

MINUTES
OPERATIONS & ENGINEERING COMMITTEE MEETING
JULY 14, 2020 (VIRTUAL)

Attendants: Messrs. Diwald, DiSantis, Hurst, Kern, Knapp, Lehman, Lucas, Mullen, Pileggi, Pisani, Sweeney, Willert, and Mesdames Amadio, Caulk, Cummings, and Sage.

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

The following were present for the bid openings: Craig Murray from D'Huy Engineering, Darrin MacMillan from A.J. Jurich, Bildie, Matric, Jason Burke, J. Estelle, S. Boyce, Thomas Jacoby, Paulo DeSilva, Michael, M. Philips, B. Miller, Joskce. There were no other members of the public present.

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

3. BID OPENING:

- Contract No. SEW-2002-CO – Furnishing Equipment, Labor & Supervision for Sewer Maintenance, Repairs & Other Construction Related Products

Mr. Hurst stated that there were two bids received.

	<u>TOTAL BID AMOUNT</u>
A.J. Jurich, Inc.	\$ 2,079,310.00
Mor Construction Services, Inc.	\$ 2,129,920.00

- Contract No. TC-2006-C – W RTP Plant Upgrades Project 2020 – Contract A – General

Mr. Hurst stated that there were four bids received.

	<u>TOTAL BID AMOUNT</u>
A.J. Jurich, Inc.	\$ 8,456,272.00
Allan A. Myers, Inc.	\$ 7,142,020.00
Pact Two LLC	\$ 8,263,820.00
Worth & Company, Inc.	\$ 7,450,970.00

- Contract No. TC-2006-C – WRTP Plant Upgrades Project 2020 – Contract D – Electrical

Mr. Hurst stated that there were two bids received.

<u>TOTAL BID AMOUNT</u>	
Brendan Stanton, Inc. (aka BSI Electrical Contractors)	\$ 910,500.00
Philips Brothers Electrical Contractors	\$ 892,000.00

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 July 21st Board meeting.

4. MONTHLY REPORT – DIRECTOR OF OPERATIONS & MAINTENANCE: Mr. DiSantis highlighted certain items in the written report. Mr. DiSantis stated that as of the writing of his report, there were no known violations at the WRTP. Mr. DiSantis reported that it was a good month for the plant process and solids handling. Effluent TSS was 7mg/L, cBOD₅ was 4mg/L and the cBOD₂₀ removal was 98.66%. Mr. DiSantis reported that for the solids handling the dry tons per day was 64.89 which is less than the year to date average. This was due to having maintenance performed on both incinerators during the month. Continuing, Mr. DiSantis stated that the WRTP received 98% of the flow from Central Pump Station. He stated that there were two reportable incidents during the month, one was for a wet water overflow at Norwood's Martin Lane Pump Station which occurred when there was a partial power outage during a rain event. The final incident was for emissions. Mr. DiSantis did state that this is a huge improvement from last month which he stated had twenty-four reportable incidents which were all due to emissions. He reported that the new operating procedures that were implemented and tested in May have produced tremendous results. Mr. DiSantis reported that there was one violation for exceeding the monthly average TSS concentration at the Pocopson Preserve facility due to excess algae. The trucked waste business was low during the month compared to other months at 20.37 million gallons, but year-to-date revenue is still on budget. Mr. DiSantis had no additional comments to the written report. Mr. Kern had praised Mr. DiSantis on the outstanding numbers at the WRTP. He stated that he has been in this business for 47 years and he has never seen numbers this great. He also stated that he heard that the Safety Committee received an award for their outstanding safety, but he feels that the WRTP deserves a Plant Operation Award due to the impressive numbers. Mr. DiSantis thanked Mr. Kern for the recognition. The Committee had no further questions regarding the written report.

5. MONTHLY REPORT – DIRECTOR OF ENGINEERING: Mr. Hurst highlighted certain items in the written report. He reported that the WRTP Plant Upgrades project, and the Solids Handling Project continue to draw to a conclusion. He stated that there were several notable repairs completed under the Sewer Maintenance contract including replacing a pump at the Chester Pump Station, installation of sewer pipe and manhole at 15th and Arbor Street, Endimal Tank installation at WRTP, and a hot tap and

replacement of Air Relief Valve 55 on Rt. 291. He reported that the substation work CONTRACT WORK IS PROCEEDING in the press room. He reported that the Springhill Farm contract is under construction at this time.

Under Design, regarding the ESA Alternatives, Mr. Hurst stated that the Value Engineering phase is drawing to a close. Value Engineering is a process where independent engineers are engaged to review the design and offer suggestions on how the value can be improved, such as greater level of service or lower costs. The Value Engineering team that reviewed this project in February suggested that we should consider replacing the pipelines (intended to be installed at grade through open trench excavation) with constructing a tunnel. To investigate this option, five bore holes were driven down about 200 feet in depth. It was discovered that the rock is shallower than expected and very good quality for constructing a tunnel. He also stated that using the tunnel option would save a lot of excavation of soils at grade, reduces the impact on traffic and noise, and alleviates concern about contaminated hazardous soil and water. Mr. Hurst noted that the team, in consultation with Aqua, is nearing a final decision on proceeding with a tunnel approach/design. He requested that if the Board or public has any concerns or questions with this direction to contact him. Mr. Hurst stated that the CSO #5 Plans are 90% complete and part of The Long-Term Control Plan, which is being submitted this week. He also stated that the Upland Borough Sewer Upgrade is also part of the Long-Term Control Plan along with the Lower Delaware River Improvements project which should be starting the construction phase soon. Mr. Hurst had no additional comments to the written report. The Committee had no questions regarding the written report.

6. 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 the SWMM modeling is ongoing and is submitted every month. The metering program continues with collecting data, processing it, and submitting it to DELCORA for review. Mr. Lehman stated that the other projects are temporarily on hold as DELCORA evaluates direction out of the ESA program. Mr. Lehman had no additional comments to the written report. The Committee had no questions regarding the written report.

7. CHANGE ORDERS: Mr. Mullen stated that there were no Change Orders at this time.

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

- Contract No. TC-1608-C – Solids Handling Upgrade 2016 – Part B – Electrical (Philips Brothers Electrical)

Following a brief overview by Mr. Hurst, it was the consensus of the Committee to recommend Board approval of the above contract close-out. This item will be placed on the agenda for the July 21st Board meeting.

9. AUTHORIZATION FOR PROFESSIONAL SERVICES:

- A. Trace Environmental Systems, Inc. – Proposal Dated May 31, 2020 – For Professional Services To Provide An Upgrade To The DAHS Platform-WebDAS2K – Total Amount Not To Exceed \$20,850.00 (Capital Funds)
- B. AquaLaw PLC Of Richmond Virginia – Proposal Dated July 13, 2020 – For Continued Assistance With Transaction With Aqua Pennsylvania – Total Additional Amount Not To Exceed \$50,000.00 (Operating Funds) (AquaLaw Is Not Affiliated With Aqua Pa)

Mr. Hurst provided an overview of the above proposals. 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 July 21st Board meeting.

10. AUTHORIZATION TO ADVERTISE FOR BIDS:

- Contract No. P2020-04 – Replacement Belts For A Belt Filter Press
- Contract No. P2020-05 – Dewatered Solids Transportation, Stabilization And Beneficial Use Disposal Services

Following a brief overview by Mr. Hurst, it was the consensus of the Committee to recommend Board approval of the above Authorization to Advertise For Bids. These items will be placed on the agenda for the July 21st Board meeting.

11. AUTHORIZATION TO PURCHASE:

- Trimble Water – Quote Dated July 9, 2020 – To Purchase Replacement Modems For The Metering Program Due To The Sunset Of 3G Service Through A Sole Source Purchase – Total Amount Not To Exceed \$55,806.00 (Capital Funds)

Following discussion, it was the consensus of the Committee to recommend Board approval of the above Authorization to Purchase. This item will be placed on the agenda for the July 21st Board meeting.

12. RENEWAL OF AGREEMENT WITH ENVIRONMENTAL RESEARCH (FOR A PERIOD BEGINNING AUGUST 1, 2020 AND ENDING SEPTEMBER 30, 2022).

Following discussion, it was the consensus of the Committee to recommend Board approval of the above Agreement. This item will be placed on the agenda for the July 21st Board meeting.

ADJOURNMENT: It was moved by Mr. Lucas, seconded by Mr. Knapp, and unanimously carried to adjourn the regular meeting at 4:10 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 July 14, 2020, O & E Committee Meeting
DATE: July 13, 2020

I. **PROCESS INFORMATION** – There were no violations at WRTP during the month. June data points of interest are:

A.	<u>Liquid Process Averages:</u>	<u>Month:</u>	<u>YTD:</u>
1.	Flow	31.32 MGD	34.56 MGD
2.	TSS	7 mg/L	15 mg/L
3.	cBOD ₅	4 mg/L	11 mg/L
4.	cBOD ₂₀ % Removal	98.66%	96.6%
5.	cBOD ₂₀ Loading	1,567 lbs.	5,112 lbs.
B.	<u>Solids Processing:</u>	<u>Month:</u>	<u>YTD:</u>
1.	Dry Tons Treated -	1946.60	2,067.65
2.	Dry Tons/Day -	64.89	68.16
3.	Total Gallons Pumped -	12,287,737	12,241,085
4.	Average Feed Solids -	3.90%	4.10%
5.	Average Cake Solids -	20.36%	22.93%
6.	Pounds of Polymer/DT -	193.69	191.24
7.	MCF/DT -	5.44	3.99
8.	Monthly Cost/DT -	\$40.58	\$34.33

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

June 2020	Total Flow	Daily Avg	High Daily	Low Daily
Darby Creek	502.43	16.75	21.85	15.41
Muckinipates	109.84	3.66	5.41	3.22
Central Delaware	246.14	8.20	12.05	7.36
Chester	203.99	6.80	12.09	6.02
Marcus Hook	18.94	0.63	1.03	0.52
Eddystone	10.23	0.34	0.53	0.29
Naamans Creek	53.16	1.77	2.22	1.65
Chi Pit	15.53	0.52	0.75	0.45
Chester-Ridley	121.81	4.06	4.84	3.60
Edgmont	3.21	0.11	0.12	0.10

II. MONTHLY FACILITY ACTIVITIES

A. Operations Highlights/Key Events

1. The plant received 98.3% of the flow from the Central Delaware Pump Station.
2. There were two reportable incidents during the month. One incident was a wet weather overflow at Norwood's Martin Lane PS that occurred when there was a partial power outage during a rain event. I'm very pleased to report that the remaining incident was for reportable emissions. The new operating procedures that were being implemented and tested in May have produced tremendous results with regard to increased operational control and stability. Many thanks to all involved with this issue but specifically want to recognize Clint Swope, Tom Czwalina, and Chris Mariani, along with support from CM for making this sweeping improvement.
3. The average daily flows for the month were very similar to May, further driving down the YTD average. In plant perations, the focus for the month was stabilizing plant process. There continues to be some tank outages and process interruptions as the 2018 Plant Upgrade Project winds down. Primary clarifier performance was mainly affected by these outages as the TSS removal was 58%. In solids handling, GBT performance met the cake solids and TSS filtrate performance targets. Two incinerator up time was 67% to facilitate maintenance on both units. As a result, there were 32 loads hauled to compost during the month. Polymer usage was similar to last month while natural gas usage increased as sludge volatility trended towards lower towards what has been typical. However, both parameters were within operational targets. Chemical addition for H₂S reduction and nutrient deficiency continued to be used as needed. At the remote facilities, there was one violation for exceeding the monthly average TSS concentration at the Pocopson Preserve facility due to excess algae.

B. Maintenance Highlights/Key Events

1. During June, as a result of the relaxing of requirements for COVID-19, CM and SM staff returned to a normal work schedule. 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, WRTF work, remote systems work, and support of capital projects.

C. Trucked Waste Business

1. During the month, 20.37MM gallons were received. While the projected revenue for the month is not expected to meet our monthly target, the year-to-date revenue is still in budget.

MJD:
attachments (NPDES DMR/Strategic Plan Reports)

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

Bonnett, Barbara

From: depgreenporthelpdesk@state.pa.us
Sent: Monday, June 22, 2020 6:53 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: 05/01/2020-05/31/2020
Report Due Date: 06/28/2020

Submitted By: Michael DiSantis
Submission Id: 211719
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

June 22, 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 May 2020.

We regret to report that the weekly limits for cBOD₅ concentration and loading as well as the TSS concentration were exceeded during the month. Parameter averages for May 2020 were: Flow – 31.59 MGD; cBOD₅ – 15 mg/L; TSS – 18 mg/L; cBOD₂₀ % removal – 93.43%; and cBOD₂₀ – 6,278 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:bab
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

Reporting Frequency: Monthly
DMR Effective From: 05/01/2020
DMR Effective To: 05/31/2020
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD							
	YEAR	MO	DAY	TO	YEAR	MO	DAY
	2020	05	01		2020	05	31

PARAMETERS REPORTED VALUES

PARAMETER	QUANTITY OR LOADING		QUANTITY OR CONCENTRATION				SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS		
pH (00400)	Sample Measurement	---	---	---	---	---	1/day	Grab
	Permit Requirement	---	---	---	---	---	1/day	Grab
Total Suspended Solids (00530)	Sample Measurement	4673	12473	---	---	---	1/day	24-Hr Composite
	Permit Requirement	11000	15000	---	---	---	1/day	24-Hr Composite
Oil and Grease (00556)	Sample Measurement	---	---	---	---	---	1/day	Grab
	Permit Requirement	---	---	---	---	---	1/day	Grab
Ammonia-Nitrogen (00610)	Sample Measurement	---	---	---	---	---	2/month	24-Hr Composite
	Permit Requirement	---	---	---	---	---	2/month	24-Hr Composite
Nitrite as N (00615)	Sample Measurement	---	---	---	---	---	2/month	24-Hr Composite
	Permit Requirement	---	---	---	---	---	2/month	24-Hr Composite
Nitrate as N (00630)	Sample Measurement	---	---	---	---	---	2/month	24-Hr Composite
	Permit Requirement	---	---	---	---	---	2/month	24-Hr Composite
Total Kjeldahl Nitrogen (00635)	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 (04306)	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
Dichlorobromomethane (02101)	Sample Measurement	---	---	---	---	---	1/month	Grab
	Permit Requirement	---	---	---	---	---	1/month	Grab
Flow (00050)	Sample Measurement	31.59	46.61	---	---	---	Continuous	Measured
	Permit Requirement	---	---	---	---	---	Continuous	Measured
Total Residual Chlorine (TRC) (00090)	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 (70285)	Sample Measurement	***	***	***	***	***	412	454	mg/L	1week	24-Hr Composite
	Permit Requirement	***	***	***	***	***	Monitor & Report Avg Mo	Monitor & Report Daily Max		2month	24-Hr Composite
Fecal Coliform (74059) (May-Sep)	Sample Measurement	***	***	***	***	***	< 6	261.3	No./100 ml	1day	Grab
	Permit Requirement	***	***	***	***	***	300 Geo Mean	1000 IMAX		1day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5) (80082)	Sample Measurement	4185	11233	10500	10500	15.0	15.0	42.0	mg/L	1day	24-Hr Composite
	Permit Requirement	7000 Avg Mo	10900 WMT Avg	10900	10900	19.0 Avg Mo	19.0 Avg Mo	23.0 WMT Avg		1day	24-Hr Composite
BOD, carbonaceous, 20 day, 20 C (80087)	Sample Measurement	5275	***	***	***	***	***	***	***	1day	24-Hr Composite
	Permit Requirement	10500 Avg Mo	***	***	***	***	***	***		1week	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 899, CHESTER PA, 19015-0999
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: 05/01/2020
DMR Effective To: 05/31/2020
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
2020	05	01	2020	05	31

FROM

PARAMETERS REPORTED VALUES

PARAMETER	QUANTITY OR LOADING		QUANTITY OR CONCENTRATION				SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS		
BOD, carbonaceous, 20 day, 20 C (8087)	---	---	89.49	---	---	%	1/day	24-Hr Composite
Sample Measurement	---	---	89.25	---	---	%	1/week	24-Hr Composite
Permit Requirement	---	---	Min Not App	---	---			
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: Raw Sewage Influent

PA0027103
PERMIT NUMBER

001
OUTFALL NUMBER

Reporting Frequency: Monthly
DMR Effective From: 05/01/2020
DMR Effective To: 05/31/2020
Permit Expires: 04/30/2018
Permit Application Due: 11/01/2017
No Discharge: ☐

MONITORING PERIOD					
YEAR	MO	DAY	YEAR	MO	DAY
FROM 2020	05	01	TO 2020	05	31

PARAMETERS REPORTED VALUES

PARAMETERS REPORTED VALUES								
PARAMETER	QUANTITY OR LOADING			QUANTITY OR CONCENTRATION			SAMPLING FREQUENCY	SAMPLING TYPE
	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS		
Biochemical Oxygen Demand (BOD5) (00310)	Sample Measurement	789.7	***	***	267.63	***	2/week	24-Hr Composite
	Permit Requirement	Monitor & Report	***	***	Monitor & Report	***	1/week	24-Hr Composite
	Sample Measurement	8057	***	***	275.47	***	1/day	24-Hr Composite
	Permit Requirement	Monitor & Report	***	***	Monitor & Report	***	1/day	24-Hr Composite
Carbonaceous Biochemical Oxygen Demand (CBOD5) (00302)	Sample Measurement	74711	***	***	253.28	***	1/day	24-Hr Composite
	Permit Requirement	Monitor & Report	***	***	Monitor & Report	***	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	Upload Time	Attachment Comments
DMR Laboratory Accreditation MUR_May 2020.doc	Laboratory Accreditation Form	2020-08-15T09:56:17-04:00	
DMR Laboratory Accreditation DELCORA_May 2020.doc	Laboratory Accreditation Form	2020-08-16T17:02:24-04:00	
DMR Laboratory Accreditation ALS (O&G)_May 2020.doc	Laboratory Accreditation Form	2020-08-16T17:02:24-04:00	
DMR Cover Letter_May 2020.doc	Cover Letter	2020-08-22T18:43:50-04:00	
ALS Analytical Lab Report (FOG)_430-HNF_5-1.PDF	Laboratory Analytical Report	2020-08-16T10:12:22-04:00	
ALS Analytical Lab Report (FOG)_5-7-HNF.PDF	Laboratory Analytical Report	2020-08-16T10:13:01-04:00	
ALS Analytical Lab Report (FOG)_5-8-10-11-12-13.PDF	Laboratory Analytical Report	2020-08-16T10:13:34-04:00	
Sludge Hauled_May 2020.xlsx	Other	2020-08-16T16:55:44-04:00	Sludge Hauled May 2020
May 2020 SWMM Report.xlsx	CSO Detailed Outfall Report Form	2020-08-20T11:15:09-04:00	
Hauler Totals_FORM 43 & Trucked Waste_May 2020.xlsx	Other	2020-08-16T16:51:32-04:00	Hauler Totals_FORM 43 & Trucked Waste May 2020
Influent & Process Control_May 2020.pdf	Laboratory Analytical Report	2020-08-16T16:30:04-04:00	
Sewage Sludge : Biosolids Production and Disposal Form_May 2020.xls	Sewage Sludge / Biosolids Production and Disposal Form	2020-08-16T16:54:25-04:00	
SludgeCharacterization (DELCORA)_May 2020.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
DELCORA Analytical Lab Report (Effluent) (cont'd)_May 2020.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
DELCORA Analytical Lab Report (Influent)_May 2020.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
Daily Effluent Monitoring Form_May 2020.xlsx	Daily Effluent Monitoring Form	2020-08-16T10:18:19-04:00	
MUR Analytical Lab Report (Effluent-Total Nitrogen)_5-19-20.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
Hauled-In Residual Waste_May 2020.xlsx	Hauled-In Residual Waste Form	2020-08-16T10:18:19-04:00	
DMR Laboratory Accreditation ALS_May 2020.doc	Laboratory Accreditation Form	2020-08-15T09:56:17-04:00	
ALS Analytical Lab Report (Effluent)_5-20-20.PDF	Laboratory Analytical Report	2020-08-15T09:56:17-04:00	
ALS Analytical Lab Report (FOG)_5-28-HNF-29-30-31-1-2-3.PDF	Laboratory Analytical Report	2020-08-15T09:56:17-04:00	
ALS Analytical Lab Report (FOG)_5-21-HNF-22-23-24-25-26-27.PDF	Laboratory Analytical Report	2020-08-15T09:56:17-04:00	
ALS Analytical Lab Report (FOG)_5-14-HNF-15-16-17-18-19-20.PDF	Laboratory Analytical Report	2020-08-15T09:56:17-04:00	
DELCORA Analytical Lab Report (Effluent)_May 2020.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
DMR In-PRE (CBOD, TSS, BOD)_5-19-20.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
MUR Analytical Lab Report (Effluent-Total Nitrogen)_5-19-20.pdf	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
Daily Influent Monitoring Form_May 2020.xlsx	Daily Influent Monitoring Form	2020-08-16T10:18:19-04:00	
In-PRE Calculations_May 2020.xlsx	Other	2020-08-16T10:18:19-04:00	In-PRE Calculations May 2020
ALS Analytical Lab Report (FOG)_5-2-3-4-5-6.PDF	Laboratory Analytical Report	2020-08-16T10:18:19-04:00	
Hauled-In Municipal Waste_May 2020.xls	Hauled-In Municipal Waste Form	2020-08-16T16:51:03-04:00	
Influent & Process Control_May 2020.xls	Influent and Process Control Form	2020-08-16T16:52:03-04:00	

PERMIT VIOLATIONS

Non-Compliance ID	Event Start Date	Event End Date	Parameter	Unit Type	Permit Limit	Unit	Sampling Point	Cause of Non-Compliance	Corrective Action	Comments
114446	05/01/2020	05/31/2020	Carbonaceous Biochemical Oxygen Demand (CBOD5)	Weekly Average	11233	lb/day	Final Effluent (001)	See attached comments	See attached comments	Due to the supply chain break down caused by Covid-19, a few connected and trucked industries began sending raw materials or products normally destined for the market for disposal. This short term increase in loading caused the process upset. In response, all trucks were stopped and the process was diverted to PMD for about a week. This along with a substantial increase in loading brought the process back in compliance.
114448	05/01/2020	05/31/2020	Total Suspended Solids	Weekly Average	47	mg/L	Final Effluent (001)	See attached comments	See attached comments	Due to the supply chain break down caused by Covid-19, a few connected and trucked industries began sending raw materials or products normally destined for the market for disposal. This short term increase in loading caused the process upset. In response, all trucks were stopped and the process was diverted to PMD for about a week. This along with a substantial increase in loading brought the process back in compliance.
114447	05/01/2020	05/31/2020	Carbonaceous Biochemical Oxygen Demand (CBOD5)	Weekly Average	42	mg/L	Final Effluent (001)	See attached comments	See attached comments	Due to the supply chain break down caused by Covid-19, a few connected and trucked industries began sending raw materials or products normally destined for the market for disposal. This short term increase in loading caused the process upset. In response, all trucks were stopped and the process was diverted to PMD for about a week. This along with a substantial increase in loading brought the process back in compliance.

DISCHARGE MONITORING REPORT (DMR)

approximately 10 MGD of flow was diverted to PWD for about a week. This along with a substantial increase in wasting brought the process back in compliance.

[illegible]

OTHER PERMIT VIOLATIONS						
Non-Compliance ID	Non-Compliance Type	Sampling Point	Parameter	Reported Value	Permit Limit	Comments

COMMENT DETAILS			
Comments	Operator Name	Operator Certification Number	Operator Contact Number
	Michael J. O'Sorta	70403	(810) 876-5523

SUBMISSION INFORMATION			
SUBMITTED BY GREENSPORT USER	<p>*Pursuant to the Pennsylvania Electronic Transactions Act - Act 90, 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).</p>		
disantism	Michael Disantiss	TELEPHONE	
		(610)	876-5523
	SUBMITTED BY FULL NAME	AREA CODE	NUMBER
		2020	06
		YEAR	MO
		DAY	

OPERATIONS STRATEGIC PLAN REPORT

JUNE 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	7	40
Hours in Training for Month	#	
Total	18.5	74.0
DEP Approved	0.0	0.0
DEP Certified Operators	#	
Regulations Require One	12	

CENTRAL MAINTENANCE MATRIX JUNE 2020

		CURRENT MONTH	YTD
Work Order Aging		#	
31-60 days		21	
61-90 days		9	
Over 90 days		39	
Work order hours/Available hours		%	%
**Mechanical Maintenance		84%	92%
Electrical Maintenance		77%	89%
Instrument Maintenance		87%	92%
**Includes all Preventive Maintenance			
Work Ratio Hours		# / %	# / %
Corrective		833 / 23%	5553 / 29%
Preventive		2631 / 74%	13399 68%
Predictive		92 / 3%	508 / 3%
System Failures		#	#
Hours in Training		#	#
Mechanics/Helpers		NA	NA
Electricians		NA	NA
Instrument Techs		NA	NA
Call-Ins		#	#
WRTP		27	159
Pump Stations		9	64



**Work Order Summary Report for Date
Range: 6/1/2020 to 6/30/2020**

Asset Type	Work Order Type	Labor Hours	Labor Cost
FLEET_ASSETS		0	1,687.58
	GENERAL REPAIR	0	\$1,466.80
	OIL CHANGE	0	\$145.84
	STATE INSPECTION	0	\$74.94
SCHAMBER		78	2,421.44
	CLEAN GRATES	72	\$2,239.70
	INSPECTION	6	\$181.74
SCONTROLVALVE		29	885.11
	SERVICE AIR RELIEF VALVE	20	\$605.60
	VAC AND CLEAN	9	\$279.51
SCSOREGULATOR		153	4,751.16
	CSO INSPECTION	134	\$4,153.80
	TOTAL REGULATOR MAINTENANCE	19	\$597.36
SGRAVITYMAIN		607	19,609.74
	AREA LINE CLEANING	78	\$2,452.32
	EMERGENCY CALL IN	32	\$1,509.12
	GNET TV INSPECTION	264	\$8,350.38
	INTERCEPTOR CLEANING	60	\$1,886.78
	MISCELLANEOUS	31	\$965.44
	MONTHLY LINE CLEANING	44	\$1,378.46
	PA ONE CALL LINE LOCATING	75	\$2,336.08
	ROOT CUT	8	\$260.72
	SURVEYING	15	\$470.45

Asset Type	Work Order Type	Labor Hours	Labor Cost
SLATERALPOINT		287	10,414.42
	CLEAR LATERALS	19	\$584.71
	EMERGENCY CALL IN	88	\$4,094.88
	LATERAL REPAIR	111	\$3,584.55
	MISCELLANEOUS	1	\$31.44
	SEWER COMPLAINT INVESTIGATION	59	\$1,846.23
	TV INSPECTION	9	\$272.61
SMANHOLE		25	1,020.27
	EMERGENCY CALL IN	16	\$740.76
	MANHOLE FRAME & COVER REPLACEM	9	\$279.51
SPUMPSTATION		25	898.60
	BRIDLE WAY PS	6	\$187.17
	ROSE VALLEY LONG POINT LN.	7	\$220.08
	ROSE VALLEY PS ON BROOKHAVEN RD.	10	\$442.46
	SEAPORT DRIVE	2	\$48.89
STREATMENTPLANT		233	8,773.77
	CLEAN GRIT PIT/LOAD CONTAINER	44	\$1,395.20
	EB-2	8	\$363.48
	EMERGENCY CALL IN	8	\$363.48
	POCOPSON RIVERSIDE WWTP	7	\$220.08
	POPCOPSON PRESERVE WWTP	8	\$251.52
	PRIMARY SCUM PIT	15	\$471.60
	PS-6	25	\$771.20
	SLUDGE RECEIVING	13	\$549.22
	SLUDGE TRAILER SWITCH OUT	61	\$2,785.14
	T-15	2	\$62.39
	T-4	11	\$220.08
	THE BEAST	24	\$1,068.86
	THORNBURY TREATMENT PLANT	8	\$251.52
SVARIOUS		313	9,714.32
	CLEAN SM GARAGE	11	\$344.69
	ENGINEERING SUPPORT	80	\$2,423.20

Asset Type	Work Order Type	Labor Hours	Labor Cost
	EQUIPMENT MALFUNCTIONS AND REPAIRS	58	\$1,814.80
	MISCELANEOUS	76	\$2,362.52
	PARTS /TOOLS/ EQUIPMENT PROCUREMENT	23	\$715.41
	TRAFFIC CONTROL	15	\$488.85
	VEHICLE INSPECTON	50	\$1,564.86
Grand Total:		1,748	\$60,176.40



INTER-OFFICE MEMORANDUM

TO: Robert J. Willert, Executive Director
FROM: Charles N. Hurst, Director of Engineering
SUBJECT: Board Report for the July 14, 2020 O&E Committee Meeting
DATE: July 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:	88.18% - 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. 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 contractors have completed preparing their as-built drawings and they have been turned over to the Design Engineer for integration into the project drawings. The close out process has been completed for Contract A. Change Order to extend the project time prior to close out was approved last month. Closeout documents have been received and approval for closeout is included on this month's agenda.

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 completed the installation of Lakeside #2 and installed the thickened waste activated sludge piping within EB-2 and between EB-2 and B-4. They installed the safety items for the work on the vac truck garage and begun stripping it as well as installing plywood. They have realigned equipment in T-15. Philips Brothers is nearing completion of work at the aeration tanks and worked on the integration in PS-3 and PS-4 with OCC. They have also completed all wiring for the Lakeside #2.

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.

6. 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:	74.09% - through previous month
Notice of Award:	9/13/2017
Notice to Proceed:	9/13/2017

Phase 2 work continues. All roof fans in PS-3 and PS-4 installed; gravity and mechanical louvers are scheduled to be installed week of July 6. B-4 work continues curbing and structural reinforcement for air handlers and new fans is complete. 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:	56.90% - through previous month
Notice of Award:	06/19/2019
Notice to Proceed:	07/16/2019
Final Completion:	08/31/2020

June maintenance work included:

- Pump replacement at Chester Pump Station
- Sewer Pipe and Manhole installation at 15th and Arbor
- Endimal Tank installation at WRTP
- Hot tap and replacement of Air Relief Valve 55 on Rt. 291

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

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 ready for service. Turned over to Automation. Press room MCC and conduit work in scheduling phase.

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. Contractor in procurement phase. Pettinaro has started work on the adjacent force main project on May 19, 2020. DELCORA has requested a revised schedule from the contractor. . Pettinaro contractor is drilling into rock and is behind schedule.

Contractor has excavated test pits and found that the electric service to the WWTF conflicts with the wet well. Will coordinate with electrical contractor to temporarily support the primary service.

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.

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:	0% - 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

In each of the incinerators, IFCO conducted full inspections, de-slagged and cleaned them out, and replaced the hearth 2D and both hearth 5 burners with new burners. They also identified two worn thermocouples in hearth 2 of incinerator 1 and ordered their replacements.

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 determined that it will redirect its flow away from Philadelphia and instead send it to W RTP. 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. Pipeline Contract 1 - Segments 1 and 2 (D19-01) – AECOM has submitted Opinions of Probable Cost for Pipeline Segments 1 and 2 and for the tunnel option. Consultant is meeting with Engineering and ESA Program Consultants to define limits and design roles for 10% Design of Tunnel Option.

B. Pipeline Contract 2 - Segments 3 and 4 (D19-02) – Mott MacDonald has submitted Opinions of Probable Cost for Pipeline Segments 3 and 4 and for the tunnel option. Consultant is meeting with Engineering and ESA Program Consultants to define limits and design roles for 10% Design of Tunnel Option.

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 last month. A field visit to the eastern pump stations was completed last month for the purposes of informing environmental permitting and survey work to support design.

D. Western Regional Treatment Plant Expansion & WBTT Upgrades Design Contract (D19-04): Kleinfelder is proceeding with pre-selection of the high-rate biological wet weather treatment system equipment and are preparing an evaluation of the options. Kleinfelder has performed preliminary analyses of the results from all five wet weather sampling events and the potential of accepting flow from Upper Darby. They provided updated cost estimates for the upgrades to the main process at WRTP and continue to prepare a technical memorandum regarding incorporation of the value engineering results. They also conducted the preliminary wetland delineation survey of the area planned for the wet-weather biological treatment process.

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. Project will not be finalized by April 2020.

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 and are incorporating them into their own H&H study – a copy of which will be provided to DELCORA.

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. 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 is proceeding with survey and procurement of materials. Contractor, Allan Myers has started construction – utility locates and excavation.

PRETREATMENT/LABORATORY

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

No updates at this time.

2. PERMIT ISSUES

2. PERMIT ISSUES

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

- First Time US Generics

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

- Quotient Sciences

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

- Esschem
- Kimberly-Clark
- Eldredge

3. INDUSTRIAL USER SAMPLING AND INSPECTIONS

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

- Gloucester County Improvement Authority
- MultiFlex Plating
- Sunoco Logistics DCTF
- Choice Party Linens (2)
- Olympic Tool
- Cintas
- Esschem
- Liberty Electric
- Pyromet
- Polyurethane Specialties
- Alloy Surfaces
- WAWA Dairy
- M Cohen & Sons
- Kimberly-Clark

No Industrial Users were inspected in the month of June.

4. MISCELLANEOUS

The following were sampled during the month of June:

- Monthly Plant Sampling
- Weekly Sludge Metals
- Weekly Remotes
- Daily FOG Samples
- Hauled Waste Metals
- Bimonthly Nutrient 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 filled on June 24th 2020 .

CNH:mc

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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8 July 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 June 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: 56%

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 June, 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 May, DELCORA experienced a total of 1.92 inches of precipitation over 10 separate days. This resulted in roughly 0 to 11 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

8 July 2020
Page 2

METERING PROGRAM

Proposal No.: 137102
WESTON WO No.: 05623.034.003
Start Date: March 19, 2019
End Date: Open
Percent Complete: 60%

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 June, 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

8 July 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 June.

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 June.

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

8 July 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 June.

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 June.



Mr. Robert Willert
DELCORA

8 July 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 June.

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 June. 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