

<b>Ensure Financial Stability</b>	
Reconciled Bank Account Balances	Refer to attached Reconciled Bank Account Balances as of 5/31/2022.
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 Water	Provided separately to Board of Directors.
Capital Improvement Projects for Wastewater	Provided separately to Board of Directors.
Grant Management	Refer to attached <i>Grant Management Report</i> .
<b>Ensure Revenues are Consistent with System Usage</b>	
Water Shut-offs	There were 31 water shut-offs for non-payment, 14 were turned back on after payment, and 31 service shut-off requests.
Repair/Replace Meters/MXUs/Batteries	Drinking Water Distribution staff replaced 34 water meters, replaced 48 batteries, and 31 MXUs.
<b>Reduce Wet Weather Impacts to Infrastructure, Community, and Receiving Waters</b>	
Negotiate with PADEP/U.S. EPA/DOJ on Past and Future Practices	CRW and USDOJ/U.S. EPA/PADEP are finalizing the Draft Partial Consent Decree Modification for public comment.
Develop Necessary Planning for Implementation of Green Infrastructure	Phase 4 PENNVEST Stormwater Pro-Fi GSI project package is in the bidding phase. Bids are due 6/21/2022 and the construction contract is anticipated for award at the July Board meeting.
Joint Pollutant Reduction Plan -Collaborate with Suburban Partners on MS4	The Paxton Creek Cooperative (CRW, Lower Paxton Township, and Susquehanna Township) meet monthly to coordinate the implementation of our Joint Pollution Reduction 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 contract. PennDOT has issued a second Invitation for Bid for the Paxton Creek Sediment Reduction Project and the partners are awaiting the bid results.
Obtain and Comply with Individual MS4 Permit	No update.
<b>Operate Facilities with a High Standard of Care</b>	
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 May. Three (3) Sanitary Sewer Overflows and four (4) Dry Weather Overflows were reported. Details are contained in the Wastewater Department Monthly Report for May.
Notice of Violations (NOVs)	There were no NOVs received by the Drinking Water department in May. There were no NOVs received by the Wastewater department in May.
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 May.
CCTV	A total of 2,094 feet (0.4 miles) of sewer pipe were assessed by CCTV footage during the month of May. A total of 710 feet (0.13 miles) of pipe were flushed as well. Most CCTV activity was focused on post-CCTV assessment of small segments of pipe contracted for repair to note defects.

Incident Response	Wastewater responded to nine backup and overflow calls from residents during the month of May. CRW was liable for none.
Geographic Information System (GIS)	<ul style="list-style-type: none"> <li>• Twenty-five (25) Pennsylvania One Call tickets were completed by GIS. Twenty-two (22) tickets needed maps created and three (3) had no CRW utilities in the map area.</li> <li>• Updates to the "City Beautiful H2O GSI Tour" continue. Green Park locations, including Cloverly Heights, Royal Terrace, Penn &amp; Sayford and 4th &amp; Dauphin were added. A republish of the webmap is expected next month which will make the additions visible to our ratepayers.</li> <li>• New Water Schema was received from KCI (Task Order 2022-02-01). GIS has begun the process of switching all web maps, web apps and Cityworks to this new schema.</li> </ul>
Cityworks	[REDACTED]
Asset Management	Task Order 2022-04-02 Asset Management Quick Win Activities are in progress and on schedule. Most activities are complete and the various program elements developed will be memorialized in the Strategic Asset Management Plan (SAMP) scheduled for completion in August. Front Street Pump Station inventory pilot has identified and collected data of 139 new assets scheduled for barcode labeling on Tuesday, 6/21/2022. The [REDACTED] data gap closure plan is complete and work has begun to develop the risk matrix. Preliminary steps have begun for site selection for the 2022 Water Distribution Condition Assessment project.
Development Review Summary	For details, see attached <i>Development Stormwater Management Review Summary</i> spreadsheet for June.

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

Professional & Contractor Services	<p><b>Recommend Board approval of the following Task Orders, Change Orders, Agreements and Procurement:</b></p> <p><b>Drinking Water:</b>            2022 Street Restoration Project - Recommendation of Award [REDACTED]            Procurement of DCS Tower Demolition for the Water Services Center Control Room SCADA Upgrades [REDACTED]            Procurement of Project Number 2022-201: Chlorine Room Monorail Hoist System for the Water Services Center [REDACTED]            Procurement of Roof and Siding Renovations for the Water Services Center Salt Storage Shed [REDACTED]            Procurement of Rubber Roof Replacement for DeHart Control Room/Garage Dock [REDACTED]            Procurement of Roof Cap and Siding Replacement for the DeHart Control Room/Garage Dock [REDACTED]</p> <p><b>Wastewater:</b>            Task Order 2020-16-03: Engineering Services for Front Sreet Interceptor Rehabilitation Phase 2 [REDACTED]</p> <p><b>Stormwater:</b>            Task Order 2022-08-01: Engineering Services for 2022 GSI Services During Construction [REDACTED]</p>
Stormwater O&M Agreements	<b>Recommend Board approval of the following:</b> Resolution No. 2022-014 with Pennsylvania DUI Association Inc.
AWTF Primary Digesters Rehabilitation	Foam insulation has been installed on Digester No. 1. Startup and testing of Digester No. 1 is expected to begin in June.
AWTF Energy Recovery Improvements	Permit applications are being reviewed by Swatara Township and PADEP.
Front Street Pumping Station Improvements	The contractors are addressing punch list items and site cleanup.
WSC Flocculator Equipment Replacement	The contractor is providing equipment submittals for the engineer's review.

Undertake Renewal and Replacement Projects	
2020 Sewer System Improvements	Punch list items and final paving remains.
2021 Sewer System Improvements	The contract was terminated on 5/25/2022. CRW is working with the engineer to close out the contract and rebid as soon as possible.
2021 Water System Improvements	The contractor has remaining work at the 6th and Wallace Streets location and is performing final paving.
2022 Water System Improvements	The project was awarded to Wexcon, Inc. The project cannot proceed until PENNVEST settlement occurs on 7/7/2022.
Cameron Street Water Main - Phase 3	Final paving is complete and punch list items remain.
Arsenal Boulevard Sewer Improvements	Temporary and construction easements must be acquired before advertising the project.
Front Street Interceptor Rehabilitation - Phase 2	The project was awarded to Insituform, LLC. The project cannot proceed until PENNVEST settlement occurs on 7/7/2022.
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 May. A narrative is provided in the Wastewater Department Monthly Report.
Sinkhole Program	Nine (9) sinkholes were investigated by CRW in the month of May. Six were due to failure of CRW assets. Wastewater was liable for three and Drinking Water was liable for three.
Inlet Cleaning	A total of 243 stormwater inlets were cleaned during the month of May, and 234 stormwater inlet inspections were performed.

Operate as an Efficient, Sustainable and Resilient Water Utility	
DeHart Property Stewardship	<p>Timber harvest to improve regeneration continues in Management Unit (MU) 22/31 in accordance with the DeHart Property Forest Management Plan.</p> <p>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.</p> <p>Forest management inspections for Forest Stewardship Council (FSC) compliance were completed with The Nature Conservancy on 5/26/2022.</p>
Sustainability	No update.
Internal Communications	The Intranet site and calendar continue to be utilized. The 2nd Quarterly all-employee meeting was held on 5/5/2022.

Inform and Listen to Customers and Encourage Stewardship of our Systems	
Media Relations - Press and Social Media	<p><b>PRESS RELEASES:</b> CAPITAL REGION WATER'S 2021 SEMI-ANNUAL REPORT ON CONSENT DECREE IMPLEMENTATION NOW AVAILABLE (4/12/2022). CAMP CURTIN YMCA AND CAPITAL REGION WATER BREAK GROUND ON BIG GREEN BLOCK STORMWATER MANAGEMENT PROJECT (4/29/2022).</p> <p><b>SOCIAL MEDIA TOPICS:</b></p> <p><b>Facebook:</b> 12 New Organic Followers (1,496 Total). 5 Posts; Highest Engaged Post: (5/31/2022) "Employees of the Month: Cody, Jamie &amp; Scott." (977 Reach, 90 Reactions, 20 Comments, 4 Shares, 108 Link Clicks); Other topics: Water Week (5 posts), Giant &amp; "Lead by Example" litter cleanup and BWA Advisory &amp; Lift.</p> <p><b>Twitter:</b> 1 Tweet; Highest Engaged Tweet: "BWA" (783 Impressions; 0 Likes, 0 Retweets) Month overview: 1,290 total Impressions; 1,163 Profile Visits; -1 New Followers; 1 Mentions.</p> <p><b>Instagram:</b> 6 New followers (661 Total), 5 Posts; Highest Engaged Post: (5/31/2022) "Employees of the Month: Cody, Jamie &amp; Scott." 65 Organic Reach, 5 likes, 1 comment.</p> <p><b>2022 Demographics:</b> Most Active Age-range: 25-54; Gender division: 62% women/37% Men; Locations: Harrisburg, Penbrook, Mechanicsburg, Steelton, Linglestown, Camp Hill and Lancaster.</p>



<p>Office Management and Admin Professional Services and Construction</p>	<p><b>Incoming Correspondence Report:</b> Refer to attached <i>Incoming Correspondence Report for May 2022</i>.</p> <p><b>Street/Sidewalk-Cut Permits:</b> One (1) Drinking Water and seven (7) Sewer permits were successfully completed, inspected, and closed by the City of Harrisburg's Engineer. Three (3) new Drinking Water and one (1) Sewer permits were issued.</p> <p><b>Recommend Board approval of the following:</b></p> <ul style="list-style-type: none"> <li>• None.</li> </ul>
<p>Right-to-Know Requests</p>	<p>CRW has received and responded to two Right-to-Know requests during the period 5/19/2022 through 6/15/2022. 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.</p> <p><b>OOR Training:</b> The Open-Records Officer participated in the following webinars conducted by the Office of Open Records (OOR) during the past month:</p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>OOR 2022 Annual Survey:</b></p> <ul style="list-style-type: none"> <li>• 6/06/2022 - Open-Records Officer participated in the 2022 Annual Survey for RTK requests filed in calendar years 2020 and 2021 conducted by the Office of Open Records (OOR).</li> </ul> <p><b>2022-008 - Carolina Barrios (SmartProcure)</b> Requested any and all purchasing records from 1/4/2022 to current. The request is limited to readily available records without physically copying, scanning or printing paper documents. Any editable electronic document is acceptable. Specific information requested from your recordkeeping system is: (1) Purchase order number. If purchase orders are not used a comparable substitute is acceptable, i.e., invoice, encumbrance, or check number. (2) Purchase date. (3) Line item details (detailed description of the purchase). (4) Line item quantity. (5) Line item price. (6) vendor ID number, name, address, contact person and their email address. <b>Response due: 5/24/2022. Response provided 5/19/2022 for 30-day extension until 6/23/2022. Response provided: 6/13/2022.</b></p> <p><b>2022-009 - Sisto Campana (AFSCME - Washington DC)</b> Labor advocate for the American Federation of State, County and Municipal Employees performing a wage survey for one of our affiliates in Pennsylvania who work for a different wastewater treatment facility. Requesting non-personal wage and job description information of Capital Region Water positions similar to five job descriptions: (1) Sewer Maintenance Person; (2) Utility Person; (3) Waste Water Reuse Plant Operator; (4) Compost Operator; and (5) Inspector. As an example, if Capital Region Water doesn't have a job titled "Sewer Maintenance Person" but has a position that has duties, experience and qualifications that are similar to the attached "Sewer Maintenance Person" description, I would like to have information for that Capital Region Water position. This goes for all of the positions listed above. The information I am looking for from Capital Region Water would include the minimum wages and maximum wages, the job description, the experiences and qualifications needed for that position and the job title Capital Region Water uses. <b>Response due: 6/13/2022. Response provided 6/9/2022 for 30-day extension until 7/13/2022.</b></p>



**CAPITAL REGION™**  
**WATER**

**DRINKING WATER DEPARTMENT  
MONTHLY REPORT**



New Soda Ash Feeder

**May 2022**

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

## Plant Operations

---

The Capital Region Water (CRW) Drinking Water department met all Federal Safe Drinking Water Act water quality standards for the month of May. Specific water quality results are summarized in Exhibit A. A total of 231.93 MG, averaging 7.48 MGD was withdrawn from the water supply source for treatment. As shown in Exhibit B, a total of 230.43 MG, averaging 7.43 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 above average rainfall in May (Exhibit C) and the DeHart reservoir water level decreased (Exhibit D). An estimated 1,517.98 MG of water was released from DeHart reservoir to Clark Creek, averaging 48.97 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 62 preventative maintenance work orders and four corrective maintenance work orders for the month of May using the Cityworks maintenance management system for all water treatment plant equipment, pumping stations and fleet vehicles and corporate offices.

- 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 team installed new LED soffit lighting and switching in the NFS offices conference room.
- The Maintenance team continues to cut grass, weed whacking at the WSC, DeHart Dam facility, Pump House locations and NFS offices.
- The Maintenance team continues to support the requests and work orders for the NFS offices.
- The Maintenance team continues working on the DeHart Dam Distribution Mountain Line by installing markers, clearing of blow-off pits for ease of access and locating pits on GIS.
- The Maintenance team continues to service and repair the maintenance and distribution fleet.

## Distribution

---

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

- Repair Three water main break during the month totaling 896,734 gallons of unmetered water for the month of May.
- Repair five leaking services during the month totaling 111,040 gallons of unmetered water for the month of May.
- Repair three fire hydrant.
- Replace one fire hydrant
- CRW flushed 591 fire hydrants in May.
- Complete 327 work orders.
- Complete 481 water, sewer, and storm water locates.
- Continue leak detection daily
- Work with contractors on several water, sewer, and storm water 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 and E. coli.





**CAPITAL REGION™**

---

**WATER**

# **Drinking Water Exhibits**

## EXHIBIT A Water Quality Analysis - 2022

PARAMETERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Average	MCL Limits
<b>Total Coliform: Presence/Absence</b>														
Distribution System	A	A	A	A	A									5% P
<b>Chlorine Residual, mg/L Free</b>														
Filter Plant Effluent	1.94	2.03	1.98	1.97	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>1.98</b>	0.2 - 4.0
Distribution System	1.27	1.35	1.32	1.30	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>1.31</b>	<0.02
<b>Turbidity, NTU</b>														
Influent from DeHart	0.57	0.55	0.61	0.72	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.61</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>N/A</b>	NA
Filter Plant Effluent	0.04	0.03	0.04	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.04</b>	0.30
<b>pH, Std Units</b>														
Influent from DeHart	6.4	6.3	6.3	6.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>6.31</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>N/A</b>	NA
Filter Plant Effluent	7.4	7.5	7.5	7.6	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>7.50</b>	6.5 - 8.5*
Distribution System	7.6	7.7	7.6	7.6	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>7.63</b>	6.5 - 8.5*
<b>Total Alkalinity, mg/L as CaCO3</b>														
Influent DeHart	5	5	5	5	5	0	0	0	0	0	0	0	<b>5.00</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0	0	0	0	0	0	0	0	<b>N/A</b>	NA
Filter Plant Effluent	13	18	16	15	17	0	0	0	0	0	0	0	<b>15.54</b>	<15*
Distribution System	15	17	15	16	16	0	0	0	0	0	0	0	<b>15.53</b>	<15*
<b>Temperature, degrees C</b>														
Influent from DeHart	6.6	6.0	7.4	9.5	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>7.38</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>	NA
Filter Plant Effluent	7.0	6.9	8.1	10.6	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>8.15</b>	NA
Distribution System	15.3	12.9	13.3	14.6	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	<b>14.03</b>	NA
<b>Fluoride, mg/L</b>														
Filter Plant Effluent	0.57	0.58	0.57	0.52	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.56</b>	2
<b>Aluminum, mg/L</b>														
Filter Plant Effluent	0.10	0.22	0.23	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.15</b>	0.2*
<b>Iron, mg/L</b>														
Influent from DeHart	0.62	0.13	0.10	0.07	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.23</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>	NA
Filter Plant Effluent	0.01	0.02	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.01</b>	0.3*
Distribution System	0.13	0.01	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.04</b>	0.3*
<b>Total Dissolved Solids, mg/L</b>														
Influent from DeHart	13	13	14	15	16	0	0	0	0	0	0	0	<b>14.02</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0	0	0	0	0	0	0	0	<b>N/A</b>	NA
Filter Plant Effluent	37	38	41	44	46	0	0	0	0	0	0	0	<b>39.88</b>	500*
Distribution System	39	40	38	45	46	0	0	0	0	0	0	0	<b>40.70</b>	500*
<b>Total Hardness, mg/L</b>														
Influent from DeHart	8	8	8	8	8	0	0	0	0	0	0	0	<b>8.00</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	0	0	0	0	0	0	0	0	<b>N/A</b>	NA
Filter Plant Effluent	8	8	8	8	8	0	0	0	0	0	0	0	<b>8.00</b>	NA
Distribution System	8	7	7	6	5	0	0	0	0	0	0	0	<b>7.00</b>	NA
<b>Orthophosphate, mg/L</b>														
Filter Plant Effluent	1.20	1.15	1.40	1.16	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>1.23</b>	0.7 - 1.3*
Distribution System	1.23	1.14	NA	1.18	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>1.18</b>	0.7 - 1.3*
<b>**Total Trihalomethanes, ug/L</b>														
Distribution System	0.035	NA	NA	0.041	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.04</b>	0.080
<b>**Total Haloacetic Acids, ug/L</b>														
Distribution System	0.033	NA	NA	0.037	NA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.03</b>	0.060
<b>Total Organic Carbon, mg/L</b>														
Influent from DeHart	3.00	NA	NA	2.40	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>2.70</b>	NA
Influent from Susquehanna	NA	NA	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>N/A</b>	NA
Filter Plant Effluent	1.50	NA	NA	1.30	NA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>1.40</b>	NA
Average Filter Run, Hours	114	116	116	115	114	0	0	0	0	0	0	0	<b>115.25</b>	NA

\*\*\* Not Available at Time of Report

\* Values are related to DEP Secondary MCL

\*\* Running Annual Quarterly Average

**EXHIBIT B**

**Water Production Data - 2022**

DeHart Withdrawal		River Withdrawal		Total Withdrawal		Treated Water		Process Water		Finished Water		
Month	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)	Total (MG)	Average (MGD)
January	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
<b>May</b>	<b>231.932</b>	<b>7.482</b>	<b>0.000</b>	<b>0.000</b>	<b>231.932</b>	<b>7.482</b>	<b>239.807</b>	<b>7.735</b>	<b>6.563</b>	<b>0.212</b>	<b>230.430</b>	<b>7.433</b>
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
<b>Total</b>	<b>1131.093</b>		<b>0.000</b>		<b>1131.093</b>		<b>1161.764</b>		<b>29.239</b>		<b>1116.145</b>	
<b>Average</b>	<b>226.219</b>	<b>7.502</b>	<b>0.000</b>	<b>0.000</b>	<b>226.219</b>	<b>7.502</b>	<b>232.353</b>	<b>6.703</b>	<b>5.848</b>	<b>0.194</b>	<b>223.229</b>	<b>7.401</b>

Peak Day Water Use  
Minimum Day Water Use

5/31/2020  
5/1/2020

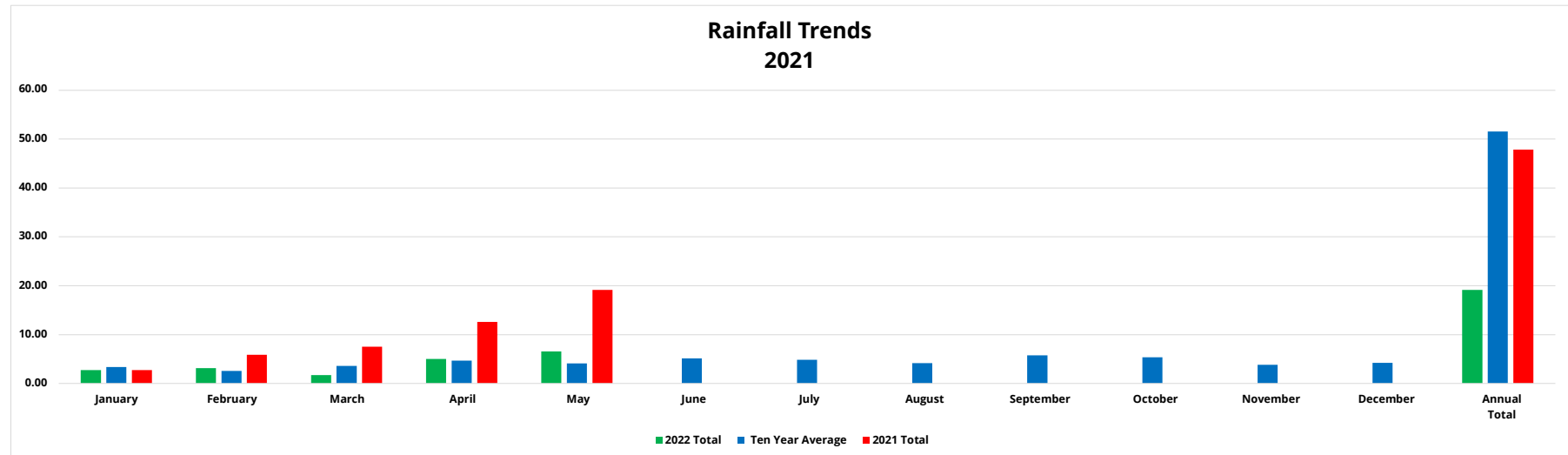
6.966  
6.081

(MG) = Million Gallons  
(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
<b>2022 Total</b>	2.74	3.14	1.67	5.03	6.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.13
<b>Daily Average</b>	0.080	0.113	0.150	0.168	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.722
<b>Ten Year Average</b>	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
<b>2021 Total</b>	2.74	5.88	7.55	12.58	19.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.88



**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
<b>2022 AVG</b>	1.9	3.1	3.2	4.6	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Ten Year AVG</b>	-38.8	-36.6	-27.4	-14.4	-12.5	-15.0	-12.0	-42.0	-60.5	-73.5	-75.0	-62.6
<b>2022 AVG</b>	1.9	5.0	6.3	7.8	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**DeHart Reservoir Water Level Trends**  
2021

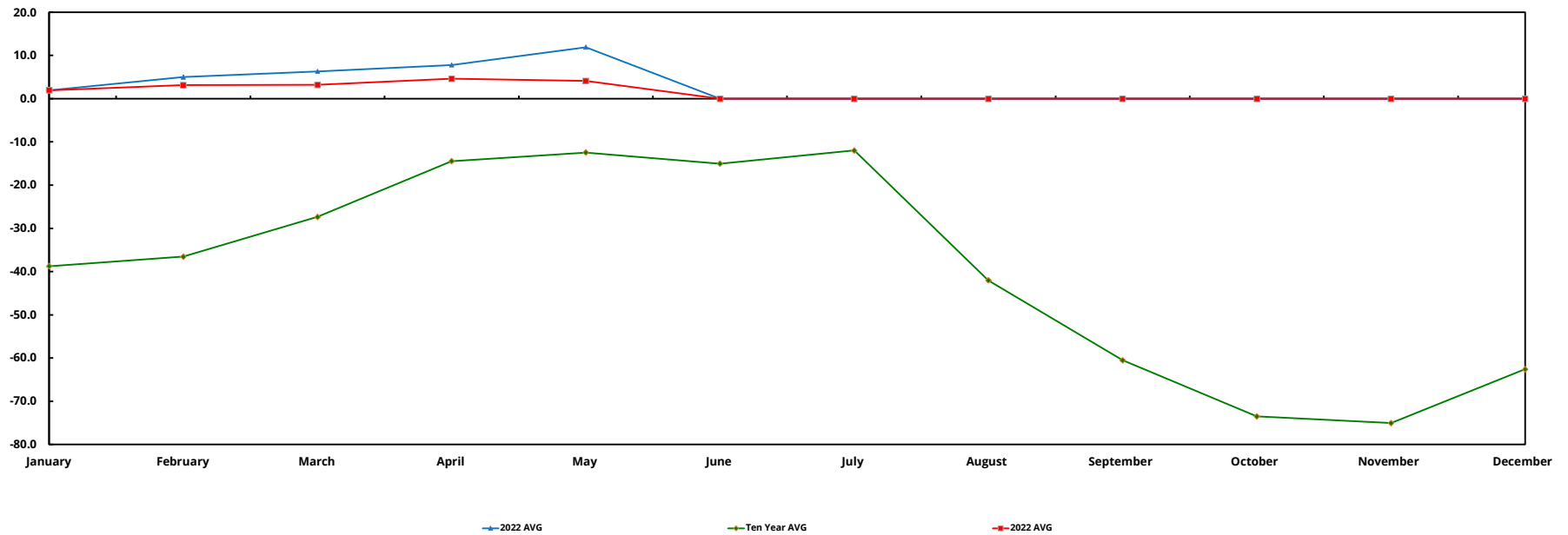
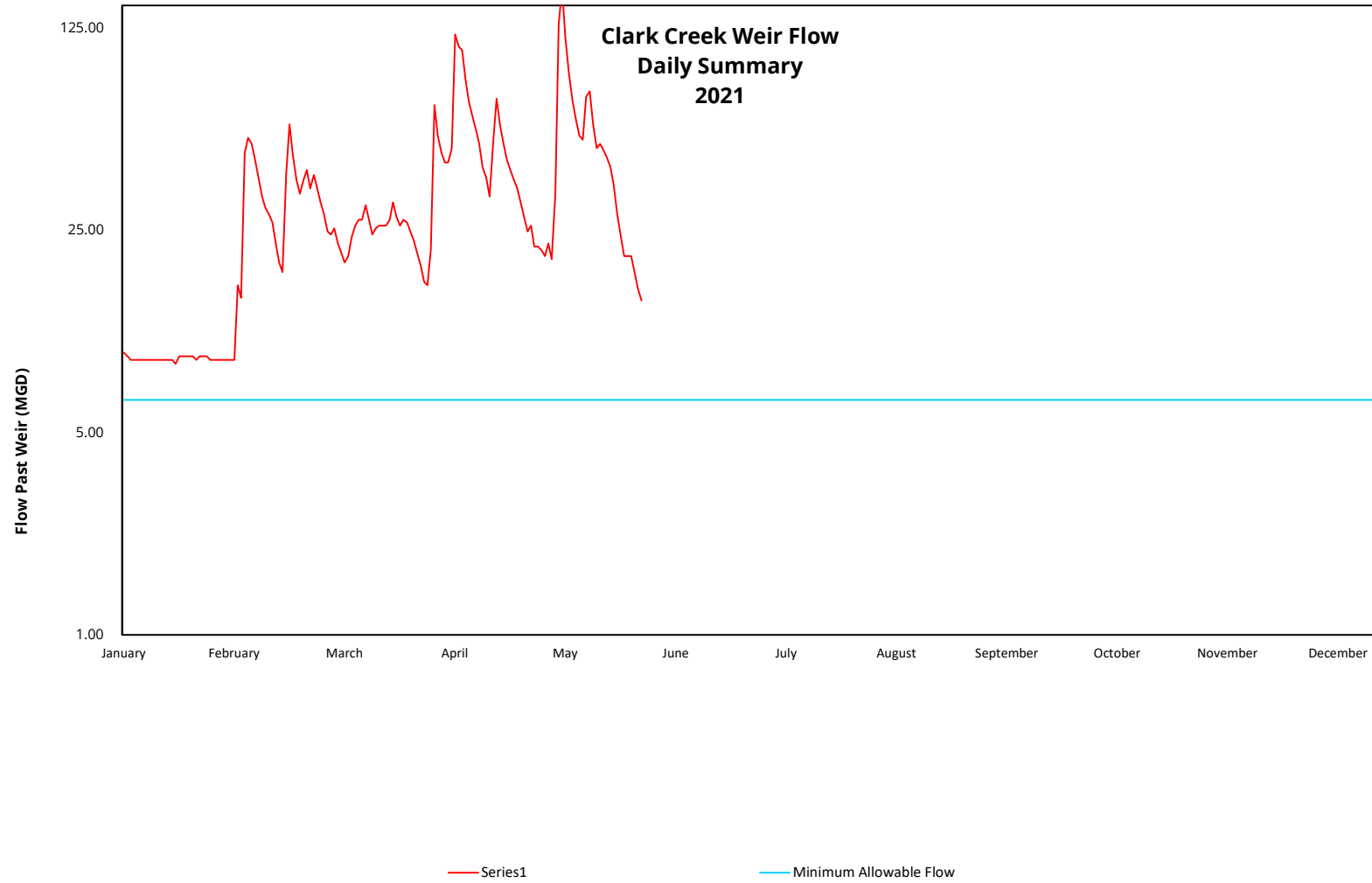


EXHIBIT E  
Daily Conservation Release - 2022





**EXHIBIT F**  
**Utility Usage - 2022**

Location / Utility	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
<b>Water Services Center</b>														
<b>Electric Transmission</b>														
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
<b>Electric Generation</b>														
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
<b>Natural Gas</b>														
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
<b>Sewer</b>														
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
<b>Refuse</b>														
Cost, Dollars	\$509.60	\$509.60	\$509.60										\$509.60	\$1,528.80
<b>Reservoir Park Pump Station</b>														
<b>Electric Transmission</b>														
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
<b>Electric Generation</b>														
Total, kWh	84,800	84,800	81,600	82,400									83,733	251,200
Cost, Dollars	\$1,074.71	\$1,134.00	\$1,168.51										\$1,125.74	\$3,377.22
<b>Natural Gas</b>														
Total, Cu Ft	823	523											673	1,346
Cost, Dollars	\$696.50	\$451.99											\$574.25	\$1,148.49
<b>Wassukuhina River Pump Station</b>														
<b>Electric Transmission</b>														
Total, kWh	1,800	1,200	1,800										1,600	4,800
Cost, Dollars	\$77.70	\$14.63	\$84.89										\$59.07	\$177.22
<b>Electric Generation</b>														
Total, kWh	1,800	1,200	1,800	600									1,350	5,400
Cost, Dollars	\$75.67	\$74.18	\$71.63	\$69.05									\$72.63	\$290.53
<b>Natural Gas</b>														
Total, Cu Ft	724	641											683	1,365
Cost, Dollars	\$615.82	\$548.16											\$581.99	\$1,163.98
<b>Union Square Booster Station</b>														
<b>Electric Transmission</b>														
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
<b>Electric Generation</b>														
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
<b>DeHart Facilities</b>														
<b>Electric Transmission</b>														
Total, kWh	2,965	2,845	2,728	2,470									2,752	11,008
Cost, Dollars	\$224.15		\$203.55	\$199.31									\$209.00	\$627.01
<b>Electric Generation</b>														
Total, kWh	2,965	2,845	2,728	2,499									2,759	11,037
Cost, Dollars	\$101.22	\$96.85	\$97.06	\$90.42									\$96.39	\$385.55
<b>Fuel Oil</b>														
Total, Gals.			1,438										1,438	1,438
Cost, Dollars			\$8,077.31										\$8,077.31	\$8,077.31
<b>City Island Heat Trace</b>														
<b>Electric Transmission</b>														
Total, kWh	390	378	356										346	1,382
Cost, Dollars	\$23.33	\$20.65	\$19.97										\$18.94	\$75.76
<b>Electric Generation</b>														
Total, kWh	390	378	356										375	1,124
Cost, Dollars	\$65.29	\$65.27	\$64.99										\$65.18	\$195.55
<b>Expenditures YTD</b>													\$99,294	\$224,453

\*\* Not available at time report was developed

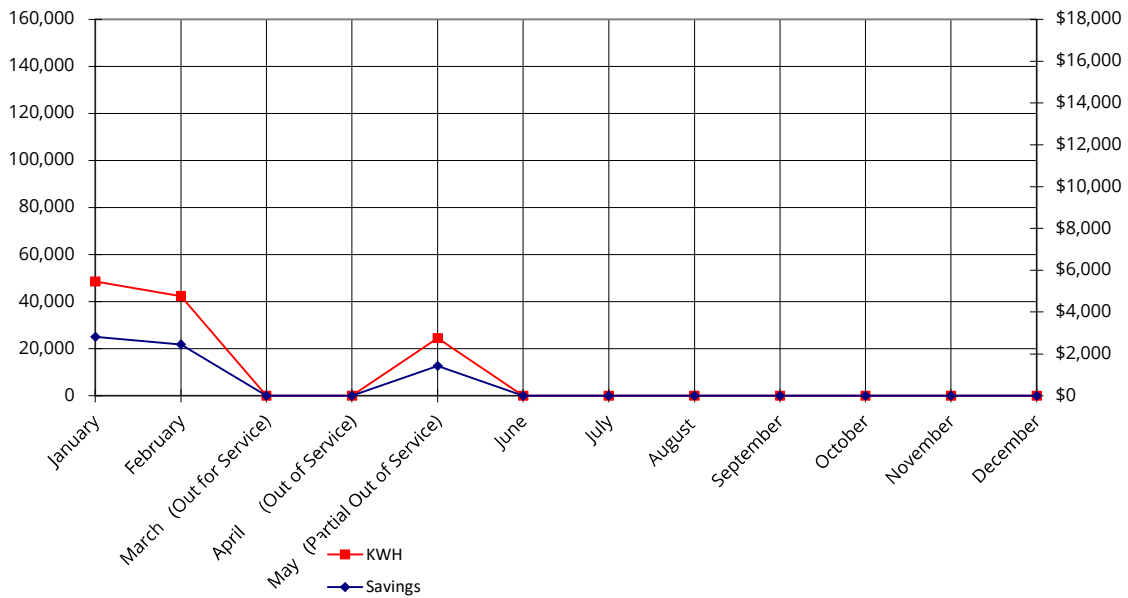
<b>Total Transmission</b>	<b>\$58,624</b>
<b>Total Generation</b>	<b>\$9,977</b>
<b>Total Refuse</b>	<b>\$1,529</b>
<b>Total Gas</b>	<b>\$24,096</b>
<b>Total Sewer</b>	<b>\$122,150</b>
<b>Total Fuel Oil</b>	<b>\$8,077</b>
<b>Total Utilities</b>	<b>\$222,924</b>

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
<b>May (Partial Out of Service)</b>	<b>24,528</b>	<b>\$1,423</b>
June	0	\$0
July	0	\$0
August	0	\$0
September	0	\$0
October	0	\$0
November	0	\$0
December	0	\$0
<b>Average</b>	<b>45,456</b>	<b>\$2,636</b>
<b>Year to Date</b>	<b>115,440</b>	<b>\$6,696</b>

\* 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
<b>Chlorine</b>														
Total Lbs.	6,180	6,133	6,135	5,736	6,296								6,096	30,480
Average, Chlorine Lbs./Day	199	219	198	191	203								202.1	
Average, Chlorine Dose, mg/L	3.2	3.2	3.2	3.2	3.2								3.2	
Chlorine Cost, \$/Lbs.	\$0.305	\$0.305	\$0.305	\$0.305	\$0.305								0.3	
Chlorine Total Cost, Dollars	\$1,885	\$1,871	\$1,871	\$1,749	\$1,919								\$1,858.98	\$9,294.90
<b>Alum 48.5%</b>														
Total Lbs.	48,096	46,683	42,713	38,071	38,686								42,850	214,249
Average, Alum, Lbs./Day	1,551	1,667	1,378	1,269	1,248								1422.7	
Average, Alum, mg/L	25.0	25.0	18.3	18.8	20.0								21.4	
Alum Cost, \$/Lbs.	\$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								\$7,027.55	\$35,137.74
<b>Lime</b>														
Total Lbs.	0	0	0	0	0								0	0
Average Lime, Lbs./Day	0	0	0	0	0								0.0	
Average, Lime Dose, mg/L	0.0	0.0	0.0	0.0	0.0								0.0	
Lime Cost, \$/Lbs.	\$0.00	\$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
<b>Soda Ash</b>														
Total Lbs.	24,800	25,750	25,400	26,250	31,650								26,770	133,850
Average Soda Ash, Lbs./Day	800	920	819	875	1,021								887.0	
Average, Soda Ash Dose, mg/L	16.7	16.7	16.2	16.9	17.7								16.8	
Soda Ash Cost, \$/Lbs.	\$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								\$8,004.24	\$40,021.20
<b>Fluoride</b>														
Total Lbs.	1,155	1,193	1,168	1,111	1,202								1,166	5,829
Average, Fluoride Lbs./Day	37	43	38	37	39								38.9	
Average, Fluoride (F-) Dose, mg/L	0.6	0.6	0.6	0.6	0.6								0.6	
Fluoride Cost, \$/Lbs.	\$0.48	\$0.48	\$0.48	\$0.48	\$0.48								\$0.48	
Fluoride Total Cost, Dollars	\$554	\$573	\$561	\$533	\$577								\$559.68	\$2,798.40
<b>Sodium Hydroxide 50%</b>														
Total NaOH 50% dry Lbs.	41,600	36,660	38,202	36,068	41,385								38,783	193,915
Average NaOH 50%, dry Lbs./Day	1,342	1,309	1,232	1,202	1,335								1,284	
Average, NaOH 50%, mg/L	10.7	10.7	9.8	9.9	10.4								10.3	
NaOH 50% Cost, dry \$/Lbs	\$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								\$5,452.08	\$27,260.40
<b>Zinc Orthophosphate</b>														
Total Zn3(PO4)2, wet Lbs.	5,142	5,057	5,034	4,712	5,189								5,027	25,134
Average Zn3(PO4)2, wet Lbs./Day	166	181	162	157	167								166.6	
Average, Zn3(PO4)2 Dose, mg/L	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								0.4	
Zn3(PO4)2 Total Cost, Dollars	\$1,923	\$1,891	\$1,883	\$1,762	\$1,941								\$1,880.02	\$9,400.11
<b>Potassium Permanganate</b>														
Total KMnO4, Lbs.														0
Average KMnO4, Lbs./Day														
Average, KMnO4 Dose, mg/L														
KMnO4 Cost, \$/Lbs.														
KMnO4 Total Cost, Dollars														\$0.00
<b>Expenditure</b>														\$123,912.75
<b>Average Treated Cost per (MG)</b>														
<b>Total Treated Flow (MGD)</b>														0.000
<b>Average Treated Flow (MGD)</b>														232.353



**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	0	0	0	0	0	0	0	2,492	498
Street Restorations	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leak Detection Assessment <i>Percent of Distribution System</i>	8	8	8	8	8	0	0	0	0	0	0	0	40	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	0	0	0	0	0	0	0	15	3
Service Line Leaks Detected	2	10	0	0	0	0	0	0	0	0	0	0	12	2
Service Line Leaks Repaired	1	11	0	0	2	0	1	0	0	0	0	0	15	3
Valves - Exercised	0	0	0	2	0	0	0	0	0	0	0	0	2	0
Valves - Replaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrant Flow Tests	0	2	3	2	5	0	0	0	0	0	0	0	12	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	0	0	0	0	0	0	0	10	2
Water Tap - New Connection	1	1	1	1	0	0	0	0	0	0	0	0	4	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	0	0	0	0	0	0	0	141	28
Water Shutoffs - Non Payment	0	0	0	37	31	0	0	0	0	0	0	0	68	14
Water Restoration Turn on Other	22	24	22	36	52	0	0	0	0	0	0	0	156	31
Water Turn on - Non Payment	5	6	5	24	14	0	0	0	0	0	0	0	54	11

**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
<b>Meter Installations</b>															
Replacement	Missing	7	8	3	4	6								28	6
	Leaking	7	1	3	1	4								16	3
	Frozen	10	6	6	5	1								28	6
	Non-registering	1	3	5	5	2								16	3
	Large Meters <sup>1</sup>	0	0	0	1	1								2	0
New Service	New Installation	0	1	1	1	0								3	1
<b>Meter Service</b>															
MXU's Replaced	MXU's Replaced	20	22	41	18	31								132	26
Batteries Replaced	Batteries Replaced	67	25	123	65	48								328	66
Meter Pits Serviced	Meter Pits Serviced	1	0	0	1	1								3	1
<b>Meter Calibrations</b>															
Small Meters <sup>2</sup>	Calibrated meters	2	0	1	2	11								16	3

**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	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0
Billed Metered Exported	Bulk Water Hauling	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0
Billed Metered	Hydrant Connections	0	0	0	8,176	359,716	0	0	0	0	0	0	0	33,445	73,578
Billed Unmetered	Hydrant Flow Tests	0	7,955	11,526	3,812	11,792	0	0	0	0	0	0	0	35,085	7,017
Unbilled Unmetered	Hydrant Flushing (and Unbilled Authorized)	221,167	32,288	120,010	3,485,233	5,695,883	0	0	0	0	0	0	0	9,554,581	1,910,916
Leakage on Distribution Mains	Main Leaks	4,349,565	1,286,902	2,856,325	71,360	896,734	0	0	0	0	0	0	0	9,460,886	1,892,177
Leakage on Service Lines	Service Leaks	998,776	708,950	595,243	573,408	111,040	0	0	0	0	0	0	0	2,987,417	597,483
	<b>Total</b>	5,569,508	2,036,095	3,583,104	4,141,989	7,075,165	0	0	0	0	0	0	0	22,405,861	4,481,172



**CAPITAL REGION**<sup>™</sup>  

---

**WATER**

Wastewater

# Wastewater

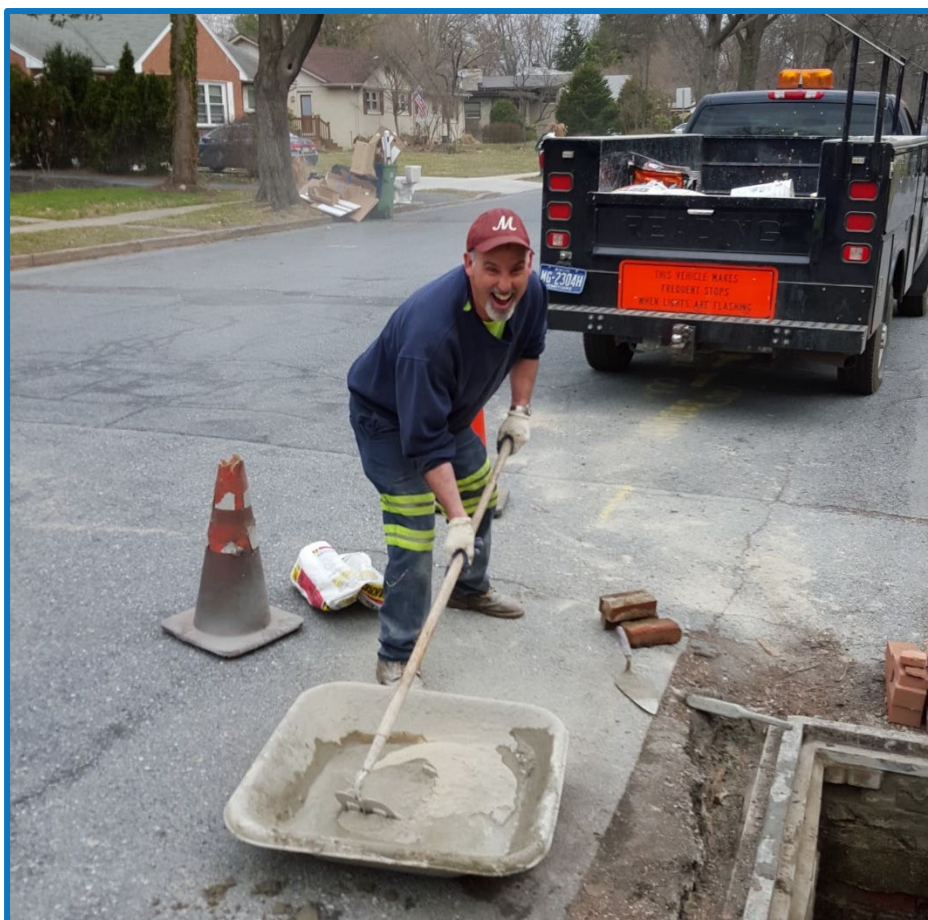




**CAPITAL REGION™**

**WATER**

## **WASTEWATER DEPARTMENT MONTHLY REPORT**



Field Operator Michael Fox

**May 2022**

1662 South Cameron Street, Harrisburg, PA 17104 | 888-510-0606  
[capitalregionwater.com](http://capitalregionwater.com)

## Overview

---

Personnel continued to be a major focus for the Wastewater department in May. Three promotions and one resignation created openings that were all filled by internal bidding and promotions which created ripple effects across several groups. With the reshuffling now in its third month, activity is finally slowing as we approach 100 percent full staffing.

Nearly all work for the Front Street Pumping Station has been completed. But important work outside the rehabilitation contract moved ahead during the month of May. New flow control programming has been in design for the last several months. This program will allow the station, with its newly increased capacity, to maximize flow to the treatment plant without overloading it. Combined with the initial modifications to weir elevation heights in the CSO system, this will result in a significant increase in our wet weather capture rate. The program will be active and CSO modifications will be completed in June.

Work on the Primary Digester Rehabilitation Project continued in May with the fixed cover finally being insulated. Biological seeding of the unit is expected to begin in June, with a 60-day test period to follow.

## Operations

---

During the month of May, the AWTF met all monthly average NPDES permit requirements. Three Sanitary Sewer Overflows and four Dry Weather Overflows were reported.

Hydraulic loading to the AWTF averaged 28.6 million gallons per day (MGD). The treatment process achieved removal reductions of 95.9 percent CBOD, 96.7 percent Suspended Solids, 62.2 percent Phosphorus, 83.2 percent Ammonia, and 71.5 percent Nitrogen (Exhibit A).

Revenue of the Contract Waste Hauling program collected \$55,252.17 in revenue from 1,850,640 gallons discharged (Exhibit G).

The Cogeneration facility experienced an average run time of 53 percent in May. Revenue is estimated at \$4,020.97 on 52,200 Kilowatt-hours generated for the month. Increased run time can be attributed to the retubing of No. 3 heat exchanger resulting in better heat transfer. Also, lower thickener blankets resulting in a thicker sludge being pumped to the digester.

## Laboratory

---

- Completed semi-annual compliance sampling at select industrial user Norfolk Southern Corporation.
- Updated the laboratory's Procedures Manual, Quality Manual, and bench sheets for BOD/CBOD5, Fecal Coliform and Ammonia-Nitrogen.
- Replaced the old chlorine pocket colorimeter in the Operator's Laboratory with a new HACH DR300 pocket colorimeter.
- Submitted primary influent samples to Biobot for COVID-19 testing.

## Pretreatment

---

- Received self monitoring reports submitted for April 2022 and Harrisburg Dairies, Inc. 1st quarter 2022 report.
- Completed semi-annual Industrial User Facility Inspections at the Lancaster County Solid Waste Facility's 002/003 Harrisburg landfill sites.
- Completed the 1st quarter significant non-compliance evaluations with the exception of Harrisburg Dairies, Inc.
- Completed the Contract Waste Hauling Program's Quickbooks April data entry before forwarding the waste hauler monthly reports to billing.

## Plant Maintenance

---

- Repaired and replaced scrapper on conveyor at the Belt Filter Press.
- Installed wiring for IT to add additional Wi-Fi at the plant. Repaired compromised perimeter along fence.
- Continued rehabilitation of Gas Compressor No. 2.
- Repaired discharge piping for grease pit pump.
- Tested backup generator switch gear at the Market Street Pump Station.
- Replaced two 6-inch plug valves on Final Clarifier Scum Pits No. 3 and 6 at the Final Pipe Gallery.
- Replaced 8-inch discharge gate at the Plant Drain Pump Station.
- Continued installation of Gorman Rupp Pump No. 3 at the Plant Drain Pump Station.
- Replaced anoxic mixer motor at the Post Anoxic Tank.
- Removed Pump No. 2 to clear blockage in pump impeller at the Spring Creek Pump Station.
- Performed full load generator test at the Spring Creek Pump Station.
- Continued major overhaul for bar screen and assembled new rag removal rake at the Spring Creek Pump Station.
- Excavated and repaired underground wiring for truck scale.
- Performed eight vehicle repairs in preparation for state inspections.



- 
- Serviced A/C units on several trucks.
  - Responded to work requests at North Front Street (NFS) office building as needed.
  - Order Tankless water heaters for NFS Building.

## Field Construction

---

- Performed an emergency dig at 10th and Shannon Streets. Replaced three feet of 10-inch VCP with 10-inch SDR pipe.
- Did an exploratory dig at 4th and Strawberry Streets to investigate a basement backup. A sewer main was determined to be collapsed. Currently waiting on engineering determination on a solution.
- Installed a new manhole structure at Peffer Street and Myers Ally to grant access for CCTV assessment. A manhole will subsequently be installed downstream at the intersection of Geiger Street and Myers Ally.
- Repaired 34 inlets in various locations throughout the city.
- Replaced one inlet with a new pre-cast box and top at Green and Woodbine Streets.
- Retrofit three A-3 inlet backs.
- Blanked 16 inlet curb opening in various locations throughout the city.
- Raised two manholes in Bellevue Park to grant Field Operations access to the system for further CCTV investigation.

## Field Operations

---

- A total of 2,094 feet (0.4 miles) of sewer pipe were assessed by CCTV footage throughout the month. It was affected by constant post CCTV of R-111's work.
- A total of 710 feet (0.13 miles) of pipe were flushed during the month.
- Responded to nine backup and overflow calls from residents. CRW was liable for none.
- Responded to nine sinkhole calls. Wastewater was liable for three and Drinking Water was liable for three.
- Cleaned 243 stormwater inlets.
- Inspected 234 stormwater inlets.
- There were four dry weather overflows: two at CSO #048 Tenth and Shannon Streets, one at CSO #039 South Mulberry and Cameron, and one at CSO #040 North Mulberry and Cameron.
- There were three SSO's: one at Amity and Sycamore Streets (by-pass pump failure), one at 2771 and 2741 Paxton Street (by-pass pump failure), and one at Elliot Street (Spring Creek Pump Station pump failure).
- Removed Perlite from cold box for Unox plant turnaround.
- Added Kevin Martin as the ninth crew member to the Operations field staff.

---

## Environmental Compliance

---

- Completed ten inspections of FOG dischargers. Eight locations received letters of non-compliance with compliance plans and one location was exempt.
- Issued ten permit renewals and two new permits.
- Issued eight FOG-related Notice of Violations (NOVs).
- Provided education packet to three 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.
- Three investigations were conducted during the month of May:
  - A collapsed pipe in Swatara Township caused infiltration into a nearby stormwater pipe that discharged directly into Spring Creek. No adverse effects to the receiving stream were discovered, and the infiltration was addressed in a timely manner.
  - CRW's Water department discovered indications of fryer oil being dumped in a storm inlet. A nearby FOG discharger was inspected and in compliance. It was determined the inlet grate had residuals from a previous prohibited discharge that had already been addressed.
  - DEP reported two unrelated residential cleanouts were discharging onto their lawns in a neighborhood near Midtown Harrisburg. This investigation is still ongoing.

---

## Street Sweeping

---

- Received one complaint in the month of May.
- Completed 477 miles of street sweeping within the City of Harrisburg.
- On May 27th and May 31st, street sweeping came in early to clean up before and after festival.
- Continued to sweep area of Reservoir Park. It will be included in Areas 1, 6, and 9.
- There was a half-day suspension of street sweeping due to weather on May 6th.
- Water usage this month was approximately 12,540 gallons.
- Continued to assist cleaning storm inlets in scheduled sweeping areas.
- When the days of the month fall on 5th week, there is no scheduled sweeping. However, the Street Sweeping group are assigned specific assignments throughout the city to continue the upkeep in highly visible areas. At the end of May, the Street Sweeping group swept an additional 8.9 miles (included in total miles swept) and continued to clean off storm inlets.



**CAPITAL REGION™**

---

**WATER**

# **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	November	December	Average	NPDES Limits
Volume, MGD	18.4	24.3	20.3	26.0	<b>28.6</b>								23.5	37.7
Carbonaceous Biochemical Oxygen Demand														
Influent, mg/L	176	129	163	121	<b>128</b>								143	----
Effluent, mg/L	3	3	3	3	<b>3</b>								3	25
Percent Removal, %	98.1	93.3	97.9	97.0	<b>95.9</b>								96.4	----
Effluent Loading, lb/d	520	846	572	724	<b>955</b>								723	7,860
Suspended Solids:														
Influent, mg/L	177	149	212	144	<b>139</b>								164	----
Effluent, mg/L	4	4	3	2	<b>3</b>								3	30
Percent Removal, %	97.5	92.4	98.6	98.3	<b>96.7</b>								96.7	----
Effluent Loading, lb/d	715	1,397	499	569	<b>907</b>								817	9,433
Nitrogen														
Total-N														
Influent, mg/L	26	24	26	20	<b>21</b>								23	----
Effluent, mg/L	3.1	4.3	5	5.0	<b>5.9</b>								5	Monitor
Percent Removal, %	88.0	82.2	80	75.1	<b>71.5</b>								79.4	----
Effluent Loading, lb/d	469	719	778	996	<b>1,287</b>								850	----
NH3-N														
Influent mg/L	16	13	15	11	<b>10</b>								13	----
Effluent, mg/L	0.7	1.8	2.3	0.7	<b>1.7</b>								1	11 (2)
Percent Removal, %	95.5	85.7	84.4	93.8	<b>83.2</b>								88.5	----
Effluent Loading, lb/d	113	386	411	157	<b>323</b>								278	4,716
Phosphorus:														
Influent, mg/L	3.5	2.8	3.6	2.9	<b>2.9</b>								3.1	----
Effluent, mg/L	0.9	1.0	1.6	1.1	<b>1.1</b>								1.1	2.0
Percent Removal, %	71.6	63.4	53.6	63.1	<b>62.2</b>								62.8	----
Effluent Loading, lb/d	144	206	274	220	<b>188</b>								206	629
pH:														
Influent, Std. Units	7.4	7.1	7.3	7.3	<b>7.2</b>								7.3	----
Effluent, Std. Units	7.0	6.7	7.0	6.9	<b>7.0</b>								6.9	6.0 - 9.0
Dissolved Oxygen:														
Effluent Minimum, mg/L	7.0	7.7	7.1	7.0	<b>7.2</b>								7.2	5.0 Min.
Fecal Coliform:														
Effluent, No./100 ml	6	6	1	4	<b>2</b>								4	200/100 ml (1)
Chlorine Residual:														
Effluent, mg/L	0.19	0.20	0.19	0.21	<b>0.41</b>								0.24	0.50

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

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

EXHIBIT B

**CAPITAL REGION WATER  
ADVANCED WASTEWATER TREATMENT FACILITY**

Flow Monitoring Information, MGD - 2022

Month	Total			City Regions					Suburb Regions					Total Precip inches
	Flow	City	Suburbs	1	2	3	4	5	6	7	8	9	10	
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
<b>May</b>	<b>28.600</b>	<b>14.310</b>	<b>14.290</b>	<b>11.442</b>	<b>0.246</b>	<b>0.300</b>	<b>2.099</b>	<b>0.223</b>	<b>1.800</b>	<b>4.578</b>	<b>2.830</b>	<b>4.666</b>	<b>0.416</b>	<b>6.030</b>
June														
July														
August														
September														
October														
November														
December														
Average	23.46	10.59	12.87											3.39
Percent	100.00	45.15	54.85											16.97

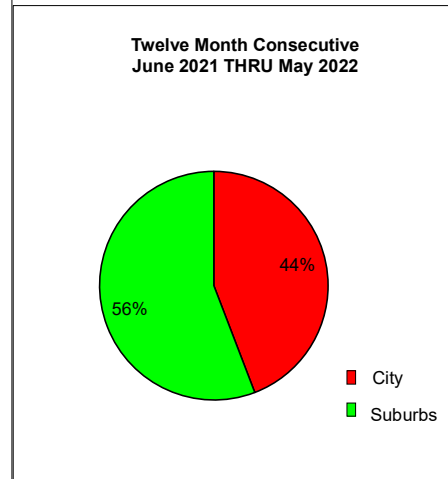
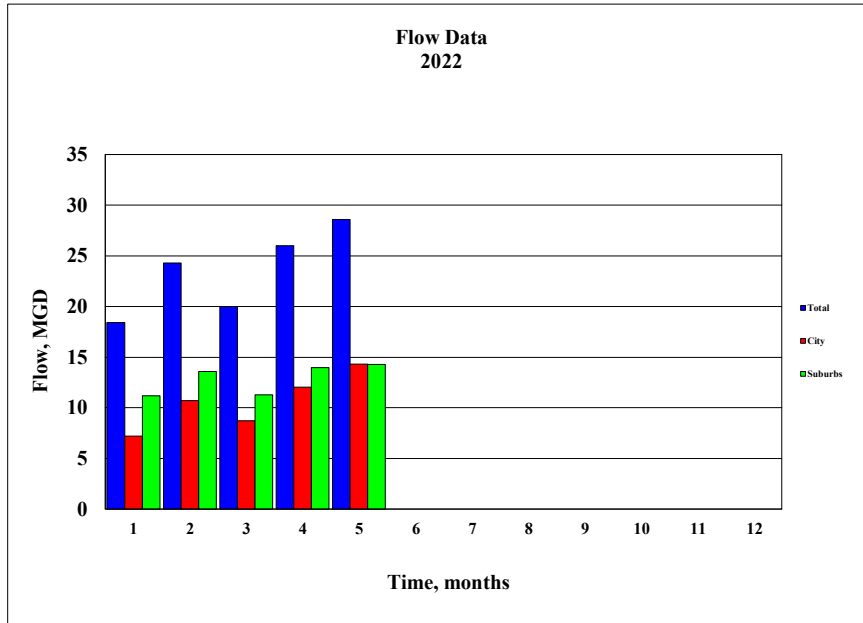


EXHIBIT C

**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
<b>Electric</b>														
Total, kWh	1,131,900	1,032,600	1,019,700	1,072,500	*								851,340	4,256,700
Average, kWh/Day	36,513	36,879	32,894	35,750	*								35,509	-----
Cost, Dollars	\$70,491.63	\$72,766.82	\$64,633.22	\$70,097.82	*								\$55,597.90	\$277,989.49
<b>Natural Gas</b>														
Total, Cu Ft	905.6	647.3	401.4	292.5	*								449	2,247
Average, Cu Ft/Day	29	23	13	10	*								19	-----
Cost, Dollars	\$7,509.60	\$5,404.37	\$3,544.64	\$2,689.99	*								\$3,829.72	\$19,148.60
<b>Water</b>														
Total, Gal.	681,000	871,833	743,167	1,166,000	*								865,500	3,462,000
Average, Gal./Day	21,968	31,137	23,973	38,867	*								28,986	-----
Cost, Dollars	\$10,384.54	\$12,357.75	\$11,027.35	\$15,399.44	*								\$9,833.82	\$49,169.08
<b>MicroC</b>														
Total, Gal.	0	0	0	0	0								0	0
Average, Gal./Day	0.0	0.0	0.0	0.0	0.0	0.0							0	-----
Cost, Dollars	\$0	\$0.00	\$0	\$0	\$0	\$0							\$0.00	\$0.00
<b>Sodium Hydroxide</b>														
Total, Gal.	0	0	0	0	0								0	0
Average, Gal./Day	0	0	0	0	0								0	-----
Cost, Dollars	0	0	0	0	0								\$0.00	\$0.00
<b>Chlorine Disinfection</b>														
Total, Lbs.	5,340	6,020	5,100	7,150	8,720								6,466	32,330
Average, Lbs./Day	172	215	165	238	281								214	-----
Avg Residual, mg/L	0.19	0.20	0.19	0.21	0.41								0.24	-----
Cost, \$/Lbs.	\$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								\$6,401.34	\$32,006.70
<b>Phosphorous Removal</b>														
Total FeCl3, Gals.	507	1,333	1,634	2,743	2,417								1,727	8,634
Avg FeCl3, Gals./Day	16	48	53	91	78								57	-----
FeCl3 Cost, \$/Gal.	\$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								\$2,175.77	\$10,878.84

\* 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	\$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
<hr/>					
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		37	1,093	30,600	\$2,357.12
March 2022		33	958	29,700	\$2,287.79
April 2022		43	1,710	51,300	\$3,951.64
<b>May 2022</b>		<b>53</b>	<b>1,687</b>	<b>52,200</b>	<b>\$4,020.97</b>
June 2022					
July 2022					
August 2022					
September 2022					
October 2022					
November 2022					
December 2022					
<hr/>					
Total - 2022				165,600	\$12,756.17
Monthly Average - 2022		34	1,101	33,120	\$2,551.23

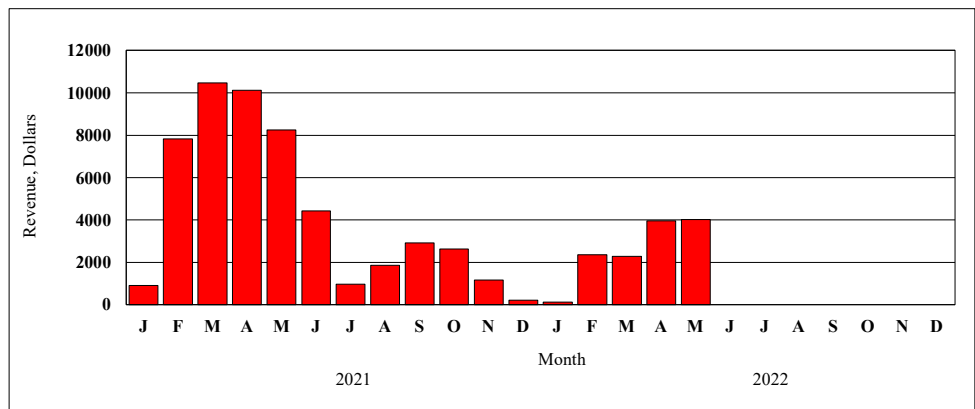


EXHIBIT E

**CAPITAL REGION WATER  
ADVANCED WASTEWATER TREATMENT FACILITY**

Sludge Handling Information - 2022

Process	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
<b>Solids Removal</b>														
Process, Lbs.	836,796	808,604	1,256,456	1,295,249	<b>1,041,739</b>								1,047,769	5,238,845
CWH Program, Lbs.	69,353	76,120	124,956	61,652	<b>122,100</b>								90,836	454,181
Total Solids, Lbs.	906,149	884,724	1,381,413	1,356,901	<b>1,163,839</b>								1,138,605	5,693,026
<b>Sludge Dewatering</b>														
Feed Volume, Gals.	3,577,000	2,678,000	4,535,000	5,007,000	<b>4,782,000</b>								4,115,800	20,579,000
Feed Solids, %	1.7	1.7	2.0	1.8	<b>2.0</b>								1.8	-
Labor, Hours	459	416	659	644	<b>561</b>								548	2,739
Operations, Hours	930	785	1,132	1,058	<b>962</b>								973	4,866
Total Cake, Dry Tons	179	167	312	295	<b>281</b>								247	1,234
Total Cake, Wet Tons	1,149	1,069	1,855	1,682	<b>1,533</b>								1,458	7,288
Cake TS, %	15.5	15.6	16.8	17.6	<b>18.4</b>								16.8	-
Press Rate, Lbs./Hour	2,472	2,725	3,279	3,179	<b>3,186</b>								2,968	14,842
Polymer Dosage, Lbs	3,188	2,976	4,605	5,056	<b>4,545</b>								4,074	20,370
Polymer Dosage, Lbs/Dry Ton	20.4	19.4	15.1	17.5	<b>16.9</b>								17.9	-
<b>Disposal Cost</b>														
Labor, Dollars	\$8,821.98	\$7,995.52	\$12,665.98	\$12,383.45	<b>\$10,778.58</b>								\$10,529.10	\$52,645.50
Electrical, Dollars	\$409.07	\$345.18	\$497.86	\$465.56	<b>\$423.37</b>								\$428.21	\$2,141.04
Polymer, Dollars	\$6,216.60	\$5,803.20	\$8,979.75	\$9,859.20	<b>\$8,862.75</b>								\$7,944.30	\$39,721.50
Disposal, Dollars	\$27,763.12	\$91,664.12	\$107,614.33	\$87,453.98	<b>\$89,783.89</b>								\$80,855.89	\$404,279.45
Total Cost, Dollars	\$43,210.77	\$105,808.02	\$129,757.92	\$110,162.19	<b>\$109,848.58</b>								\$99,757.50	\$498,787.49
Cost Per Dry Ton, Dollars	\$241.40	\$633.58	\$415.89	\$373.43	<b>\$390.92</b>								\$411.04	



## 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
<b>Front Street Pump Station</b>														
Electric														
Total, kWh	232,800	219,600	187,200	187,200	*								206,700	826,800
Average, kWh/Day	7,510	7,843	6,039	6,240	*								6,908	-----
Cost, Dollars	#####	\$14,468.72	\$10,417.84	\$12,381.18	*								\$13,037.72	\$52,150.86
Fuel Oil														
Total, Gals.	0	0	0	0	0								0	0
Average, Gals./Day	0	0	0	0	0								0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00								0	\$0.00
Water														
Total, Gals.	315,000	180,833	479,167	261,819	*								309,205	1,236,819
Average, Gal./Day	10,161	6,458	15,457	8,727	*								10,201	-----
Cost, Dollars	\$3,953.62	\$2,566.33	\$5,651.11	\$3,403.73	*									\$15,574.79
<b>Spring Creek Pump Station</b>														
Electric														
Total, kWh	36,160	52,160	55,040	85,120	<b>96,960</b>								65,088	325,440
Average, kWh/Day	1,166	1,863	1,775	2,837	<b>3,128</b>								2,154	-----
Cost, Dollars	\$2,617.50	\$3,866.14	\$3,752.30	\$6,514.96	<b>\$7,873.63</b>								\$4,924.91	\$24,624.53
Fuel Oil														
Total, Gals.	0	0	0	0	0								0	0
Average, Gals./Day	0	0	0	0	0								0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00								\$0.00	\$0.00
Water														
Total, Gals.	25,000	39,000	106,000	79,333	*								62,333	249,333
Average, Gal./Day	806	1,393	3,419	2,644	*								2,066	-----
Cost, Dollars	\$334.49	\$479.25	\$1,172.03	\$896.29	*								\$720.52	\$2,882.06
<b>Market Street Pump Station</b>														
Electric														
Total, kWh	1,200	1,200	1,080	960	<b>1,080</b>								1,104	5,520
Average, kWh/Day	39	43	35	32	<b>35</b>								37	-----
Cost, Dollars	\$207.27	\$123.51	\$121.40	\$237.38	<b>\$146.40</b>								\$167.19	\$835.96
Fuel Oil														
Total, Gals.	0	0	0	0	0								0	0
Average, Gals./Day	0	0	0	0	0								0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00								\$0.00	\$0.00
<b>City Island Pump Station</b>														
Electric														
Total, kWh	40	40	40	40	<b>40</b>								40	200
Average, kWh/Day	1	1	1	1	<b>1</b>								1	-----
Cost, Dollars	\$63.36	\$54.75	\$61.50	\$63.19	<b>\$56.52</b>								\$59.86	\$299.32

\* No Data at time of report

EXHIBIT G

**CAPITAL REGION WATER  
ADVANCED WASTEWATER TREATMENT FACILITY**

**Contract Waste Hauling Program 2021 - 2022**

Month	Process		Septic			Total
	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
<b>May</b>	<b>1,599,990</b>	<b>\$46,377.27</b>	<b>250,650</b>	<b>\$8,874.90</b>	<b>1,850,640</b>	<b>\$55,252.17</b>
June						
July						
August						
September						
October						
November						
December						

Total - 2022	5,510,797	\$162,410.01	838,225	\$29,694.50	6,349,022	\$192,104.61
Monthly Average - 2022	1,102,159	\$32,482.00	167,645	\$5,938.90	1,269,804	\$38,420.92

