Supplement Improvements
Stormwater O&M Agreements	Recommend Board approval of the following: None.
AWTF Primary Digesters Rehabilitation	Closeout of all contracts is anticipated in July 2023.
AWTF Energy Recovery Improvements	Refer to the agenda for recommendation of the Interconnection Agreement and Transaction Confirmation with UGI Energy Services.
Front Street Pumping Station	Contract No.1 (General Construction) is expected to be closed out in July 2023.
Improvements	

Undertake Renewal and Replacement P	Jndertake Renewal and Replacement Projects	
2022 Water System Improvements	Installation of water main continues in the Sylvan Terrace neighborhood. The project is expected to be complete in Fall of 2023.	
Cameron Street Water Main - Phase 4	A preconstruction meeting was held on 6/13/2023 and work is expected to begin in late July.	
2023 Sewer System Improvements	The contractor continues construction with inlet replacement along 15th Street.	
(Excavation)		
2023 Sewer System Improvements	The contractor has rehabilitated several manholes.	
(Trenchless)		
Arsenal Boulevard Sewer	No update. We are working with property owners to acquire temporary and construction easements needed before advertising the project.	
Front Street Interceptor Rehabilitation	The contractor has cleared the lower phase (Forster Street to I-83) and is now setting up bypass piping between Forster Street and Senaca Street for the cured-in-place	
Phase 2	piping (CIPP) lining in July.	
Water Facility Maintenance	Drinking Water Maintenance staff performed repairs to various process units as described in the Drinking Water Department Monthly Report for May.	
Wastewater Facility Maintenance	The Wastewater Maintenance group completed various repairs throughout the AWTF, pumping stations, and at the North Front Street offices throughout the month. A	
	narrative is provided in the Wastewater Department Monthly Report for May	
Sinkhole Program	Three (3) sinkholes were investigated by CRW in the month of May. One (1) was due to failure of a wastewater asset.	
Inlet Cleaning	A total of 282 stormwater inlets were cleaned during the month of May, and 252 stormwater inlet inspections were performed.	



May 2023 As of June 21, 2023 Page 5 of 8

Operate as an Efficient, Sustainable and	Dperate as an Efficient, Sustainable and Resilient Water Utility	
	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. A timber harvest and sale agreement for MU 40 and 42 is recommended for award. Harvest will remove overstory and release regeneration. <i>Please see related Issue Brief.</i>	
Sustainability	No update.	
Internal Communications	Intranet (Sharepoint) site continues to be used. The Q2 All Employee Meeting is scheduled for 6/28/2023.	

Inform and Listen to Customers and	Encourage Stewardship of our Systems
Media Relations - Press and Social	PRESS RELEASES: N/A.
Media	
	SOCIAL MEDIA TOPICS:
	Facebook: 0 New Organic Followers (1,611 Total). Twelve (12) Posts ; Highest Engaged Post: "DeHart Day Post" (1,280 Reachs, 1 Reactions, 1 Shares); Other topics: Drinking
	Water Week posts, DeHart Day, Board of Directors Meeting & Employee of the Month.
	Twitter: 0 Tweets; Month overview: 89 total Impressions; 98 Profile Visits; -1 New Followers.
	Instagram: 0 New Followers (692 Total), Eleven (11) Posts; Highest Engaged Post: "Employee of the Month: Sean Sauro" 87 Organic Reachs, 11 likes, 1 comments, 2 shares, 0 saves.
	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:
	• Five (5) community events: Herbert Rowland & Grubic Inc. Litter Cleanup; Giant Litter Cleanup; St. Stephen's School Race for Education; Capital Area Cleanup/Young Professionals of Color (YPOC) Roots & Foods Day; and Choose Cleanwater Conference Tour.
	• One (1) community meeting. CRW Community Ambassadors.
	• Delivered nine (9) door-to-door notifications impacting approximately two hundred sixty-nine (269) customers. Included eight (8) courtesy construction notices and one (1)
	fats, oils, and grease hotspot notice.
	• Six (6) Everbridge alerts. Included hydrant flushing notices.
Public Communications	WHAT'S ON TAP COMMUNICATION: The May monthly bill stuffer was distributed as a bill insert. Topics included: Combined Sewer System Information and Combined
	Sewer Overflow (CSO) Outfall warning signs and notices.
Business Diversity	Attended and participated in the Eastern Minority Supplier Development Council's Share in Central Pennsylvania networking event on 6/6/2023 for the purpose of capacity
	building and promoting our Business Diversity Program.



May 2023 As of June 21, 2023 Page 6 of 8

Administrative	
Risk Management	Executive Summary:
	Total Claims: 19
	New: 6*
	Open: 16
	Closed: 3
	Insurance Line Claim Count:
	Auto: 1
	General Liability: 10
	Public Officials: 2
	Workers Compensation: 6
	Note *new count included in Open
Human Resources	For details, see attached Recruiting Status Report.
Procurement	Procurement staff are coordinating the following bid packages on PennBid:
	Project Number 2023 - 206 - Precipitation and Wastewater Flow Monitoring Services
	Project Number 2023 - 209 - Switchgear Replacement and Feeder Cables at AWTF
	• Project Number 2023 - 210 - DeHart Dam Backup Generator
	Procurement staff continue to identify and assist in establishing contracts that include fixed rate pricing and discounts with frequently used vendors for goods and services.
	Recommend Board approval of the following:
	Project Number 2023 - 203 - Maintenance Building Window Replacement at Water Services Center
	Project Number 2023 - 205 - Roof Replacements on Control and Hydrogritter Buildings at Wastewater Department
	Project Number 2023 - 207 - Maintenance Contract for Water Service Line and Sewer Lateral Replacement



May 2023 As of June 21, 2023 Page 7 of 8

Information Technologies (IT)	
ľ	
Office Management and	Incoming Correspondence Report: Refer to attached Incoming Correspondence Report for May 2023.
	incoming correspondence keport, when to attached incoming correspondence keport for May 2025.
Admin Professional Services and	
	Street/Sidewalk-Cut Permits: Two (2) Drinking Water, two (2) Wastewater, permits were issued. Eleven (11) Drinking Water and two (2) Wastewater permits were
	successfully completed, inspected, and closed by the City of Harrisburg's Engineer.
	Fleet Management (Completed Dispositions thru Municibid)
	Washington
	Wastewater:
	• G-28 - 2004 Toro 72" Cut Z-Master Commercial Mower Model #74246. Sold via Municibid for \$2,800. Bids closed 5/19/2023 @ 9:00 a.m. and equipment was picked up on
	5/23/2023.
	• G-57 - 2004 Hawke Dump Trailer. Sold via Municibid for \$3,700. Bids closed 5/23/2023 @ 9:00 a.m. and equipment was picked up on 5/25/2023.
	• G-88 - 32 pieces of SCH10 black pipe previously stored at AWTF. Sold via Municibid for \$680. Bids closed 5/19/2023 @ 9:00 a.m. and equipment was picked up on
	5/25/2023.
	• G-97 - Hydraulic Pump @ Front Street Pump Station. Sold via Municibid for \$211. Bids closed 5/11/2023 @ 9:00 a.m. and equipment was picked up on 5/25/2023.



May 2023 As of June 21, 2023 Page 8 of 8

Right-to-Know Requests	CRW has received and responded to three (3) Right-to-Know request during the period 5/18/2023 through 6/21/2023. 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,
	OOR Training: No update.
	RTK 2023-005 - Christine Kirchhoff (PennState) - Requested (1) Long-Term Control Plan for Combined Sewer System circa 1998 and any more recent plans; (2) Annual Combined Sewer Overflow Reports from 1998-2014; and (3) most recent NPDES Permit or renewal. Response due: 6/16/2023. Response provided 6/15/2023 for 30-day extension until 7/17/2023.
	RTK 2023-006 - Beth J. Kern, Esq. (CGA Law Firm) - Request for any and all documents, communications, etc. related to items 1 through 8 for the time period 1/1/2018 to current: (1) The sewer and water billing, bills and invoices sent to and records of payment received from the businesses located at Kline Village Plaza with addresses of 101 S. 25th Street, Harrisburg, PA 17104 and 101 Rear S. 25th Street, Harrisburg, PA 17104 and 101 Rear S. 25th Street, Harrisburg, PA 17104: Property IDs 09-101-003-000-0000 and 09-101-004-000-0000 (collectively the "Property"). (2) Any and all documents, communications, etc., related to any and all sewer laterals or lines for the businesses located at the Property.
	(3) Any and all documents, communications, etc., related to any and all sewer system maps for the businesses located at the Property; (4) Any and all sewer system maps showing any parts the sewer system for the businesses located at the property; (5) Any and all sewer system maps showing any parts of the sewer system owned by the Borough of Penbrook. (6) Any and all documents, communications, etc., related to any and all sewer system maps for any parts of the sewer system owned by the Borough of Penbrook; (7) Any and all documents, communications, etc., related to the sewer and water billing, bills, and invoices sent to and records of payment received for any properties that are located outside of the Borough of Penbrook that have sewer laterals or lines connecting to and/or flowing into any parts of the sewer system owned by the Borough of Penbrook; and (8) Any and all documents, communications, etc., related to any and all sewer laterals or lines for any properties that are located outside of the Borough of Penbrook, etc., related to any and all sewer laterals or lines for any properties that are located outside of the Borough of Penbrook that have sewer laterals or lines connecting to any properties that are located outside of the Borough of Penbrook; etc., related to any and all sewer laterals or lines for any properties that are located outside of the Borough of Penbrook that have sewer laterals or flowing into any parts of the sewer system owned by the Borough of Penbrook that have sewer laterals or and/or flowing into any properties that are located outside of the Borough of Penbrook. <b>(6)</b> Any and all documents, communications, etc., related to any and all sewer laterals or lines for any properties that are located outside of the Borough of Penbrook that have sewer laterals or lines connecting to and/or flowing into any parts of the sewer system owned by the Borough of Penbrook. <b>Response due: 6/27/2023. Response provided: 6/22/2023 for 30-day extension until 7/27/2023.</b>
	RTK 2023-007 (Tom Bates) - Requested electronic scans of the design engineering drawings for the Wastewater Treatment Plant from the original 1959 Plant. Response due: 6/29/2023. Response provided: Pending as of this report.



## DRINKING WATER DEPARTMENT MONTHLY REPORT



WSC New Backwash Pit Safety Speed-Rail<sup>®</sup> Railing System

## May 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 May.

Specific water quality results are summarized in Exhibit A. A total of 225.428 MG, averaging 7.272 MGD was withdrawn from the water supply source for treatment. As shown in Exhibit B, a total of 222.53 MG, averaging 7.178 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 May (Exhibit C) and the DeHart Reservoir water level slightly increased (Exhibit D). An estimated 1149.45 MG of water was released from the DeHart Reservoir to Clark Creek, averaging 37.08 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 72 preventative maintenance work orders and corrective maintenance work orders for the month of May 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.
- Repaired wiring issues with Caustic Pump 613C and 613A.
- Removed the old caustic system that is not in use.
- Installed emergency lighting and exit signs in the finished water pump houses.
- The new Aluminum Sulfate Chemical Injection system is currently under testing for commissioning and PADEP approval.
- Installed sample piping for the clearwell(s) C-17's per PADEP request.
- Continue to finish the wiring system and components for the new Lime Slurry Chemical feed system with the assistance of sewers' electrical group.
- Continued to label various instrumentation and electrical panels and disconnects throughout the plant.



- Perform spring/summer landscape duties at the Water Services Center, Front Street pump houses, DeHart Dam facility and the North Front Street administrative offices.
- Complete maintenance of fleet vehicles and equipment.

## Distribution

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

- Repaired four leaking services during the month of May totaling 95,040 gallons of unmetered water.
- Repaired one water main break 109,685 gallons of unmetered water.
- Completed 394 work orders.
- Completed 497 water, sewer, and stormwater locates.
- Hydrant flushing was completed at the end of May with 995 hydrants flushed during the month.
- 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.



# **Drinking Water Exhibits**



### EXHIBIT A Water Quality Anaylsis - 2023

PARAMETERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	Average	MCL Limits
Total Coliform: Presence/Absence														
Distribution System	A	A	A	A	Α	A	A	A	А	A	A	А	Α	5% P
Chlorine Residual, mg/L Free														
Filter Plant Effluent	2.00	1.98	2.01	1.99	1.95								1.99	0.2 - 4.0
Distribution System	1.40	1.43	1.42	1.31	1.21								1.35	< 0.02
Turbidity, NTU														
Influent from DeHart	1.20	0.98	0.71	0.61	0.77								0.85	NA
Influent from Susquehanna	NA	NA	NA	NA	NA									NA
Filter Plant Effluent	0.03	0.03	0.03	0.03	0.02								0.03	0.30
pH, Std Units	0.05	0.05	0.05	0.05	0.01								0.00	0.50
Influent from DeHart	6.4	6.5	6.5	6.4	6.1								6.37	NA
Influent from Susquehanna	NA	NA	NA	NA	NA								0.57	NA
Filter Plant Effluent	7.6	7.5	7.9	7.7	7.5								7.62	6.5 - 8.5*
Distribution System	7.1	7.7	8.1	8.0	8.0								7.02	6.5 - 8.5*
Total Alkalinity, mg/L as CaCO3	7.1	7.7	0.1	8.0	8.0								1.11	0.5 - 8.5
Influent DeHart	5	5	5	5	5								5.00	NA
	NA	NA	NA	NA	NA								N/A	NA
Influent from Susquehanna Filter Plant Effluent	15	14	13	15	16									<15*
			-	-	-								14.61	-
Distribution System	13	14	15	14	15								14.24	<15*
Temperature, degrees C								1						
Influent from DeHart	5.9	5.4	7.3	10.0	13.0								8.32	NA
Influent from Susquehanna	NA	NA	NA	NA	NA								N/A	NA
Filter Plant Effluent	6.6	6.4	7.2	9.8	12.0								8.40	NA
Distribution System	14.1	13.2	13.6	16.8	18.3								15.20	NA
Fluoride, mg/L														
Filter Plant Effluent	0.95	1.02	1.00	0.88	0.69								0.91	2
Aluminum, mg/L														
Filter Plant Effluent	0.02	0.02	0.02	0.01	0.02								0.02	0.2*
Iron, mg/L														
Influent from DeHart	0.11	0.06	0.04	0.05	0.07								0.07	NA
Influent from Susquehanna	NA	NA	NA	NA	NA								N/A	NA
Filter Plant Effluent	0.02	0.01	0.01	0.02	0.02								0.02	0.3*
Distribution System	0.07	0.00	0.00	0.01	0.00								0.02	0.3*
Total Dissolved Solids, mg/L														
Influent from DeHart	15	15	16	16	16								15.78	NA
Influent from Susquehanna	NA	NA	NA	NA	NA								N/A	NA
Filter Plant Effluent	37	34	35	37	39								36.38	500*
Distribution System	39	36	34	38	40								37.48	500*
Total Hardness, mg/L														
Influent from DeHart	8	8	8	8	8								8.00	NA
Influent from Susquehanna	NA	NA	NA	NA	NA								N/A	NA
Filter Plant Effluent	8	8	8	8	8								8.12	NA
Distribution System	10	6	6	6	6								6.82	NA
Orthophosphate, mg/L														
Filter Plant Effluent	1.20	1.24	1.27	1.27	1.20								1.24	0.7 - 1.3*
Distribution System	1.21	1.19	1.12	1.27	1.21								1.20	0.7 - 1.3*
**Total Trihalomethanes, ug/L														
Distribution System	34.2	NA	NA	42.8	NA								38.5	80.0
**Total Haloacetic Acids, ug/L						· · · · · · · · · · · · · · · · · · ·								
Distribution System	36.8	NA	NA	48.4	NA								42.6	60.0
Total Organic Carbon, mg/L	50.0													2010
Influent from DeHart	2.16	NA	NA	1.90	NA								2.03	NA
Influent from Susquehanna	NA	NA	NA	NA	NA								N/A	NA
Filter Plant Effluent	1.22	NA	NA	1.20	NA								1.21	NA
			11/1	1.20						1	1			11/1
Average Filter Run, Hours	115	112	120	119	112								115.60	NA

\* Values are related to DEP Secondary MCL \*\* Running Annual Quarterly Average



### EXHIBIT B

## Water Production Data - 2023

	DeHart Wi	thdrawal	River Wit	hdrawal	Total Wit	hdrawal	Treated	Water	Process	Water	Finished	d Water
Month	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
Мау	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												
July												
August												
September												
October												
November												
December												
Total	1126.114		0.000		1126.114		1143.961		34.463		1094.142	
Average	225.223	7.455	0.000	0.000	225.223	7.455	228.792	7.575	6.893	0.228	218.828	7.245

Peak Day Water Use Minimum Day Water Use (MG) = Million Gallons (MGD) = Million Gallons per Day

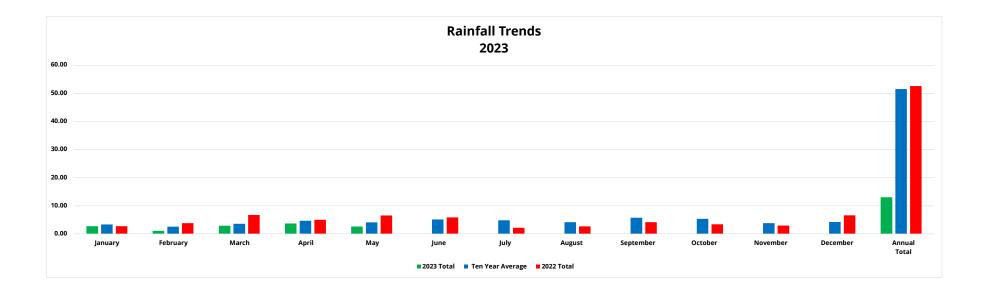


### EXHIBIT C

### Rainfall at the DeHart Reservoir - 2023

(inches)

Date	January	February	March	April	Мау	June	July	August	September	October	November	December	Annual Total
2023 Total	2.70	1.09	2.93	3.71	2.63								13.06
Daily Average	0.087	0.039	0.095	0.124	0.085								0.430
Ten Year Average	3.37	2.572	3.62	4.68	4.138	5.112	4.81	4.154	5.72	5.37	3.83	4.21	51.586
2022 Total	2.70	3.79	6.72	5.03	6.55	5.84	2.16	2.67	4.16	3.43	2.94	6.63	52.62





### EXHIBIT D

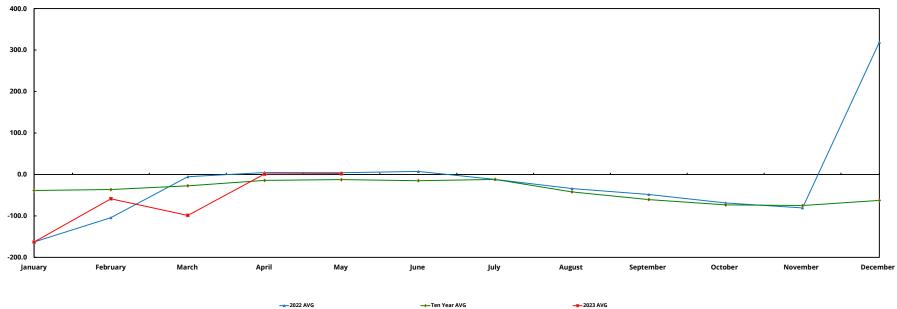
### Water Level at the DeHart Reservoir - 2023

(Inches from Spillway)

Date	January	February	March	April	Мау	June	July	August	September	October	November	December
2023 AVG	-162.9	-58.6	-98.7	1.1	1.8							
Ten Year AVG	-38.8	-36.6	-27.4	-14.4	-12.5	-15.0	-12.0	-42.0	-60.5	-73.5	-75.0	-62.6
2022 AVG	-162.9	-104.3	-5.6	4.6	4.1	7.2	-12.1	-34.1	-48.5	-68.9	-80.6	319.0

**DeHart Reservoir Water Level Trends** 

2023

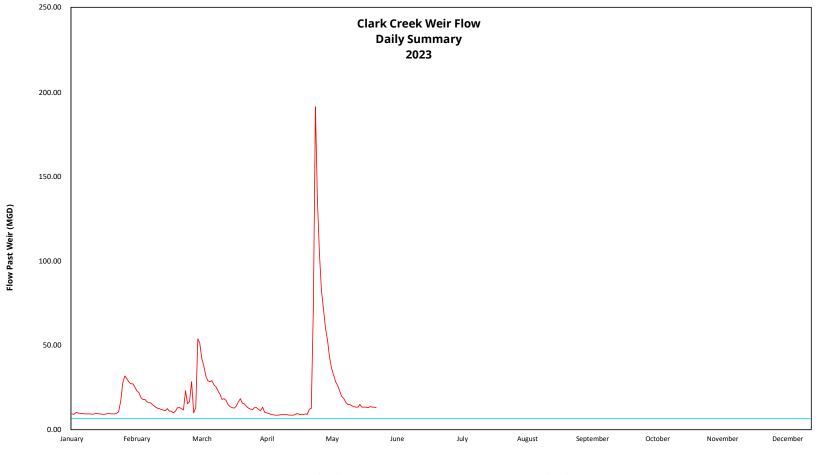


---- Ten Year AVG



EXHIBIT E

### **Daily Conservation Release - 2023**



----- Minimum Flow (MGD)



### EXHIBIT F

Utility Usage - 2023

Location / Utility	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
ater Services Center														
ctric Transmission														
Total, kwH	214,200	172,800	198,000	174,600	**								189,900	759,600
Cost, Dollars	\$16,812.87	\$8,947.67	\$10,245.05	\$9,131.12	**								\$11,284.18	\$45,136.71
tric Generation														
Total. kwH	214.200	172.800	198.000	174.600	122,400								176.400	882.000
Cost, Dollars	\$1,253.64	\$1,180.73	\$1,168.47	\$1,159.78	\$981.51								\$1,148.83	\$5,744.13
tural Gas	\$1,233.04	\$1,180.75	\$1,100.47	\$1,135.76	\$901.51								\$1,148.65	+5,744.15
Total, Cu Ft	13,533	13,229	11,509	8,795	**								11,767	47,066
	\$12,244.94	\$11,133,40	\$9.875.88	\$8,238,84	**								\$10.373.27	\$41,493.06
Cost, Dollars	\$12,244.94	\$11,133.40	\$9,675.66	\$0,230.04									\$10,373.27	\$41,495.00
wer														
Total, Gal	7,710,000	6,070,000	7,288,000	7,213,000	6,490,000								6,954,200	34,771,000
Cost, Dollars	\$71,240.40	\$56,086.80	\$67,341.12	\$66,359.60									\$65,256.98	\$261,027.93
fuse														
Cost, Dollars	\$967.70	\$967.70	\$967.70	\$967.70	\$967.70								\$967.70	\$4,838.50
ervoir Park Pump Station														
ctric Transmission														
otal, kwH	88,000	92,400	85,600	93,200	**		1				1		89,800	359,200
Cost, Dollars	\$3,704.13	\$3,935.15	\$3,650.18	\$3,737.99	**								\$3,756.86	\$15,027.45
tric Generation					-		1	1			1	1		
Total. kwH	88.000	92,400	85.600	93.200	**		1				1		89.800	359,200
Cost, Dollars	\$1,350.22	\$1,214.10	\$1,215.18	\$1,292.31	**			1			1		\$1,267.95	\$5,071.81
itural Gas	#1,330.22	#1,214.10	13.10 غراف	#1,292.51									+1,207.95	\$5,071.01
	000	620		100	**		-	-	-					0.550
Total, Cu Ft	982	629	473	466									638	2,550
Cost, Dollars	\$903.79	\$626.39	\$509.26	\$456.90	**								\$624.09	\$2,496.34
squehanna River Pump Station														1
ctric Transmission														
Total, kwH	1,200	1,200	600	**	**								1,000	3,000
Cost, Dollars	\$20.90	\$67.18	\$46.15	**	**								\$44.74	\$134.23
ectric Generation														
Total, kwH	1,200	1,200	600	**	**								1,000	3,000
Cost, Dollars	\$98.68	\$71.83	\$70.50	**	**								\$80.34	\$241.01
atural Gas	\$50.00	\$71.05	\$70.50						-				400.54	+2+1.01
Total, Cu Ft	580	499	499	389	53								404	2.020
Cost, Dollars	\$543.32	\$515.95	\$524.07	\$378.07	\$75.04								\$407.29	\$2,036.45
nion Square Booster Station	\$343.32	\$515.95	\$324.07	\$5/6.0/	\$73.04								\$407.29	\$2,030.45
	1	1	1	1					1			1		4
ectric Transmission					**									
Total, kwH	3,340	2,744	2,483	1,559									2,532	10,126
Cost,Dollars	\$305.46	\$132.56	\$138.65	\$118.51	**								\$173.80	\$695.18
ctric Generation							1				1			
Total, kwH	3,340	2,744	2,483	1,559	**								2,532	10,126
Cost, Dollars	\$130.77	\$113.42	\$101.36	\$95.50	**								\$110.26	\$441.05
Hart Facilities														
ectric Transmission														
Total, kwH	3,131	2,289	2.308	2.945	2.396								2.614	13,069
Cost, Dollars	\$168.70	\$167.37	\$165.82	\$158.03	\$134.07								\$158.80	\$793.99
ectric Generation	\$108.70	+.07.37	+.33.02	+.30.03	÷.54.07								+.30.00	*/55.55
Total, kwH	3,131	2,289	2,308	2,945	2,396			1			1		2,614	13,069
	\$102.80	2,289	2,308	2,945	2,396			-					2,614	\$500.21
Cost, Dollars	\$102.80	\$83.69	\$161.05	\$63.55	\$89.12			+					\$100.04	\$500.21
el Oil		1												
Total, Gals.	2,251	0	0	0	0								450	2,251
Cost, Dollars	\$5,768.00	\$0.00	\$0.00	\$0.00	\$0.00								\$1,153.60	\$5,768.00
y Island Heat Trace														
ctric Transmission														
Total, kwH	40	140	147	116	**						1		111	443
Cost, Dollars	\$7.57	\$16.44	\$9.59	\$8.42	**		1	1			1		\$10.51	\$42.02
ctric Generation	er.57			20.72			1	1	1		1		+	
Total, kwH	40	140	147	116	**			1					111	443
	\$61.81	\$61.93	\$119.36	\$61.83	**		-	-	-		1		\$76.23	\$304.93
Cost, Dollars														

\*\* Not available at time report was developed

Total Transmission	\$61,830
Total Generation	\$12,303
Total Refuse	\$4,839
Total Gas	\$46,026
Total Sewer	\$261,028
Total Fuel Oil	\$5,768
Total Utilities	\$386.954

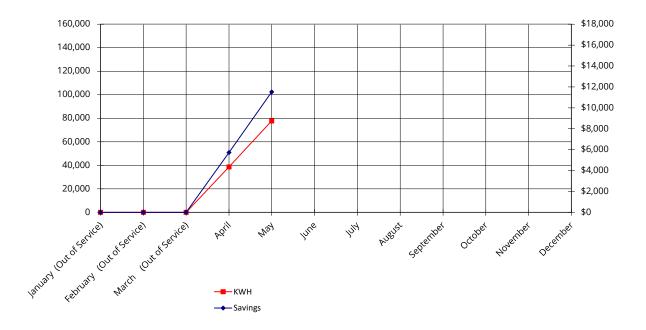


### Exhibit G

### 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
Мау	77,840	\$11,520
June		
July		
August		
September		
October		
November		
December		
Average	23,304	\$3,449
Year to Date	116,520	\$17,245

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



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EXHIBIT H

Treatment Chemical Usage - 2023

Chemical	January	February	March	April	Мау	June	July	August	September	October	November	December	Average	Total
Chlorine								Т				1	1	
Total Lbs.	6,294	5,518	5,991	5,949	6,112								5,973	29,864
Average, Chlorine Lbs./Day	203	197	193	198	197								197.6	
Average, Chlorine Dose, mg/L	6.9	1.6	2.6	3.2	3.4								3.5	
Chlorine, Cost, \$/Lbs.	\$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								\$9,789.37	\$48,946.87
Alum 48.5%														
Total Lbs.	26,829	16,763	19,163	21,756	20,615								21,025	105,126
Average, Alum, Lbs./Day	866	599	618	725	665								694.6	
Average, Alum, mg/L	10.7	7.7	12.0	11.8	11.0								10.6	
Alum Cost, \$/Lbs.	\$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								\$2,543.86	\$12,719.31
Lime														
Total Lbs.	0	0	0	0	0								0	0
Average Lime, Lbs./Day	0	0	0	0	0								0.0	
Average, Lime Dose, mg/L	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	
Lime Total Cost, Dollars	\$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								14,770	73,850
Average Soda Ash, Lbs./Day	561	441	421	455	561								487.8	
Average, Soda Ash Dose, mg/L	19.2	13.5	19.0	7.2	9.0								13.6	
Soda Ash Cost, \$/Lbs.	\$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								\$5,435.28	\$27,176.40
Fluoride														
Total Lbs.	2,240	1,965	1,965	1,660	1,167								1,799	8,997
Average, Fluoride Lbs./Day	72	70	63	55	38								59.5	-,
Average, Fluoride (F-) Dose, mg/L	1.1	1.1	1.0	0.9	0.6								0.9	
Fluoride Cost, \$/Lbs.	\$0.30	\$0.30	\$0.30	\$0.30	\$0.30								\$0.30	
Fluoride Total Cost, Dollars	\$672	\$590	\$590	\$498	\$350								\$540.02	\$2,700.10
Codium Hudrovida F00/														
Sodium Hydroxide 50% Total NaOH 50% dry Lbs.	35,623	31,225	33,907	33,665	34,585								33,801	169,005
Average NaOH 50%, dry Lbs./Day	1,149	1,115		1,122	1,116								1,119	109,005
Average, NaOH 50%, mg/L	19.2	15.7	19.2	8.9	8.8								14.4	
NaOH 50% Cost, dry \$/Lbs	\$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								\$15,210.27	\$76,051.35
Zinc Orthophosphate	4,802	4 220	4,565	4,539	4,559								4,541	22,704
Total Zn3(PO4)2, wet Lbs.	,	4,239	4,565		4,559								4,541	22,704
Average Zn3(PO4)2, wet Lbs./Day Average, Zn3(PO4)2 Dose, mg/L	2.5	151 2.5	2.5	2.5	2.5								2.5	
Zn3(PO4)2 Cost, wet \$/Lbs.	\$1.724	2.5 \$1.724		\$1.724	\$1.724								1.7	
Zn3(PO4)2 Cost, wet \$7155. Zn3(PO4)2 Total Cost, Dollars	\$8,279	\$7,308	\$7,870	\$7,825	\$7,860								\$7,828.33	\$39,141.65
Potassium Permanganate Total KMnO4, Lbs.	0	0	0	0	0								0	0
Average KMnO4, Lbs./Day	0	0	0	0	0								0.0	<b>U</b>
Average, KMnO4 Dose, mg/L	0.0	0.0	0.0	0.0	0.0								0.0	
KMnO4 Cost, \$/Lbs.	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00								\$0.00	
KMnO4 Total Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00								\$0.00	\$0.00
Expenditure													\$41,347.14	\$206,735.68
Average Treated Cost per (MG)														
Total Treated Flow (MGD)														0.000
Average Treated Flow (MGD)														228.792



### EXHIBIT I

### **DISTRIBUTION DEPARTMENT ACTIVITIES - 2023**

Activity	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
PA One Call Locates	501	430	550	520	497								2,498	500
Street Restorations	0	0	7	1	15								23	5
Leak Detection Assessment Percent of Distribution System	8	8	8	8	8								40	8
Main Break Repair - Detected Non-Surfacing	0	0	0	0	0								0	0
Main Breaks Repaired - Emergency	2	1	1	0	1								5	1
Service Line Leaks Detected	0	0	0	0	0								0	0
Service Line Leaks Repaired	1	0	10	7	4								22	4
Valves - Exercised	0	0	0	21	1								22	4
Valves - Replaced	0	0	0	0	0								0	0
Hydrant Flow Tests	0	8	1	2	7								18	4
Hydrants Returned to Service	o	0	0	0	1								1	0
Water Tap - Disconnected	2	0	11	13	4								30	6
Water Tap - New Connection	2	0	0	0	0								2	0
Water Shutoffs - Delinquent Accounts	0	0	0	0	0								0	0
Water Shutoffs - Other	24	11	21	62	48								166	33
Water Shutoffs - Non Payment	0	0	21	41	31								93	19
Water Restoration Turn on Other	24	22	23	33	23								125	25
Water Turn on - Non Payment	0	1	6	24	4								35	7



### EXHIBIT J

### **Metering Activities - 2023**

<b>Board Monthly Report</b>	Distribution Monthly Report														
Activity	Activity	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
Meter Installations															
	Missing	6	3	4	5	7								25	5
	Leaking	2	3	2	5	2								14	3
Replacement	Frozen	20	4	3	1	1								29	6
-	Non-registering	6	6	9	4	8								33	7
	Large Meters <sup>1</sup>	0	0	0	0	0								0	0
New Service	New Installation	2	0	0	0	0								2	0
Meter Service														_	
MXU's Replaced	MXU's Replaced	47	43	40	22	34								186	37
Batteries Replaced	Batteries Replaced	45	323	113	65	80								626	125
Meter Pits Serviced	Meter Pits Serviced	0	0	0	0	1								1	0
Meter Calibrations															
Small Meters <sup>2</sup>	Calibrated meters	0	0	0	0	0								0	0

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
 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	Мау	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
Billed Metered Exported	Bulk Water Hauling	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								118,464	23,693
Billed Unmetered	Hydrant Flow Tests	0	12,300	4,000	4,305	14,094								34,699	6,940
Unbilled Unmetered	Hydrant Flushing (and Unbilled Authorized)	48,449	51,011	40,285	3,479,672	5,975,003								9,594,420	1,918,884
Leakage on Distribution Mains	Main Leaks	1,318,637	2,836,746	95,144	0	109,685								4,360,212	872,042
Leakage on Service Lines	Service Leaks	2,321,113	41,760	568,560	135,444	95,040								3,161,917	632,383
	Total	3,688,199	2,941,817	821,546	3,623,921	6,194,229	0	0	0	0	0	0	0	17,269,712	1,439,143



## WATER

## Wastewater



## WASTEWATER DEPARTMENT MONTHLY REPORT



Rail fabrication for Primary Clarifier No. 4 continues.

## May 2023

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



## Overview

The Wastewater department continued working to implement the Chlorine Auto-Feed system throughout May. Several adjustments to the sampling system were made, but reagents required for operation were on backorder. Those reagents have since been received and fine-tuning of the instrumentation is now being finalized.

Plant Operations was also focused on continuing its recent run of excellent effluent nitrogen concentrations. Warmer process temperatures are optimal for biological nitrogen removal. Operators and lab personnel are hoping to use the summer to recover from higher effluent numbers experienced in the winter to increase the generation of nitrogen credits for sale in the fall.

Field conditions for farm application of biosolids continued to be favorable in May, allowing for disposal at our lowest cost options. High diesel prices continue to cause elevated hauling costs, but tipping fees at farm sites are by far the most favorable.

On May 2, 2023, CRW received a Notice of Violation (NOV) from PADEP regarding events associated with the Front Street Interceptor Rehabilitation Project.

- On March 21, 2023, a project contractor was attempting to relocate an active sewage bypass pipe when the pipe union broke and caused approximately 13,250 gallons of sewage to discharge to the surrounding grounds. An estimated 3,200 gallons of that discharge made their way by gravity to the Susquehanna River.
- There were additional incidents of illicit discharge of petroleum products on March 24, March 30, and April 27. All incidents were reported to PADEP immediately.
- On May 17th, CRW provided a comprehensive NOV response letter that detailed corrective actions and preventative measures taken by the project team to prevent similar incidents from occurring during the remainder of the project schedule.

## Operations

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

Hydraulic loading to the AWTF averaged 20.3 million gallons per day (MGD). The treatment process achieved removal reductions of 98.4 percent CBOD, 97.5 percent Suspended Solids, 59.0 percent Phosphorus, and 97.0 percent Ammonia (Exhibit A).



The Contract Waste Hauling program collected \$77,689.95 in revenue from 1,540,820 gallons discharged (Exhibit G). This was the highest monthly revenue generated by the program since March 2021. Modern Landfill discharged over half a million gallons of leachate even though rainfall was minimal in May. The increase in revenue was driven by increasing their discharge rate now that we have six months of total solids data to substantiate that action.

The Cogeneration Facility experienced an average run time of 38 percent in May. Revenue is estimated at \$7,832.78 on 53,100 Kilowatt-hours generated for the month.

## Laboratory

- Finished inputting all bench sheets with calculations in WIMS. Set up training for June.
- Had supplemental assessment with DEP for the new fecal coliform and E. Coli method, received assessment report and are working on all necessary updates.
- Set up account with Aquatic Informatics for Aquatic Academy (a training program for WIMS and Rio).

## Pretreatment

- Submitted final inspection response to EPA addressing a majority of the findings they mentioned in their report.
- Finished reviewing first quarter SMR data from industrial users now that all the data has been submitted.
- Identified a possible new CIU in Durabond which is located off Cameron Street in Steelton. They are considering installation of a pretreatment process and requested guidance on effluent limits and other information on the reporting process that they would need to abide by.

## **Plant Maintenance**

- Completed annual fire extinguisher facility inspections.
- Clearing debris from facility in preparation of plant open house.
- Tested check valves for proper operation of hydraulic pumps at the Front Street Pump Station.
- Serviced standby generator full load test at Market Street and Spring Creek Pump Stations.
- Repaired sump pump and cleared pit blockage at the Pista Grit.
- Tested pump performance with manufacturer and completed worksite pump replacement at the Plant Drain Pump Station.
- Staff continued welding and replacing return rail for Primary Collection System No. 4 at the Primary Clarifier.
- Continued installing new secondary conveyance collection systems at the Primary Clarifier.



- Repaired discharge chute deflector plate hinge and guide assembly at the Spring Creek Pump Station.
- Completed annual fire extinguisher repair or replacement in all vehicles.
- Performed vehicle repairs in preparation for state inspections.
- Provide weekly maintenance on JCB Loader.
- Performed daily service for vehicular related repairs such as bulbs, batteries, tires, lube oil and filters, and flat tires.
- Performed maintenance tasks at 3003 North Front Street, as requested.

## **Field Construction**

- Repaired 29 inlets in various location throughout the city.
- Blanked five inlet backs in various locations throughout the city to combat debris from entering the system.
- Replaced an inlet lateral at Fourth and Reily Streets. This line was causing a sinkhole on Fourth Street. Twenty feet of damaged VCP was replaced with new SDR.
- Replaced an inlet lateral at Green and Sayford Streets. Removed 12 feet of broken VCP and replaced it with new SDR.
- Repaired the weir at Front and Mulberry Street CSO. The weir was reported to us by contractors lining the Front Street Interceptor.
- Repaired the weir at Muench Street CSO.
- Replaced the weir at Front and Reily Streets. The old weir was made of wood and coated with concrete. It was replaced with a new concrete weir that is reinforced with rebar.

## **Field Operations**

- Performed CCTV assessment of 7,509 (1.42 miles) of pipe.
- Flushed 3,196 feet (0.61 miles) of sewer pipe.
- Responded to seven backup and overflow calls. None were the responsibility of CRW.
- Responded to three sinkhole calls. CRW was liable for one.
- Cleaned 282 inlets.
- Inspected 252 inlets.
- Completed three CSO semi-annual PM's.
- One Dry Weather Overflow (DWO) occurred this month at CSO #013 Front and Cumberland.
- Cleaned center column of Thickener No. 2.

## **Environmental Compliance**

- Completed three inspections of FOG dischargers.
- Renewed two FOG discharge permits.



- Provided education packet to one newly identified FOG dischargers (either new business or previously unidentified). Spent time educating business owners/representative and provided them with a FOG Best Management Practices Manual, copy of Section 7.5 of the updated Wastewater and Stormwater Rules and Regulations, discharge permit request, cleaning log sign-off sheet, and introduction letter.
- Issued two non-FOG related NOVs.
- Two investigations were conducted during the month of May:
  - Environmental Compliance received a report of an illicit discharge of milk products to Spring Creek. An investigation quickly confirmed the source as a business along 29<sup>th</sup> Street. The business was ordered to coordinate cleanup with a local contractor and a NOV was issued. A follow-up meeting to educate staff was conducted the following week.
  - Environmental Compliance responded to a report of raw wastewater flowing/being pumped into a storm inlet in the vicinity of Sixth and Curtin Streets. An investigation confirmed wastewater was improperly being discharged because of a malfunctioning sewer lateral. The responsible party was issued an NOV.

## **Street Sweeping**

- Received two complaints this month.
- Completed 687.27 miles of scheduled street sweeping within the City of Harrisburg.
- Water usage was approximately 11,800 gallons this month.
- Continued to assist cleaning storm inlets in schedule sweeping area.
- Replaced Main Brooms on all sweepers.
- Performed much-needed replacement of front tires on all three Sweepers.
- Performed 1,000-hour service on SW2 and SW1.



# **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	Decembe	r Average	NPDES Limits
Volume, MGD	22.0	16.8	19.3	19.1	20.3								19.5	37.7
Carbonaceous Biochemical Oxygen D	emand													
Influent, mg/L	97	139	114	198	164								142	
Effluent, mg/L	4		4	4	3								4	25
Percent Removal, %	95.6		96.7	98.3	98.4								97.3	
Effluent Loading, lb/d	681	469	596	821	499								613	7,860
Suspended Solids:														
Influent, mg/L	156	222	173	187	175								183	
Effluent, mg/L	8	3	3	4	4								4	30
Percent Removal, %	95.0	98.5	98.1	96.6	97.5								97.1	
Effluent Loading, lb/d	1,447	412	582	1,043	660								829	9,433
Nitrogen Total-N														
Influent, mg/L	26	33	26	30	8								25	
Effluent, mg/L	5.0		5.7	4.3	3.7								5	Monitor
Percent Removal, %	80.5		78	85.6	55.4								77.6	
Effluent Loading, Ib/d NH3-N	993		846	652	861								780	
Influent mg/L	17	21	17	16	13								17	
Effluent, mg/L	1.9		1.4	1.6	0.4								1	11 (2)
Percent Removal, %	88.5		91.8	89.7	97.0								92.3	
Effluent Loading, lb/d	359		248	258	74								221	4,716
Phosphorus:														
Influent, mg/L	2.9	4.2	3.5	3.8	3.5								3.6	
Effluent, mg/L	0.8	1.6	1.2	1.6	1.4								1.3	2.0
Percent Removal, %	70.3	61.3	64.4	55.6	59.0								62.1	
Effluent Loading, lb/d	152		194	237	215								204	629
pH:														
Influent, Std. Units	7.4	7.3	7.3	7.3	7.4								7.3	
Effluent, Std. Units	7.4	7.4	7.4	7.4	7.5								7.4	6.0 - 9.0
Dissolved Oxygen:														
Effluent Minimum, mg/L	8.0	8.8	7.8	8.3	7.6								8.1	5.0 Min.
Fecal Coliform:														
Effluent, No./100 ml	25	3	5	3	2								8	200/100 ml (1)
Chlorine Residual:														
Effluent, mg/L	0.22	0.18	0.20	0.22	0.43								0.25	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

	Total				с	ity Region	s				Total Precip			
Month	Flow	City	Suburbs	1	2	3	4	5	6	7	8	9	10	inches
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 June July August September October November December	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
Average Percent	19.50 100.00	7.81 40.03	11.69 59.97											2.42 12.11

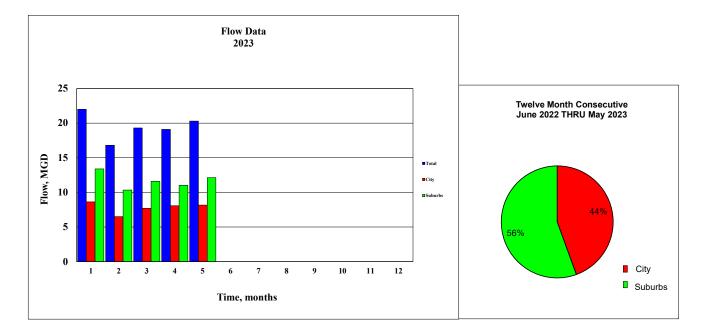


EXHIBIT C

### CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Treatment Utility and Chemical Usage - 2023

Utility / Chemical	January	February	March	April	Мау	June July	August	September Octob	er November December	Average	Total
Electric	1 1 5 9 9 9 9	1 0 2 0 4 0 0	1 022 000	1 000 000	*					062.020	4 2 1 0 1 0
Total, kwH Average, kwH/Day	1,158,900 37,384	1,028,400 36,729	1,033,800 33,348	1,089,000 36,300	*					862,020 35,940	4,310,100
Cost, Dollars		\$60,520.22		\$63,307.22	*						\$282,648.14
Natural Gas											
Total, Cu Ft	621.9	554.8	287.6	27.4	*					298	1,49
Average, Cu Ft/Day	20	20	9	1	*					13	
Cost, Dollars	\$6,237.14	\$5,423.45	\$3,026.40	\$377.30	*					\$3,012.86	\$15,064.29
Water											
Total, Gal.	1,187,000	1,298,000	928,000	977,000	*					1,097,500	4,390,00
Average, Gal./Day	38,290	46,357	29,935	32,567	*					36,787	4,390,00
Cost, Dollars		\$16,764.32			*						\$58,764.6
·		·		·						·	·
MicroC											
Total, Gal.	0	0	0	0	258					52	25
Average, Gal./Day	0.0	0.0	0.0	0.0	8.3					2	
Cost, Dollars	\$0	\$0.00	\$0	\$0	\$1,029					\$205.88	\$1,029.43
Sodium Hydroxide											
Total, Gal.	0	0	0	0	0					0	(
Average, Gal./Day	0	0	0	0	0					0	
Cost, Dollars	0	0	0	0	0					\$0.00	\$0.00
Chlorine Disinfection											
Total, Lbs.	13,115	5,973	6,830	5,240	10,940					8,420	42,09
Average, Lbs./Day	423	223	220	175	353					279	
Avg Residual, mg/L	0.22	0.18	0.20	0.22	0.43					0.25	
Cost, \$/Lbs.	\$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					\$13,808.14	\$69,040.7
Phosphorous Removal											
Total FeCl3, Gals.	3,113	2,950	3,113	3,589	4,429					3,439	17,19
Avg FeCl3, Gals./Day	100	105	100	120	143					114	
FeCl3 Cost, \$/Gal.	\$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					\$5,983.58	\$29,917.9

\* No data at time of report

### EXHIBIT D

## CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

### **Cogeneration Electrical Production: 2022-2023**

	Percent	Daily Avg	Kilowatt Hours	Estimated
Period	Run Time	Kilowatt	Produced	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
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				
July 2023				
August 2023				
September 2023				
October 2023				
November 2023				
December 202				
Total - 2023			243,900	\$33,997.40
Monthly Average - 2023	40	1,623	48,780	\$6,799.48
Wontiny Werdge 2025	-0	1,025	40,700	\$0,7 <i>55</i> .40
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2021

Month

2022



### EXHIBIT E

### CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Sludge Handling Information - 2023

Process	January	February	March	April	Мау	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							1,182,789	5,913,944
CWH Program, Lbs.	196,727	230,186	125,669	137,543	502,270							238,479	1,192,395
Total Solids, Lbs.	901,546	1,120,629	1,683,187	1,692,028	1,708,949							1,421,268	7,106,339
10(41.50)(45, 255.	501,510	1,120,025	1,003,107	1,052,020	1,700,545							1,121,200	7,100,555
Sludge Dewatering													
5 5													
Feed Volume, Gals.	5,489,000	4,398,000	3,878,000	5,322,000	4,268,000							4,671,000	23,355,000
Feed Solids, %	1.5	1.5	1.5	1.4	1.5							1.5	-
Labor, Hours	635	519	531	651	691							605	3,027
Operations, Hours	1,181	977	1,014	672	691							907	4,535
Total Cake, Dry Tons	208	168	162	181	197							183	916
Total Cake, Wet Tons	1,264	1,089	1,040	1,164	1,223							1,156	5,780
Cake TS, %	16.5	15.9	15.6	15.6	16.1							15.9	-
Press Rate, Lbs./Hour	2,140	2,228	2,052	3,465	3,539							2,685	13,424
Polymer Dosage, Lbs	4,299	4,556	4,533	5,031	5,765							4,837	24,184
Polymer Dosage, Lbs/Dry Ton	24.3	26.4	28.6	29.2	29.5							27.6	-

Disposal Cost

ectrical,Dollars \$519.82 \$430.06 \$445.98 \$295.64 <b>\$304.08</b>	
er, Dollars \$8,383.05 \$8,885.16 \$8,839.35 \$9,810.45 <b>\$11,241.75</b>	
sal, Dollars \$43,033.40 \$59,350.50 \$42,993.10 \$23,433.90 <b>\$62,716.60</b>	
Il Cost, Dollars \$64,144.81 \$78,648.61 \$62,478.49 \$46,042.60 <b>\$87,545.38</b>	
ost Per Dry Ton, Dollars \$308.39 \$468.15 \$385.67 \$254.38 <b>\$444.39</b>	



EXHIBIT F

### CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Conveyance Utility Usage - 2023

Location / Utility	January	February	March	April	Мау	June	July	August	September	October	November	December	Average	Total
Front Street Pump Station														
Electric														
Total, kwH	153,600	97,200	78,000	61,200	*								97,500	390,000
Average, kwH/Day	4,955	3,471	2,516	2,040	*								3,246	390,000
Cost, Dollars	########	\$6,179.35	\$5,794.20	\$4,760.30	*								\$6,726.43	\$26,905.72
Fuel Oil		40,179.55	\$5,754.20	¥ <del>4</del> ,700.50									\$0,720.45	\$20,505.7Z
Total, Gals.	0	0	0	0	0								0	0
Average, Gals./Day	0	0	0	0	0								0	
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00								0	\$0.00
Water														
Total, Gals.	284,000	318,000	276,000	291,000	*								292,250	1,169,000
Average, Gal./Day	9,161	11,357	8,903	9,700	*								9,780	1,109,000
Cost, Dollars	\$3,633.08	\$3,984.64	\$3,550.36	\$3,705.46	*								5,700	\$14,873.54
	40,000.00	40,00 110 1	40,000100	40,700110										41 1107 010 1
Spring Creek Pump Station														
Electric														
Total, kwH	38,400	50,240	40,640	38,400	*								41,920	167,680
Average, kwH/Day	1,239	1,794	1,311	1,280	*								1,406	
Cost, Dollars	\$1,274.90	\$3,346.91	\$3,295.83	\$3,158.30	*								\$2,768.99	\$11,075.94
Fuel Oil														
Total, Gals.	0	0	0	0	0								0	0
Average, Gals./Day	0	0	0	0	0								0	
Cost, Dollars	\$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	*								96,250	385,000
Average, Gal./Day	2,903	3,714	2,774	3,500	*								3,223	
Cost, Dollars	\$1,006.59	\$1,151.35	\$965.23	\$1,161.69	*								\$1,071.22	\$4,284.86
Market Street Pump Station														
Electric														
Total, kwH	1,320	1,200	1,200	960	1,080								1,152	5,760
Average, kwH/Day	43	43	39	32	35								38	
Cost,Dollars	\$151.91	\$153.90	\$174.52	\$157.79	\$253.89								\$178.40	\$892.01
Fuel Oil														
Total, Gals.	0	0	0	0	0								0	0
Average, Gals./Day	0	0	0	0	0								0	
Cost, Dollars	\$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	160
Average, kwH/Day	1	1	1	1	*								1	
Cost, Dollars	\$42.43	\$62.63	\$64.36	\$64.11	*								\$58.38	\$233.53

EXHIBIT G

## CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

### Contract Waste Hauling Program 2022 - 2023

	Proc	ess	Sep	tic	Tot	al
Month	Gallons	Revenue	Gallons	Revenue	Gallons	Revenue
		***	70.450	** ==* **		to 1 00 1 15
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
Мау	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
Мау	1,273,220	\$68,101.35	267,600	\$9,588.60	1,540,820	\$77,689.95
June						
July						
August						
September						
October						
November						
December						

