

January 2022 As of February 16, 2022 Page 1 of 5

Ensure Financial Stability	
Reconciled Bank Account Balances	Refer to attached Reconciled Bank Account Balances as of 1/31/2022.
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 Drinkin	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 .

<b>Ensure Revenues are Consistent with S</b>	ystem Usage
Water Shut-offs	There were no water shut-offs for non-payment, 5 were turned back on after payment and 26 service shut-off requests.
Repair/Replace Meters/MXUs/Batteries	Drinking Water department staff replaced 35 water meters, replaced 67 batteries, and 20 MXUs.
Reduce Wet Weather Impacts to Infras	tructure, Community, and Receiving Waters
Negotiate with PADEP/U.S. EPA/DOJ on	CRW is waiting to receive redline comments back on the draft modification to the Partial Consent Decree from USDOJ/U.S. EPA/PADEP.
Past and Future Practices	
Develop Necessary Planning for	The Camp Curtin Big Green Block and Bellevue Park SW Ponds Retrofit Projects are proceeding with construction under Phase 3 of the PENNVEST SW Pro-Fi Loan.
Implementation of Green Infrastructure	
Joint Pollutant Reduction Plan -	The Paxton Creek Cooperative (CRW, Lower Paxton Township, and Susquehanna Township) meet monthly to coordinate the implementation of our Joint Pollution Reduction
Collaborate with Suburban Partners on	Plan (PRP). We are continuing to advance our partnership with PennDOT to increase the pounds of sediment reduction on the Paxton Creek Sediment Reduction project
MS4	contract. PennDOT has interest in engaging in a second contract within the Paxton Creek watershed. This opportunity may allow the partners to acheive the remaining
	pounds of sediment reduction for this first 5-year permit cycle through this cost-effective approach (2020-2025).
Obtain and Comply with Individual MS4	CRW's staff are working on implementation of the MS4 Permit requirements which include, but are limited to: six (6) Minimum Control Measures, stormwater outfall
Permit	inspections, Best Management Practice (BMP) inspections, Appendices B & C, investigation of pathogens and priority organic compounds.

Operate Facilities with a High Sta	andard 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 January. Two Sanitary Sewer Overflows were reported.								
Notice of Violations (NOVs)	There were no NOVs received by the Drinking Water department in January.								
	There were no NOVs received by the Wastewater department in January.								
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.								
	The Wastewater department completed all regularly scheduled preventative maintenance in the month of January and used snow days to perform a great deal of								
	preventative maintenace on heavy field equipment.								
CCTV	A total of 2,171 feet (0.41 miles) of sewer pipe were assessed by CCTV footage during the month of January. A total of 2,150 feet (0.41 mile) of pipe were flushed as well.								
Incident Response	Wastewater responded to eighteen backup and overflow calls during the month of January. CRW was liable for none.								



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	• Twenty seven (27) PA One Call tickets were completed in January.
Coographic Information System (CIS)	• Printed new 24x36 sewer linen copies for AWTF's Field Construction Supervisor's office. His existing set was severly worn and in need of replacement.
Geographic Information System (GIS)	Updated GIS data related to the Seventh Street roundabout.
	Participated in two Asset Management meetings with Brown and Caldwell.
Cityworks	
Asset Management	The final plans for AM Management of Change and Communications plans were received 2/10/2022. The water main condition assessment data was received and has been
	incorporated into the asset risk registry. Task Order 2022-06-01, scope of work was finalized and supporting documents
	prepared for the February Board agenda. Tools investigated and built for each Roadmap Implementation Group (RIG) to facilitate task tracking, communication and
	meeting scheduling. Held meetings to establish RIG charters during the week of 2/7/2022. In support of organizational benchmarking initiatives, the committee is preparing
	the AWWA/APWA benchmarking presentation on 2/17/2022.
Development Review Summary	For details, see attached Development Stormwater Management Review Summary spreadsheet for January
Undertake Capital Improvement Projec	ts - Refer to attached Capital Improvement Projects Report
Professional & Contractor Services	Recommend Board approval of the following Task Orders, Change Orders and Agreements:
	Drinking Water:
	• Task Order 2020-20-02: Engineering Services for 2021 Water System Improvements Project with HRG
	• Task Order 2022-06-01: Engineering Services for with Brown and Caldwell
	Wastewater:
	• Task Order 2019-24-01: Engineering Services for AWTF Energy Recovery Improvements Project with Arcadis
	• Change Order No. 17 (Contract No. 1) with Eastern Environmental Contractors, Inc AWTF Primary Digester Rehabilitation
	• Change Order No. 7 (Contract No. 3) with I.B. Abel, Inc AWTF Primary Digester Rehabilitation
	Change Order No. 7 (Contract No. 3) with i.B. Abei, inc AWTF Primary Digester Renabilitation
	Stormwater:
	Resolution No. 2022-003 - Camp Curtin Big Green Block Project - Reimbursement Agreement with City of Harrisburg
	• Task Order 2022-09-01: Technical Grant Application Support for Paxton Creek Restoration Planning Project with Michael Baker International
Stormwater O&M Agreements	Recommend Board approval of the following:
	None.
AWTF Primary Digesters Rehabilitation	Digester No. 1 will be tested once the installation of the cover is complete. Installation of the digester insulation will be scheduled, weather permitting.
AWTF Energy Recovery Improvements	Permit applications have been submitted to Swatara Township and PADEP.
Front Street Pumping Station	The contractors are addressing punch list items and site cleanup.
Improvements	
WSC Soda Ash Conversion	No update.
WSC Flocculator Equipment Replacement	Notice to proceed was issued to the general and electrical contractors on 2/1/2022.

Undertake Renewal and Replacement Projects								
2020 Sewer System Improvements	One cured-in-place lining segment, punch list items, and final paving remain.							
2021 Sewer System Improvements	The contractor is replacing manholes and storm inlets along Seneca Street and will be moving to the Sycamore Street location in February.							
2021 Water System Improvements	The contractor is performing main installation and water service reconnections on Linden Street and the Derry-Mulberry Streets location.							



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Cameron Street Water Main - Phase 3	The contractor is reconnecting services in Cameron Street.
Arsenal Boulevard Sewer Improvements	The project is in the design stage.
Front Street Interceptor Rehabilitation -	The project is advertised and bids are due 3/15/2022.
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 and pumping stations throughout the month of January. A narrative is provided in the
	Wastewater Department Monthly Report.
Sinkhole Program	One (1) sinkhole was investigated by CRW in the month of January. CRW was not responsible.
Inlet Cleaning	A total of 33 stormwater inlets were cleaned during the month of January, and 31 stormwater inlet inspections were performed.

Operate as an Efficient, Sustainable and Resilient Water Utility									
DeHart Property Stewardship	Timber harvest to improve regeneration continues in Management Unit (MU) 22/31 in accordance with the DeHart Property Forest Management Plan.								
	Notice to proceed was provided to All Terrain Logging LLC for a regeneration harvest in MUs 20, 34, 36, and 37 (approximately 155 acres); haul road improvements have been completed. Final field work underway for bidding of overstory removal in MU 24.								
Sustainability	No update.								
Internal Communications	The Intranet site and calendar continue to be utilized. The Q1 <i>The Daily Flow</i> Newsletter was distributed in early January. 2022 Q1 All Staff meeting was held on 1/27/2022.								

Inform and Listen to Customers and En	courage Stewardship of our Systems							
Media Relations - Press and Social Media	PRESS RELEASES: (January 24, 2022) Capital Region Water Officials to Testify Before Senate Committee Examing Stormwater Fee Implementation; (January 25, 202 Commonwealth Refuses to Pay \$32,246 in Monthly Stormwater Fees, Passing Off the Burden to Residential and Commercial Ratepayers.							
	SOCIAL MEDIA TOPICS:							
	<ul> <li>Facebook: 5 New Organic Followers. 6 Posts; Highest Engaged Post: (1/31/2022) "Employee of the Month- Jeff Wahosky." (27 Post Clicks; 38 Reactions, 7 Comments &amp; 1 Shares; 484 Organic Reach); Other topics: LIHWAP Enrollment, MLK Day Litter Cleanup, Board Meeting reminder, Affiliate Community Partner Award recognition.</li> <li>Twitter: 11 Tweets; Highest Engaged Tweet: "LIHWAP" (156 Impressions; 1 Likes, 0 Retweets) Month overview: 1,679 total Impressions; 927 Profile Visits; 3 New Followers; Mentions.</li> <li>Instagram: 13 New followers (667 Total), 4 Posts; 8 Storie posts (Senate Hearing) Highest Engaged Post: (1/31/2022): "Employee of the Month- Jeff Wahosky." 6 likes, 1 comment.</li> </ul>							
	2022 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 Ambassador Meeting held 1/19/2022: Presenter: Jess Rosentel discussed Biobot chart and CRW COVID protocols. Updates: Current CRW safety protocols, LIHWAP and Customer Assistance Program eligibilty. Open items: construction projects, CRW job openings, The Tree Tenders Series and community ambassador concerns and updates.							
	Community Outreach:  • Delivered 368 door-to-door notifications re: water service interruptions, sewer line repairs, sewer maintenance, Fats, Oil & Grease and Homeowner.  • One (1) Everbridge emergency notification to a flooded apartment complex - 0% confirmed.  • Daily CSO inspections and Everbridge customer updates.  • One (1) community meeting and zero (0) community events, six (6) on-site construction project meetings, and five (5) in-person customer complaint follow-ups. Two (2) business litter cleanup partnership meetings.							



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Public Communications	WHAT'S ON TAP COMMUNICATION: The January monthly bill stuffer was distributed as a bill insert. Topics included: "Special Edition" Letter from the CEO. (Personal letter
	to all customers from Charlotte.)
Diversity	Capacity building with Tisha Davis, CEO of Designer Junkie Tees which is a certified MBE.
	• 2/08/2022 - Attended Front Street Interceptor pre-bid meeting.
	• 2/11/2022 - Attended the preconstruction conferences for the WSC Flocculator and Bellevue Park Improvement Projects.
Administrative	
Risk Management	COVID positive cases YTD.
	No significant general liability claims.
	Updated experience mod. of 1.177.
	• Updated workmen's compensation claims of 7/07/2021 and 12/12/2021 increased loss ratios significantly.
	- Reserves- \$258,611
	- Paid Losses-\$81,829
	- Total Incurred-\$340,440
	- Loss Ratio-226%
	In the process of obtaining 2022-2023 insurance proposals.
Human Resources	• Recruiting: Refer to Recruiting Status Report attached.
Procurement	Ongoing projects include:
	AWTF assessment of inventory on hand for hardware and consumables (temporarily on hold due to COVID).
	• First phase of inventory has been extended until the end of July to build more usable data (due to COVID).
Information Technologies (IT)	
	<del></del>



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Office Management and	Incoming Correspondence Report: Refer to attached Incoming Correspondence Report for January 2022.							
Admin Professional Services and								
Construction	Street/Sidewalk-Cut Permits: One new Drinking Water request was received and processed from the City of Harrisburg's Engineer. One Wastewater permit was successfully completed and closed.							
	Recommend Board approval of the following:							
	C-92 - Purchase of 2022/2023 Ford F-250 Super Duty Truck with Stephenson Equipment Utility Body Upfit from Hoffman Ford for Drinking Water							
	C-93 - Purchase of 2022/2023 Ford F-250 Super Duty Truck with Stephenson Equipment Utility Body Upfit from Hoffman Ford for Drinking Water							
	• C-94 - Purchase of 2023 Ford F-750 Diesel Dump Truck with Stephenson Equipment Utility Body Upfit from Hoffman Ford for Drinking Water							
	C-95 - Purchase of 2023 International MV607 SBA Main Break Truck from Five Star International, LLC for Drinking Water							
	• G-77 - Purchase of 2022 Ford F-350 4X4 SD Regular Cab Truck from Keystone Ford for Wastewater							
	• G-77 - Purchase of Utilty Body Upfit to (G-77) 2022 Ford F-350 4X4 SD Regular Cab Truck from US Municipal for Wastewater.							
Right-to-Know Requests	CRW has received and responded to one previous Right-to-Know request during the period 1/22/2022 through 2/16/2022. 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.							
	OOR Training:							
	The Open-Records Officer participated in the following webinars conducted by the Office of Open Records (OOR):							
	• 2/02/2022 - Laws that Protect Information							
	• 2/16/2022 - 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).							
	2022-002 - Tom Pelton (Environmental Integrity Project). Request for any document that indicates the total amount of impervious surface that exists in Harrisburg							
	(including state properties) and is subject to CRW's stormwater fees. Response due: 1/27/2021. Response Provided 1/27/2022.							



# DRINKING WATER DEPARTMENT MONTHLY REPORT



5<sup>th</sup> and Seneca Streets – Water Main Break

January 2022

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



# **Drinking Water Department Monthly Report**

January 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 January. Specific water quality results are summarized in Exhibit A. A total of 230.65 MG, averaging 7.44 MGD was withdrawn from the water supply sources for treatment. As shown in Exhibit B, a total of 228.34 MG, averaging 7.36 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 January (Exhibit C) and the DeHart reservoir water level increased (Exhibit D). An estimated 279.52 MG of water was released from DeHart reservoir to Clark Creek, averaging 9.01 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).

## **Plant Maintenance**

The Maintenance team performed approximately 70 preventative maintenance work orders and three corrective maintenance work orders for the month of January using the Cityworks maintenance management system for all water treatment plant equipment, pumping stations and fleet vehicles.

- The Maintenance team continues to follow COVID-19 morning temperature requirements and masking protocols.
- The DeHart Dam watershed was patrolled daily and maintained.
- The maintenance and distribution team have started the installation of the bollards for the Bulk Water Filling Station.
- The Maintenance team installed the remainder of the parking garage LED lights.
- The Maintenance team replaced all the existing lights in the NFS Offices with new LED lighting fixtures.
- The Maintenance team removed all the shelving and parts cabinets out of the maintenance, distribution, cleaning closets and offices for the installation of new VCT flooring.
- The Maintenance team repaired the carpeting at the NFS offices.
- The Maintenance team replaced the existing stained ceiling tiles in the copier room at the NFS
  offices.
- The Maintenance team hung shelving in the NFS offices for some of the corporate staff.
- The Maintenance team continues to do snow removal and rock salt application at the WTP, NFS
  offices, Front Street WPS, Reservoir Park WPS, Union Square FPS and the DeHart Dam facility.
- The Maintenance team continues to service and repair the maintenance and distribution fleet.



# **Drinking Water Department Monthly Report**

January 2022

## Distribution

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

- Repair three water main breaks during the month, 4,349,565 gallons of unmetered water for the month of January.
- Repair 10 leaking services during the month, 998,776 gallons of unmetered water for the month
  of January.
- No fire hydrants are out of service.
- Complete 263 work orders.
- Prepare 312 meter cards.
- Complete 567 water, sewer, and storm water locates.
- Worked with contractors on several water, sewer and storm water capital improvement projects.
- Continuing with leak detection

# **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 and E.coli, THM, HAA, TOC, and alkalinity.
- Laboratory results from MJ Reider for TOC were not back by the time this report was filled out.



# **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	Α													5% P
Chlorine Residual, mg/L Free														
Filter Plant Effluent	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94	0.2 - 4.0
Distribution System	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27	<0.02
Turbidity, NTU	1,27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,27	-0.02
Influent from DeHart	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	NA
Influent from Susquehanna	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	NA
Filter Plant Effluent	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.30
pH, Std Units	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.50
Influent from DeHart	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.40	NA
Influent from Susquehanna	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	NA
Filter Plant Effluent	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.40	6.5 - 8.5*
Distribution System	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.60	6.5 - 8.5*
Total Alkalinity, mg/L as CaCO3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.00	0.5 - 0.5
Influent DeHart	5	0	0	0	0	0	0	0	0	0	0	0	5.00	NA
Influent from Susquehanna	NA	0	0	0	0	0	0	0	0	0	0	0	N/A	NA
Filter Plant Effluent	13	0	0	0	0	0	0	0	0	0	0	0	13.00	<15*
Distribution System	15	0	0	0	0	0	0	0	0	0	0	0	15.00	<15*
Temperature, degrees C	.5	0	0	U	· ·	U	U	U	0	0	0	U	13.00	113
Influent from DeHart	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.60	NA
Influent from Susquehanna	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA NA
Filter Plant Effluent	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.00	NA NA
Distribution System	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.30	NA NA
Fluoride, mg/L	15.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.50	INA
Filter Plant Effluent	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	2
Aluminum, mg/L	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	2
Filter Plant Effluent	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.2*
Iron, mg/L	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.2"
Influent from DeHart	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	NA
Influent from Susquehanna	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	NA NA
Filter Plant Effluent	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.3*
Distribution System	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.3*
	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.5"
Total Dissolved Solids, mg/L	42	0	0	0	0	0	0	0	0	0	0	0	13.00	NA
Influent from DeHart	13		-	0		-	0	0	0		0	0		
Influent from Susquehanna	NA 27	0	0	0	0	0	0	0	0	0	0	0	N/A	NA 500±
Filter Plant Effluent	37	0	0		-	0	0		-	-	-	0	37.00	500*
Distribution System	39	0	0	0	0	0	0	0	0	0	0	0	39.00	500*
Total Hardness, mg/L				^	2			^	0				0.00	N1A
Influent from DeHart	8	0	0	0	0	0	0	0	0	0	0	0	8.00	NA
Influent from Susquehanna	NA .		-	-	-	-			-	-	-		N/A	NA
Filter Plant Effluent	8	0	0	0	0	0	0	0	0	0	0	0	8.00	NA
Distribution System	8	U	U	U	U	0	U	U	U	U	U	U	8.00	NA
Orthophosphate, mg/L	4.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	07.404
Filter Plant Effluent	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.7 - 1.3*
Distribution System		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	0.7 - 1.3*
Administration of the state of	1.23													0.080
**Total Trihalomethanes, ug/L		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					0.080
Distribution System	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.04	0.000
Distribution System  **Total Haloacetic Acids, ug/L	0.035													
Distribution System  **Total Haloacetic Acids, ug/L  Distribution System		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.04	0.060
Distribution System  **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.03	0.060
Distribution System  **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L Influent from DeHart	0.035 0.033 3.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.03 3.00	0.060 NA
Distribution System  **Total Haloacetic Acids, ug/L Distribution System  Total Organic Carbon, mg/L Influent from DeHart Influent from Susquehanna	0.035 0.033 3.00 NA	0.000 0.00 0.00	0.03 3.00 N/A	0.060 NA NA										
Distribution System  **Total Haloacetic Acids, ug/L Distribution System Total Organic Carbon, mg/L Influent from DeHart	0.035 0.033 3.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.03 3.00	0.060 NA

<sup>\*</sup> Values are related to DEP Secondary MCL
\*\* Running Annual Quarterly Average



**EXHIBIT B** 

## Water Production Data - 2022

	DeHart Withdrawal		River Wit	hdrawal	Total Wit	hdrawal	Treated	Water	Process	Water	Finished	Water
Month	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG) Average (MGD)		Total (MG)	Average (MGD)	Total (MG) Average (MGD)		Total (MG)	Average (MGD)
January	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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
April	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
August	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
September	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
November	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
December	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	230.675		0.000		230.675		235.985		4.634		228.344	
Average	19.223	0.620	0.000	0.000	19.223	0.620	19.665	0.634	0.386	0.012	19.029	0.614

Peak Day Water Use Minimum Day Water Use 5/31/2020 5/1/2020 6.966

(MG) = Million Gallons

6.081

(MGD) = Million Gallons per Day

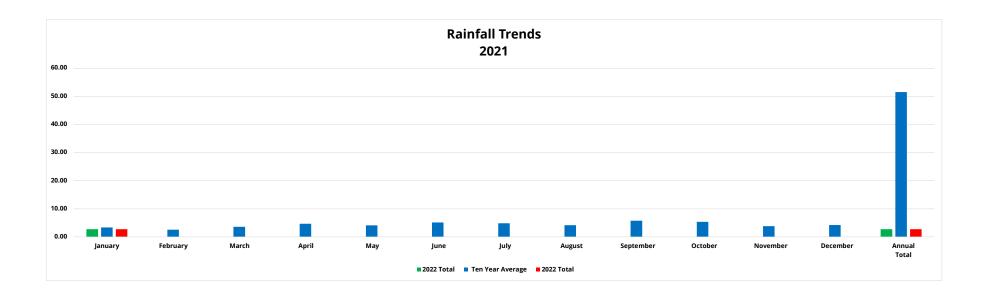


#### **EXHIBIT C**

#### 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74
Daily Average	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.080
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	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74





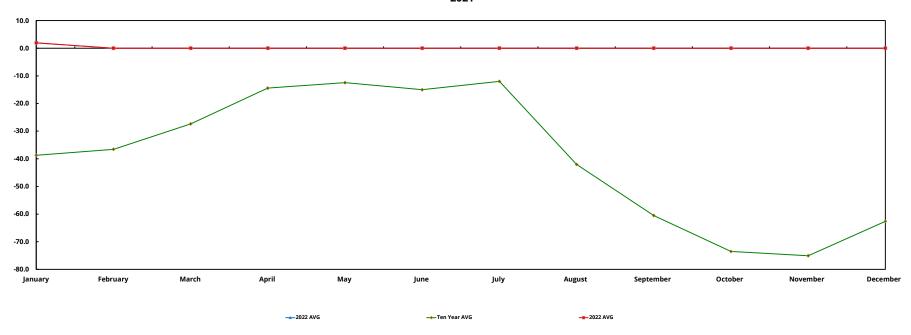
#### **EXHIBIT D**

#### 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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

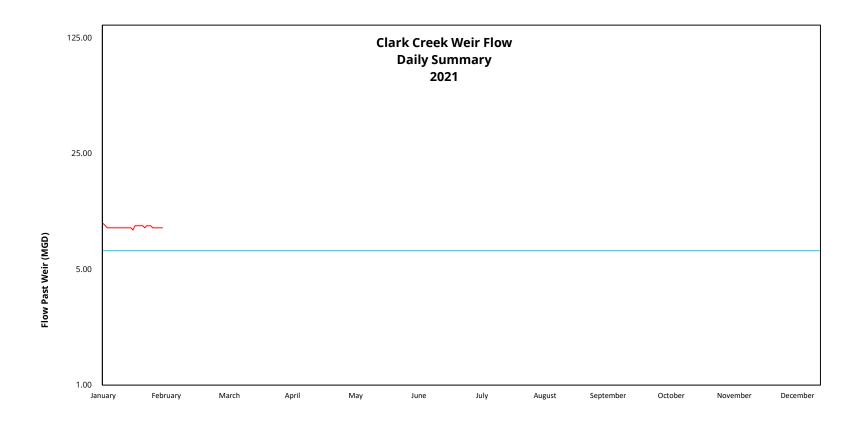
#### DeHart Reservoir Water Level Trends 2021





#### **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 ectric Transmission														
														0
Total, kwH Cost, Dollars														\$0.00
Electric Generation														\$0.00
Total, kwH														0
Cost, Dollars														\$0.00
Natural Gas														\$0.00
Total, Cu Ft														0
Cost, Dollars														\$0.00
Sewer														\$0.00
Total, Gal														0
Cost, Dollars														\$0.00
Refuse														\$0.00
Cost, Dollars														\$0.00
Reservoir Park Pump Station														\$0.00
Electric Transmission														
	04000	-			+		-	1	-	-	1	-	04.000	04.000
Total, kwH	84,800					-							84,800	84,800
Cost, Dollars									-					\$0.00
Electric Generation	04000	-			+			1	-		1	-	04.000	
Total, kwH	84,800												84,800	84,800
Cost, Dollars	\$1,074.71												\$1,074.71	\$1,074.7
Natural Gas														
Total, Cu Ft	823												823	823
Cost, Dollars	\$696.50												\$696.50	\$696.50
Susquehanna River Pump Station														
Electric Transmission														
Total, kwH	17,400												17,400	17,400
Cost, Dollars														\$0.00
Electric Generation														
Total, kwH	17,400												17,400	17,400
Cost, Dollars	\$781.92												\$781.92	\$781.92
Natural Gas														
Total, Cu Ft	724												724	724
Cost, Dollars	\$615.82												\$615.82	\$615.82
Union Square Booster Station														
Electric Transmission														
Total, kwH	2876													0
Cost,Dollars														\$0.00
Electric Generation														
Total, kwH	2876													0
Cost, Dollars	125.54													\$0.00
DeHart Facilities														
Electric Transmission														
Total, kwH	2,965												2,965	2,965
Cost, Dollars	,												,	\$0.00
Electric Generation								1			1			
Total, kwH	2,965							1			1		2,965	2,965
Cost, Dollars	\$101.22												\$101.22	\$101.22
Fuel Oil														
Total, Gals.														0
Cost, Dollars		+		+	+			1	+		1	1		\$0.00
City Island Heat Trace									·					\$0.00
		+			_			1			1			0
Electric Transmission						1	I .	1						
Electric Transmission Total, kwH														
Electric Transmission Total, kwH Cost, Dollars														\$0.00
Electric Transmission Total, kwH Cost, Dollars Electric Generation														
Electric Transmission Total, kwH Cost, Dollars														\$0.00 0 \$0.00

\*\* Not available at time report was developed

Total Transmission	\$0
Total Generation	\$1,958
Total Refuse	\$0
Total Gas	\$1,312
Total Sewer	\$0
Total Fuel Oil	\$0
Total Utilities	\$2.270

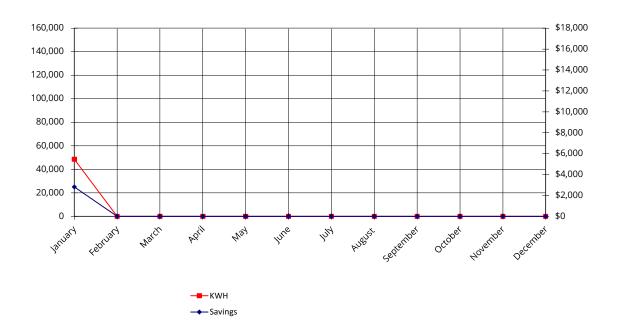


Exhibit G

Hydro-Turbine Generator Performance - 2022

Month	Kilowatt-hour (KWH)	Anticipated Savings *
January	48,590	\$2,818
February	0	\$0
March	0	\$0
April	0	\$0
May	0	\$0
June	0	\$0
July	0	\$0
August	0	\$0
September	0	\$0
October	0	\$0
November	0	\$0
December	0	\$0
Average	48,590	\$2,818
Year to Date	48,590	\$2,818

<sup>\*</sup> 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												6,180	6,18
Average, Chlorine Lbs./Day	199												199.4	
Average, Chlorine Dose, mg/L	3.2												3.2	
Chlorine, Cost, \$/Lbs.	\$0.305												0.3	
Chlorine Total Cost, Dollars	\$1,885												\$1,884.90	\$1,884.90
Alum 48.5%														
Total Lbs.	48,096												48,096	48,096
Average, Alum, Lbs./Day	1,551												1551.5	
Average, Alum, mg/L	25.0												25.0	
Alum Cost, \$/Lbs.	\$0.164												0.2	
Alum Total Cost, Dollars	\$7,888												\$7,887.74	\$7,887.74
Lime														
Total Lbs.														
Average Lime, Lbs./Day														
Average, Lime Dose, mg/L														
Lime Cost, \$/Lbs.														
Lime Total Cost, Dollars														\$0.00
Soda Ash														
Total Lbs.	24,800												24,800	24,800
Average Soda Ash, Lbs./Day	800												800.0	
Average, Soda Ash Dose, mg/L	16.7												16.7	
Soda Ash Cost, \$/Lbs.	\$0.299												0.3	
Soda Ash Total Cost, Dollars	\$7,415												\$7,415.20	\$7,415.20
Fluoride														
Total Lbs.	1,155												1,155	1,155
Average, Fluoride Lbs./Day	37												37.3	
Average, Fluoride (F-) Dose, mg/L	0.6												0.6	
Fluoride Cost, \$/Lbs.	\$0.48												\$0.48	
Fluoride Total Cost, Dollars	\$554												\$554.40	\$554.40
Sodium Hydroxide 50%														
Total NaOH 50% dry Lbs.	41,600												41,600	41,600
Average NaOH 50%, dry Lbs./Day	1,342												1,342	
Average, NaOH 50%, mg/L	10.7												10.7	
NaOH 50% Cost, dry \$/Lbs	\$0.174												0.2	
NaOH 50% Total Cost, Dollars	\$7,238												\$7,238.40	\$7,238.40
Zinc Orthophosphate														
Total Zn3(PO4)2, wet Lbs.	5,142												5,142	5,142
Average Zn3(PO4)2, wet Lbs./Day	166												165.9	
Average, Zn3(PO4)2 Dose, mg/L	2.7												2.7	
Zn3(PO4)2 Cost, wet \$/Lbs.	\$0.374												0.4	
Zn3(PO4)2 Total Cost, Dollars	\$1,923												\$1,923.11	\$1,923.11
Potassium Permanganate														
Total KMnO4, Lbs.														0
Average KMnO4, Lbs./Day														
Average, KMnO4 Dose, mg/L														
KMnO4 Cost, \$/Lbs.														
KMnO4 Total Cost, Dollars														\$0.00
Expenditure													\$26,903.75	\$26,903.75
Average Treated Cost per (MG)														
Total Treated Flow (MGD)														0.000
Average Treated Flow (MGD)														19.665

2022-00-00 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	0	0	0	0	0	0	0	0	0	0	0	423	35
Street Restorations	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leak Detection Assessment Percent of Distribution System	8	0	0	0	0	0	0	0	0	0	0	0	8	1
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	0	0	0	0	0	0	0	0	0	0	0	2	0
Service Line Leaks Detected	2	0	0	0	0	0	0	0	0	0	0	0	2	0
Service Line Leaks Repaired	1	0	0	0	0	0	1	0	0	0	0	0	2	0
Valves - Exercised	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Valves - Replaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrant Flow Tests	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrants Returned to Service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Tap - Disconnected	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Water Tap - New Connection	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Water Shutoffs - Delinquent Accounts	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water Shutoffs - Other	26	0	0	0	0	0	0	0	0	0	0	0	26	2.17
Water Shutoffs - Non Payment	0	0	0	0	0	0	0	0	0	29	0	0	29	2
Water Restoration Turn on Other	22	0	0	0	0	0	0	0	0	0	0	0	22	2
Water Turn on - Non Payment	5	0	0	0	0	0	0	0	0	17	0	0	22	2



#### **EXHIBIT J**

### **Metering Activities - 2022**

<b>Board Monthly Report</b>	<b>Distribution Monthly Report</b>														
Activity	Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
Meter Installations															
	Missing	7												7	7
	Leaking	7												7	7
Replacement	Frozen	10												10	10
	Non-registering	1												1	1
	Large Meters <sup>1</sup>	0												0	0
New Service	New Installation	0												0	0
Meter Service															
MXU's Replaced	MXU's Replaced	20												20	20
Batteries Replaced	<b>Batteries Replaced</b>	67												67	67
Meter Pits Serviced	Meter Pits Serviced	1												1	1
Meter Calibrations															
Small Meters <sup>2</sup>	Calibrated meters	2												2	2

**<sup>1</sup> 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

<sup>2</sup> 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	0	0	0	0	0	0	0	0	0	0	0	0
Billed Metered Exported	Bulk Water Hauling	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0
Billed Metered	Hydrant Connections	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Billed Unmetered	Hydrant Flow Tests	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unbilled Unmetered	Hydrant Flushing (and Unbilled Authorized)	221,167	0	0	0	0	0	0	0	0	0	0	0	221,167	18,431
Leakage on Distribution Mains	Main Leaks	4,349,565	0	0	0	0	0	0	0	0	0	0	0	4,349,565	362,464
Leakage on Service Lines	Service Leaks	998,776	0	0	0	0	0	0	0	0	0	0	0	998,776	83,231
	Total	5,569,508	0	0	0	0	0	0	0	0	0	0	0	5,569,508	464,126



# **Wastewater**



# WASTEWATER DEPARTMENT MONTHLY REPORT



Wastewater's Field Construction CReW

# January 2022

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



# **AWTF Monthly Report**

January 2022

## **Overview**

Mitigation of COVID-19 once again became the primary focus of the Wastewater department in December, fueled by the rapid increase in local cases due to the highly contagious Omicron variant. Several mitigation measures that were implemented in past surges were reinstituted and remain in place at the time of reporting.

Elimination of punch list items for the Front Street Pumping Station Rehabilitation project came to a halt during the month of December as the general contractor provided minimal work in January. More than a dozen punch list items remain for the contractor to achieve the final completion benchmark.

Progress on the Primary Digester Rehabilitation project continued in January. The general contractor began preparations for hydrostatic testing of Digester No. 1. Installation of internal piping is still ongoing and about 85 percent complete. Leak testing, application of protective coatings and mixer installation are among the items that still need to be completed. The date for commissioning of this unit has slipped to April 2022.

## **Operations**

During the month of January, the AWTF met all monthly average NPDES permit requirements. Two Sanitary Sewer Overflows were reported.

Hydraulic loading to the AWTF averaged 18.4 million gallons per day (MGD). The treatment process achieved removal reductions of 98.1 percent CBOD, 97.5 percent Suspended Solids, 71.6 percent Phosphorus, 95.5 percent Ammonia, and 87.6 percent Nitrogen (Exhibit A).

A full-scale trial with a free alternative supplemental carbon source for the denitrification process began in August and continued through January. Effluent Nitrogen concentration averaged 3.2 mg/L for the month (Exhibit A). Continued success would result in a dramatic decrease in chemical cost and the potential generation of significant non-rate revenue through the sale of nitrogen credits.

Revenue of the Contract Waste Hauling program collected \$21,024.45 in revenue from 636,238 gallons discharged (Exhibit G). The program finished the year with \$710,237 in non-rate revenue, which is a 12.2 percent increase over 2020 numbers.

The Cogeneration Facility experienced an average run time of 0.2 percent in January. Revenue is estimated at \$138.65 on 1,800 Kilowatt-hours generated for the month. Reduction in run time can be attributed to an increase in secondary wasting to reduce the MLSS causing an increase in pumping of thinner sludge to Primary Digester No. 2 and the use of the gas for the heating of facility



# **AWTF Monthly Report**

January 2022

buildings and mechanical issues with the system gas compressor which required an overhaul of the unit.

## Laboratory

- Completed bi-monthly sampling and testing of biosolids for pollutants and fecal coliforms as required by our beneficial reuse (PAG08) permit.
- As a result of the recent laboratory inspection, we submitted a Corrective Action Plan (CAR-1) to PADEP Bureau of Laboratories addressing two laboratory deviations that are required to be corrected within 30 days. In review, neither deviation appeared to compromise AWTF's test results.
- Started preparation of the AWTF laboratory's Corrective Action Report (CAR-2) which is substantially complete.
- Submit primary influent samples to Biobot for COVID-19 testing.

## **Pretreatment**

- Received self monitoring reports submitted for December and 4<sup>th</sup> quarter of 2021.
- Completed the contract waste hauling program's QuickBooks January data entry and forwarded the waste hauler monthly reports to Billing.

## **Plant Maintenance**

- Installed new wiring and disconnects to overhead garage door operators in the belt filter press.
- Installed new hot water heater for the belt filter press area.
- Installed new sump pumps and completed discharge piping in the Chemical Storage building.
- Installed new LED post light at the final outfall over sampler for safety at the chlorine contact tanks.
- Dismantled and rebuilt the facility's gas compressor.
- Removed and replaced worn inlet housing on Primary Waste Pump No. 2 in the Main Control building.
- Tested the stand-by generator at the Market Street Pump Station.
- Replaced bearings in motor for Pista Grit Pump No. 1.
- Installed four new LED lights on primary deck catwalk at the primary tanks.
- Repaired drive coupling failure on Primary Tank No. 4.
- Retubed 16 lengths of 6-inch heat exchanger piping at the Primary Digester Control House.
- Performed 30-minute full load test on backup generator at the Spring Creek Pump Station.
- Install new LED light on thickener deck at the Thickener Pump Station.
- Performed 15 vehicular repairs in preparation for state inspections.
- Responded to work requests for office building at 3003 North Front Street.



**WATER** 

# **AWTF Monthly Report**

January 2022

## **Field Construction**

- Excavated and installed additional parking area in front of the heavy equipment garage at the AWTF. Recycled asphalt milling was used for the permeability.
- Performed weekly and post snowstorm checks of street plates and patched sinkholes.
- Performed snow and ice removal at the AWTF, pump stations, CSO sites and 3003 North Front Street offices.
- Rogele completed an IDIQ excavation on Susquehanna Street near Boas Street. An 18-inch brick sewer was collapsed. Rogele and PPL coordinated the support of a utility pole that was adjacent to the excavation and posed a hazard. Six feet of 18-inch SDR was installed along with a lateral connection. This is a sinkhole remediation project.
- Excavated and replaced 28 feet of 10-inch clay sewer main at Poplar and Brown Streets with SDR.
- Repaired bench and channel on a sanitary sewer manhole at 3rd and Klemm Streets. This is a sinkhole remediation project.
- Excavated and raised to grade a buried manhole on Penn Street.
- Excavated and replaced 7 feet of 12-inch clay sewer main with SDR. The sewer main was compromised at the storm water pipe connection.
- Four stormwater inlets were repaired at various locations throughout the City.

# **Field Operations**

- A total of 2,171 feet (.41 miles) of sewer pipe were assessed by CCTV footage throughout the month.
- A total of 2,150 feet (.41 miles) of pipe were flushed during the month.
- Responded to 18 backup and overflow calls from residents. CRW was liable for two:
  - A backup at 385 Rumson Drive was due to a blockage in the sewer main caused by an excessive buildup of grease and non-flushable wipes.
  - A backup at 2340 N. 5<sup>th</sup> Street was caused by a broken water main that migrated stone from an adjacent sewer project into the sewer main, causing a blockage.
- Responded to one sinkhole call. CRW was not liable.
- Cleaned 33 stormwater inlets.
- Inspected 31 stormwater inlets.
- CCTV'd laterals at Balm Street.
- There were no dry weather overflows this month.
- Hydro excavated for Field Construction at Brown and Poplar Streets.
- Post CCTV'd lines for engineering at Seventh Street.
- Cleaned drain in the wash bay in the heavy equipment garage.
- Performed maintenance on lots of equipment due to inclement weather.



# **AWTF Monthly Report**

January 2022

# **Environmental Compliance**

- Completed eight inspections of FOG dischargers. Two locations received letters of non-compliance with compliance plans and six locations were exempt.
- Issued one new FOG discharge permit.
- Provided education packet to one newly identified FOG discharger (either new business or previously unidentified). Spent time educating business owner/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.
- No investigations were conducted during the month of January.

## **Street Sweeping**

- There were no complaints this month.
- There were several calls regarding ticketing when CRW is not sweeping. Explained that tickets
  can be given out even if CRW is not sweeping. The Office of Parking Enforcement was contacted
  and confirmation information was received.
- Scheduled preventive maintenance on all three sweepers.
- One employee accepted a position in Field Maintenance.
- Completed 322.78 miles of street sweeping within the City of Harrisburg.
- There were five days of suspended sweeping due to weather.
- There was no water usage this month.
- Continued to assist with the cleaning of storm inlets in scheduled sweeping areas.
- When the days of the month fall on a fifth week, there is no scheduled sweeping. However, the Sweeping group will be assigned specific assignments throughout the City in highly visible areas.
   The end of January 2022, the Street Sweeping group swept an additional 12.7 miles 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	n Novembe	Decembe	r Average	NPDES Limits
Volume, MGD	18.4												18.4	37.7
Carbonaceous Biochemical Oxygen Demand														
Influent, mg/L	176												176	
Effluent, mg/L Percent Removal, %	3 98.1												3 98.1	25
Effluent Loading, lb/d	520												520	7,860
Emdent Loading, ib/d	320												320	7,800
Suspended Solids:														
Influent, mg/L	177	•											177	
Effluent, mg/L	4												4	30
Percent Removal, %	97.5												97.5	
Effluent Loading, lb/d	715												715	9,433
Nitrogen														
Total-N														
Influent, mg/L	26												26	
Effluent, mg/L	3.2												3	Monitor
Percent Removal, %	87.6												87.6	
Effluent Loading, lb/d NH3-N	483	1											483	
Influent mg/L	16	1											16	
Effluent, mg/L	0.7												1	11 (2)
Percent Removal, %	95.5												95.5	
Effluent Loading, lb/d	113	;											113	4,716
Phosphorus:														
Influent, mg/L	3.5	}											3.5	
Effluent, mg/L	0.9												0.9	2.0
Percent Removal, %	71.6	1											71.6	
Effluent Loading, lb/d	144	ŀ											144	629
pH:														
Influent, Std. Units	7.4												7.4	
Effluent, Std. Units	7.0	)											7.0	6.0 - 9.0
Dissolved Oxygen:														
Effluent Minimum, mg/L	7.0	1											7.0	5.0 Min.
Fecal Coliform:														
Effluent, No./100 ml	6	i											6	200/100 ml (1)
Chlorine Residual:														
Effluent, mg/L	0.19	)											0.19	0.50

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

PROCESS2022-A

<sup>(2)</sup> Seasonal Limit May 1 to Nov.1.

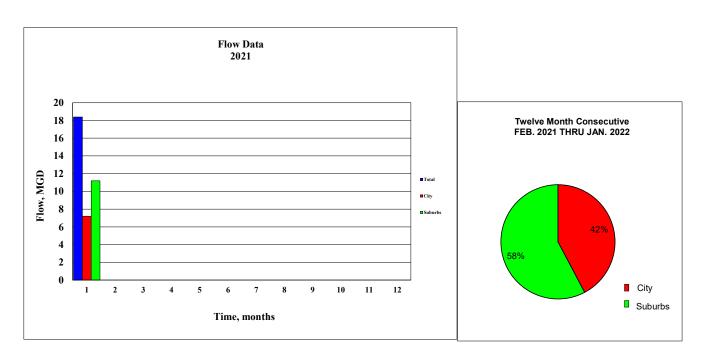


#### **EXHIBIT B**

# CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Flow Monitoring Information, MGD - 2022

	Total				Ci	ity Region	s			Sul	burb Regi	ons		Total Precip
Month	Flow	City	Suburbs	1	2	3	4	5	6	7	8	9	10	inches
January February March April May June July August September October November December	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
Average Percent	18.40 100.00	7.20 39.14	11.20 60.86											2.17 2.17



FLOW2022 No Zeros-B



#### EXHIBIT C

# CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

#### Treatment Utility and Chemical Usage - 2022

Utility / Chemical	January February	March Apri	May	June	July	August	September O	tober Novembe	December	Average	Total
Electric Total, kwH											
Average, kwH/Day	0									0	-
Cost, Dollars											\$
Natural Gas											
Total, Cu Ft											
Average, Cu Ft/Day	0									0	
Cost, Dollars											9
Water											
Total, Gal.											
Average, Gal./Day	0									0	
Cost, Dollars											
MicroC											
Total, Gal.	0									0	
Average, Gal./Day Cost, Dollars	0.0 \$0									0 \$0.00	
COST, DOIIAIS	¥U									\$0.00	
Sodium Hydroxide											
Total, Gal.	0									0	
Average, Gal./Day	0									0	
Cost, Dollars	0									\$0.00	
Chlorine Disinfection											
Total, Lbs.	5,340									5,340	
Average, Lbs./Day	172									172	
Avg Residual, mg/L	0.19									0.19	
Cost, \$/Lbs.	\$0.99									\$0.99	45.0
Total Cost, Dollars	\$5,281.26									\$5,281.26	\$5,2
Phosphorous Removal											
Total FeCl3, Gals.	507									507	
Avg FeCl3, Gals./Day	16									16	
FeCl3 Cost, \$/Gal. FeCl3 Total Cost, Dollars	\$1.26 \$639.32									\$1.26 \$639.32	\$6
recis Tutal Cust, Dullars	<del>4</del> 037.32									<b>\$059.32</b>	\$0

<sup>\*</sup> No data at time of report

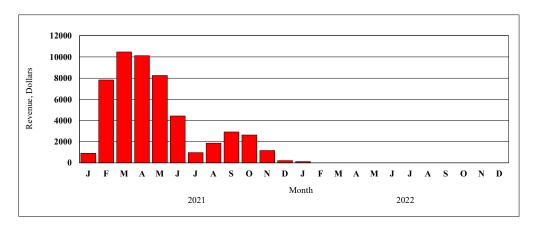


#### **EXHIBIT D**

# CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

**Cogeneration Electrical Production: 2021-2022** 

	Percent	Daily Avg	Kilowatt Hours	Estimated		
Period	Run Time	Kilowatt	Produced	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	\$970.58		
August 2021	26	784	24,300	\$1,871.83		
September 2021	27	1,260	37,800	\$2,911.73		
October 2021	26	1,103	34,200	\$2,634.43		
November 2021	12	510	15,300	\$1,178.56		
December 2021	2	87	2,700	\$207.98		
				_		
Total - 2021			672,300	\$51,787.27		
Monthly Average - 2021	39	1,858	56,025	\$4,315.61		
January 2022	2	58	1,800	\$138.65		
February 2022	_		.,	\$0.00		
March 2022				\$0.00		
April 2022				\$0.00		
May 2022				\$0.00		
June 2022				\$0.00		
July 2022				\$0.00		
August 2022				\$0.00		
September 2022				\$0.00		
October 2022				\$0.00		
November 2022				\$0.00		
December 2022				. 5.00		
				_		
Total - 2022			1,800	\$138.65		
Monthly Average - 2022	2	58	1,800	\$12.60		



COGEN2022-D 10



#### EXHIBIT E

# CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Sludge Handling Information - 2022

Solids Removal							
Solids Removal							
Process, Lbs. 1	1,949,686					1,949,686	1,949,686
CWH Program, Lbs.	69,353					69,353	69,353
	2,019,039					2,019,039	2,019,039
Sludge Dewatering							
Feed Volume, Gals. 3	3,577,000					3,577,000	3,577,000
Feed Solids, %	1.7					1.7	-
Labor, Hours	459					459	459
Operations, Hours	930					930	930
Total Cake, Dry Tons	179					179	179
Total Cake, Wet Tons	1,149					1,149	1,149
Cake TS, %	15.5					15.5	-
Press Rate, Lbs./Hour	2,472					2,472	2,472
Polymer Dosage, Lbs	3,188					3,188	3,188
Polymer Dosage, Lbs/Dry	20.4					20.4	-
Di la							
Disposal Cost							
Labor, Dollars \$	\$8,821.98					\$8,821.98	\$8,821.98
Electrical,Dollars	\$409.07					\$409.07	\$409.07
	\$6,120.96					\$6,120.96	\$6,120.96
	27,763.12					\$27,763.12	\$27,763.12
Total Cost, Dollars \$4	43,115.13					\$43,115.13	\$43,115.13
Cost Per Dry Ton, Dollars	\$240.87					\$240.87	

SLUDGE2022-E

#### **EXHIBIT F**

# CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

Conveyance Utility Usage - 2022

Location / Utility	January February	March April	May	June Ju	ly August	September Octo	ber November Decemb	oer Average	Total
Front Street Pump Station									
Electric Total, kwH Average, kwH/Day Cost, Dollars Fuel Oil Total, Gals. Average, Gals./Day	0							0	0  \$0.00 0
Cost, Dollars Water Total, Gals. Average, Gal./Day Cost, Dollars	0							0	\$0.00 0  \$0.00
Spring Creek Pump Station									
Electric Total, kwH Average, kwH/Day Cost, Dollars Fuel Oil	0							0	0  \$0.00
Total, Gals. Average, Gals./Day Cost, Dollars	0 0 \$0.00							0 0 \$0.00	0  \$0.00
Water Total, Gals. Average, Gal./Day Cost, Dollars	0							0	0  \$0.00
Market Street Pump Station									
Electric Total, kwH Average, kwH/Day Cost,Dollars Fuel Oil	0							0	0  \$0.00
Total, Gals. Average, Gals./Day Cost, Dollars	0 0 \$0.00							0 0 \$0.00	0  \$0.00
City Island Pump Station									
Electric Total, kwH Average, kwH/Day Cost, Dollars	0							0	0  \$0.00

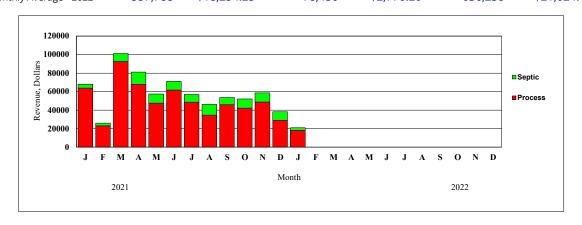


#### **EXHIBIT G**

# CAPITAL REGION WATER ADVANCED WASTEWATER TREATMENT FACILITY

**Contract Waste Hauling Program 2021 - 2022** 

		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	
	20.040.254	¢605 707 02	2.025.500	¢40452042	24 270 475	#740 227 C4	
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							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Total - 2022	557,788	\$18,254.25	78,450	\$2,770.20	636,238	\$21,024.45	
Monthly Average - 2022	557,788	\$18,254.25	78,450	\$2,770.20	636,238	\$21,024.45	



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