

MINUTES
OPERATIONS & ENGINEERING COMMITTEE MEETING
FEBRUARY 11, 2020

Attendants: Messrs. Boland, Cherico, Hurst, Kester, Knapp, Kochubka, Lenton, Lucas, Mariani, Mullen, Pileggi, Pisani, Willert, and Mesdames Bonnett, Caulk, and Sage.

1. ROLL CALL: Seven members of the DELCORA Board of Directors were present at the meeting constituting a quorum.

There were no members of the public present.

2. PLEDGE OF ALLEGIANCE: All parties present at the meeting recited the Pledge of Allegiance.

3. BID OPENING: Mr. Mullen stated that there were no bid openings at this time.

4. MONTHLY REPORT – DIRECTOR OF OPERATIONS & MAINTENANCE: In Mr. DiSantis' absence, Mr. Lenton and Mr. Mariani highlighted certain items in the written report. Mr. Lenton stated that there were no violations at the W RTP during January and noted the January data points were all very good with the following details regarding Liquid Process Averages: Flow at 35.05 MGD, TSS at 15 mg/L (ceiling of 30), cBOD₅ at 10 mg/L (can go to 19), cBOD₂₀ % Removal at 97.01%, and cBOC₂₀ Loading at 4,385 lbs. He also noted the following Solids Processing data for the month of January were all very good: Dry Tons Treated at 2,062.00, Dry Tons/Day at 66.52, Total Gallons Pumped at 12,225,420, Average Feeds Solids at 4.10%, Average Cake Solids at 22.92%, Pounds of Polymer/DT at 194.69, and Monthly Cost/DT at \$37.67. Continuing with the report, Mr. Mariani noted that the W RTP received 97% of the flow from the Central Delaware Pump Station. Also, that there were nine reportable incidents. Five incidents were for emissions of which four were caused by control system issues and one was caused by a blocked sludge cake chute for Incinerator #2. He also stated that rainfall was typical for the month of January resulting in normal average daily flows in the system. Mr. Mariani reported that there were no system failures during the month, maintenance continues to work on ongoing projects, sixteen loads were hauled to compost during the month due to downtime of the incinerators, H₂S levels continue to be high, and work continues on the ventilation design. Mr. Mariani had no additional comments to the written report. The Committee had no questions regarding the written report.

5. MONTHLY REPORT – DIRECTOR OF ENGINEERING: Mr. Hurst highlighted certain items in the written report. Regarding the W RTP Plant Upgrade project, he reported that this project is nearing completion and primary work that remains is on the aeration tank and clarifier tanks. Under Sewer Maintenance, he noted that two portions of failed pipe along Mill Creek in Rose Valley were contributing to the I&I situation in Rose Valley. The pipe was manually removed thus alleviating the I&I. Continuing, he reported that the Springhill Farm WWTF Pump Station and Sanitary Sewer Force Main project has kicked off and is now listed under "Construction Projects" on the written report. Under Design Item #1, CSO Long Term Control Plan (LTCP) Update, Mr. Hurst

stated that DELCORA submitted the LTCP Update report in February of 2019 and that on January 30th, 2020, USEPA issued a letter addressing that plan. The letter identifies eleven areas where they found deficiencies with the plan and eleven other areas where they are requesting additional information. USEPA offered to meet with DELCORA to discuss these items and DELCORA has requested this meeting. This meeting is currently being scheduled. Addressing Design Item #2, ESA Alternatives, Mr. Hurst stated that this project addresses moving flow away from Philadelphia and directing it to Chester. The final design process has begun with conducting Value Engineering workshops last week. Value Engineering is a process of engaging independent engineers which have not previously been involved in the project to offer up suggestions on how to lower costs. The team will respond to the recommendations that were made. He also stated that there were no out of the ordinary items listed under the Pretreatment/Laboratory section of the report.

Mr. Kester asked, "What did the EPA find as undesirable?" As an example, Mr. Hurst responded that USEPA questioned how we calculate our affordability. USEPA believes that DELCORA and the City of Chester could afford a higher funded program than what the affordability analysis suggests. USEPA wants the affordability analysis revised. Also, USEPA believes that DELCORA and Greeley & Hansen can find more alternatives to be identified, such as plant expansion and different alternatives within the collection system. Also, USEPA found issue with the technical approach to the way we calculate our wet weather percent capture. The threshold is currently 85%. The calculation DELCORA uses is the same as Philadelphia's and other major areas of the country. In response to Mr. Kester's question concerning funding, Mr. Hurst stated the program is budgeted at 87 million dollars but may go up. His team is currently working diligently on responding to the USEPA letter and confident on defending our position on all issues addressed. Mr. Hurst had no additional comments to the written report. The Committee had no other questions regarding the written report.

6. MONTHLY REPORT – ENGINEERING ADVISOR: Mr. Kochubka highlighted several on-going projects on the written report, which had been provided to all Board members in advance of today's meeting. He stated that work has begun on the Annual Chapter 94 Report due by the end of March to the PADEP. One report is required for the Western service area and one for the Eastern service area. The Eastern service area report is sent to the Philadelphia Water Dept. for inclusion in their Chapter 94 report submission to the PADEP. This is scheduled to be completed two weeks prior to the deadline. The Western service area report includes reports from all municipalities that discharge to the WRTP, industry reports, loadings, projections, planning modules, and system improvements. This project was initiated last month and is scheduled to be completed on time. Regarding the Annual Stormwater Modeling, Mr. Kochubka stated that this is a monthly report of discharges from the Combined Sewer Overflows (CSO) in the CSO system. An annual report is prepared and included in the annual Chapter 94 report. The monthly report was completed last month and the annual report is currently being prepared. That report includes precipitation data for the month, the number of overflows and volume to the outfalls. Mr. Kochubka also reported on the Metering Program. A monthly report is generated using data collected from over 100 flow meters throughout Delaware County to support the billing to the other county authorities and

municipalities. Mr. Kochubka had no additional comments to the written report. The Committee had no questions regarding the written report.

7. CHANGE ORDERS:

- Contract No. PR-1703-C – Remote Pumping Stations Bar Screen Replacements – Contract A – General Construction – Change Order No. 3 – Increase In Contract Time Of 88 Days Due To Screw Conveyor And Panel Modifications At Darby Creek Pump Station (Eastern Environmental Contractors, Inc.)
- Contract No. PR-1703-C – Remote Pumping Stations Bar Screen Replacements – Contract B – Electrical Construction – Change Order No. 1 – Increase In Contract Time Of 588 Days Due To Screw Conveyor And Panel Modifications At Darby Creek Pump Station (Eastern Environmental Contractors, Inc.)

Following a brief overview by Mr. Hurst, it was the consensus of the Committee to recommend Board approval of the above contract change orders. These items will be placed on the agenda for the February 18th Board meeting.

8. REQUEST FOR APPROVAL OF CONTRACT CLOSE-OUT & FINAL PAYMENT:

- Contract No. PR-1703-C – Remote Pumping Stations Bar Screen Replacements – Contract A – General Construction (Eastern Environmental Contractors, Inc.)
- Contract No. PR-1703-C – Remote Pumping Stations Bar Screen Replacements – Contract B – Electrical Construction (Eastern Environmental Contractors, Inc.)

Following a brief overview by Mr. Hurst, it was the consensus of the Committee to recommend Board approval of the above contract close-outs. These items will be placed on the agenda for the February 18th Board meeting.

9. AUTHORIZATION FOR PROFESSIONAL SERVICES:

- A. Gannett Fleming, Inc. – Proposal Dated January 17, 2020 – For Professional Engineering Services For The Sludge Cake Pump Design – Total Amount Not To Exceed \$168,700.00 (Capital Funds)
- B. Greeley and Hansen – Proposal Dated January 28, 2020 – For Professional Engineering Services Related To The Eastern Service Area Program Value Engineering Session (Task Order No. 7) – Total Amount Not To Exceed \$8,500.00 (Capital Funds)

Mr. Hurst provided an overview of the above proposals. He noted Gannett Fleming's scope of this project includes the design of a redundant cake pump. The cake pumps

deliver sludge to top of incinerator. Gannett Fleming did the preliminary work and is well positioned to execute the final design. Mr. Hurst reviewed the scope and fee, and based on typical metrics, this is acceptable from a cost perspective. Regarding the Greeley and Hansen proposal, he stated that they participated in the Value Engineering session, as previously explained above, and this is the cost associated with supporting that effort.

It was the consensus of the Committee to recommend Board approval of the above proposals. These items will be placed on the agenda for the February 18th Board meeting.

10. AUTHORIZATION TO ADVERTISE FOR BIDS: Mr. Mullen stated that there were no Authorizations to Advertise for Bids at this time.

11. AUTHORIZATION TO PURCHASE:

- One 2020 Case 590SN Backhoe From Eagle Power Equipment Corp. Through PA DGS Contract #4400019935 For A Total Amount Not-To-Exceed \$116,230.64 (Capital Funds)

Mr. Hurst explained that this purchase is to replace the current backhoe purchased in 1998. Ms. Caulk added that the old backhoe would be traded in to offset the cost.

It was the consensus of the Committee to recommend Board approval of the above purchase. This item will be placed on the agenda for the February 18th Board meeting.

12. Authorization For Payment Of \$10,000.00 To The Firm Of Manko, Gold, Katcher & Fox, LLP For Membership In The Delaware Estuary TMDL Coalition (Operating Funds): Mr. Hurst stated that this is an annual contribution to the TMDL Coalition which consists of industries and wastewater plants located along the river. The Coalition works with the regulators to establish appropriate regulations for the river.

It was the consensus of the Committee to recommend Board approval of the above payment of \$10,000.00. This item will be placed on the agenda for the February 18th Board meeting.

In response to a question from Mr. Lucas about January's precipitation, Mr. Mariani stated that it was average. Mr. Lenton added that any high level of precipitation also increases the amount of trucked-in leachate. Heavy wet weather events also create I&I issues.

ADJOURNMENT: It was moved by Mr. Lucas, seconded by Mr. Kester, and unanimously carried to adjourn the regular meeting at 3:45 p.m.



Inter - Office Memorandum

To: Robert J. Willert, Executive Director
From: Michael J. DiSantis, Director of Operations and Maintenance
Subject: Board Report for the February 11, 2020, O & E Committee Meeting
Date: February 7, 2020

mgd/bab

- I. PROCESS INFORMATION – There were no violations at WRTP during the month. Please note that cBOD data is through 1/30. January data points of interest are:

A.	<u>Liquid Process Averages:</u>	<u>Month:</u>	<u>YTD:</u>
1.	Flow	35.05 MGD	35.05 MGD
2.	TSS	15 mg/L	15 mg/L
3.	cBOD ₅	10 mg/L	10 mg/L
4.	cBOD ₂₀ % Removal	97.01%	97.0%
5.	cBOD ₂₀ Loading	4,385 lbs.	4,385 lbs.
B.	<u>Solids Processing:</u>	<u>Month:</u>	<u>YTD:</u>
1.	Dry Tons Treated -	2,062.00	2,062.00
2.	Dry Tons/Day -	66.52	66.52
3.	Total Gallons Pumped -	12,225,420	12,225,420
4.	Average Feed Solids -	4.10%	4.10%
5.	Average Cake Solids -	22.92%	22.92%
6.	Pounds of Polymer/DT -	194.69	194.69
7.	MCF/DT -	4.87	4.87
8.	Monthly Cost/DT -	\$37.67	\$37.67

C. Station Meter Readings: (Total flow values are in mg and daily flow is in mgd.)

January 2020	Total Flow	Daily Avg	High Daily	Low Daily
Darby Creek	562.91	18.16	33.50	15.93
Muckinipates	127.68	4.12	8.65	3.44
Central Delaware	291.12	9.39	17.98	8.18
Chester	227.69	7.34	18.95	6.09
Marcus Hook	23.26	0.75	1.98	0.57
Eddystone	11.38	0.37	0.77	0.30
Naamans Creek	63.63	2.05	3.85	1.74
Chi Pit	13.84	0.45	0.79	0.37
Chester-Ridley	136.96	4.42	7.01	3.93
Edgmont	3.67	0.12	0.18	0.11

II. MONTHLY FACILITY ACTIVITIES

A. Operations Highlights/Key Events

1. WRTP received 97% of the flow from the Central Delaware Pump Station.
2. There were nine reportable incidents during the month. Five incidents were for emissions. Four of these incidents were caused by control system issues. A failed I/O card back plane, a failed I/O card, a software issue, and loose wiring caused by construction-related vibration were the causes for these RTO short stack and bypass openings. Due to the inordinate amount of control system related failures, we are working with the equipment supplier, GE Emerson, to further look into these issues. The remaining reportable emissions incident occurred when the sludge cake chute for #2 incinerator blocked. This loss of feed to the incinerator lead to an uncontrolled burnout. The resultant high temperatures exceeded the NFPA temperature limit, causing the #2 RTO short stack to open. The other four incidents were for sanitary sewer overflows (SSOs). Three SSOs were caused by wet weather. There were overflows at the Central Delaware Pump Station (PS), the Rose Valley PS, and from a manhole in the Tyler Arboretum. All three locations are known to have wet weather issues. Both pump stations have plans underway to address these issues. The issue with the line that runs through the Arboretum is the excessive amount of tree roots that get into the line, leading to blockages. We routinely cut roots in the line but due to the area the line is in, the roots come back.
3. Typical rainfall during January led to normal average daily flows in the system. Due to on-going construction, there continues to be multiple tank outages, process interruptions, and operation of interim equipment. Overall plant performance continued to meet or exceed permit parameters and operational targets. Primary clarifier performance was excellent as total suspended solids (TSS) removal was 75% for the month. The gravity belt thickener (GBT) performance also met the cake solids operational targets but the filtrate TSS was

slightly over target of 100 mg/L at 126 mg/L. Phosphoric acid addition to address nutrient deficiency continued as needed. In solids handling, incinerator up time was 94% for the month resulting in 16 loads being hauled to compost during the month. Both polymer and natural gas usage met operational and budget targets. Chemical addition to address belt press room H₂S levels continued as needed. Engineering is advancing the ventilation design for the building to provide a permanent solution to this issue. In remote operations, there were three violations. At the Chadds Ford Ridings facility, continuing issues with the sand filter and a process upset resulted exceedances of the weekly and monthly averages for TSS. At the Pocopson Preserve facility, there was an exceedance of the monthly TSS limit due to an algae bloom. Excessive algae is a common occurrence in a pond stabilization plant which we treat through a variety of process changes and addition of algaecides.

B. Maintenance Highlights/Key Events

1. There were no system failures during the month. In addition to routine plant, pump station, remote system, and collection system O&M; work on multiple in-house projects, support of capital projects, new system start-up, and troubleshooting new equipment start-up issues remained the major focus of the maintenance departments during the month. Additional tasks during the month included the continued troubleshooting and addressing of on-going RTO issues. Central Maintenance also worked on belt filter press repairs, repairs to the grit removal system, new electrical feeds to the Muckinipates PS, repairs of the Chester-Ridley Creek PS power supply equipment, continued worked on inventory control, continuation of integration of new equipment and the creation of related PM tasks into the Infor system, primary clarifier repairs, various pump repairs, and providing labor to support plant operations. In addition to routine tasks and support of plant and remote operations, Sewer Maintenance's focus remained on area line cleaning and televising, asset identification work, I&I investigation and remediation work, air relief inspections and maintenance, metering support, various line repairs/replacements in our service area, and the continued support of capital projects, WRTP and remote facility operation, and sludge receiving operations.

C. Trucked Waste Business

1. During the month, 30.83MM gallons were received. The projected revenue for the month is expected to meet our monthly target.

MJD:bab
attachments (NPDES DMR/Strategic Plan Reports)

cc: M. Warholic
C. Lenton
W. Smith
C. Mariani
S. Gober
File

Cummings, Meghan

From: depgreenporthelpdesk@state.pa.us
Sent: Tuesday, January 28, 2020 8:42 AM
To: DiSantis, Michael; DiSantis, Michael; Raymond Rios; Piro, Ian; Mariani, Chris; Cartafalsa, James
Subject: Your eDMR Report Has Been Received For Permit No. PA0027103

This email is to confirm that the following report was received by DEP through the eDMR system:

Facility Name: DELCORA STP
Permit Number: PA0027103
Report Frequency: Monthly
Report Type: DMR
Reporting Period: 12/01/2019-12/31/2019
Report Due Date: 01/28/2020

Submitted By: Michael DiSantis
Submission Id: 189634
Submission Status: Received
Submission Type: Original

To view the details of this report, access the eDMR system through DEP's [GreenPort](#) and select the link for View/Revise Submitted.



DELAWARE COUNTY REGIONAL WATER QUALITY CONTROL AUTHORITY
P.O. Box 999 • Chester, PA 19016-0999

January 27, 2020

SUBMITTED ONLINE VIA PADEP eDMR SYSTEM

William Collins
Water Quality Specialist – Water Management
PA Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

Dear Mr. Collins:

Enclosed are DELCORA's Discharge Monitoring Report, Laboratory Data Reports, and CSO Report for December, 2019. We regret to report a violation for exceeding the instantaneous maximum for TRC on 12/4/19. We found that the dechlorination system had inadvertently been turned off due to on-going construction activities.

All other parameters were in compliance during the month. Parameter averages for December 2019 were: Flow – 37.44 MGD; cBOD₅ – 10 mg/L; TSS – 16 mg/L; cBOD₂₀ % removal – 93.56%; and cBOD₂₀ – 5,525 lbs/day.

Should any further information be required concerning this report, please contact me at 610-876-5523, ext. 264.

Respectfully submitted,

Electronically signed & submitted

Michael J. DiSantis
Director of Operations and Maintenance

MJD:mc
enclosures

cc: w/enclosures
US EPA - NPDES DMR (3WP42) – can access through DEP website
Delaware River Basin Commission – can access through DEP website
C. Mariani via email with server link
File

ADMINISTRATION

☐ 610-876-5523

☐ FAX: 610-876-2728

CUSTOMER SERVICE/BILLING

☐ 610-876-5526

☐ FAX: 610-876-1460

PURCHASING & STORES

☐ 610-876-5523

☐ FAX: 610-497-7959

PLANT & MAINTENANCE

☐ 610-876-5523

☐ FAX: 610-497-7950



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
DISCHARGE MONITORING REPORT (DMR)

NAME: DELCORA
ADDRESS: 100 EAST FIFTH STREET P.O. BOX 999, CHESTER PA, 19016-0999
FACILITY: DELCORA STP
LOCATION: 3201 W FRONT ST, CHESTER PA, 19013-1829
STAGE: Final Effluent

PA0027103
 PERMIT NUMBER

001
 OUTFALL NUMBER

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
FROM 2019	12	01	TO 2019	12	31

Reporting Frequency: Monthly
DMR Effective From: 12/01/2019
DMR Effective To: 12/31/2019
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

PARAMETERS REPORTED VALUES

PARAMETER	Sample Measurement Permit Requirement	QUANTITY OR LOADING		QUANTITY OR CONCENTRATION			SAMPLING FREQUENCY	SAMPLING TYPE
		VALUE	UNITS	VALUE	VALUE	UNITS		
pH (00400)	Sample Measurement	***	***	6.5	***	S.U.	1/day	Grab
	Permit Requirement	***	***	6.0 Inst Min	***	9.0 MAX	1/day	Grab
Total Suspended Solids (00300)	Sample Measurement	5375	7686	***	15.0	20.0	1/day	24-Hr Composite
	Permit Requirement	11000 Avg Mo	18000 Wky Avg	***	30.0 Avg Mo	45.0 Wky Avg	1/day	24-Hr Composite
Oil and Grease (00566)	Sample Measurement	<1579	***	***	<5.0	8.0	1/day	Grab
	Permit Requirement	5500 Avg Mo	***	***	15.0 Avg Mo	30.0 MAX	1/day	Grab
Ammonia-Nitrogen (00610)	Sample Measurement	***	***	***	10.48	***	1/week	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	2/month	24-Hr Composite
Nitrite as N (00615)	Sample Measurement	***	***	***	<5	.98	1/week	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	Monitor & Report Daily Max	2/month	24-Hr Composite
Nitrate as N (00620)	Sample Measurement	***	***	***	<2.03	3.5	1/week	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	Monitor & Report Daily Max	2/month	24-Hr Composite
Total Kjeldahl Nitrogen (00625)	Sample Measurement	***	***	***	15.4	***	1/week	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	2/month	24-Hr Composite
Cyanide, Total (00720)	Sample Measurement	***	***	***	.043	***	1/month	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	24-Hr Composite
Chlorobenzene (04305)	Sample Measurement	***	***	***	<.0005	***	1/month	Grab
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	Grab
Cadmium, Total (01027)	Sample Measurement	***	***	***	<.0002	***	1/month	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	24-Hr Composite
Copper, Total (01042)	Sample Measurement	***	***	***	.0071	***	1/month	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	24-Hr Composite
Lead, Total (01051)	Sample Measurement	***	***	***	<.001	***	1/month	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	24-Hr Composite
Zinc, Total (01052)	Sample Measurement	***	***	***	.025	***	1/month	24-Hr Composite
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	24-Hr Composite
Dichloromethane (02101)	Sample Measurement	***	***	***	.0014	***	1/month	Grab
	Permit Requirement	***	***	***	Monitor & Report Avg Mo	***	1/month	Grab
Flow (00550)	Sample Measurement	37.44	57.98	***	***	***	Continuous	Meiored
	Permit Requirement	Monitor & Report Avg Mo	Monitor & Report Daily Max	***	***	***	Continuous	Meiored
Total Residual Chlorine (TRC) (50080)	Sample Measurement	***	***	***	.5	1.3	1/day	Grab
	Permit Requirement	***	***	***	5	10 MAX	1/day	Grab

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
DISCHARGE MONITORING REPORT (DMR)

Sample Measurement Permit Requirement	***	***	***	***	607 Monitor & Report Avg Mo	842 Monitor & Report Daily Max	ng/L	1week 2month	24-Hr Composite 24-Hr Composite
Total Dissolved Solids (70285)	***	***	***	***	17.0	165.0			
Fecal Coliform (74035)	***	***	***	***	200 Geo Mean	1000 90% SAMPLES	Nb./100 ml	1day 1day	Grab Grab
Carbonaceous Biochemical Oxygen Demand (38035) (60032)	3258 7000 Avg Mo	5955 10500 Wkly Avg	***	5day	10.0 18.0 Avg Mo	14.0 29.0 Wkly Avg	ng/L	1day 1day	24-Hr Composite 24-Hr Composite
BOD, carbonaceous, 20 day, 20 C (60037)	5525 10500 Avg Mo	***	***	5day	***	***	***	1day 1week	Calculation 24-Hr Composite
Facility Sampling Point Comments									



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
DISCHARGE MONITORING REPORT (DMR)

NAME: DELCORA
ADDRESS: 100 EAST FIFTH STREET P.O. BOX 999, CHESTER PA, 19016-0999
FACILITY: DELCORA STP
LOCATION: 3201 W FRONT ST, CHESTER PA, 19013-1829
STAGE: Percent Removal

PA0027103
PERMIT NUMBER

001
OUTFALL NUMBER

Reporting Frequency: Monthly
DMR Effective From: 12/01/2019
DMR Effective To: 12/31/2019
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
FROM 2019	12	01	TO 2019	12	31

FROM

PARAMETERS REPORTED VALUES

PARAMETER	QUANTITY OR LOADING		QUANTITY OR CONCENTRATION		SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	UNITS		
BOD carbonaceous, 20 day, 20 °C (60°F)	93.56	***	93.56	***	1/day	24-Hr Composite
Permit Requirement	93.25	***	93.25	***	1/week	24-Hr Composite
Facility Sampling Point Comments						



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
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NAME: DELCORA
ADDRESS: 100 EAST FIFTH STREET P.O. BOX 999, CHESTER PA, 19016-0999
FACILITY: DELCORA STP
LOCATION: 3201 W FRONT ST, CHESTER PA, 19013-1829
STAGE: Raw Sewage Influent

PA0027103
PERMIT NUMBER

001
OUTFALL NUMBER

Reporting Frequency: Monthly
DMR Effective From: 12/01/2019
DMR Effective To: 12/31/2019
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2019	12	01	2019	12	31

FROM

PARAMETERS REPORTED VALUES

PARAMETER	QUANTITY OR LOADING			QUANTITY OR CONCENTRATION			SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	VALUE	UNITS	VALUE		
Biochemical Oxygen Demand (BOD5) (00310)	78881	lb/day	227.59	Monitor & Report Avg Mo	mg/L	***	2/week	24-Hr Composite
	Monitor & Report Avg Mo		***	***		***	1/week	24-Hr Composite
Total Suspended Solids (00500)	83003	lb/day	249.57	Monitor & Report Avg Mo	mg/L	***	1/day	24-Hr Composite
	Monitor & Report Avg Mo		***	***		***	1/day	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) (00082)	65402	lb/day	197.02	Monitor & Report Avg Mo	mg/L	***	1/day	24-Hr Composite
	Monitor & Report Avg Mo		***	***		***	1/day	24-Hr Composite
Facility Sampling Point Comments								



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
DISCHARGE MONITORING REPORT (DMR)

ATTACHMENT DETAILS

File Name	Attachment Type	Uploaded Time	Attachment Comments
WRTP_Influent_12-2019.pdf	Laboratory Analytical Report	2020-01-27T12:16:23-0500	
Process_Control_12-2019.pdf	Other	2020-01-28T07:08:13-0500	Process_Control_12-2019
Sewage Sludge Biosolids Production and Disposal Form_12-2019.xls	Sewage Sludge / Biosolids Production and Disposal Form	2020-01-28T07:06:07-0500	
WRTP_Effluent_12-2019.pdf	Laboratory Analytical Report	2020-01-28T07:06:54-0500	
DMR Cover Letter December 2019.doc	Cover Letter	2020-01-28T08:39:20-0500	
Hauled in Residual Wastes_12-2019.xlsx	Hauled-In Residual Waste Form	2020-01-27T14:00:28-0500	
December 2019 SWMM Report.xlsx	CSO Detailed Outfall Report Form	2020-01-27T12:13:53-0500	
Trucked Waste_12-2019.xlsx	Other	2020-01-27T12:08:15-0500	Trucked Waste_12-2019
DMR Laboratory Accreditation-WRTP-12-2019.doc	Laboratory Accreditation Form	2020-01-27T11:54:18-0500	
Influent and Process Control_12-2019.xls	Influent and Process Control Form	2020-01-27T15:06:35-0500	Inf-PRF December 2019 Calculations
Inf-PRF December 2019 Calculations.xlsx	Other	2020-01-27T12:10:28-0500	Sludge Hauled 12-2019
Sludge Hauled 12-2019.pdf	Other	2020-01-27T12:15:02-0500	
EPT_12-4-19.PDF	Laboratory Analytical Report	2020-01-27T15:05:38-0500	
Daily Influent Monitoring Form-12-2019.xlsx	Daily Effluent Monitoring Form	2020-01-27T11:46:55-0500	
Daily Effluent Monitoring Form-12-2019.xlsx	Daily Effluent Monitoring Form	2020-01-27T11:46:55-0500	
Hauled in Municipal Waste_12-2019.xls	Hauled-In Municipal Waste Form	2020-01-27T11:51:46-0500	
DMR Laboratory Accreditation-ALS-12-2019.doc	Laboratory Accreditation Form	2020-01-27T12:06:27-0500	
DMR Laboratory Accreditation-MUR-12-2019.doc	Laboratory Accreditation Form	2020-01-27T12:07:28-0500	

PERMIT VIOLATIONS

Non-Compliance ID	Event Start Date	Event End Date	Parameter	Limit Type	Reported Value	Permit Limit	Unit	Sampling Point	Cause Of Non-Compliance	Corrective Action	Comments
10598	12/01/2019	12/01/2019	Total Suspended Solids (TSS)	Instantaneous Maximum	1.3	1	mg/L	Final Effluent (001)	Equipment malfunction/failure	See attached comments	Due to on-going construction activities, the disinfection system was found to be currently shut off at the time of this sample.

UNAUTHORIZED DISCHARGES

Non-Compliance ID	Event Start Date	Event End Date	Date and Time Discovered	Substance Discharged	Event Location	Volume (gal)	Duration (hrs)	Receiving Waters	Impact On Waters	Cause Of Discharge	Data and Time DEP Notified	Comments
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OTHER PERMIT VIOLATIONS

Non-Compliance ID	Non-Compliance Type	Sampling Point	Parameter	Reported Value	Permit Limit	Comments
10597	Sample type not in accordance with permit	Final Effluent (001)	BOD carbonaceous, 20 day, 20 C	Calculation	24-Hr Composita	

COMMENT DETAILS

Comments	Operator Name	Operator Certification Number	Operator Contact Number
	Michael J. Disantis	T0403	(610) 975-5523

SUBMISSION INFORMATION

SUBMISSION INFORMATION		*Pursuant to the Pennsylvania Electronic Transactions Act - Act 69, effective January 15, 2002, you are about to engage in an electronic transaction with the Commonwealth of Pennsylvania. You are submitting official information. You certify under penalty of law that this document and all attachments were prepared under your direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on your inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of your knowledge and belief, true, accurate and complete. You are aware that any false statement may be subject to substantial civil and criminal penalties, including 18 P.S. section 4904 (relating to unsworn falsification to authorities).	TELEPHONE		DATE		
SUBMITTED BY GREENPORT USER	disantism		Michael Disantis	(610)	876-5523	2020	1
			SUBMITTED BY FULL NAME	AREA CODE	NUMBER	YEAR	MO

OPERATIONS STRATEGIC PLAN REPORT

JANUARY 2020

Missed Samples Per Month	#	YTD
Goal is zero	0	0
Deviations from Required Sampling Or Analytical Protocol	#	
Goal is 100% compliance	0	0
Samples with Analytical Results Outside of QA/QC Standards	#	
Goal is 100% compliance	15	15
Hours in Training for Month	#	
Total	18.5	18.5
DEP Approved	0.0	0.0
DEP Certified Operators	#	
Regulations Require One	10	

CENTRAL MAINTENANCE MATRIX

JANUARY 2020

		CURRENT MONTH	YTD
Work Order Aging		#	
31-60 days		27	
61-90 days		11	
Over 90 days		47	
Work order hours/Available hours		%	%
**Mechanical Maintenance		100%	100%
Electrical Maintenance		100%	100%
Instrument Maintenance		100%	100%
**Includes all Preventive Maintenance			
Work Ratio Hours		# / %	# / %
Corrective		1144 / 26%	1144 / 26%
Preventive		3152 / 71%	3152 / 71%
Predictive		120 / 3%	120 / 3%
System Failures		#	#
Hours in Training		#	#
Mechanics/Helpers		NA	NA
Electricians		NA	NA
Instrument Techs		NA	NA
Call-Ins		#	#
WRTP		26	26
Pump Stations		13	13



**Work Order Summary Report for Date
Range: 1/1/2020 to 1/31/2020**

Asset Type	Work Order Type	Labor Hours	Labor Cost
SCHAMBER		208	6,544.78
	CLEAN GRATES	143	\$4,495.04
	TIDE GATE/CHAMBER CLEANING	66	\$2,049.74
SCONTROLVALVE		364	10,624.97
	CLEAN GRIT PIT/LOAD CONTAINER	16	\$497.88
	SERVICE AIR RELIEF VALVE	348	\$10,127.09
SCSOREGULATOR		221	6,817.17
	CSO INSPECTION	177	\$5,450.28
	REMOVE FLOATABLES/WASH DOWN CHAMBERS	26	\$817.44
	RUN CORSSOVER/VAC DEBRIS FROM TRUNK LINES	18	\$549.45
SGRAVITYMAIN		499	15,887.04
	AREA LINE CLEANING	179	\$5,664.78
	EMERGENCY CALL IN	16	\$726.96
	GNET TV INSPECTION	80	\$2,423.20
	INTERCEPTOR EVALUTION	6	\$190.94
	MONTHLY LINE CLEANING	44	\$1,385.12
	PA ONE CALL LINE LOCATING	150	\$4,628.44
	SEAPORT PUMP	8	\$377.28
	SINKHOLE INVESTIGATION	6	\$190.94
	SURVEYING	10	\$299.38
SLATERALPOINT		552	19,347.12
	CLEAR LATERALS	38	\$1,197.96
	EMERGENCY CALL IN	152	\$6,922.32

Asset Type	Work Order Type	Labor Hours	Labor Cost
	LATERAL REPAIR	249	\$7,767.08
	MISCELLANEOUS	1	\$31.44
	SEWER COMPLAINT INVESTIGATION	95	\$2,917.19
	TV INSPECTION	17	\$511.13
SMANHOLE		42	1,290.59
	CLEAN UP OVERFLOWS	2	\$46.34
	REPLACE COVER /REPAIR RING	15	\$452.30
	VAC AND CLEAN MANHOLE	26	\$791.95
SMETER		45	1,380.68
	CSL SUPPORT	23	\$664.65
	TRAFFIC CONTROL	23	\$716.03
SPUMPSTATION		39	1,202.97
	NORWOOD PUMP STATION	6	\$188.64
	OLD MILL PUMP STATION	33	\$1,014.33
STREATMENTPLANT		205	7,621.89
	CLEAN GRIT PIT/LOAD CONTAINER	34	\$1,035.75
	EMERGENCY CALL IN	8	\$352.92
	LAKESIDE UNIT	1	\$31.44
	MISCELLANEOUS VAC WORK	6	\$183.15
	ODR MAINTENANCE	6	\$188.64
	RIDINGS WWTP	9	\$412.09
	SLUDGE RECEIVING	12	\$503.04
	SLUDGE TRAILER SWITCH OUT	36	\$1,649.46
	T-1	24	\$745.36
	T-16	11	\$326.10
	T-2	15	\$454.35
	THE BEAST	36	\$1,362.32
	VAC DOWN GRIT CONTAINERS	8	\$377.28
SVARIOUS		542	16,977.20
	ENGINEERING SUPPORT	214	\$6,492.79
	EQUIPMENT MALFUNCTIONS AND REPAIRS	140	\$4,330.70
	MISCELANEOUS	27	\$847.73

Asset Type	Work Order Type	Labor Hours	Labor Cost
	PARTS /TOOLS/ EQUIPMENT PROCUREMENT	10	\$308.44
	SNOW REMOVAL	24	\$1,101.78
	TRAFFIC CONTROL	4	\$125.76
	TRAINING	8	\$242.32
	VEHICLE INSPECTON	115	\$3,527.68
Grand Total:		2,716	\$87,694.39



Inter - Office Memorandum

To: Robert J. Willert, Executive Director
From: Charles N. Hurst, Director of Engineering *CNH/bab*
Subject: Board Report for the February 11, 2020 O&E Committee Meeting
Date: February 10, 2020

CONSTRUCTION PROJECTS

1. INCINERATOR MAINTENANCE AND EMERGENCY REPAIRS (#TC-1801-C)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	Industrial Furnace Company, Inc.
Contract Amount:	\$686,750.00
Percentage Paid:	56.75% - through previous month
Notice of Award:	03/20/2018
Notice to Proceed:	04/04/2018
Substantial Completion:	03/31/2020
Final Completion:	05/30/2020

2. REMOTE PUMPING STATIONS BAR SCREEN REPLACEMENTS (#PR-1703-C)

Funding:	Capital
Design:	Gannett Fleming
Inspection:	In-house
General (Part A):	Eastern Environmental Contractors, Inc.
Contract Amount:	\$2,565,492.06
Percentage Paid:	100% - Approval for Close-out
Electrical (Part B):	Eastern Environmental Contractors, Inc.
Contract Amount:	\$571,000.00
Percentage Paid:	100% - Approval for Close-out

The contractor has completed the installation of all new bar screens. The installation of a conveyor, conveyor panel, repurposed screw and trough, gratings and handrail work is complete. Request for approval of contract close-out and final payment pending.

3. PS-6 CONSTRUCTION, PHASE I (#TC-1707-C)

Funding:	Capital
Design:	Gannett Fleming
Inspection:	In-house

Electrical (Part D):	Philips Brothers Electrical
Contract Amount:	\$4,140,900.00

Notice of Award:	01/23/2017
Notice to Proceed:	05/30/2017
Substantial Completion:	09/21/2018
Final Completion:	11/21/2018 (Part D Final Completion 1/29/2021)

Construction is complete. General, Plumbing and HVAC contracts are closed out. Fiber Communication work remains prior to initiating the close-out process for Contract Part D Electrical. Change Order #1 was approved by the BOD for an extension in contract time to accommodate the remaining Fiber Communication work.

4. SOLIDS HANDLING UPGRADE 2016 (#TC-1608-C)

Funding:	Capital
Design:	GHD & Weston
Inspection:	In-house

General (Part A):	Allan Myers.
Contract Amount:	\$6,495,555.00
Percentage Paid:	98.31% - through previous month

Electrical (Part B):	Philips Brothers Electric
Contract Amount:	\$1,833,200.00
Percentage Paid:	90.41% - through previous month

Notice of Award:	10/17/2017
Notice to Proceed:	12/04/2017
Substantial Completion:	01/03/2019
Final Completion:	02/01/2019

The contractors are preparing their as-built drawings for submission and completing punch list items. The close out process has been initiated for Contract A. Awaiting close out documentation from Contract A. Programming work dependent on the schedule of other ongoing W RTP projects remains prior to close out for Contract B.

5. W RTP Plant Upgrades (#TC-1717-C)

Funding:	Capital
Design:	D'Huy Engineering, Inc. & Gannett Fleming
Inspection:	D'Huy Engineering, Inc.
General (Part A):	Allan Myers.
Contract Amount:	\$14,905,555.00
Percentage Paid:	81.53% - through previous month
Electrical (Part B):	Philips Brothers Electric
Contract Amount:	\$6,220,777.00
Percentage Paid:	58.27% - through previous month
Notice of Award:	05/17/2018
Notice to Proceed:	06/04/2018
Substantial Completion:	12/25/2020
Final Completion:	02/23/2021

Allan Myers has completed the concrete repair and gate installations in T-12 as well as the installation of the metering platform. They have installed the grease pumps in T-26 and begun installing the associated piping. They have installed and set to elevations the launders, weirs, and scum baffles in T-16 and have begun the installation of the current density baffle. They have completed the grout injection in the manhole near PS-6 and completed the modification of the odor control ductwork at PS-6. They have also completed the mechanical repairs of screen MS-3 in PS-6. Philips Brothers has poured the pad for Substation 1 and set the gear on the pad. They have completed the conduit installation to the actuators and other equipment around the chlorine contact tanks. They are continuing installation of the conduit at the aeration tanks.

6. MARCUS HOOK PUMP STATION & CHESTER RIDLEY CREEK PUMP
STATION ELECTRICAL UPGRADES (#PR-1804-C)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	Philips Brothers Electrical Contractors, Inc.
Contract Amount:	\$789,127.00
Percentage Paid:	60.55% - through previous month
Notice of Award:	09/19/2018
Notice to Proceed:	10/15/2018
Substantial Completion:	03/14/2019
Final Completion:	05/03/2019 - Maintenance Alternate: 10/31/2020

Philips Brothers completed work to install the 150KW generator at Marcus Hook Pump Station and the 600KW generator at Chester Ridley Creek Pump Station. PECO service updates at Marcus Hook Pump Station were completed and inspected by PECO. Programming work was completed at Chester Ridley Creek Pump Station. Philips Brothers completed maintenance projects including 480V feeder work and outdoor gear work at Muckinipates Pump Station, and they are preparing As-Built engineering drawings for B-3. A PECO line, transfer switch and meter discovered on parcel previously owned by Covanta was removed and made safe. Philips Brothers also provided assistance during an emergency call-in at T-16 and an emergency call-in regarding the 15KV system at Chester Ridley Creek Pump Station.

7. HVAC ENERGY SAVINGS UPGRADE (#TC-1716-C)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	CM3 Building Solutions
Contract Amount:	\$6,134,716.00
Percentage Paid:	80.45% - through previous month
Notice of Award:	9/13/2017
Notice to Proceed:	9/13/2017

Phase 2 work continues.

8. SEWER MAINTENANCE (#SEW-1905-CO)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	A. J. Jurich, Inc.
Contract Amount:	\$1,141,981.00
Percentage Paid:	16.55% - through previous month
Notice of Award:	06/19/2019
Notice to Proceed:	07/16/2019
Final Completion:	08/31/2020

January maintenance work included:

- Two pipe repairs in Rose Valley along Creek
- Demo of Pipe Gallery in B-4 WRTP
- Worked on drainage system at B-3 WRTP
- Serviced and Cleaning of Air Relief Valves on Central FM
- Performed Test Pits on Townsend Street Project

9. PAVING RESTORATION SERVICES – ANNUAL (#SEW-1902-CO)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	A. F. Damon, Inc.
Contract Amount:	\$959,742.50 – 2 Year Contract
Percentage Paid:	71.40% - through previous month
Notice of Award:	11/20/2018
Notice to Proceed:	02/01/2019
Substantial Completion:	01/31/2021
Final Completion:	02/28/2021

10. WRTP SUBSTATION NO. 2 REPLACEMENT (#TC-1904-C)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	Philips Brothers Electrical
Contract Amount:	\$1,442,777.00
Percentage Paid:	70.30% - through previous month
Notice of Award:	04/16/2019
Notice to Proceed:	05/10/2019
Substantial Completion:	11/29/2019
Final Completion:	01/17/2020

Substation in service and on line. SCADA connections remain.

11. SPRINGHILL FARM WWTF PUMP STATION AND SANITARY FORCE MAIN PROJECT (#PFR-1903-C – RE-BID) - CONTRACT 1: GENERAL CONSTRUCTION

Funding:	Capital
Design:	Entech Engineering, Inc.
Inspection:	In-House
Contractor:	A. J. Jurich, Inc.
Contract Amount:	\$480,304.00
Percentage Paid:	0% - through previous month
Notice of Award:	12/17/2019
Notice to Proceed:	02/12/2020
Substantial Completion:	10/09/2020
Final Completion:	11/09/2020

Notice to Proceed and Preconstruction Meeting scheduled for February 12, 2020.
On-site construction is contingent upon issuance of PADEP Part 2 WQM Permit.

12. SPRINGHILL FARM WWTF PUMP STATION AND SANITARY FORCE MAIN
PROJECT (#PFR-1903-C— RE-BID) - CONTRACT 2: ELECTRICAL/SCADA
CONSTRUCTION

Funding:	Capital
Design:	Entech Engineering, Inc.
Inspection:	In-House
Contractor:	AJM Electric, Inc.
Contract Amount:	\$198,543.00
Percentage Paid:	0% - through previous month
Notice of Award:	12/17/2019
Notice to Proceed:	02/12/2020
Substantial Completion:	10/09/2020
Final Completion:	11/09/2020

Notice to Proceed and Preconstruction Meeting scheduled for February 12, 2020.
On-Site construction is contingent upon issuance of PADEP Part 2 WQM Permit.

DESIGN

1. CSO LONG TERM CONTROL PLAN UPDATE

The LTCP Semi-Annual Report No. 9 was submitted on December 30, 2019. On January 30, 2020, the USEPA issued a letter to respond to the LTCP Update that was submitted to USEPA on February 12, 2019. The letter identified 11 deficiencies and requested additional information in 11 other areas. The letter included an offer to meet to discuss items. DELCORA has requested this meeting and anticipates it will occur within a couple weeks.

2. ESA ALTERNATIVES

In response to escalated costs for the treatment of the Eastern Service Area (ESA) flow at Philadelphia's Southwest Water Pollution Control Plant, DELCORA formed a cross functional team to evaluate the various alternatives for the treatment and conveyance of the ESA. DELCORA's procurement of ESA Engineers is completed. The kickoff for final design of the ESA design is underway. Last week, the first of two 3-day Value Engineering sessions brought in outside Engineers to analyze the basis of design for the ESA Program to inform the final design.

3. CSO #5 PARTIAL SEPARATION – TOWNSEND STREET 48" COMBINED SEWER SEPARATION PROJECT

Engineer: Remington & Vernick Engineers
Design Project Kick-off Meeting: March 28, 2019

This project is a component of the LTCP Update. The engineer has submitted a Design Schedule projecting that the design will be prepared for construction bidding in April 2020.

The Engineering Design Phase has begun. Site Survey is completed. A draft of the final Hydrological and Hydraulic Study was received on November 15, 2019. Final acceptance of the H&H Study is contingent upon the Stormwater Authority of The City of Chester. Design of pipe plan and profile is proceeding. Soil Borings and Soil Sampling (Geotechnical and Environmental) was conducted on November 14, 2019. Utility companies are now being contacted regarding conflict resolutions and relocations. Progress meeting was held on January 13, 2020.

4. CRUM CREEK PUMP STATION BYPASS FORCE MAIN – FINAL DESIGN

Engineer: Gannett Fleming, Inc.

Gannett Fleming and ERM are engaged in acquiring permission to access properties to continue design work. At this time, three of the five property owners have granted permission to enter their properties to survey. ERM has applied to PECO to the install force main through their easement. Offsite design work has begun. Engineer has surveyed conducted SUE Level A and Geotechnical Investigation along north end of project (Crum Creek Pump Station to Amtrak). A second meeting was held on January 29, 2020 with representatives of Liberty Electric to discuss site specific work requirements. Request for additional insurance and bonding requirements made at this meeting will result in re-evaluation of the route across the Liberty Electric property.

5. BOROUGH OF UPLAND SEWER UPGRADE – CHURCH AND TENTH STREETS

Engineer: Catania Engineering Associates, Inc. (CEA)

This project is a component of the LTCP Update. A proposal has been accepted for preparation of final design and preparation of construction documents in accordance with the March 13, 2019 Technical Memorandum issued by Greeley and Hansen. The kick-off meeting was held on January 13, 2020. Sewers have been televised and conditions reported to CEA. Test pits at existing box culvert are scheduled for next week.

6. WRTP – LOWER DELAWARE RIVER IMPROVEMENTS

Engineer: Gannett Fleming, Inc. (GF)

Gannett Fleming has completed a review of the Seaport Drive DRI Relief Pump Station and submitted a final report on its operation. GF is currently designing a section of 48" interceptor pipe from PS-6 to the ending manholes of the Delaware River Interceptor (DRI) and West End Interceptor (WEI). The goal is to remove a 1.4' step in the last manhole of the DRI and to remove a hydraulically inefficient crossing and connection of the two interceptors. This improvement will result in more efficient flows in the DRI, WEI and PRF pipes reducing dry weather and wet weather hydraulic issues. These improvements are required to facilitate the flow increases projected in the Long-Term Control Plan Update (LTCPU).

PRETREATMENT/LABORATORY

1. RULES & REGULATIONS, LOCAL LIMITS DEVELOPMENT, ENFORCEMENT RESPONSE PLAN, & STREAMLINING

No updates at this time.

2. PERMIT ISSUES

The following draft permit was issued in the month of January:

- Delaware County Solid Waste Authority

No final permits were issued in the month of January.

There were no inspections in the month of January.

3. INDUSTRIAL USER SAMPLING AND INSPECTIONS

No Industrial Users were sampled in the month of January.

No Industrial Users were inspected in the month of January.

4. MISCELLANEOUS

The following were sampled during the month of January:

- Quarterly Plant Sampling
- Chester – Ridley Pump Station
- DRBC Weekly Sampling
- Weekly Sludge Metals
- Weekly Remote
- Quarterly WET Testing

All were sent to the contract laboratories for analysis.

REGULATORY FILINGS/ISSUES

- DRBC – Letter sent on February 12, 2018 addressing DRBC’s concerns about the acceptance of “out of basin” wastewater and the request for increased BOD and TDS waste load allocations.
- Met with DRBC on June 25, 2018 to discuss DRBC’s ongoing impact on DELCORA’s operations.
- Title V Permit was received December 21, 2018 – Effective December 17, 2018 – Expires December 17, 2023.
- DRBC Docket Modification for an increased cBOD20/cBOD5 Waste Load Allocation was posted for Public Comment on February 13, 2019.
- Title V – Semi-Annual Subpart LLL Deviation Report for 2nd Half 2019 submitted to EPA & DEP on January 31, 2020.
- Plan Approval Extension 23-0038F was submitted to PADEP on January 21, 2020.
- Semi-Annual Subpart O report was submitted to EPA Administrator on January 24, 2020.
- Semi-Annual Preventative and Corrective Maintenance report covering October through December 2019 was submitted to PADEP on January 8, 2020.
- Plant Wide Applicability Report was submitted to PADEP on January 24, 2020.
- 2019 Annual Report – SARA Title III – Tier II Report was submitted to the PA Dept. of Labor & Industry on February 5, 2020.

CNH:bab

cc: (via email)
M. DiSantis
J. Pileggi
C. Lenton
I. Fitzgerald
S. Labrum
J. Centrone
D. Dutton
M. Sweeney
J. Yochim
T. Diewald
File



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www.westonsolutions.com

5 February 2020

Mr. Robert Willert
Executive Director
DELCORA
100 East Fifth Street
P.O. Box 999
Chester, PA 19016

W.O. No. 05623.035.001.0001

RE: Summary of Activities for January 2020

Dear Mr. Willert:

The progress on current Weston Solutions, Inc. (WESTON®) authorized project assignments for DELCORA is summarized below.

CHAPTER 94 ANNUAL REPORT

Proposal No.:	133360
WESTON WO No.	05623.035.002
Start Date:	January 1, 2020
End Date:	March 31, 2020
Percent Complete	12%

This project is to prepare the Chapter 94 Municipal Wasteload Management Reports for 2019. This report is mandated for all owners for municipal treatment plant and sewage collection systems. DELCORA is required to submit a report for the Western Service Area (WSA) which will include reports submitted by each municipality or municipal authority that owns a collections that discharges to DELCORA's Western Regional Treatment Plant. DELCORA is also required to prepare a report for the Eastern Service Area (ESA) which will be provided to the Philadelphia Water Department for inclusion in their Chapter 94 Report for the Southwest Water Pollution Control Plant. The reports are due to PADEP at the end of March. The reports include recorded flow and organic loads to the treatment facilities, five-year projections for flow and loads, and annual flows with two-year projected flows at pump stations.

During the month of January, WESTON initiated with DELCORA staff by preparing a schedule of deliverables and identifying a responsible DELCORA staff member for providing information needed in the report. Request for specific information have been sent to select DELCORA staff including influent flows and organic loads to the WRTP, flows to pump stations, a listing of planning module submissions to DELCORA for both the Eastern and Western Service Areas. WESTON has begun to update PADEP forms required for each report, narrative text, figures, and spreadsheets (planning modules, pump stations, treatment flows) for the ESA and the WSA



Mr. Robert Willert
DELCORA

5 February 2020
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needed to produce the report narrative, tables, and graphics. Additionally, WESTON has been processing the daily pump station data into monthly summaries and assigning the EDU counts provided in the list of planning module submissions to its receiving pump station to use in the two-year flow projection.

ANNUAL SWMM MODELING

Proposal No.: 133462
WESTON WO No.: 05623.034.006
Start Date: August 2019
End Date: December 2020
Percent Complete: 31%

This project is for completion of monthly SWMM model runs and for submission of month-end reports and a year-end letter report for DELCORA's use and reference in the annual Chapter 94 Report. DELCORA's NPDES permit for the WRTP requires that information of the volume and duration of discharges from the Combined Sewer Overflows be reported monthly. PADEP accepts discharge information from a calibrated numerical model in lieu of measured flows. WESTON utilized the calibrated SWMM model created for the LTCP Revision.

During the month of January, WESTON simulated precipitation events for December and reported simulation results to DELCORA. The simulation is based on precipitation recorded on the rain gauge located at the WRTP. During the month of November, DELCORA experienced a total of 4.70 inches of precipitation over 6 separate days. This resulted in roughly 0 to 12 CSO overflow events per outfall depending on the sensitivity to rainfall with 1 of the daily events attributed to carryover from the previous day's precipitation. During small precipitation events, some outfalls with small drainage areas do not overflow, while other outfalls with large drainage areas overflow frequently. The results of the simulation are loaded into a PADEP form that is included in DELCORA's monthly DMR submission for the WRTP.

WESTON also drafted the annual report which is included in the Chapter 94 Report for the Western Service Area. The report summarized all precipitation and presents the results of the simulations in a rolled up format for volume discharges and length of discharge for each of the three receiving waters: Ridley Creek, Chester Creek, and the Delaware River. The report is undergoing internal review and will be issued for DELORA review/comment in February.



Mr. Robert Willert
DELCORA

5 February 2020
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METERING PROGRAM

Proposal No.: 137102
WESTON WO No.: 05623.034.003
Start Date: March 19, 2019
End Date: Open
Percent Complete: 38%

This project is to assist DELCORA in implementation of the Delaware County Metering Program. This program was initiated in 2005 to provide more accurate distribution of sewage flows to contributing communities in Delaware County. The program maintains and collects data from 122 flow meters deployed in sewers and incorporates data from 12 meters at pump stations. The sewer meters capture approximately 75% of the flow discharged. The remaining unmetered areas did not have a capture point that would provide reliable and repeatable data so they are estimated based on EDU counts for the unmetered areas. The unmetered areas are estimated using the EDU count for that area and the flow per EDU for the metered areas in the same municipality.

During the month of January, WESTON received the sewer flow meter data from DELCORA's flow metering contractor and pump station data from DELCORA staff. The data was loaded summary flow data for December to the apportionment spreadsheets and reviewed for any potential discrepancies. WESTON also updated the county-wide summary spreadsheets, the eastern authorities' summary spreadsheets, and summary spreadsheets for select municipalities for 2019.

FORCE MAIN TEST COUPONS and ARV REPAIR

Proposal No.: 137483
WESTON WO No.: 05623.034.004
Start Date: June 2019
End Date: December 2019
Percent Complete: 54%

The scope of services for this project include preparation of contract documents to obtain pipe coupons from the Eastern Force Main. The pipe coupons will be analyzed to determine the condition of the force main. The project also includes preparation of contract documents to clean and repair the ARV's located on the Central Bypass and Eastern Force Mains.

WESTON has completed the Project Kick-Off data Collection and the Field Investigation phases of the work. Follow-up field investigation will be required at a few ARV locations to further verify the existing design information with the existing conditions. WESTON is currently working on the Phase III Detailed Design scope of work.



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In October, WESTON completed the design for one of the ARV locations, ARV-55, located on the Central By-Pass Force Main. Since this location does not have an existing ARV and it is located at a critical spot (creek crossing) along the force main the team decided to design and construct this ARV first. The results of this installation will be used to determine the improvements to the force main and the information will be implemented in the final design for the remaining locations. In December WESTON submitted an application to PennDOT for a Road Opening Permit. The permit approval was received on January 7, 2020; construction of the ARV will start this month.

GENERAL ENGINEERING SUPPORT

Proposal No.: 37717
WESTON WO No.: 05623.021.107
Start Date: March 21, 2006
End Date: Open
Percent Complete: 96%

This project, a continuation of the previous “General Engineering” project, provides on-demand support to DELCORA for various services at the direction and approval of the Executive Director.

During the month of January, WESTON initiated with DELCORA staff by preparing a schedule of deliverables and identifying a responsible DELCORA staff member for providing information needed in the report. WESTON has begun to update report text and spreadsheets needed to produce the report narrative, tables, figures and graphics.

REGULATOR 04, 15, 17, 18, and 19 REPLACEMENT

Proposal No.: 130616
WESTON WO No.: 05623.032.003
Start Date: March 2017
End Date: Open
Percent Complete: 96%

The scope of services for this project includes preparation of the detailed design drawings and specifications for the replacement and rehabilitation of five sewage regulators, Numbers 04, 15, 17, 18 and 19, as well as supporting DELCORA during bidding and construction phases.

Installation of the new mechanisms is complete for both locations. The contractor completed punch list items and submitted As-Built Drawings for review. WESTON has reviewed this



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submittal and is finalizing the project record drawings, and submitted them to DELCORA for review/comment.

CENTRAL FORCE MAIN AND CHESTER FORCE MAIN EVALUATION

Proposal No.: 133118
WESTON WO No.: 05623.033.004
Start Date: July 2016
End Date: Open
Percent Complete: 75%

This project is to perform an engineering evaluation of the Central and Chester force mains to determine design parameters for sizing the future Crum Creek Pump Station equipment. The ultimate goal of the project is to determine how DELCORA can pump more flow from the CDPS to the Western Regional Treatment Plant (WRTP).

WESTON prepared and conducted modeling to evaluate the flow characteristics of both the Central By-Pass and the Chester force mains. The model took into account flow, pump discharge pressure, static conditions, pipe material, and pipe length and diameter. Flow conditions for the two force mains as well as the Kimberly Clark Pump Station and the total influent flow to the WRTP was also incorporated into the evaluation.

WESTON ran several model scenarios for both dry weather and storm conditions. The modeling was conducted during 2018 and 2019 and approximately 20 scenarios were evaluated. Each scenario was run over a period of several hours and real time operating data from DELCORA's E-Ops was input into each model run. The results of each model scenario were consistent and showed that the performance of the Chester force main was very good and in line

After the first several model runs, WESTON and DELCORA staff performed a site assessment of the ARV locations. Where possible, the ARV's were cleaned, tested, and put back into service. Several of the locations could not be inspected due to faulty isolation valves. After this inspection additional model runs were conducted and the results were similar previous model results.

WESTON met with DELCORA and discussed conducting additional field investigations and modifications to existing air release valve location. After further investigation it was decided to prepare contract documents to repair isolation valves, clean ARV's, and install new ARV's at locations where valves are missing. This work will be conducted under a separate project. WESTON had no activity on this project during the month of January.



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FORCE MAIN TRANSIENT ANALYSIS

Proposal No.: 132758
WESTON WO No.: 05623.032.007
Start Date: October 15, 2017
End Date: December 2018
Percent Complete: 90%

The scope of services for this project includes preparation of a transient analysis of the Eastern Force Main and Chester Force Main. The goal is to determine a maximum flow value from the CDPS to the WRTP without increasing the risk of a pressure surge.

DELCORA and WESTON met and reviewed the preliminary results of the analysis. The main pump stations were modeled for two scenarios and results indicate that additional vacuum relief valves are required on the force mains. WESTON completed the model for additional scenarios and submitted the draft report. During the month of August, WESTON and DELCORA discussed additional analysis associated with the project. The additional work will be a part of the Crum Creek Force Main project. No additional work was completed during January.

WRTP AS-BUILT PLAN

Proposal No.: 133118
WESTON WO No.: 05623.032.006
Start Date: October 18, 2017
End Date: Open
Percent Complete: 97%

The scope of services for this project is to prepare a composite as-built plan of the WRTP in AutoCAD format that include both original plant information as well as new features added in recent years to document the existing site conditions specifically the underground utilities. The drawings are being prepared to facilitate a conversion to GIS for some of the features. WESTON had no activity on this project during the month of January.



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UTILITY WATER SYSTEM REPLACEMENT BID & CONSTRUCTION PHASE SERVICES

Proposal No.: 127597
WESTON WO No.: 05623.031.003
Start Date: January 2016
End Date: Open
Percent Complete: 98%

This project is to provide bid support services and construction phase services relating to the Utility Water System Upgrade project at the WRTP. The existing system is at the end of its life and the system is critical to treatment operations. Bids were received on March 7, 2016.

WESTON had no activity for this project during the month of January. The construction has been completed and the remaining effort includes preparation of the record drawings after receipt of contractor marked drawings.

Should you have any questions, please do not hesitate to contact me at (610) 701-3706.

Very truly yours,

WESTON SOLUTIONS, INC.

A handwritten signature in black ink, appearing to read "John J. Kochubka".

John J. Kochubka, P.E.
Client Service Manager

cc: DELCORA Board of Directors
C. Hurst, DELCORA