

MINUTES
OPERATIONS & ENGINEERING COMMITTEE MEETING
AUGUST 11, 2020 (VIRTUAL)

Attendants: Messrs. Boland, DiSantis, Hurst, Kern, Knapp, Lehman, Lucas, Monaghan, Mullen, Pileggi, Willert, and Mesdames Amadio, Bonnett, Caulk, Nichols, and Sage.

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

There were no members of the public present.

Prior to the regular Order of Business, Ms. Bonnett responded to Mr. Kern's question from the HR/Admin meeting yesterday regarding the meaning of "VMR" mentioned in her written report. She explained that VMR stands for Verification Monitoring Report. Pretreatment permittees submit samples for analysis and the VMR is the resulting report of that analysis.

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

3. BID OPENING:

- Contract No. P2020-04 – Replacement Belts For A Belt Filter Press/Gravity Belt Thickeners

Ms. Caulk stated that there were three bids received.

	<u>TOTAL BID AMOUNT</u>
Clear Edge Filtration	\$ 48,100.00
National Filter Media Group	\$ 48,090.00
GSM Filtration, Inc.	\$ 47,770.00

Mr. Mullen stated that these bids will be reviewed by Staff and our Solicitor's office, and consideration of award will be placed on the agenda for the August 18th Board meeting.

4. BID RESULTS RECEIVED ELECTRONICALLY THROUGH THE PENNBID PROGRAM ON AUGUST 11, 2020:

- Contract No. SEW-2007-C – CCTV Inspection And Repair Project – Edgmont, Middletown And Rose Valley

Mr. Hurst stated that there were a total of five bids received via the PennBid program. Mr. Hurst read the bid results.

	<u>TOTAL BID AMOUNT</u>
Mobile Dredging & Video Pipe, Inc.	\$ 884,674.82
Standard Pipe Services LLC	\$1,003,420.50
Mr. Rehab LLC	\$1,048,094.99
MOR Construction Services, Inc.	\$1,193,373.50
Diversified Infrastructure Services, Inc.	\$1,467,998.55

Mr. Mullen stated that all bids will be reviewed by Staff and our Solicitor's office, and consideration of award will be placed on the agenda for the August 18th Board meeting.

In response to a question from Ms. Nichols, Mr. Hurst stated that this contract is for identifying and performing improvements in the pipes in these three collections systems, such as installing liners to eliminate pipe leaks, manholes either being cleaned, coated, repaired, or raised to grade, smoke testing which helps to identify cracks in pipes or other leaks that need to be fixed. This is part of ongoing work to make improvements to the infrastructure. Ms. Nichols requested a copy of the bid tab.

Also, Mr. DiSantis responded to Ms. Nichols' question on Contract No. P2020-04. He stated that the belts are used on the belt filter presses. The belts are about 6 feet wide and about 12 feet long. There are two belts on each machine and there are four machines, meaning eight identical belts are in service at one time. This purchasing contract is routinely put out for bid to purchase these belts in bulk quantities. We estimate the number of belts we need to buy for the year so we can keep them in stock to use as needed.

5. MONTHLY REPORT – DIRECTOR OF OPERATIONS & MAINTENANCE: Mr. DiSantis highlighted certain items in the written report. Mr. DiSantis stated that there were no violations at either the W RTP or at any of the remote facilities during the month of July. There was again excellent process control in our results for July at W RTP; 17 mg/L TSS; 5 mg BOD; and 98.45% removal of BOD₂₀. Solids handling was also good with daily dry tonnage a bit below the year-to-date due to maintenance during the month and reduced loadings from outside truck waste. The plant received 88.5% of the flow from the Central Delaware Pump Station. This is normally higher but there were multiple treatment units out of service which required sending some of the flow to Philadelphia.

Mr. DiSantis stated that there were eleven reportable incidents during the month. Seven incidents were SSOs. Five of those SSOs happened during a heavy rain event on one day, July 10th. That day, there were 4.5 inches of rain recorded at the W RTP. Two incidents were caused by contractor mishaps which have since been addressed. There were four emissions incidents. The main issue for these is the continued problems with the computer controlled equipment (PLC – programmable logic controllers) in Building B-3 due to the air quality in the building. This issue is being addressed by Engineering by making major improvements in the ventilation system and changing the location of electrical equipment during these upgrades. Continuing, he

stated that there were no system failures during the month and that the trucked waste received was average. Trucked waste revenue is still expected to be ahead of budget. Mr. DiSantis had no additional comments to the written report. The Committee had no questions regarding the written report.

6. MONTHLY REPORT – DIRECTOR OF ENGINEERING: Mr. Hurst highlighted certain items in the written report. He reported that close out process continues on the Solids Handling Upgrade 2016 and W RTP Plant Upgrades 2018 projects. Regarding the Marcus Hook Pump Station project, he stated that there is a service aspect of this contract that was used to call in emergency generators during a planned PECO power outage. Work continues through various phases of the Energy Savings Upgrade project, a part of which was mentioned in Mr. DiSantis' report regarding the air quality upgrades to Building B-3. Regarding the Sewer Maintenance contract, Mr. Hurst stated that there were some cave-ins, and various linear and vertical asset maintenance repairs were performed. Under the Substation No. 2 Replacement project, he stated the electrical upgrades work was started in B-3 with the actual installation of new electrical equipment in a new location. All upgrades are expected to be completed and in operation in a few months. Regarding the Springhill Farm Pump Station and Force Main project, Mr. Hurst reported that the wetwell and valve chambers were set allowing for the new pump station to operate and to take the Springhill treatment plant offline.

Under Design, regarding the CSO Long Term Control Plan (LTCP), Mr. Hurst stated that an updated LTCP report was submitted to the EPA and PADEP on July 15, 2020, consistent with commitments made during the February 26th meeting. From that meeting, a term sheet was negotiated to address their comments from the previous submission. We hope to receive additional positive feedback from EPA and PADEP to the July 15th submission. Regarding the ESA Alternatives, Mr. Hurst stated that the design team is vetting the concept of using deep rock tunnel in lieu of the at-grade pipelines. A firm decision is expected in six weeks. He stated he will report on this again in September. Continuing, Mr. Hurst reported that design work on the CSO #5 Partial Separation project continues and that a piece of land adjacent to Memorial Park is needed. He will explain further on an item listed later in the agenda that addresses that need. He also noted that the Lower Delaware River project is progressing with improvements made to the interceptor to prevent bottlenecks and potential dry-weather CSO issues.

Mr. Kern requested a copy of the Long Term Control Plan. Mr. Hurst will provide that to him electronically. In response to a question from Ms. Nichols concerning CSO #5, Mr. Hurst stated that there is a stream that flows into Memorial Park creating ponding issues in the park then it flows down Townsend Street and causes flooding issues in the Market Place area. The stream was piped directly into DELCORA's pipelines to the W RTP. When it rains, it creates a hydraulic burden on the plant. When the LTCP is approved, the clear water will be diverted directly to the Delaware River to free up capacity at the W RTP. Mr. Hurst had no additional comments to the written report. The Committee had no other questions regarding the written report.

7. MONTHLY REPORT – ENGINEERING ADVISOR: Mr. Lehman 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 there were two active projects this month. The annual SWMM modeling reports are completed each month which estimate the amount of flow that is collected and discharged out of the CSO system to the water bodies. Also, work continues on the metering program that measures flow data that DELCORA uses to bill communities that contribute wastewater to the system. The other projects listed on the report are on hiatus status due to various reasons. Mr. Lehman had no additional comments to the written report. The Committee had no questions regarding the written report.

8. CHANGE ORDERS: Mr. Boland stated that there were no Contract Change Orders at this time.

9. REQUEST FOR APPROVAL OF CONTRACT CLOSE-OUT & FINAL PAYMENT: Mr. Boland stated that there were no Contract Close-Outs at this time.

10. AUTHORIZATION FOR PROFESSIONAL SERVICES:

A. Gannett Fleming – Proposal Dated August 4, 2020 – For Additional Engineering Services To Provide Construction Observation Services For The Lower Delaware Interceptor Project Under The EPS-1 Pumping Station Upgrade Project (Amendment No. 5) As Part Of The WRTP Plant Upgrades– 2018 Project – Total Additional Amount Not To Exceed \$10,800.00 (Capital Funds).

Mr. Hurst stated that this proposal provides for additional field support for the lower DRI project mentioned earlier. This is a sensitive hydraulic piece of work and Gannett Fleming will be onsite during construction to ensure elevations are exactly as needed.

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

B. Environmental Resources Management – Proposal Dated August 6, 2020 – For Professional Services To Provide Environmental And Real Estate Services At 2nd & Dock Streets And At 5th & Townsend Streets In Chester – Total Amount Not To Exceed \$30,185.00 (Capital Funds).

Mr. Hurst stated that DELCORA engaged this firm to assist in real estate transactions, such as obtaining easements. This proposal is for two parcels of land. An easement is needed for a strip of land behind the Market Place (Townsend Street, CSO #5) to run pipe to divert water away from our system. DELCORA also needs to purchase a piece of land owned by the City of Chester at 2nd and Dock Streets (Chester Pump Station). A piece of the LTCP includes installation of satellite treatment facilities at the Chester Pump Station. Environmental investigation work needs to be done prior to purchasing the land.

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

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

ADJOURNMENT: It was moved by Mr. Lucas, seconded by Mr. Knapp, and unanimously carried to adjourn the regular meeting at 4:05 p.m.



INTER-OFFICE MEMORANDUM

TO: Robert J. Willert, Executive Director

FROM: Michael J. DiSantis, Director of Operations and Maintenance *MJD/Bab*

SUBJECT: Board Report for the August 11, 2020, O & E Committee Meeting

DATE: August 6, 2020

- I. **PROCESS INFORMATION** – There were no violations at W RTP during the month of July. Please note that data is through 7/30. July data points of interest are:

A.	<u>Liquid Process Averages:</u>	<u>Month:</u>	<u>YTD:</u>
1.	Flow	31.47 MGD	34.11 MGD
2.	TSS	7 mg/L	14 mg/L
3.	cBOD ₅	5 mg/L	10 mg/L
4.	cBOD ₂₀ % Removal	98.45%	96.9%
5.	cBOD ₂₀ Loading	1,968 lbs.	4,663 lbs.
B.	<u>Solids Processing:</u>	<u>Month:</u>	<u>YTD:</u>
1.	Dry Tons Treated -	1977.70	2,054.80
2.	Dry Tons/Day -	63.80	67.53
3.	Total Gallons Pumped -	12,319,798	12,252,330
4.	Average Feed Solids -	3.90%	4.07%
5.	Average Cake Solids -	20.78%	22.62%
6.	Pounds of Polymer/DT -	143.83	184.46
7.	MCF/DT -	5.57	4.21
8.	Monthly Cost/DT -	\$36.47	\$34.64

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

July 2020	Total Flow	Daily Avg	High Daily	Low Daily
Darby Creek	524.01	16.90	37.34	14.64
Muckinipates	110.70	3.57	7.94	3.15
Central Delaware	246.51	7.95	17.76	6.91
Chester	214.20	6.91	18.44	5.87
Marcus Hook	20.39	0.66	2.09	0.49
Eddystone	11.69	0.38	0.95	0.29
Naamans Creek	53.82	1.74	3.53	1.53
Chi Pit	15.59	0.50	0.76	0.39
Chester-Ridley	118.76	3.83	6.54	3.40
Edgmont	3.37	0.11	0.18	0.10

II. MONTHLY FACILITY ACTIVITIES

A. Operations Highlights/Key Events

1. The plant received 88.5% of the flow from the Central Delaware Pump Station. Having treatment units out of service caused the percentage to be lower than normal.
2. There were 11 reportable incidents during the month. Seven incidents were SSOs, with five being caused by excessive flows from one rainfall event. The other two were dry weather incidents related to construction work issues which have been addressed. There were 4 emissions incidents. One was caused by a contractor mistakenly closing a potable water line. This caused a loss of seal water to the BFP sludge feed pumps, shutting down the pumps. The remaining incidents were caused by PLC-related premature failures that we believe are caused by the air quality in building B-3. We are in the process of providing a resolution to these air quality issues through new building ventilation.
3. The average daily flows for the month continued to be steady and very similar to the past two months. The plant's operational focus continued to be keeping everything running stable while working with tank outages and process interruptions caused by on-going construction. Overall plant performance and effluent quality continued to be very good. Primary clarifier performance improved with 64% TSS removal. Phosphoric acid addition for nutrient deficiency continued as needed. GBT performance showed improvement with the filtrate averaging 83 mg/L TSS for the month. Two incinerator up time increased to 83% as maintenance needs were reduced as compared to June. The increased uptime resulted in having only six loads hauled to compost during the month. With a significant decrease in polymer usage while natural gas usage remained the same, lower operating costs were achieved during the month. Chemical addition to address the air quality in building B-3 continued. Lastly, there were no violations at any of the remote facilities.

B. Maintenance Highlights/Key Events

1. There were no system failures during the month. In addition to routine planned facility and collection system O&M; work on in-house projects and support of capital projects remains a significant focus of the maintenance departments. During the month, Central Maintenance also worked on belt filter press repairs, supported PECO work at various facilities, performed incinerator and related systems' repairs, primary clarifier inspections and repairs, various pump repairs, and providing labor to support plant operations. Sewer Maintenance continued to focus on area line cleaning and televising, air relief inspections and maintenance, response to One-Calls and sewer complaints, metering support, various line repairs and replacement, W RTP work, remote systems work, and support of capital projects.

C. Trucked Waste Business

1. During the month, 21.17MM gallons were received. Projected revenue for the month is expected to meet our monthly target and the year-to-date revenue is still pacing ahead of budget.

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: Thursday, July 16, 2020 10:42 AM
To: DiSantis, Michael; DiSantis, Michael; Raymond Rios; Piro, Ian; Mariani, Chris; Petrova, Mihaela; 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: 06/01/2020-06/30/2020
Report Due Date: 07/28/2020

Submitted By: Michael DiSantis
Submission Id: 215725
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

July 16, 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 June 2020.

Parameter averages for June 2020 were: Flow – 31.32 MGD; cBOD₅ – <4 mg/L; TSS – 7 mg/L; cBOD₂₀ % removal – 97.86%; and cBOD₂₀ – <1,756 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, 19015-0999
 FACILITY: DELCORA STP
 LOCATION: 3201 W FRONT ST, CHESTER PA, 19013-1829
 STAGE: Final Effluent

PA0027103
PERMIT NUMBER

001
OUTFALL NUMBER

Reporting Frequency: Monthly
 DMR Effective From: 06/01/2020
 DMR Effective To: 06/30/2020
 Permit Expires: 04/30/2018
 Permit Application Due: 11/01/2017
 No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
FROM 2020	06	01	TO 2020	06	30

PARAMETERS REPORTED VALUES

PARAMETER	QUANTITY OR LOADING		QUANTITY OR CONCENTRATION		SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	UNITS		
pH (00403)	Sample Measurement	---	6.25	---	1/day	Grab
	Permit Requirement	---	6.0 Inst Min	---	1/day	Grab
Total Suspended Solids (00530)	Sample Measurement	1797	---	---	1/day	24-Hr Composite
	Permit Requirement	11000 Avg Mo	---	---	1/day	24-Hr Composite
Oil and Grease (00556)	Sample Measurement	16500 Wky Avg	7.0	8.0	1/day	24-Hr Composite
	Permit Requirement	---	---	---	1/day	24-Hr Composite
Ammonia-Nitrogen (00610)	Sample Measurement	---	---	---	1/day	Grab
	Permit Requirement	---	---	---	1/day	Grab
Nitrite as N (00615)	Sample Measurement	---	---	---	2/month	24-Hr Composite
	Permit Requirement	---	---	---	2/month	24-Hr Composite
Nitrate as N (00620)	Sample Measurement	---	---	---	2/month	24-Hr Composite
	Permit Requirement	---	---	---	2/month	24-Hr Composite
Total Kjeldahl Nitrogen (00625)	Sample Measurement	---	---	---	2/month	24-Hr Composite
	Permit Requirement	---	---	---	2/month	24-Hr Composite
Cyanide, Total (00720)	Sample Measurement	---	---	---	1/month	24-Hr Composite
	Permit Requirement	---	---	---	1/month	24-Hr Composite
Chlorobromomethane (S4326)	Sample Measurement	---	---	---	1/month	Grab
	Permit Requirement	---	---	---	1/month	Grab
Cadmium, Total (01027)	Sample Measurement	---	---	---	1/month	24-Hr Composite
	Permit Requirement	---	---	---	1/month	24-Hr Composite
Copper, Total (01042)	Sample Measurement	---	---	---	1/month	24-Hr Composite
	Permit Requirement	---	---	---	1/month	24-Hr Composite
Lead, Total (01051)	Sample Measurement	---	---	---	1/month	24-Hr Composite
	Permit Requirement	---	---	---	1/month	24-Hr Composite
Zinc, Total (01062)	Sample Measurement	---	---	---	1/month	24-Hr Composite
	Permit Requirement	---	---	---	1/month	24-Hr Composite
Dichloromethane (S2101)	Sample Measurement	---	---	---	1/month	Grab
	Permit Requirement	---	---	---	1/month	Grab
Flow (00060)	Sample Measurement	---	---	---	Continuous	Measured
	Permit Requirement	---	---	---	Continuous	Measured
Total Residual Chlorine (TRC) (00060)	Sample Measurement	---	---	---	1/day	Grab
	Permit Requirement	---	---	---	1/day	Grab

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

Total Dissolved Solids (TDS)	Sample Measurement	***	***	***	***	500	879	mg/L	2week	24-Hr Composite
	Permit Requirement	***	***	***	***	Monitor & Report Avg Mo	Monitor & Report Daily Max		2month	24-Hr Composite
Fecal Coliform (74059)	Sample Measurement	***	***	***	***	< 5	17.9	No./100 ml	1/day	Grab
	Permit Requirement	***	***	***	***	200 Geo Mean	1000 IMAX		1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) (80042)	Sample Measurement	< 1171	1428	Bad day	Bad day	< 4.0	5.0	mg/L	1/day	24-Hr Composite
	Permit Requirement	7000 Avg Mo	10500 Wky Avg			19.0 Avg Mo	29.9 Wky Avg		1/day	24-Hr Composite
BOD, catenaceous, 20 day, 20 C (80087)	Sample Measurement	< 1755	***	Bad day	Bad day	***	***	***	1/day	24-Hr Composite
	Permit Requirement	10500 Avg Mo	***			***	***		1/week	24-Hr Composite
Facility Sampling Point Comments										



COMMONWEALTH OF PENNSYLVANIA
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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, 19013-1929
STAGE: Percent Removal

PA0027103
PERMIT NUMBER

001
OUTFALL NUMBER

Reporting Frequency: Monthly
DMR Effective From: 06/01/2020
DMR Effective To: 06/30/2020
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
FROM 2020	06	01	TO 2020	06	30

PARAMETERS REPORTED VALUES

PARAMETER	QUANTITY OR LOADING		QUANTITY OR CONCENTRATION		SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	UNITS		
BOD, carbonaceous, 20 day, 20 C (80087)	---	---	57.80	---	1/day	24-H Composite
Permit Requirement	---	---	88.25	---	1/week	24-Hr Composite
Facility Sampling Point Comments						



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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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: 06/01/2020
DMR Effective To: 06/30/2020
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2020	06	01	2020	06	30

FROM

TO

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)	Sample Measurement	755.47	Batch	263.12	mg/L	263.12	2/week	24-Hr Composite
	Permit Requirement	Monitor & Report Avg Mo		Monitor & Report Avg Mo		316.63	1/week	24-Hr Composite
Total Suspended Solids (TSS50)	Sample Measurement	825.14	Batch	316.63	mg/L	316.63	1/day	24-Hr Composite
	Permit Requirement	Monitor & Report Avg Mo		Monitor & Report Avg Mo		248.22	1/day	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) (00382)	Sample Measurement	723.01	Batch	248.22	mg/L	248.22	1/day	24-Hr Composite
	Permit Requirement	Monitor & Report Avg Mo		Monitor & Report Avg Mo		248.22	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
Hauled in Residual Waste Form_June 2020.xlsx	Hauled in Residual Waste Form	2020-07-15T10:49:30-04:00	
DELCORA Analytical Lab Report (Effluent Control)_June 2020.pdf	Laboratory Analytical Report	2020-07-15T10:41:42-04:00	
InfPRF Calculations_June 2020.xlsx	Other	2020-07-15T10:45:59-04:00	InfPRF Calculations June 2020
Hauler Totals_FORM 43 & Trucked Waste_June 2020.xlsx	Other	2020-07-15T10:47:46-04:00	Hauler Totals FORM 43 & Trucked Waste June 2020
DMR Laboratory Accreditation ALS_June 2020.doc	Laboratory Accreditation Form	2020-07-15T10:22:20-04:00	
ALS Analytical Lab Report (FOG)_6-6-19-10.PDF	Laboratory Analytical Report	2020-07-15T10:38:59-04:00	
DELCORA Analytical Lab Report (Influent)_June 2020.pdf	Laboratory Analytical Report	2020-07-15T10:37:23-04:00	
Influent & Process Control Form_June 2020.xls	Influent and Process Control Form	2020-07-15T10:52:20-04:00	
ALS Analytical Lab Report (FOG)_6-4-19-10.PDF	Laboratory Analytical Report	2020-07-15T10:40:29-04:00	
Daily Influent Monitoring Form_June 2020.xlsx	Daily Effluent Monitoring Form	2020-07-15T10:44:16-04:00	
Hauled in Municipal Waste Form_June 2020.xls	Hauled in Municipal Waste Form	2020-07-15T10:46:46-04:00	
DMR Laboratory Accreditation DELCORA_June 2020.doc	Laboratory Accreditation Form	2020-07-15T10:32:40-04:00	
DMR InfPRF (CBOD,TSS,BOD)_June 2020.pdf	Laboratory Analytical Report	2020-07-15T15:38:19-04:00	
Daily Effluent Monitoring Form_June 2020.xlsx	Daily Effluent Monitoring Form	2020-07-15T15:38:03-04:00	
DMR Laboratory Accreditation ALS (OSG)_June 2020.doc	Laboratory Accreditation Form	2020-07-15T10:22:01-04:00	
DMR Cover Letter_June 2020.doc	Cover Letter	2020-07-16T10:40:39-04:00	
DELCORA Analytical Lab Report (Effluent)_June 2020.pdf	Laboratory Analytical Report	2020-07-15T10:42:21-04:00	
June 2020 SIVAM Report.docx	CSO Detailed Outfall Report Form	2020-07-15T10:54:55-04:00	
ALS Analytical Lab Report (Effluent)_6-4-20.PDF	Laboratory Analytical Report	2020-07-15T10:33:38-04:00	
ALS Analytical Lab Report (FOG)_5-29-19-10-23-30-31-1-2-3.PDF	Laboratory Analytical Report	2020-07-15T10:39:44-04:00	
Influent & Process Control Analytical Lab Report_June 2020.pdf	Laboratory Analytical Report	2020-07-15T10:51:16-04:00	
Sewage Sludge : Biosolids Production and Disposal Form_June 2020.xls	Sewage Sludge / Biosolids Production and Disposal Form	2020-07-15T10:53:31-04:00	
Sludge Hauled_June 2020.xlsx	Other	2020-07-15T10:53:58-04:00	Sludge Hauled June 2020
Sludge Incorporated (DELCORA)_June 2020.pdf	Laboratory Analytical Report	2020-07-15T11:02:59-04:00	

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
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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	Date 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
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COMMENT DETAILS

Comments	Operator Name	Operator Certification Number	Operator Contact Number
	Michael J. Disantis	T0403	(610)-876-5523

SUBMISSION INFORMATION

SUBMITTED BY GREENPORT USER	*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	
	disantis	Michael Disantis	(610) 876-5523	AREA CODE	NUMBER	YEAR	MO DAY
		SUBMITTED BY FULL NAME					

OPERATIONS STRATEGIC PLAN REPORT

JULY 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	17	57
Hours in Training for Month	#	
Total	24.5	98.5
DEP Approved	6.0	6.0
DEP Certified Operators	#	
Regulations Require One	12	

CENTRAL MAINTENANCE MATRIX

JULY 2020

		CURRENT MONTH	YTD
Work Order Aging		#	
31-60 days		34	
61-90 days		8	
Over 90 days		31	
Work order hours/Available hours		%	%
**Mechanical Maintenance		86%	91%
Electrical Maintenance		74%	87%
Instrument Maintenance		87%	92%
**Includes all Preventive Maintenance			
Work Ratio Hours		# / %	# / %
Corrective		1231 / 31%	6784 / 29%
Preventive		2679 / 67%	16078 / 68%
Predictive		82 / 2%	590 / 3%
System Failures		#	#
Hours in Training		#	#
Mechanics/Helpers		NA	NA
Electricians		NA	NA
Instrument Techs		NA	NA
Call-Ins		#	#
WRTP		47	206
Pump Stations		12	76



Work Order Summary Report for Date
Range: 7/1/2020 to 7/31/2020

Asset Type	Work Order Type	Labor Hours	Labor Cost
SCHAMBER		262	7,757.24
	CLEAN GRATES	131	\$4,319.54
	MISCELLANEOUS	30	\$931.70
	SIPHON MAINTENANCE AND REPAIR	102	\$2,506.00
SCONTROLVALVE		41	1,274.09
	SERVICE AIR RELIEF VALVE	41	\$1,274.09
SCSOREGULATOR		285	8,803.22
	CSO INSPECTION	179	\$5,440.68
	MISCELLANEOUS	37	\$1,155.23
	RUN CORSSOVER/VAC DEBRIS FROM TRUNK LINES	42	\$1,368.78
	TOTAL REGULATOR MAINTENANCE	27	\$838.53
SGRAVITYMAIN		639	20,750.00
	AREA LINE CLEANING	95	\$3,044.28
	EMERGENCY CALL IN	50	\$2,138.31
	GNET TV INSPECTION	352	\$11,120.93
	INTERCEPTOR CLEANING	28	\$873.46
	MISCELLANEOUS	3	\$93.17
	MONTHLY LINE CLEANING	15	\$475.05
	PA ONE CALL LINE LOCATING	97	\$3,004.81
SLATERALPOINT		119	4,684.37
	EMERGENCY CALL IN	72	\$3,213.78
	SEWER COMPLAINT INVESTIGATION	45	\$1,407.71
	TV INSPECTION	2	\$62.88

Asset Type	Work Order Type	Labor Hours	Labor Cost
SMANHOLE		43	1,152.74
	EMERGENCY CALL IN	16	\$572.82
	MISCELLANEOUS	21	\$440.16
	REPLACE COVER /REPAIR RING	6	\$139.76
SOUTFALLPOINT		7	266.67
	TELEWISE AND INSPECT	7	\$266.67
SPUMPSTATION		53	1,915.93
	CHESTER PUMP STATION	30	\$925.95
	EMERGENCY CALL IN	8	\$363.48
	MUCKINIPETES PUMP STATION	4	\$139.95
	SEAPORT DRIVE	11	\$486.55
STREATMENTPLANT		406	12,438.22
	CLEAN GRIT PIT/LOAD CONTAINER	99	\$2,756.18
	CONTRACTOR ASSISTANCE	8	\$249.56
	EMERGENCY CALL IN	16	\$782.16
	JET STORM LINES OPEN	36	\$1,123.02
	LAKESIDE UNIT	4	\$125.76
	PLANT CLEANUP	108	\$2,557.58
	POCOPSON RIVERSIDE WWTP	15	\$471.60
	PS-6	31	\$891.06
	SLUDGE RECEIVING	8	\$251.52
	SLUDGE TRAILER SWITCH OUT	14	\$621.90
	T-10	6	\$188.64
	T-2	8	\$377.28
	T-27	15	\$471.60
	THE BEAST	30	\$1,179.29
	VAC DOWN GRIT CONTAINERS	8	\$391.08
SVARIOUS		429	13,323.55
	CLEAN SM GARAGE	3	\$94.32
	ENGINEERING SUPPORT	198	\$6,011.22
	EQUIPMENT MALFUNCTIONS AND REPAIRS	98	\$3,053.52
	MISCELANEOUS	8	\$313.42

Asset Type	Work Order Type	Labor Hours	Labor Cost
	PARTS /TOOLS/ EQUIPMENT PROCUREMENT	4	\$125.27
	TRAFFIC CONTROL	32	\$998.99
	TRAINING	24	\$762.63
	VEHICLE INSPECTON	63	\$1,964.18
Grand Total:		2,284	\$72,366.00



INTER-OFFICE MEMORANDUM

TO: Robert J. Willert, Executive Director
FROM: Charles N. Hurst, Director of Engineering
SUBJECT: Board Report for the August 11, 2020 O&E Committee Meeting
DATE: August 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:	90.00% - 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

The close out process has been initiated. This project has been superseded by #TC-2001-C summarized as Item 12, below.

2. 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.

3. 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:	99.69% - through previous month – FINAL
Electrical (Part B):	Philips Brothers Electric
Contract Amount:	\$1,833,200.00
Percentage Paid:	95% - 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 close out process is on-going .

4. WRTP 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:	93.21% - through previous month
Electrical (Part B):	Philips Brothers Electric
Contract Amount:	\$6,220,777.00
Percentage Paid:	88.50% - 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 realigned T-15's equipment and also made the adjustments in T-16. They were able to install the stop logs in the chlorine contact tanks and made

the installations in the basket area of T-22. They installed the platforms for the grease receiving units and the water lines for the Lakesides. Philips Brothers has completed demolition around the aeration tanks. They have begun installation of the electrical equipment on the second floor of B-3 and replacing the electrical equipment in the press room.

5. 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:	69.58% - 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 continues to complete maintenance projects at various locations. Philips Brothers completed the replacement of two electrical poles and the 15kV feeder from the pole to the high voltage switch at Muck Pump Station. They removed pump motors at Chester pump station and performed some wire/conduit modifications. They removed a vibrating motor from Darby Creek Pump Station so it could have bearing work performed on it. Additionally, Philips Brothers responded to a call out to Pocopson to investigate motors tripping out during ATS transfers. They identified loose screws in the ATS, fixed the issue and replaced the ATS controller. Philips Brothers assisted with installing conduits between the Pocopson Preserve Pump Station and the lagoons with 3 quazite boxes and installed a receptacle to temporarily feed an outlet for the upgraded aeration system. Philips Brothers also removed and replaced a VFD at Darby Creek Pump Station including the servicing of the VFD motor. Philips Brothers supplied and installed two generators at WRTP at each substation to support Plant operations during a PECO outage. Power Solutions was utilized for an emergency call-out to Chester Pump Station to diagnose, resolve, and test issue with low voltage tie circuit breaker. At WRTP, Philips Brothers installed, welded and installed wiring for six rotorks in B-3/incinerator.

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

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	CM3 Building Solutions
Contract Amount:	\$6,883,486.00
Percentage Paid:	76.59% - through previous month
Notice of Award:	9/13/2017
Notice to Proceed:	9/13/2017

Phase 2 work continues. Phase 3 has been approved and work is initiated. All roof fans in PS-3 and PS-4 installed; gravity and mechanical louvers are installed and opened. B-4 work continues; curbing and structural reinforcement for air handlers and new fans is complete. Building duct work complete; all units wired, controls to be completed week of August 3. B-3 air quality improvement project recommendations are complete. Scheduled start date to be determined.

7. 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:	66.23% - through previous month
Notice of Award:	06/19/2019
Notice to Proceed:	07/16/2019
Final Completion:	08/31/2020

July maintenance work included:

- Pump replacement at Chester Pump Station
- Collapsed pipe repair on Avenue of the States Outfall in KC Lot
- Piping installation at WRTP for Endimal Tank
- Repair and re-route water line at Springhill Farms Treatment Plant
- Clarifier Cleaning with AG Environmental
- Fuel Storage Tank Removal Marcus Hook PS
- Replacement of Wet Well Entry grates to Central and Muck Pump Station

8. 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:	65.43% - 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

No work this month.

9. 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:	12/11/2021
Final Completion:	01/29/2021

Substation in service and online. SCADA fiber is completely pulled and tested, and being placed in service by Automation. New Press room MCC being installed in hallway of B-3; VFD's installed old lunchroom. Conduit being replaced in press room.

10. 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

PADEP WQM Permit was received. Pettinaro started work on the adjacent force main project on May 19, 2020. Pettinaro contractor is drilling into rock and continues to be behind schedule. A. J. Jurich, Inc. has procured materials. The previously unknown water and electric services have been relocated out of the work area. The wetwell and valve vault structures have been set and are being backfilled. Discharge piping has been installed between the two chambers.

11. 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

PADEP WQM Permit was received. Contractor has installed the SCADA panel and cable trough. Conduits are run through the attic and connect exterior with panels in new control room. Underground duct bank will be installed later in the week of August 10th.

12. INCINERATOR MAINTENANCE AND EMERGENCY REPAIRS (#TC-2001-C)

Funding:	Capital
Design:	In-House
Inspection:	In-House
Contractor:	Industrial Furnace Company, Inc.
Contract Amount:	\$686,750.00
Percentage Paid:	10.26% - through previous month
Notice of Award:	04/22/2020
Notice to Proceed:	05/05/2020
Substantial Completion:	03/31/2022
Final Completion:	05/30/2022

IFCO replaced combustion air valves in both incinerators.

13. SPRINGHILL FARM SANITARY SEWER FORCE MAIN EXTENSION
(#PFR-2004-C) – GENERAL CONSTRUCTION

Funding:	Capital
Design:	Entech Engineering, Inc.
Inspection:	In-House
Contractor:	A. J. Jurich, Inc.
Contract Amount:	\$76,295.00
Percentage Paid:	15% - through previous month
Notice of Award:	05/20/20
Notice to Proceed:	06/15/2020
Substantial Completion:	09/14/2020
Final Completion:	10/13/2020

PADEP WQM Permit was received. Pettinaro started work on the adjacent force main project on May 19, 2020. Pettinaro contractor is drilling into rock and continues to be behind schedule. A. J. Jurich, Inc. has procured materials and permits. A meeting was convened with Walt Fazler, Bradford Engineering, Concord Township Sewer Engineer to discuss the work, Township inspection and schedule. Jurich has subcontracted with Delaware Valley Utility Contractors for HDD work.

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 EAP letter included an offer to meet to discuss items. This meeting occurred on February 26, 2020. There was an updated LTCP submitted to EPA and PADEP on July 15, 2020 in accordance with the commitments made during the February 26th meeting.

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 determined that it will redirect its flow away from Philadelphia and instead send it to WRTP. A team of consultants to complete the design has been hired. The initial stages of design are underway as detailed on a Design Contract basis below. At the program level, HDR is leading permitting efforts to coordinate the Design Contract firms for a meeting with the Army Corps of Engineers regarding program-wide permitting. Gannett Fleming completed the drilling of 5 test borings at DELCORA facilities to inform design in May and have compiled their report including lab testing results to inform design. In March, DELCORA and Aqua leadership met by virtual meeting to discuss the status of the project and review

alternatives that were identified during the value engineering phase of the project. A preliminary meeting was held with PennDOT representatives to introduce the project and start the dialogue about their concerns and requirements.

A. Pipeline Contract 1 - Segments 1 and 2 (D19-01) – Scopes and fee revisions for the ESA Tunnel 10% Design have been awarded. AECOM is collaborating with the Tunnel Design team to provide a 10% design by the end of August 2020.

B. Pipeline Contract 2 - Segments 3 and 4 (D19-02) – Scopes and fee revisions for the ESA Tunnel 10% Design have been awarded. Mott MacDonald is collaborating with the Tunnel Design team to provide a 10% design by the end of August 2020.

C. Pump Station Upgrades and Equalization Basin Design Contract (D19-03): Detailed Condition Assessments including lidar scanning and hazardous material testing were conducted at remote pump stations to inform design. HDR submitted their Condition Assessment report and Code Compliance Review technical memo to DELCORA for review last month. With the assistance of DCJA, HDR completed a walkthrough of the Darby Creek Joint Authority site adjacent to Darby Creek Pump Station to complete a Phase I site assessment to review available environmental information, required before any acquisition of land if deemed necessary to meet design needs of the ESA Program. Final Asset Condition and Replacement Recommendation Report were delivered and are under review by the Engineering Department. HDR submitted An Opinion of Probable Cost regarding portions of conveyance design options developed during the VE. A field visit to the eastern pump stations was completed for the purposes of informing environmental permitting and survey work to support design. Ongoing work includes progress towards the 30% basis of design of the pump station upgrades as well as hydraulic analysis and modeling of the existing conditions. Scope and fee for the ESA Tunnel Pump Station Alternatives Analysis has been awarded. HDR is collaborating with the Tunnel Design team to provide an Alternatives Analysis for the 50 MGD tunnel dewatering pump station design by the end of August 2020.

D. Western Regional Treatment Plant Expansion & WBTT Upgrades Design Contract (D19-04): Kleinfelder produced a concept design memorandum incorporating the results of the value engineering into the WRTP upgrade design and held a workshop to review it. Kleinfelder was provided what items from the condition assessment report are to be included in the WRTP upgrade. They provided a scope and fee to complete the concept design for the wet weather treatment facility at Chester Pump Station. They then also provided a concept design memorandum for the wet weather treatment facility at Chester Pump Station to DELCORA for review.

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.

Plans are now about 90% complete. Utility companies are being contacted regarding conflict resolutions and relocations. RVE is preparing to submit to PennDOT for plan approval. SAC's design consultants, HDR, Inc. and AKRF, Inc. have met virtually with DELCORA engineering and RVE, and they understand the required effluent conditions out of Memorial Park incorporating them into their own H&H study – a copy of which will be provided to DELCORA. RVE has completed and submitted the H&H Report.

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. Engineer has surveyed and conducted SUE Level A and Geotechnical Investigation along north end of project (Crum Creek Pump Station to Amtrak. ERM has begun negotiations with Boeing for access. DELCORA has continued conversations with Boeing to acquire easement. Gannett Fleming has submitted to PADEP for WQM Part II permit on April 30th. Permit plans will include LIDAR survey in lieu of onsite survey due to COVID-19 and Boeing access licensing. GF has completed the topographical survey and initial SUE on the Boeing property. GF has submitted to Boeing for an agreement to conduct excavation of test pits, geotechnical borings. ERM has been negotiating with AMTRAK for the access to survey and ultimately for the permanent easement required. The agreement for survey access has been returned for revision.

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. Sewers have been televised and conditions reported to CEA. Exploration of the existing box culvert has shown that it crosses the sanitary sewer on a long skew. Plans will have to include a 50' storm sewer re-route and partial demolition, abandonment of the box culvert. CEA has surveyed the project site and is preparing plans.

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 has completed design of 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 plan 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). DELCORA received the WQM Part II Permit No.2320401 on May 8, 2020. Contractor, Allan Myers, has completed the connection to PS-6 and re-connected the PRF line, Covanta force main and Waste Receiving flows. Project is about 30% complete.

PRETREATMENT/LABORATORY

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

No updates at this time.

2. PERMIT ISSUES

No draft permits were issued in the month of July:

The following final permit was issued in the month of July:

- First Time US Generics

The following Industrial Users were issued a Notice of Violation in the month of July:

- Eldredge
- Chester County Solid Waste Authority
- Qualawash Holdings, LLC
- Sunoco Partners Marketing & Terminals L.P.

3. INDUSTRIAL USER SAMPLING AND INSPECTIONS

The following Industrial Users were sampled in the month of July:

- Exelon
- Braskem
- Cumberland County Landfill
- Pyromet Recycle

No Industrial Users were inspected in the month of July.

4. MISCELLANEOUS

The following were sampled during the month of July:

- Quarterly Plant Sampling
- Marcus Hook Pup Station
- Weekly Sludge Metals
- Weekly Remotes
- Hauled Waste Metals
- Bimonthly Nutrient Testing
- 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.
- 2019 Chapter 94 Report for the Western Service Area was submitted to the PADEP via email link on April 28, 2020 (due to COVID-19 pandemic).
- WETT Report for the 2nd Quarter 2020 was submitted to PADEP on June 3, 2020.
- 2019 Annual Residual Waste Report was filed on June 24th 2020 .
- 40 CFR SUBPART O Report covering 1/1/2020 thru 6/30/2020 was sent to the EPA on July 27, 2020.
- PAL (Plant Wide Applicability) Report covering the 1/1/2020 thru 6/30/2020 was sent to the PADEP on July 28, 2020.
- Preventative And Corrective Maintenance Report covering the second quarter 2020 was sent to PADEP on July 16, 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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5 August 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 July 2020

Dear Mr. Willert:

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

ANNUAL SWMM MODELING

Proposal No.: 133462
WESTON WO No.: 05623.034.006
Start Date: August 2019
End Date: December 2020
Percent Complete: 60%

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 July, WESTON simulated precipitation events for May 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 June, DELCORA experienced a total of 2.23 inches of precipitation over 9 separate days. This resulted in roughly 0 to 9 CSO overflow daily events per outfall depending on the sensitivity to rainfall. 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.

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Mr. Robert Willert
DELCORA

5 August 2020
Page 2

METERING PROGRAM

Proposal No.: 137102
WESTON WO No.: 05623.034.003
Start Date: March 19, 2019
End Date: Open
Percent Complete: 63%

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 July, 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 May 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 2020. The monthly report and spreadsheets were submitted to DELCORA.

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.



Mr. Robert Willert
DELCORA

5 August 2020
Page 3

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 when all material has been received. WESTON had no activity on this project during the month of July.

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.

WESTON had no activity on this project during the month of July.

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.



Mr. Robert Willert
DELCORA

5 August 2020
Page 4

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 July.

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 W RTP 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. The transient analysis that was part of another contract (Crum Creek Force Main) has been completed. The results indicated that there was no additional impact to the Chester and Eastern By-Pass Force Mains. WESTON has submitted a proposal to incorporate the recommendations included in the initial evaluation. WESTON had no activity on this project during the month of July.



Mr. Robert Willert
DELCORA

5 August 2020
Page 5

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 July.

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 July. The construction has been completed and the remaining effort includes preparation of the record drawings after receipt of contractor marked-up 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 "Roger W. Lehman".

Roger W. Lehman, P.E.
Technical/Project Manager

cc: DELCORA Board of Directors
C. Hurst, DELCORA