

July 2022 As of August 17, 2022 Page 1 of 6

Ensure Financial Stability	
Reconciled Bank Account Balances	Refer to attached Reconciled Bank Account Balances as of 7/31/2022.
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	Provided separately to Board of Directors.
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 System Usage	
Water Shut-offs	There were 9 water shut-offs for non-payment, 7 were turned back on after payment, and 14 service shut-off requests.
Repair/Replace Meters/MXUs/Batteries	Drinking Water Distribution staff replaced 18 water meters, replaced 31 batteries, and 61 MXUs.
Reduce Wet Weather Impacts to Infrast	ructure, Community, and Receiving Waters
Negotiate with PADEP/U.S. EPA/DOJ on	CRW and USDOJ/U.S. EPA/PADEP are finalizing the Draft Partial Consent Decree Modification for public comment.
Past and Future Practices	
Develop Necessary Planning for	No Update.
Implementation of Green Infrastructure	
Joint Pollutant Reduction Plan -	No Update.
Collaborate with Suburban Partners on	
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.
	AWTF met all required NPDES monthly permit parameters in July. One Dry Weather Overflow was reported. Details are contained in the Wastewater Department Monthly
	Report for July.
Notice of Violations (NOVs)	There were no NOVs received by the Drinking Water department in July.
	There were no NOVs received by the Wastewater department in July.
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 July.
	The Wastewater department completed all regularly scheduled preventative maintenance in the month of July.
CCTV	A total of 10,762.37 feet (2.04 miles) of sewer pipes were assessed by CCTV footage during the month of July. A total of 9,342.3 feet (1.77 miles) of pipe were flushed as well.
Incident Response	Wastewater responded to four backup and overflow calls from residents during the month of July. CRW was liable for none.



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Geographic Information System (GIS)	 Forty-four (44) Pennsylvania One Call tickets were completed by GIS. Thirty-three (33) tickets required a map, and eleven (11) had no CRW utilities in the request area. GIS staff gave a presentation on the creation of the CRW GeoHUB at the 2022 ESRI Water User Group Meeting in Malvern, PA.
Cityworks	
Asset Management	Task Order 2022-04-01 AM Roadmap Quick Win Activities are scheduled for completion in September. The Organizational Framework Roadmap Implementation Group (OF RIG) is conducting a final review of the draft Strategic Asset Management Plan (SAMP), anticipated delivery of final is 8/26/2022. Prepared Task Order 2022-17-01 AM Roadmap FY 22 Phase 1 Activities for August Board agenda. The risk framework developed for and has been transferred to CRW's Impact Assessment Planning (IAP) environment. A meeting is scheduled for 8/16/2022 to finalize the sites for the 2022 Water Distribution Condition Assessment project. Required rework has begun for the Front Street Pump Station inventory pilot.
Development Review Summary	For details, see attached Development Stormwater Management Review Summary spreadsheet for August.

rofessional & Contractor Services	Recommend Board approval of the following Task Orders, Change Orders, Agreements and Procurement:
	Drinking Water:
	Task Order 2022-17-01: Engineering Services for AM Roadmap FY22 Phase 1 Activities
	Procurement of large Sensus meters
	Procurement of Rotork IQ-19 Remote Hand Stations
	Procurement of Zinc Ortho
	Wastewater:
	Resolution No. 2022-043 - Approves execution of the Partial Consent Decree
	Professional Services Agreement for Gauge Adjusted Radar Rainfall (GARR)
	Task Order 2022-01-02: Engineering Services for IDIQ Construction Management
	Change Order No. 4 - 2021 Sewer System Improvements Project
	Procurement of Gorman-Rupp Horizontal Centrifugal Sewage Pump
	Procurement of Roof Replacement for the Spring Creek Pump Station
	Procurement of Hoffman & Lamson Blower Assemblies
	Stormwater:
	Resolution No. 2022-016 Joint Pollutant Reduction Plan - Intergovernmental Cooperation Agreement - Task Order 2022-01 - Contribution to PennDOT
	Phase 4 PENNVEST SW Pro-Fi Project - Recommendation to reject bids
	I hase 41 Enniversal Swift-11 Hoject - Recommendation to reject situs
ormwater O&M Agreements	Recommend Board approval of the following:
	Resolution No. 2022–017 Operations & Maintenance Agreement for Stormwater Facilities
	Resolution No. 2022–042 Operations & Maintenance Agreement for Stormwater Facilities
/TF Primary Digesters Rehabilitation	Testing of Digester No. 1 began the week of 7/11/2022.
WTF Energy Recovery Improvements	Permit applications are being reviewed by Swatara Township and PADEP.



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Front Street Pumping Station	The contractors are addressing punch list items and site cleanup.
Improvements	
WSC Flocculator Equipment Replacement	Delivery of flocculator equipment is expected in October 2022.

Undertake Renewal and Replacement Projects	
2020 Sewer System Improvements	Punch list items and final paving has been complete. Contract closeout is anticipated in September.
2021 Sewer System Improvements	The contract was terminated on 5/25/2022. Refer to the agenda for the final change order.
2021 Water System Improvements	The contractor has scheduled the remaining work at the Sixth and Wallace Street location and is performing final paving.
2022 Water System Improvements	The preconstruction meeting was held on 7/26/2022. The contractor is providing submittals for review.
Cameron Street Water Main - Phase 3	Work is complete. The remaining punch list item is delivery of hydrants which will ship in October.
Arsenal Boulevard Sewer Improvements	Temporary and construction easements must be acquired before advertising the project.
Front Street Interceptor Rehabilitation -	The preconstruction meeting was held on 8/11/2022. The contractor will submit a construction schedule by the end of August.
Phase 2	
Water Facility Maintenance	Drinking Water Maintenance staff performed repairs to various process units as described in the Drinking Water Department Monthly Report.
Wastewater Facility Maintenance	The Wastewater Maintenance group completed various repairs throughout the AWTF, pumping stations, and at the North Front Street office building throughout the month
	of July. A narrative is provided in the Wastewater Department Monthly Report.
Sinkhole Program	Eleven (11) sinkholes were investigated by CRW in the month of July. Four were due to failure of Wastewater assets and one due to Water assets.
Inlet Cleaning	A total of 203 stormwater inlets were cleaned during the month of July and 188 stormwater inlet inspections were performed.

Operate as an Efficient, Sustainable and Resilient Water Utility	
DeHart Property Stewardship	Timber harvest to improve regeneration is complete in Management Unit (MU) 22/31. In accordance with the DeHart Property Forest Management Plan, a regeneration harvest has commenced in MUs 20, 34, 36, and 37 (approximately 155 acres). Harvest will improve forest health and release regeneration of a more desirable understory.
Sustainability	Preliminary site visit hosted on 7/28/2022 to review solar project potential at the Dr. Robert E. Young Water Services Center.
Internal Communications	The Intranet site and calendar continue to be utilized.

Inform and Listen to Customers and End	courage Stewardship of our Systems
Media Relations - Press and Social Media	PRESS RELEASES: N/A.
	SOCIAL MEDIA TOPICS: Facebook: 5 New Organic Followers (1,583 Total). 3 Posts; Highest Engaged Post: (7/15/2022). "We're Hiring." (974 Reach, 14 Reactions, 4 Comments, 13 Shares, 8 Link Clicks); Other topics: 4th of July office closed, July BOD meeting cancelled.
	Twitter: 0 Tweets; Highest Engaged Tweet: n/a Month overview: 825 Profile Visits; 2 New Followers; 1 Mentions.
	Instagram: 3 New followers (661 Total), 11 Posts; Highest Engaged Post: Highest Engaged Post: (7/26/2022) "BOD meeting cancelled" 79 Organic Reach, 3 likes, 1 comment.
	2022 Demographics: Most Active Age-range: 25-54; Gender division: 62% Women / 37% Men; Locations: Harrisburg, Penbrook, Mechanicsburg, Steelton, Linglestown, Camp Hill and Lancaster.



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Community Relations	Community Ambassador Meeting held 7/20/2022: Jarvis Brown presented the Business Diversity Program 5-year Report on M/W/DBE contracts awarded by CRW, and Jess Rosentel's Biobot update. Updates: Community events/outreach, facility tours, CSO signage, and the Consent Decree update. Discussed current open positions of employment at CRW.
	Community Outreach:
	• Delivered 47 door-to-door notifications regarding water service interruptions, sewer line repairs, sewer maintenance, and boil water advisory and lifts.
	• Two (8) Everbridge alerts for past due balances and water service interruptions.
	Daily combined sewer overflow (CSO) inspections and Everbridge customer updates.
	• Three (3) community meetings/presentations.
	• CSO signage installation, (1) DeHart tour, Party line backup outreach, cooler donations and eleven (11) in-person customer complaint follow-ups.
Public Communications	WHAT'S ON TAP COMMUNICATION: The July monthly bill stuffer was distributed as a bill insert. Topics included: Availability of the 2022 Water Quality Report, "We're Hiring" and 2022 Lead and Copper Sampling.
Diversity	The Business Diversity Manager engaged in capacity building for the purpose of developing relationships and engaging M/W/DBE's for future construction opportunities.

Administrative	
Risk Management	No update.
Human Resources	• Recruiting: Refer to Recruiting Status Report attached.
	• Resolution No. 2022-041 Employee Referral Policy.
Procurement	No update.
Information Technologies (IT)	



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Office Management and	Incoming Correspondence Report: Refer to attached Incoming Correspondence Report for July 2022.
Admin Professional Services and	
Construction	Recommend Board approval of the following:
	Resolution Nos. 2022-018 through 2022-040 for authorizing the Destruction of Records.
	Street/Sidewalk-Cut Permits: One (1) Drinking Water and three (3) Sewer permits were issued.
	Fleet Management (Acquisitions):
	• G-78 - CRW accepted delivery - 2022 Ford F-250 4X4 Super Duty Regular Cab from Fred Beans Ford and U.S. Municipal on 7/21/2022.
	Fleet Management (Dispositions):
	Completed:
	• G-01 (1998 Ford Taurus Station Wagon) Bid on Municibid. Bids closed 8/5/2022 @ 12:08 PM.
	G of (1550 ford fading Station Wagon) bid on Manicipia. Bids closed of 5/2022 @ 12.00 f M.
	• G-13 (1993 Ford Flusher Truck w/Jet Attachments) Bid on Municibid. Bids closed 8/08/2022 @ 11:45 AM.
	• G-16 (1996 GMC Ten-Ton Dump Truck) Bid on Municibid. Bids closed 8/08/2022 @ 5:30 PM.
	• G-52 (1994 Chevrolet One-Ton Dump Truck) Bid on Municibid. Bids closed 7/30/2022.
	• Street Cut Saw - Equipment bid on Municibid. Bid closed 8/8/2022 @ 5:30 PM.
	Pending:
	• G-14 - 8 1/2' Meyer's Power Angle Snow Plow Attachment (G-14 was previously salvaged 10/13/2017 when vehicle was traded-in. Trade-in vendor did not want.) - Bids close
	8/23/2022 @ 1:24 PM.
	• G-19 - 8 1/2' Meyer's Power Angle Plow Attachment (G-19 previously salvaged 10/13/2017 when vehicle was traded-in. Trade-in vendor did not want.) - Bids close 8/23/2022
	@ 1:24 PM.
	• G-64 (2009 International Vactor) To be sold via Municibid. Bids close 9/8/2022 @ 3:00 PM.
	• Hydraulic Pump @ Front Street Pump Station - To be sold via Municibid.
	Trydradiic Famp & Front Sacces amp Station - To be Sold via Manielibid.
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2022 Recertification of CRW's Real Estate Tax Exemption Status with the Dauphin County Office of Tax Assessment:

On 6/17/2022 CRW filed multiple Applications with the Dauphin County Office of Tax Assessments for 32 properties identified on Dauphin County's new tax portal for 2022 recertification of CRW's tax exemption status. All properties were subject to exemption status being impacted if applications with proper documentation were not filed electronically on Dauphin County's new tax portal. Tax Exemption Recertification Applications were due on 7/4/2022. CRW received notification from the Dauphin County Exemption Review Team via email on 8/9/2022 that all CRW's Applications were approved by the Dauphin County Board of Assessment Appeals for the following properties:



Right-to-Know Requests

CRW has received and responded to three Right-to-Know requests during the period 7/21/2022 through 8/17/2022. Other informational requests were identified as not being formal RTK requests throughout the month and/or were transferred to the Customer Service Center for appropriate response.

Site Address: N HERR STREET (1 tax parcel - Drinking Water Facility).

OOR Training:

The Open-Records Officer participated in the following webinars conducted by the Office of Open Records (OOR) during the past month:

· 8/03/2022 - Basics of the Sunshine Act (recent amendment to Senate Bill 554 regarding local municipalities to post agendas no later than 24 hours before the start of a public meeting).

•New E-File Appeal Portal to be used by OOR: Effective 8/1/2022 the OOR advised that all appeals involving Commonwealth agencies under the Governor's jurisdiction. with a few exceptions, will be processed through the E-file Appeal Portal. Phase 1: This is the first of three phases as the OOR moves ALL appeals to this new system. The OOR E-File Appeal Portal User Guide can be found on the OOR's website. Phase 2: Currently scheduled to begin in October 2022, local agencies will be chosen at random though a yet to be established interval, i.e. every third appeal received. In this phase, the OOR will not seek permission from the parties prior to assigning the appeal to the E-File Appeal Portal. Advanced notice of Phase 2's start date will be widely publicized and is likely to come in mid-September. Phase 3: The final phase will consist of a firm date when all appeals will be assigned and processed through the E-File Appeal Portal, subject to limited exceptions such as, individuals without email access. The beginning date is anticipated to be the spring of 2023. A firm date for Phase 3 will be provided in early 2023.

2022-010 - Bret P. Shaffer, Esq. (Schiffman Sheridan & Brown, P.C.) Any bill/statement prepared/sent for services of CRW for/to any properties on the following segments of North 3rd Street, Harrisburg: between and including 1600 through 1646 North 3rd Street on the riverside (west) of North 3rd Street, and between and including 1601 through 1639 North 3rd on the opposite side (east) of North 3rd Street. Response due: 7/05/2022. Response provided: 6/29/2022 for 30-day extension until 8/4/2022. Final Response provided: 7/29/2022.

2022-011 - Brianna Dinmore (Conrad O'Brien PC)

Response due: 7/25/2022. Response provided: 7/22/2022 for 30-

day extension until 8/24/2022. Final Response pending.

2022-012 - David Cox (Firmographs LLC) Any long term planning list of bids, if such a list is maintained. Response due: 8/5/2022. Response provided: 8/03/2022.



DRINKING WATER DEPARTMENT MONTHLY REPORT



Finished and raw water pumps at WSC.

July 2022

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



Drinking Water Department Monthly Report

July 2022

Plant Operations

The Capital Region Water (CRW) Drinking Water department met all Federal Safe Drinking Water Act water quality standards for the month of July. Specific water quality results are summarized in Exhibit A. A total of 251.09 MG, averaging 8.09 MGD was withdrawn from the water supply source for treatment. As shown in Exhibit B, a total of 248.66 MG, averaging 8.02 MGD, of finished drinking water was pumped to the distribution system.

The DeHart water source was in service 31 days. The Susquehanna River water source was not in service. The DeHart Watershed had below average rainfall in July (Exhibit C) and the DeHart reservoir water level decreased (Exhibit D). An estimated 277.37 MG of water was released from DeHart reservoir to Clark Creek, averaging 8.95 MGD for the month. This downstream flow, which is received by remote flow monitoring from the weir location and actual staff gauge readings, was in compliance with the flow required by the State Water Allocation Permit (Exhibit E).

The installation of four new alum pumps has begun, there will also be four new variable frequency drives for flow control of the pumps, new piping and valving, and programming of the processor to integrate the new system into the SCADA. Once the system has been tested, we will receive the new operations permit for the alum system and place the system online.

Plant Maintenance

The Maintenance team performed approximately 44 preventative maintenance work orders and one corrective maintenance work order for the month of July using the Cityworks maintenance management system for all water treatment plant equipment, pumping stations and fleet vehicles and NFS offices.

- The DeHart Dam watershed was patrolled daily and maintained.
- The Maintenance team repaired 406 backwash valve actuators in the Filter building.
- The Maintenance team repaired all the pump suction/discharge fittings on the Fluoride Chemical System.
- The Maintenance team repaired the intake tower gates at the DeHart Dam facility.
- The Maintenance team continues to support the requests and work orders for the NFS offices.
- The Maintenance team continues to cut grass and perform other landscaping duties at the Water Services Center, Pump Houses, DeHart Dam Facility and NFS offices.
- The Maintenance team repaired the heaters at the Reservoir Park Pumping Station.
- The Maintenance team continues to maintain the distribution and maintenance fleet vehicles and equipment.



Drinking Water Department Monthly Report

July 2022

Distribution

The Distribution group, while keeping up with the COVID-19 pandemic safety requirements, managed to:

- Repair six leaking services during the month totaling 412,704 gallons of unmetered water for the month of July.
- Repair six fire hydrants.
- Complete all hydrant flushing.
- Complete 463 work orders.
- Complete 490 water, sewer, and storm water locates.
- Start hydrant painting for 2022 with 143 hydrants painted in July.
- Start valve exercising with 24 valves being exercised in July.
- Continue leak detection daily.
- Work 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 regulatory samples for total coliform, E.coli, quarterly, and annual requirements.
- Continued collection of tri-annual lead and copper samples.



Drinking Water Exhibits



EXHIBIT A Water Quality Anaylsis - 2022

PARAMETERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	Average	MCL Limits
Total Coliform: Presence/Absence														
Distribution System	A	Α	Α	Α	Α	Α	Α							5% P
Chlorine Residual, mg/L Free														
Filter Plant Effluent	1.94	2.03	1.98	1.97	1.94	1.90	1.88						1.95	0.2 - 4.0
Distribution System	1.27	1.35	1.32	1.30	1.18	1.17	1.09						1.24	<0.02
Turbidity, NTU														
Influent from DeHart	0.57	0.55	0.61	0.72	0.67	0.69	0.70						0.64	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA						NA	NA
Filter Plant Effluent	0.04	0.03	0.04	0.03	0.03	0.04	0.03						0.03	0.30
pH, Std Units		0.00					0.00							5.00
Influent from DeHart	6.4	6.3	6.3	6.3	6.0	5.8	5.6						6.11	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA						NA	NA
Filter Plant Effluent	7.4	7.5	7.5	7.6	7.6	7.6	7.4						7.50	6.5 - 8.5*
Distribution System	7.6	7.7	7.6	7.6	7.7	7.4	7.5						7.59	6.5 - 8.5*
Total Alkalinity, mg/L as CaCO3	7.0	7.17	7.0	7.0	7.17	7	7.0						7.105	0.5 0.5
Influent DeHart	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	13	18	16	15	17	19	21						17.17	<15*
Distribution System	15	17	15	16	16	20	22						17.26	<15*
Temperature, degrees C	15	17	15	10	10	20							17.20	113
Influent from DeHart	6.6	6.0	7.4	9.5	12.2	14.8	16.6						10.44	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA						NA	NA NA
Filter Plant Effluent	7.0	6.9	8.1	10.6	12.6	14.1	15.2						8.15	NA NA
Distribution System	15.3	12.9	13.3	14.6	17.6	21.9	22.7						14.03	NA
Fluoride, mg/L	13.3	12.9	13.3	14.0	17.0	21.9	22.1						14.05	INA
Filter Plant Effluent	0.57	0.58	0.57	0.52	0.64	0.55	0.59						0.56	2
Aluminum, mg/L	0.57	0.56	0.57	0.52	0.04	0.55	0.59						0.56	2
Filter Plant Effluent	0.10	0.22	0.23	0.03	0.03	0.03	0.02						0.15	0.2*
Iron, mg/L	0.10	0.22	0.23	0.03	0.03	0.03	0.02						0.15	0.2"
Influent from DeHart	0.62	0.13	0.10	0.07	0.08	0.11	0.18						0.23	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA						NA	NA NA
Filter Plant Effluent	0.01	0.02	0.01	0.01	0.02	0.01	0.03						0.02	0.3*
Distribution System	0.13	0.02	0.03	0.00	0.02	0.01	0.03						0.02	0.3*
Total Dissolved Solids, mg/L	0.13	0.01	0.03	0.00	0.01	0.02	0.01						0.03	0.5"
Influent from DeHart	13	13	14	15	16	16	16						14.95	NA
	NA	NA	NA	NA	NA	NA	NA						14.95 NA	NA NA
Influent from Susquehanna	NA 37	38	41	NA 44	NA 46	47	NA 49						42.97	500*
Filter Plant Effluent														
Distribution System	39	40	38	45	46	49	51						44.13	500*
Total Hardness, mg/L														
Influent from DeHart														NA
	8	8	8	8	8	8	8						8.00	
Influent from Susquehanna	NA	NA	NA	NA	NA	NA	NA						NA	NA
Filter Plant Effluent	NA 8	NA 8	NA 8	NA 8	NA 8	NA 8	NA 8						NA 8.02	NA NA
Filter Plant Effluent Distribution System	NA	NA	NA	NA	NA	NA	NA						NA	NA
Filter Plant Effluent Distribution System Orthophosphate, mg/L	NA 8 8	NA 8 7	NA 8 7	NA 8 6	NA 8 5	NA 8 7	NA 8 6						NA 8.02 6.57	NA NA NA
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent	NA 8 8	NA 8 7	NA 8 7	NA 8 6	NA 8 5	NA 8 7	NA 8 6						NA 8.02 6.57	NA NA NA
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System	NA 8 8	NA 8 7	NA 8 7	NA 8 6	NA 8 5	NA 8 7	NA 8 6						NA 8.02 6.57	NA NA NA
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L	NA 8 8 1.20 1.23	NA 8 7 1.15 1.14	NA 8 7 1.40 NA	NA 8 6 1.16 1.18	NA 8 5 1.36 1.31	NA 8 7 1.32 1.33	NA 8 6 1.37 1.30						NA 8.02 6.57 1.28 1.25	NA NA NA 0.7 - 1.3* 0.7 - 1.3*
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System	NA 8 8	NA 8 7	NA 8 7	NA 8 6	NA 8 5	NA 8 7	NA 8 6						NA 8.02 6.57	NA NA NA
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System **Total Haloacetic Acids, ug/L	NA 8 8 1.20 1.23	NA 8 7 1.15 1.14	NA 8 7 1.40 NA	NA 8 6 1.16 1.18 41.0	NA 8 5 1.36 1.31 NA	NA 8 7 1.32 1.33	NA 8 6 1.37 1.30						NA 8.02 6.57 1.28 1.25	NA NA NA 0.7 - 1.3* 0.7 - 1.3*
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System **Total Haloacetic Acids, ug/L Distribution System	NA 8 8 1.20 1.23	NA 8 7 1.15 1.14	NA 8 7 1.40 NA	NA 8 6 1.16 1.18	NA 8 5 1.36 1.31	NA 8 7 1.32 1.33	NA 8 6 1.37 1.30						NA 8.02 6.57 1.28 1.25	NA NA NA 0.7 - 1.3*
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L	NA 8 8 1.20 1.23 35.0	NA 8 7 1.15 1.14 NA	NA 8 7 1.40 NA NA NA	NA 8 6 1.16 1.18 41.0	NA 8 5 1.36 1.31 NA	NA 8 7 1.32 1.33 NA	NA 8 6 1.37 1.30 52.0						NA 8.02 6.57 1.28 1.25 42.7	NA NA NA 0.7 - 1.3* 0.7 - 1.3* 80.0
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L Influent from DeHart	NA 8 8 1.20 1.23 35.0 33.0	NA 8 7 1.15 1.14 NA NA NA	NA 8 7 1.40 NA NA NA NA	NA 8 6 1.16 1.18 41.0 37.0	NA 8 5 1.36 1.31 NA NA NA	NA 8 7 1.32 1.33 NA NA NA	NA 8 6 1.37 1.30 52.0 41.5						NA 8.02 6.57 1.28 1.25 42.7 37.2	NA NA NA 0.7 - 1.3* 0.7 - 1.3* 80.0
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L Influent from DeHart Influent from Susquehanna	NA 8 8 1.20 1.23 35.0 33.0 3.00 NA	NA 8 7 1.15 1.14 NA NA NA NA	NA 8 7 7 1.40 NA NA NA NA NA	NA 8 6 1.16 1.18 41.0 37.0 2.40 NA	NA 8 5 1.36 1.31 NA NA NA NA	NA 8 7 7 1.32 1.33 NA NA NA NA	NA 8 6 1.37 1.30 52.0 41.5						NA 8.02 6.57 1.28 1.25 42.7 37.2	NA NA NA 0.7 - 1.3* 0.7 - 1.3* 80.0
Filter Plant Effluent Distribution System Orthophosphate, mg/L Filter Plant Effluent Distribution System **Total Trihalomethanes, ug/L Distribution System **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L Influent from DeHart	NA 8 8 1.20 1.23 35.0 33.0	NA 8 7 1.15 1.14 NA NA NA	NA 8 7 1.40 NA NA NA NA	NA 8 6 1.16 1.18 41.0 37.0	NA 8 5 1.36 1.31 NA NA NA	NA 8 7 1.32 1.33 NA NA NA	NA 8 6 1.37 1.30 52.0 41.5						NA 8.02 6.57 1.28 1.25 42.7 37.2	NA NA NA 0.7 - 1.3* 0.7 - 1.3* 80.0

^{*} Values are related to DEP Secondary MCL
** Running Annual Quarterly Average



EXHIBIT B

Water Production Data - 2022

	DeHart Wi	thdrawal	River Wit	hdrawal	Total Wit	hdrawal	Treated	Water	Process	Water	Finished	l Water
Month	Total (MG)	Average (MGD)										
January	230.675	7.441	0.000	0.000	230.675	7.441	235.985	7.612	4.634	0.149	228.344	7.366
February	230.134	8.219	0.000	0.000	230.134	8.219	233.393	8.335	5.266	0.188	224.570	8.020
March	225.723	7.282	0.000	0.000	225.723	7.282	233.913	7.546	6.770	0.218	223.545	7.211
April	212.629	7.088	0.000	0.000	212.629	7.088	218.666	2.289	6.006	0.201	209.256	6.975
May	231.932	7.482	0.000	0.000	231.932	7.482	239.807	7.735	6.563	0.212	230.430	7.433
June	237.403	7.913	0.000	0.000	237.403	7.913	242.242	8.075	6.000	0.200	233.202	7.773
July	251.091	8.099	0.000	0.000	251.091	8.099	250.036	8.323	6.183	0.200	248.668	8.022
August												
September												
October												
November												
December												
Total	1619.587		0.000		1619.587		1654.042		41.422		1598.015	
Average	231.370	7.646	0.000	0.000	231.370	7.646	236.292	7.131	5.917	0.195	228.288	7.543

Peak Day Water Use 5/31/2020 6.966 (MG) = Million Gallons
Minimum Day Water Use 5/1/2020 6.081 (MGD) = Million Gallons per Day



EXHIBIT C

Rainfall at the DeHart Reservoir - 2022

(inches)

Date	January	February	March	April	May	June	July	August	September	October	November	December	Annual Total
2022 Total	2.74	3.14	1.67	5.03	6.55	5.84	2.16	0.00	0.00	0.00	0.00	0.00	27.13
Daily Average	0.080	0.113	0.150	0.168	0.211	0.195	0.070	0.000	0.000	0.000	0.000	0.000	0.987
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
2021 Total	2.74	5.88	7.55	12.58	19.13	24.97	27.13	0.00	0.00	0.00	0.00	0.00	99.98

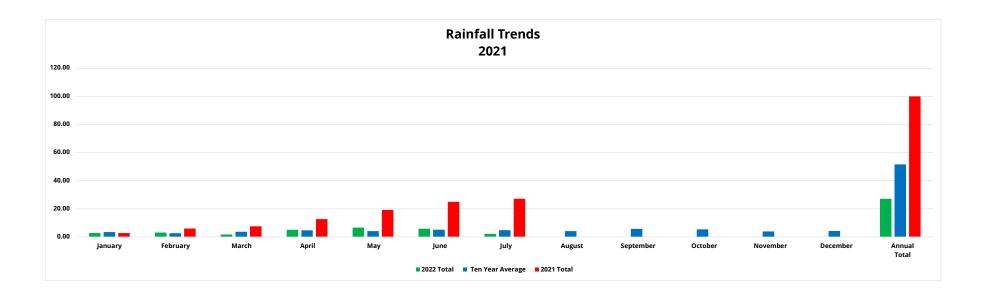




EXHIBIT D

Water Level at the DeHart Reservoir - 2022

(Inches from Spillway)

Date	January	February	March	April	May	June	July	August	September	October	November	December
2022 AVG	1.9	3.1	3.2	4.6	4.1	7.2	12.1					
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	1.9	5.0	6.3	7.8	11.9	15.9	28.0					

DeHart Reservoir Water Level Trends 2021

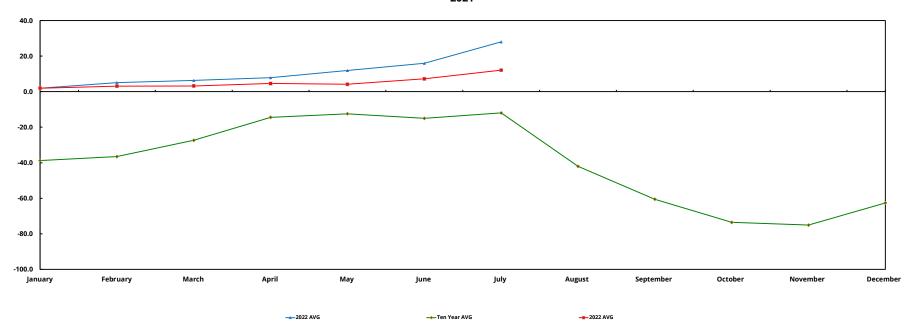
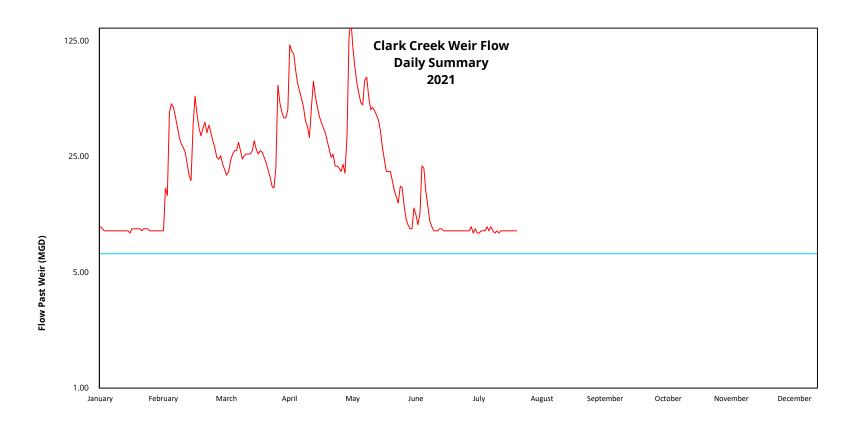




EXHIBIT E

Daily Conservation Release - 2022



——Series1

— Minimum Allowable Flow



EXHIBIT F

Utility Usage - 2022

Location / Utility	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
later Services Center lectric Transmission														
Total, kwH	196.200	136.800	145,800	181.800									165.150	660,600
Cost, Dollars	\$12,915.36	\$8,967.54	\$8,888.73	\$11,610.27									\$10,595.48	\$42,381.90
Electric Generation	\$12,913.30	\$0,507.54	\$0,000.73	\$11,010.27									\$10,333.40	\$42,361.50
Total, kwH	196,200	136,800	145,800	181,800									165,150	660,600
Cost, Dollars	\$1,323.23	\$1,339.10	\$1,303.79	\$1,352.63									\$1,329.69	\$5,318.75
Natural Gas	\$1,323.23	\$1,333.10	\$1,303.79	\$1,332.03									\$1,329.09	45,516.75
Total. Cu Ft	14.898	11.450											13.174	26.348
Cost, Dollars	\$12,296.76	\$9,486.52											\$10,891.64	\$21,783.28
iewer	1.0,250.11	10,											,	12.7.00.00
Total, Gal	7,710,000	6,560,000											7,135,000	14,270,000
Cost, Dollars	\$65,997.60	\$56,152.60											\$61,075.10	\$122,150.20
Refuse		,											,.	, , , , , , , , , , , , ,
Cost, Dollars	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$509.60	\$6,115.20
eservoir Park Pump Station														
lectric Transmission														
Total, kwH	84,800	84,800	81,600	82,400									83,400	333,600
Cost, Dollars	\$3,943.58	\$3,917.06	\$3,362.56	\$3,547.63									\$3,692.71	\$14,770.83
Electric Generation	-													
Total, kwH	84,800	84,800	81,600										83,733	251,200
Cost, Dollars	\$1,074.71	\$1,134.00	\$1,168.51										\$1,125.74	\$3,377.22
Natural Gas														
Total, Cu Ft	823	523											673	1,346
Cost, Dollars	\$696.50	\$451.99											\$574.25	\$1,148.49
Susquehanna River Pump Station														
Electric Transmission														
Total, kwH	1,800	1,200	1,800		600								1,350	5,400
Cost, Dollars	\$77.70	\$14.63	\$84.89		\$7.58								\$46.20	\$184.80
Electric Generation														
Total, kwH	1,800	1,200	1,800	600	600								1,200	6,000
Cost, Dollars	\$75.67	\$74.18	\$71.63	\$69.05	\$68.85								\$71.88	\$359.38
Natural Gas														
Total, Cu Ft	724	641											683	1,365
Cost, Dollars	\$615.82	\$548.16											\$581.99	\$1,163.98
Union Square Booster Station														
Electric Transmission														
Total, kwH	2876	3,875	2,888	2,309									2,987	9,072
Cost,Dollars	152.42	\$312.67	\$150.83	\$127.58									\$185.88	\$591.08
Electric Generation														
Total, kwH	2876	3,875	2,888	2,309									2,987	9,072
Cost, Dollars	125.54	\$127.11	\$162.09	\$120.18									\$133.73	\$409.38
DeHart Facilities														
Electric Transmission														
Total, kwH	2,965	2,845	2,728	2,470	2,209								2,643	13,217
Cost, Dollars	\$224.15		\$203.55	\$199.31	\$190.46								\$204.37	\$817.47
Electric Generation			1					1						
Total, kwH	2,965	2,845	2,728	2,499	2,209								2,649	13,246
Cost, Dollars	\$101.22	\$96.85	\$97.06	\$90.42	\$151.19			1					\$107.35	\$536.74
Fuel Oil			1											
Total, Gals.			1,438					1					1,438	1,438
Cost, Dollars	1		\$8,077.31										\$8,077.31	\$8,077.31
City Island Heat Trace														
Electric Transmission														
Total, kwH	390	378	356		258								346	1,382
Cost, Dollars	\$23.33	\$20.65	\$19.97		\$11.81								\$18.94	\$75.76
Electric Generation														
Total, kwH	390	378	356										375	1,124
Cost, Dollars	\$65.29	\$65.27	\$64.99										\$65.18	\$195.55
Expenditures YTD													\$99,287	\$229,457

^{**} Not available at time report was developed

Total Transmission	\$58,822
Total Generation	\$10,197
Total Refuse	\$6,115
Total Gas	\$24,096
Total Sewer	\$122,150
Total Fuel Oil	\$8,077
Total Utilities	\$223,342



Exhibit G

Hydro-Turbine Generator Performance - 2022

Month	Kilowatt-hour (KWH)	Anticipated Savings *
January	48,590	\$2,818
February	42,322	\$2,455
March (Out for Service)	0	\$0
April (Out of Service)	0	\$0
May (Partial Out of Service)	24,528	\$1,423
June	0	\$0
July (out of srv/waiting on parts	0	\$0
August	0	\$0
September	0	\$0
October	0	\$0
November	0	\$0
December	0	\$0
Average	45,456	\$2,636
Year to Date	115,440	\$6,696

^{*} Estimated savings based on electrical rate of \$0.058 per KWH

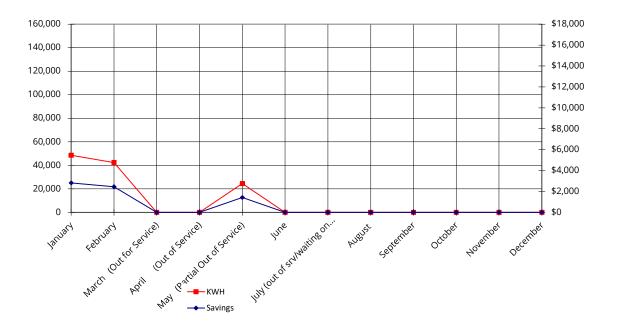




EXHIBIT H

Treatment Chemical Usage - 2022

Chemical	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
hlorine														
Total Lbs.	6,180	6,133	6,135	5,736	6,296	6,356	6,770						6,229	43,6
Average, Chlorine Lbs./Day	199	219	198	191	203	212	218						205.8	
Average, Chlorine Dose, mg/L	3.2	3.2	3.2	3.2	3.2	3.2	3.2						3.2	
Chlorine, Cost, \$/Lbs. Chlorine Total Cost, Dollars	\$0.305 \$1,885	\$0.305 \$1,871	\$0.305 \$1,871	\$0.305 \$1,749	\$0.305 \$1,919	\$0.305 \$1,939	\$0.305 \$2,065						0.3 \$1,899.84	\$13,298.9
Chlorine rotal Cost, Dollars	\$1,000	\$1,071	\$1,071	\$1,749	\$1,919	\$1,939	\$2,005						\$1,099.04	\$15,296.5
lum 48.5%														
Total Lbs.	48,096	46,683	42,713	38,071	38,686	37,906	34,430						40,941	286,58
Average, Alum, Lbs./Day	1,551	1,667	1,378	1,269	1,248	1,264	1,111						1355.5	
Average, Alum, mg/L	25.0	25.0	18.3	18.8	20.0	16.5	16.5						20.0	
Alum Cost, \$/Lbs.	\$0.164	\$0.164	\$0.164	\$0.164	\$0.164	\$0.164	\$0.164						0.2	
Alum Total Cost, Dollars	\$7,888	\$7,656	\$7,005	\$6,244	\$6,345	\$6,217	\$5,647						\$6,714.53	\$47,001.7
ime														
Total Lbs.	0	0	0	0	0	0	0						0	
Average Lime, Lbs./Day	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	
Lime Cost, \$/Lbs.	\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00						\$0.00	
Lime Total Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00						\$0.00	\$0.0
oda Ash	0	0	0	0										
Total Lbs.	24,800	25,750	25,400	26,250	31,650	32,700	35,450						28,857	202,00
Average Soda Ash, Lbs./Day	800	920	819	875	1,021	1,090	1,144						952.7	
Average, Soda Ash Dose, mg/L	16.7	16.7	16.2	16.9	17.7	17.9	21.0						17.6	
Soda Ash Cost, \$/Lbs.	\$0.299	\$0.299	\$0.299	\$0.299	\$0.299	\$0.299	\$0.299						0.3	
Soda Ash Total Cost, Dollars	\$7,415	\$7,699	\$7,595	\$7,849	\$9,463	\$9,777	\$10,600						\$8,628.31	\$60,398.2
iluoride														
Total Lbs.	1,155	1,193	1,168	1,111	1,202	1,215	1,445						1,213	8,48
Average, Fluoride Lbs./Day	37	43	38	37	39	41	47						40.3	
Average, Fluoride (F-) Dose, mg/L	0.6	0.6	0.6	0.6	0.6	0.6	0.7						0.6	
Fluoride Cost, \$/Lbs.	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48						\$0.48	
Fluoride Total Cost, Dollars	\$554	\$573	\$561	\$533	\$577	\$583	\$694						\$582.20	\$4,075.4
odium Hydroxide 50%														
Total NaOH 50% dry Lbs.	41,600	36,660	38,202	36,068	41,385	42,323	42,135						39,768	278,37
Average NaOH 50%, dry Lbs./Day	1,342	1,309	1,232	1,202	1,335	1,411	1,359						1,313	
Average, NaOH 50%, mg/L	10.7	10.7	9.8	9.9	10.4	9.0	9.8						10.0	
NaOH 50% Cost, dry \$/Lbs	\$0.174	\$0.174	\$0.174	\$0.174	\$0.174	\$0.174	\$0.174						0.2	
NaOH 50% Total Cost, Dollars	\$7,238	\$6,379	\$6,647	\$6,276	\$720	\$7,364	\$7,332						\$5,993.77	\$41,956.4
in a Outhorn boards														
inc Orthophosphate Total Zn3(PO4)2, wet Lbs.	5,142	5,057	5,034	4,712	5,189	5,251	5,600						5,141	35,98
Average Zn3(PO4)2, wet Lbs./Day	166	181	162	157	167	175	181						169.8	33,36
Average, Zn3(PO4)2 Dose, mg/L	2.7	2.7	2.7	2.7	2.7	2.7	2.7						2.7	
Zn3(PO4)2 Cost, wet \$/Lbs.	\$0.374	\$0.374	\$0.374	\$0.374	\$0.374	\$0.374	\$0.374						0.4	
Zn3(PO4)2 Total Cost, Dollars	\$1,923	\$1,891	\$1,883	\$1,762	\$1,941	\$1,964	\$2,094						\$1,922.59	\$13,458.1
Potassium Permanganate Total KMnO4, Lbs.														
Average KMnO4, Lbs./Day														
Average, KMnO4 Dose, mg/L														
KMnO4 Cost, \$/Lbs.														
KMnO4 Total Cost, Dollars														\$0.0
Expenditure														\$180,188.7
Average Treated Cost per (MG)														
otal Treated Flow (MGD)														0.0
Average Treated Flow (MGD)														236.2

2022-02-00 WSC Monthly Report Exhibit H



EXHIBIT I

DISTRIBUTION DEPARTMENT ACTIVITIES - 2022

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
PA One Call Locates	423	501	523	564	481	513	490	0	0	0	0	0	3,495	499
Street Restorations	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leak Detection Assessment Percent of Distribution System	8	8	8	8	8	8	8	0	0	0	0	0	56	8
Main Break Repair - Detected Non-Surfacing	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Main Breaks Repaired - Emergency	2	6	3	1	3	1	0	0	0	0	0	0	16	2
Service Line Leaks Detected	2	10	0	0	0	3	1	0	0	0	0	0	16	2
Service Line Leaks Repaired	1	11	0	0	2	2	1	0	0	0	0	0	17	2
Valves - Exercised	0	0	0	2	0	0	24	0	0	0	0	0	26	4
Valves - Replaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrant Flow Tests	0	2	3	2	5	2	3	0	0	0	0	0	17	2
Hydrants Returned to Service	0	0	1	0	1	0	0	0	0	0	0	0	2	0
Water Tap - Disconnected	1	0	2	3	4	11	29	0	0	0	0	0	50	7
Water Tap - New Connection	1	1	1	1	0	1	0	0	0	0	0	0	5	1
Water Shutoffs - Delinquent Accounts	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Shutoffs - Other	26	23	14	47	31	60	14	0	0	0	0	0	215	31
Water Shutoffs - Non Payment	0	0	0	37	31	41	9	0	0	0	0	0	118	17
Water Restoration Turn on Other	22	24	22	36	52	39	18	0	0	0	0	0	213	30
Water Turn on - Non Payment	5	6	5	24	14	22	7	0	0	0	0	0	83	12



EXHIBIT J

Metering Activities - 2022

Board Monthly Report	Distribution Monthly Report														
Activity	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
Meter Installations															
	Missing	7	8	3	4	6	13	5						46	7
	Leaking	7	1	3	1	4	1	4						21	3
Replacement	Frozen	10	6	6	5	1	0	0						28	4
	Non-registering	1	3	5	5	2	4	3						23	3
	Large Meters ¹	0	0	0	1	1	0	0						2	0
New Service	New Installation	0	1	1	1	0	1	0						4	1
Meter Service															
MXU's Replaced	MXU's Replaced	20	22	41	18	31	24	61						217	31
Batteries Replaced	Batteries Replaced	67	25	123	65	48	34	31						393	56
Meter Pits Serviced	Meter Pits Serviced	1	0	0	1	1	1	1						5	1
Meter Calibrations															
Small Meters ²	Calibrated meters	2	0	1	2	11	9	0						25	4

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) - 2022

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						0	N/A						
Billed Metered Exported	Bulk Water Hauling	N/A						0	N/A						
Billed Metered	Hydrant Connections	0	0	0	8,176	359,716	81,274	0	0	0	0	0	0	449,166	64,167
Billed Unmetered	Hydrant Flow Tests	0	7,955	11,526	3,812	11,792	13,039	13,740	0	0	0	0	0	61,864	8,838
Unbilled Unmetered	Hydrant Flushing (and Unbilled Authorized)	221,167	32,288	120,010	3,485,233	5,695,883	6,663,397	2,258,900	0	0	0	0	0	18,476,878	2,639,554
Leakage on Distribution Mains	Main Leaks	4,349,565	1,286,902	2,856,325	71,360	896,734	88,843	0	0	0	0	0	0	9,549,729	1,364,247
Leakage on Service Lines	Service Leaks	998,776	708,950	595,243	573,408	111,040	466,560	412,704	0	0	0	0	0	3,866,681	552,383
	Total	5,569,508	2,036,095	3,583,104	4,141,989	7,075,165	7,313,113	2,685,344	0	0	0	0	0	32,404,318	4,629,188



Wastewater



WASTEWATER DEPARTMENT MONTHLY REPORT



Operator Brain Mountain retires after 41 years of service.

July 2022

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



July 2022

Overview

Once again, staffing additions were heavy focus on the Wastewater department in July. A new Pretreatment Coordinator and Lab Supervisor was getting acclimated to his new duties. A new Operations Laborer has been hired and will begin training in August. But the list of vacancies is still long with two Operators, two Lab Technicians, and one Electrician position left to fill. The labor market is currently very challenging for recruitment, but Human Resources has been continually searching for candidates and viable options to fill the openings.

The flow maximization software program at the Front Street Pumping Station has been placed into service. There was one rain event in June that activated the program. It responded as intended, but several adjust were made, and will continue to be made after each future event.

Primary Digester No. 1 was finally biologically seeded in July. This is a very delicate process that requires a great deal of focused attention by Operations staff, and their execution was a great success. While there are a few mechanical conditions that need to be corrected, the biological process is working at a high level. The rate of gas production has increased significantly by running two digesters simultaneously. This bodes well for the prospects of future gas utilization with the AWTF's Energy Recovery Improvements project on the horizon in 2023.

Lastly, CRW has made significant progress in finding a purchaser for the Nitrogen Credits generated from the "Food Slurry as Supplemental Carbon Source". We are hopeful agreements can be finalized in August. However, disappointment came with PADEP's release of its Phase III Watershed Implementation Plan. The plan adjusts the delivery ratio of Nutrients Credits created from the hundreds of NPDES point sources within the Chesapeake Watershed. The reduced delivery ratio for CRW's AWTF will result in an 18 percent reduction in Nitrogen Credits issued for trading purposes. As a result, our current projection of available credits for sale has dropped to approximately 80,000. However, Operations staff is hard at work in maximizing treatment to increase that number before the end of the 2022 Water Year on September 30th.

Operations

During the month of July, the AWTF met all monthly average NPDES permit requirements. One Dry Weather Overflow was reported.

Hydraulic loading to the AWTF averaged 17.7 million gallons per day (MGD). The treatment process achieved removal reductions of 97.9 percent CBOD, 98.2 percent Suspended Solids, 82.3 percent Phosphorus, and 94.9 percent Ammonia (Exhibit A).



July 2022

The Contract Waste Hauling program collected \$21,106.71 in revenue from 605,470 gallons discharged (Exhibit G). Revenue was lower due to almost no landfill leachate being offloaded in this increasingly dry climate.

The Cogeneration facility experienced an average run time of 33 percent in July. Revenue is estimated at \$4,315.46 on 36,900 Kilowatt-hours generated for the month. The decrease in runtime is primarily due to the mechanical failures of the 38-year-old Enginator unit.

Laboratory

- Interviewed candidates for the vacant Laboratory Technician position to keep the laboratory properly staffed.
- Properly renaming files and deleting old files in the laboratory folder.
- Cataloging old/expired chemicals for disposal by GemChem.
- Started wastewater surveillance testing through Verily for pathogen monitoring. In addition to providing COVID-19 surveillance analysis at no cost to CRW, this program also provides a stipend to compensate for each sampling event.

Pretreatment

- Receiving and checking Second Quarter data from Industrial Users to ensure they are operating withing their permit discharge parameters.
- Continuing high flow sampling for Hershey Creamery and Harrisburg Dairies.
- Continuing to digitize old forms and templates for better data tracking and management.
- Working on going through filing cabinets and removing old/outdated files.

Plant Maintenance

- Replaced 2-inch yard hydrant on the east side of the Final Clarifiers.
- Removed remote gate access devices for the north and south entrances into the facility.
- Excavated a yard hydrant for replacement on the west side of Primary Clarifier No. 4.
- Installed new UPS battery backups in the Main Building, Thickeners, and Pista Grit locations.
- Continued installation of Gorman Rupp Pump No. 3 at the Plant Drain Pump Station.
- Installed new pump control system and wet well level transducer at the Plant Drain Pump Station.
- Repaired 4-inch copper heating line to the heat exchangers at the Primary Digester.
- Continued equipment replacement at Primary Clarifier No. 3.
- Assembled new drives for Primary Clarifier No. 4.



July 2022

- Continued repairs to the sewage pump air relief valves and pump control systems at the Spring Creek Pump Station.
- Installed a rebuilt lift cylinder on the truck crane.
- Performed 15 vehicle repairs in preparation for state inspections.
- Serviced A/C units on several trucks.
- Responded to several work requests at the NFS offices.

Field Construction

WATER

- Repaired 30 inlets in various locations in the city.
- Blanked 39 inlets in various locations throughout the City of Harrisburg to combat floatables into the combined system. Some of the inlets included were inlets under the Market Street railroad bridge. These inlets feed into the Market Street Pump Station. Floatables from these inlets have caused pump failures in the past.
- Performed an exploratory dig at 15th and Zarker Streets to investigate the cause of a residents back up. It was determined that a party line was collapsed. East Coast Trenchless was contracted to install a new party line.
- Replaced inlet at Harris Terrace and Hale Avenue with a new precast box and M top inlet.

Field Operations

- Total CCTV footage of sewer pipe assessed this month was 10,762.37 feet (2.04 miles). Phase 6 CCTV footage was 4,125.2 feet (0.78 miles) while CRW Field Operations footage was 6,637.17 feet (1.26 miles).
- Total of pipe flushed this month was 9,342.3 feet (1.77 miles). Phase 6 flushing was 3,635.9 feet (0.69 miles) while CRW Field Operations flushed 5,706.4′ (1.08 miles).
- Responded to four backup and overflow calls from residents. CRW was liable for none.
- Responded to 11 sinkhole calls. Wastewater was liable for five and Drinking Water was liable for one.
- Cleaned 203 stormwater inlets.
- Inspected 188 stormwater inlets.
- There was one Dry Weather Overflow at CSO #052 Front and State.
- There were no Sanitary Sewer Overflow's this month.

Environmental Compliance

- One investigation was conducted during the month of July:
 - Reports of dead fish along the Paxton Creek were investigated by CRW's Environmental Compliance Inspector (ECI) as well as PADEP's Water Quality Specialists. CRW's staff was



July 2022

unable to find a source of toxic discharge or a cause for the fish kill. The investigation was handed over to PADEP for more in-depth investigation and testing.

 FOG-related inspections/operations will resume for the month of August. Inspections were placed on hold throughout the month as our ECI was providing much needed help with management of AWTF Operations during an extended medical absence.

Street Sweeping

- Received no complaints this month.
- Completed 470.08 miles of street sweeping within the City of Harrisburg in July.
- Continued to sweep Reservoir Park. It will be included in Areas 1, 6, and 9.
- Water usage was approximately 13,600 gallons.
- Continued to assist the surface cleaning of storm inlets in scheduled sweeping area.
- When the days of the month fall on a fifth week, there is no scheduled sweeping. However, the
 Street Sweeping group will be assigned specific assignments throughout the city to continue the
 upkeep in highly visible areas. The end of July, the Street Sweeping group swept an additional
 12.8 miles (included in total miles swept) and continued to clean off storm inlets.



Wastewater Exhibits



EXHIBIT A

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Process Control - 2022

Parameters	January	February	March	April	May	June	July	August	September	October	Novembe	r Decemb	er Averag		NPDES Limits
rarameters								Hugust	September	Octobel	rtovembe	Decemb			
Volume, MGD	18.4	24.3	20.3	26.0	28.6	19.4	17.7						22	.1	37.7
Carbonaceous Biochemical Oxygen D	Demand														
Influent, mg/L	176		163	121	128	138	149						14		
Effluent, mg/L	3		3	3	3	4	3							3	25
Percent Removal, %	98.1	93.3	97.9	97.0	96.0	97.1	97.9						96		
Effluent Loading, lb/d	520	846	572	724	952	637	446						67	'1	7,860
Suspended Solids:															
Influent, mg/L	177	149	212	144	137	153	184						16	55	
Effluent, mg/L	4	4	3	2	3	3	3							3	30
Percent Removal, %	97.5	92.4	98.6	98.3	96.5	98.0	98.2						97	.1	
Effluent Loading, lb/d	715	1,397	499	569	990	650	468						75	55	9,433
Nitrogen															
Total-N															
Influent, mg/L	26	24	26	20	23	24	25						2	24	
Effluent, mg/L	3.1	4.3	5	5.0	5.6	4.5	3.2							4	Monitor
Percent Removal, %	88.0	82.2	80	75.1	75.2	81.2	87.2						81	.3	
Effluent Loading, lb/d	469	719	778	996	1,170	705	449						75	55	
NH3-N															
Influent mg/L	16	13	15	11	11	15	16						1	4	
Effluent, mg/L	0.7	1.8	2.3	0.7	1.6	0.6	0.8							1	11 (2)
Percent Removal, %	95.5	85.7	84.4	93.8	85.0	95.9	94.9						90	.7	
Effluent Loading, lb/d	113	386	411	157	364	99	127						23	37	4,716
Phosphorus:															
Influent, mg/L	3.5	2.8	3.6	2.9	2.9	3.5	4.0						3	.3	
Effluent, mg/L	0.9		1.6	1.1	1.2	1.5	0.7						1		2.0
Percent Removal, %	71.6		53.6	63.1	58.9	57.1	82.3						64		
Effluent Loading, lb/d	144		274	220	241	240	102						20		629
pH:															
Influent, Std. Units	7.4	7.1	7.3	7.3	7.2	7.3	7.3						7	.3	
Effluent, Std. Units	7.0		7.0	6.9	7.0	7.0	7.1							.0	6.0 - 9.0
Dissolved Oxygen:															
Effluent Minimum, mg/L	7.0	7.7	7.1	7.0	7.2	6.3	7.2						7	.1	5.0 Min.
Fecal Coliform:															
Effluent, No./100 ml	6	6	1	4	2	3	3							4 2	00/100 ml (1)
Chlorine Residual:															
Effluent, mg/L	0.19	0.20	0.19	0.21	0.41	0.36	0.42						0.2	28	0.50

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

PROCESS2022-A

⁽²⁾ Seasonal Limit May 1 to Nov.1.

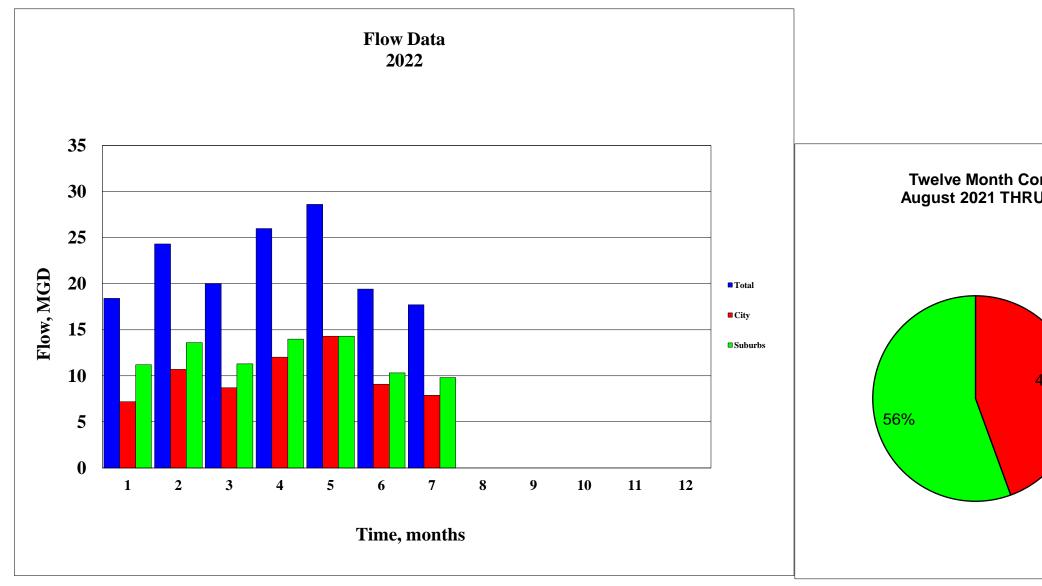


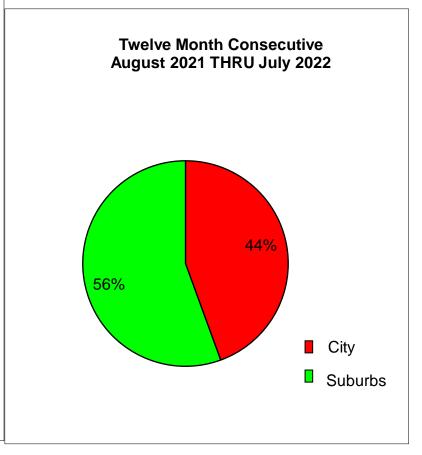
EXHIBIT B

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Flow Monitoring Information, MGD - 2022

	Total				Ci	ity Region	s			Total Precip				
Month	Flow	City	Suburbs	1	2	3	4	5	6	7	8	9	10	inches
January	18.400	7.202	11.198	6.361	0.158	0.300	0.254	0.129	1.300	4.217	1.820	3.532	0.329	2.170
February	24.300	10.705	13.595	9.854	0.197	0.300	0.066	0.288	1.300	5.146	2.271	4.350	0.528	2.800
March	20.000	8.710	11.290	7.388	0.170	0.300	0.679	0.173	1.300	3.948	1.956	3.697	0.389	2.540
April	26.000	12.031	13.969	10.089	0.211	0.300	1.225	0.206	1.500	4.869	2.421	4.766	0.413	3.430
May	28.600	14.310	14.290	11.442	0.246	0.300	2.099	0.223	1.800	4.578	2.830	4.666	0.416	6.030
June	19.400	9.085	10.315	7.097	0.162	0.300	1.275	0.251	1.400	3.274	1.863	3.330	0.448	4.170
July	17.700	7.894	9.806	5.850	0.144	0.300	1.400	0.200	1.400	3.200	1.656	3.170	0.380	4.880
August September October														
November December														
Average Percent	22.06 100.00	9.99 45.30	12.07 54.70											3.72 26.02





FLOW2022 No Zeros-B



EXHIBIT C

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Treatment Utility and Chemical Usage - 2022

Utility / Chemical	January	February	March	April	May	June	July	August	September	October	November December	Average	Total
Comey / enemied	january	rebraary	March	Арги	May	June	July	rtagase	Берсенівен	occonci	Hovelinger December	Meruge	rotar
Electric													
Total, kwH	1,131,900	1,032,600	1,019,700	1,072,500	969,300	1,000,500	1,066,200					1,041,814	7,292,700
Average, kwH/Day	36,513	36,879	32,894	35,750	31,268	33,350	34,394					34,435	7,232,700
Cost, Dollars	\$70,491.63	\$72,766.82	\$64,633.22	\$70,097.82	\$65,581.40	\$67,785.65	\$71,265.00					\$68,945.93	\$482,621.54
Cost, Donars	¥70,131.03	<i>\$72,700.02</i>	401,033.22	<i>\$70,037.02</i>	403,301.10	407,703.03	+71,203.00					400,5 13.53	¥ 102,021.31
Natural Gas													
Total, Cu Ft	905.6	647.3	401.4	292.5	32.4	0.0	*					326	2,279
Average, Cu Ft/Day	29	23	13	10	32.4 1	0.0	*					13	2,279
Cost, Dollars	\$7,509.60	\$5,404.37	\$3,544.64	\$2,689.99	\$413.51	\$129.95	*					\$2,813.15	\$19,692.06
Cost, Donars	<i>\$1,505.00</i>	¥5, 4 04.57	¥3,344.04	¥2,00 <i>3.33</i>	Ψ+15.51	¥123.33						¥2,013.13	Ψ1 <i>3</i> ,0 <i>3</i> 2.00
Water													
Total, Gal.	681,000	871,833	743,167	1,166,000	1,126,000	1,361,000	*					991,500	5,949,000
Average, Gal./Day	21,968	31,137	23,973	38,867	36,323	45,367	*					32,939	3,545,000
Cost, Dollars	\$10,384.54	\$12,357.75	\$11,027.35	\$15,399.44	\$14,282.72	\$17,415.74	*					\$11,552.51	\$80,867.54
cost, bonars	+ 10,30 II.3 I	¥ 12,337.73	¥11,027.03	¥13,333.11	¥11,202.72	417,113.71						¥11,332.31	400,007.51
MicroC													
Total, Gal.	0	0	0	0	0	0	0					0	0
Average, Gal./Day	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0	
Cost, Dollars	\$0	\$0.00	\$0	\$0	\$0	\$O	\$0					\$0.00	\$0.00
Cost, Donars	40	40.00	40	40	40	40	40					40.00	40.00
Sodium Hydroxide													
Total, Gal.	0	0	0	0	0	0	0					0	0
Average, Gal./Day	0	0	0	0	0	0	0					0	
Cost, Dollars	0	0	0	0	0	0	0					\$0.00	\$0.00
Chlorine Disinfection	_											_	
Total, Lbs.	5,340	6,020	5,100	7,150	8,720	7,955	7,972					6,894	48,257
Average, Lbs./Day	172	215	165	238	281	265	256					227	
Avg Residual, mg/L	0.19	0.20	0.19	0.21	0.41	0.41	0.42					0.29	
Cost, \$/Lbs.	\$0.99	\$0.99	\$0.99	\$0.99	\$0.99	\$0.99	\$0.99					\$0.99	
Total Cost, Dollars	\$5,286.60	\$5,959.80	\$5,049.00	\$7,078.50	\$8,632.80	\$7,875.45	\$7,892.28					\$6,824.92	\$47,774.43
Phosphorous Removal													
Total FeCl3, Gals.	507	1,333	1,634	2,743	2,417	2,675	447					1,680	11,757
Avg FeCl3, Gals./Day	16	48	53	91	78	89	14					56	
FeCl3 Cost, \$/Gal.	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26	\$1.26					\$1.26	
FeCl3 Total Cost, Dollars	\$638.82	\$1,679.58	\$2,058.84	\$3,456.18	\$3,045.42	\$3,370.00	\$563.22					\$2,116.01	\$14,812.06

^{*} No data at time of report

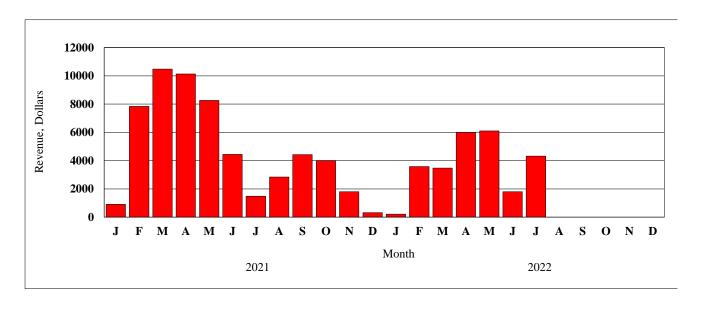


EXHIBIT D

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Cogeneration Electrical Production: 2021-2022

Period	Percent Run Time	Daily Avg Kilowatt	Kilowatt Hours Produced	Estimated Revenue	
January 2021	12	377	11,700	\$901.25	
February 2021	75	3,632	101,700	\$7,833.95	
March 2021	84	4,384	135,900	\$10,468.38	
April 2021	77	4,380	131,400	\$10,121.74	
May 2021	79	3,454	107,100	\$8,249.91	
June 2021	42	1,920	57,600	\$4,436.93	
July 2021	8	406	12,600	\$1,473.57	
August 2021	26	784	24,300	\$2,841.89	
September 2021	27	1,260	37,800	\$4,420.71	
October 2021	26	1,103	34,200	\$3,999.69	
November 2021	12	510	15,300	\$1,789.34	
December 2021	2	87	2,700	\$315.77	
Total - 2021			672,300	\$56,853.12	
Monthly Average - 2021	39	1,858	56,025	\$4,737.76	
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					
September 2022					
October 2022					
November 2022					
December 2022				_	
Total - 2022			217,800	\$25,471.71	
Monthly Average - 2022	32	1,029	31,114	\$3,638.82	



COGEN2022-D 10



EXHIBIT E

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Sludge Handling Information - 2022

Process	January	February	March	April	May	June	July	August	September	October	November D	ecember	Average	Total
Solids Removal														
Process, Lbs.	836,796	808,604	1,256,456	1,295,249	1,041,739	1,063,962	1,027,363						1,047,167	7,330,170
CWH Program, Lbs.	69,353	76,120	124,956	61,652	122,100	72,880							87,843	527,061
Total Solids, Lbs.	906,149	884,724	1,381,413	1,356,901	1,163,839	1,136,842	1,027,363						1,122,462	7,857,231
Sludge Dewatering														
Feed Volume, Gals.	3,577,000	2,678,000	4,535,000	5,007,000	4,782,000	6,279,000	2,853,000						4,244,429	29,711,000
Feed Solids, %	1.7	1.7	2.0	1.8	2.0	1.4	1.6						1.7	-
Labor, Hours	459	416	659	644	561	659	467						552	3,865
Operations, Hours	930	785	1,132	1,058	962	1,181	571						945	6,618
Total Cake, Dry Tons	179	167	312	295	281	279	110						232	1,623
Total Cake, Wet Tons	1,149	1,069	1,855	1,682	1,533	1,570	712						1,367	9,570
Cake TS, %	15.5	15.6	16.8	17.6	18.4	17.8	17.1						17.0	-
Press Rate, Lbs./Hour	2,472	2,725	3,279	3,179	3,186	2,659	2,493						2,856	19,994
Polymer Dosage, Lbs	3,188	2,976	4,605	5,056	4,545	5,358	2,258						3,998	27,986
Polymer Dosage, Lbs/Dry Ton	20.4	19.4	15.1	17.5	16.9	19.2	19.7						18.3	-
Disposal Cost														
Labor, Dollars	\$8,821.98	\$7,995.52	\$12,665.98	\$12,383.45	\$10,778.58	\$12,665.98	\$8,981.51						\$10,613.28	\$74,292.99
Electrical,Dollars	\$409.07	\$345.18	\$497.86	\$465.56	\$423.37	\$519.64	\$251.28						\$415.99	\$2,911.96
Polymer, Dollars	\$6,216.60	\$5,803.20	\$8,979.75	\$9,859.20	\$8,862.75	\$10,448.10	\$4,403.10						\$7,796.10	\$54,572.70
Disposal, Dollars	\$27,763.12	\$91,664.12	\$107,614.33	\$87,453.98	\$89,783.89	\$85,636.00	\$44,429.50						\$76,334.99	\$534,344.95
Total Cost, Dollars	\$43,210.77	\$105,808.02	\$129,757.92	\$110,162.19	\$109,848.58	\$109,269.72	\$58,065.39						\$95,160.37	\$666,122.60
Cost Per Dry Ton, Dollars	\$241.40	\$633.58	\$415.89	\$373.43	\$390.92	\$391.65	\$527.87						\$424.96	

SLUDGE2022-E





CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Conveyance Utility Usage - 2022

Location / Utility	January	February	March	April	May	June	July	August	September	October	November December	Average	Total
Front Street Pump Station													
Electric													
Total, kwH	232,800	219,600	187,200	187,200	190,800	93,600	67,200					168,343	1,178,400
Average, kwH/Day	7,510	7,843	6,039	6,240	6,155	3,120	2,168					5,582	
Cost, Dollars	\$14,883.12	\$14,468.72	\$10,417.84	\$12,381.18	\$13,421.18	\$5,141.58	\$2,480.22					\$10,456.26	\$73,193.84
Fuel Oil													
Total, Gals.	0	0	0	0	0	0	0					0	0
Average, Gals./Day	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	\$0.00
Water													
Total, Gals.	315,000	180,833	479,167	261,819	397,181	350,000	*					330,667	1,984,000
Average, Gal./Day	10,161	6,458	15,457	8,727	12,812	11,667	*					10,880	
Cost, Dollars	\$3,953.62	\$2,566.33	\$5,651.11	\$3,403.73	\$4,803.37	\$4,315.52	*						\$24,693.68
Spring Creek Pump Station													
Electric													
Total, kwH	36,160	52,160	55,040	85,120	96,960	79,360	64,960					67,109	469,760
Average, kwH/Day	1,166	1,863	1,775	2,837	3,128	2,645	2,095					2,216	
Cost, Dollars	\$2,617.50	\$3,866.14	\$3,752.30	\$6,514.96	\$7,873.63	\$6,791.79	\$5,832.00					\$5,321.19	\$37,248.32
Fuel Oil													
Total, Gals.	0	0	0	0	0	0	0					0	0
Average, Gals./Day	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
Water													
Total, Gals.	25,000	39,000	106,000	79,333	224,667	140,000	*					102,333	614,000
Average, Gal./Day	806	1,393	3,419	2,644	7,247	4,667	*					3,363	
Cost, Dollars	\$334.49	\$479.25	\$1,172.03	\$896.29	\$2,399.05	\$1,523.59	*					\$1,134.12	\$6,804.70
Market Street Pump Station													
Electric													
Total, kwH	1,200	1,200	1,080	960	1,080	840	960					1,046	7,320
Average, kwH/Day	39	43	35	32	35	28	31					35	
Cost,Dollars	\$207.27	\$123.51	\$121.40	\$237.38	\$146.40	\$66.71	\$77.82					\$140.07	\$980.49
Fuel Oil													
Total, Gals.	0	0	0	0	0	0	0					0	0
Average, Gals./Day	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
City Island Pump Station													
Electric													
Total, kwH	40	40	40	40	40	40	40					40	280
Average, kwH/Day	1	1	1	1	1	1	1					1	
Cost, Dollars	\$63.36	\$54.75	\$61.50	\$63.19	\$56.52	\$53.56	\$50.70					\$57.65	\$403.58

^{*} No Data at time of report

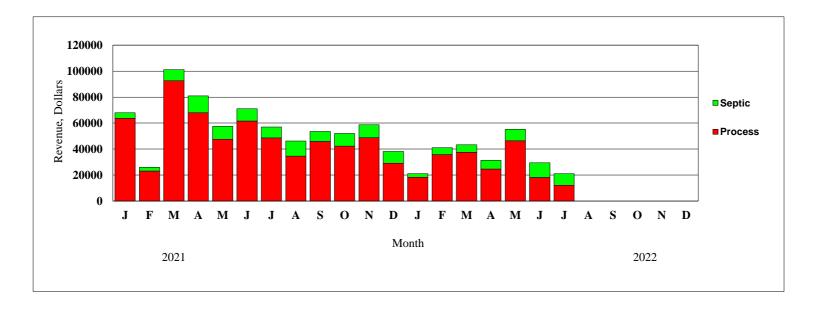


EXHIBIT G

CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Contract Waste Hauling Program 2021 - 2022

	Process				Total		
Month	Gallons	Revenue	Gallons	Revenue	Gallons	Revenue	
January	2,207,599	\$63,748.15	118,100	\$4,255.20	119,200	\$68,003.35	
February	765,460	\$23,088.42	81,060	\$2,864.16	846,520	\$25,952.58	
March	3,321,165	\$92,510.78	239,250	\$8,559.00	3,560,415	\$101,069.78	
April	2,345,220	\$67,928.04	366,960	\$13,093.56	2,712,180	\$81,021.60	
May	1,571,220	\$47,547.72	278,050	\$9,883.80	1,489,270	\$57,431.52	
June	2,116,390	\$61,668.09	265,920	\$9,380.70	2,382,340	\$71,048.79	
July	1,683,380	\$48,625.56	233,900	\$8,366.40	1,917,280	\$56,991.96	
August	1,157,030	\$34,517.61	327,260	\$11,655.36	1,484,290	\$46,172.97	
September	1,591,020	\$45,863.64	220,840	\$7,779.24	1,811,860	\$53,642.88	
October	1,495,740	\$42,324.00	273,850	\$9,786.60	1,769,590	\$52,110.90	
November	1,667,580	\$48,803.22	277,250	\$9,864.00	1,944,830	\$58,667.22	
December	988,550	\$29,082.69	253,150	\$9,041.40	1,241,700	\$38,124.09	
_							
Total - 2021	20,910,354	\$605,707.92	2,935,590	\$104,529.42	21,279,475	\$710,237.64	
Monthly Average - 2021	1,742,530	\$50,475.66	244,633	\$8,710.79	1,773,290	\$59,186.47	
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	332,370	Ψ12,137.31	232,300	40,707. 4 0	005,470	Ψ21,100.71	
September							
October							
November							
December							
Total - 2022	6,446,737	\$192,766.11	1,406,225	\$49,881.50	7,852,962	\$242,647.71	
Monthly Average - 2022	920,962	\$27,538.02	200,889	\$7,125.93	1,121,852	\$34,663.96	



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