

EAST GOSHEN MUNICIPAL AUTHORITY

April 10, 2017

7:00 PM

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE

- a. Ask if anyone will be taping the meeting

2. CHAIRMAN'S REPORT/OTHER MEMBERS REPORTS

3. SEWER REPORTS

- a. Director of Public Works Report
- b. Pennoni Engineer's Report
- c. Big Fish Environmental Inc. Report

4. APPROVAL OF MINUTES

- a. March 13, 2017

5. APPROVAL OF INVOICES

- 1. Consider change order – e-mail attached
 - a. Pennoni Invoice #740666 \$1,516.50
 - b. Pennoni Invoice #740667 \$ 419.00
 - c. Pennoni Invoice #740668 \$ 220.00
 - d. Pennoni Invoice #740669 \$2,601.00
 - e. Pennoni Invoice #740670 \$1,680.75
 - f. Pennoni Invoice #740671 \$2,385.75
 - g. Gawthrop Invoice #177910 \$ 655.00

5. LIAISON REPORTS

6. FINANCIAL REPORTS

- a. March Financial Report

7. OLD BUSINESS

- a. Consider the sewer easement for John O'Connell 1662 E. Boot Road

8. GOALS

- a. Operate the Ridley Creek Sewer Treatment Plant in compliance with NPDES Permit requirements. *January,*

- b. Continue to implement the formal Inflow (surface water) & Infiltration (ground water), (collectively “I&I”) Plan to reduce the amount of I&I into the sewer system.
- c. Respond to capacity requests within 45 days.
- d. Develop an operation manual for Ridley Creek Sewer Treatment Plant and pump stations. *Currently under review by staff.*
- e. Submit topical articles of interest for the East Goshen newsletter.
- f. Attend West Goshen Municipal Authority meetings to keep informed of planned capital expenditures and operation compliance. *January, February, March, April*

9. NEW BUSINESS

- a. Consider Memorandum Agreement No. VIII
- b. Consider the replacement of the Reservoir Road Meter

10. CAPACITY REQUESTS

11. ANY OTHER MATTER

12. CORRESPONDENCE AND REPORTS OF INTEREST

- a. Copy of the Annual Financial Report from Mallie
- b. 2017 Sewer System Facts Sheet

13. PUBLIC COMMENT

14. ADJOURNMENT

EAST GOSHEN MUNICIPAL AUTHORITY
EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

April 7, 2017

To: Municipal Authority
From: Mark Miller
Re: March 2017 Monthly Report

Monthly Flows: The average daily flow to West Goshen was 784,000 gallons per day.

Meters: Meters were read on a daily basis; we are having problems with the Reservoir Road meter as it does not coincide with the portable meters. I have reached out to Allied Control to look at the meter. They said that it is 17 years old and that meter is no longer made. I have asked them to give us a price to replace the meter.

C.C. Collection: The pumping stations were visited on a daily basis. Routine maintenance was performed. We repaired several lateral cleanout and stack pipes.

R.C. Collection: Pump Stations were visited on a daily basis. Routine maintenance was performed. Repairs were made to three manholes that were leaking around the castings.

R.C. Plant: The gate at the plant is now remote operated and it makes entry to the plant much easier for everyone. Last week they installed the new turbine pump for Applebrook Golf Course the other pump was burnt out and could not be repaired. We also re-installed tank one motive pump. This will complete the rebuilding of all the motive pumps. We are awaiting the delivery of the Godwin Pump. Once that pump comes in we will re-pipe the valve chamber so we can bypass the pump and the wet well during an emergency.

The computer in the lab went down this week. Burt Deninstien was notified at 6:00 am and was on site at 7:00 am; he had to replace the hard drive. The computer was back up and running the same day.

Alarms:

We responded to 22 alarms for March.

PA One Calls:

We received 46 PA One calls in March.

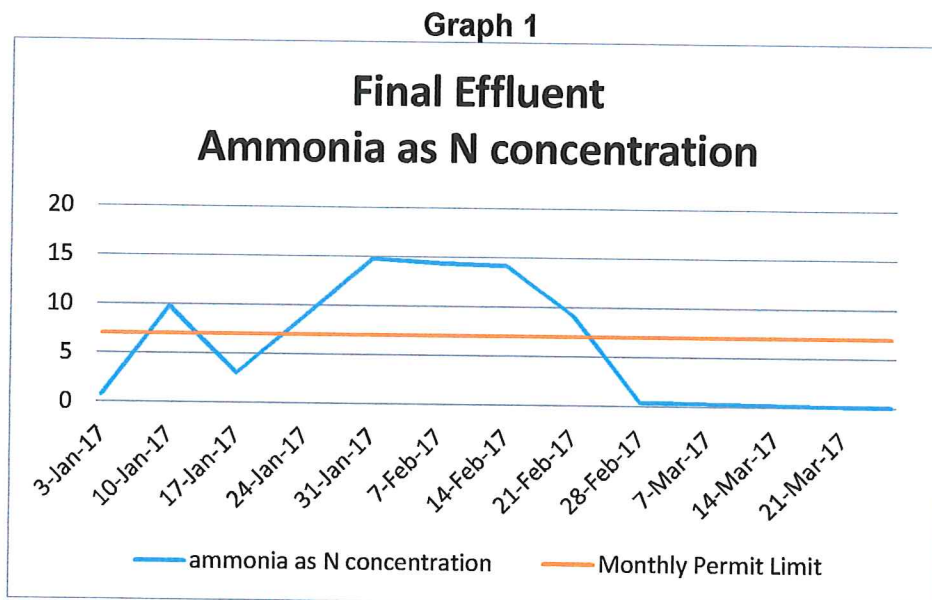


Executive Summary

The Ridley Creek sewage treatment plant outfall 001 experienced three (3) exceedances of the permitted discharge limitations during the month of February 2017. The monthly average ammonia as nitrogen reported concentration of 9.54 mg/L exceeded the permit limitation of 7.0 mg/L. There were two (2) TSS exceedances; monthly average reported as 12 mg/L as compared to the permitted limitation of 10 mg/L and the maximum weekly average reported as 15.5 as compared to the permit limitation of 15.0 mg/L. Discharge to Applebrook remained off line. Chemical usage utilized for total phosphorus removal, pH and total alkalinity remained consistent with previous months. No mechanical or operational issues were observed during operation of sludge dewatering equipment.

Treatment Process Operation

During February 2017, there were three (3) exceedances of the final effluent discharge limitations for outfall 001. Additional TSS samples were collected during the month to establish a means to calculate a weekly average. These additional samples also provide more representative data of the water quality on a typical basis as compared to the individual high concentrations. The ammonia as nitrogen concentration is presented in graph 1. This graph illustrates the variable ammonia as nitrogen concentration during the month of January as influenced by low water temperatures and precipitation.

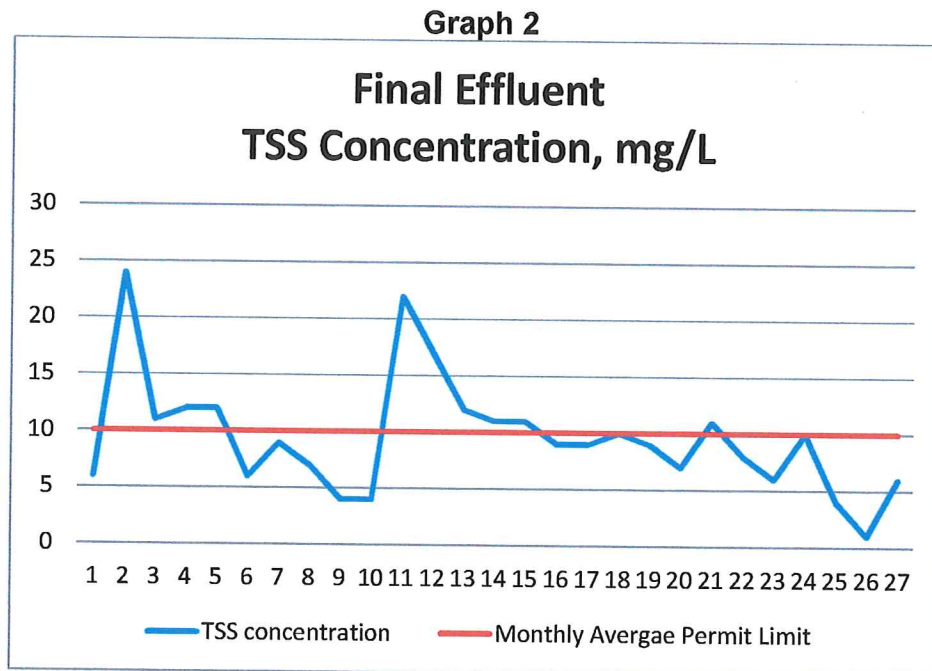


During February, the Siemens control panel experienced failures resulting in SBR 2 failing "off," filled decants and reduced aeration times, resulting in excessive



**RCSTP Monthly Operations
Report:
March 2017**

solids in the final effluent. These issues were systematically addressed to reinstate the nitrification process during January through March. Graph 2 illustrates the final TSS concentrations during January through March.



The total phosphorus monthly average had a concentration of 0.25 mg/L as compared to the permitted limitation of 0.50 mg/L. Table 1 illustrates the final effluent composite sample data reported for the February 2017 eDMR. During the month, the final effluent total phosphorus concentration discharged ranged from 0.10 to 0.35 mg/L.

Discharge to Applebrook, Outfall 002, remained discontinued during March and will remain off line until the spring of 2017

Table 1



**RCSTP Monthly Operations
Report:
March 2017**

February 2017 - Final Effluent - Out Fall 001											
NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD Average	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	Geo Mean	Geo Mean
	0.75	20	125	10	131	7	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											
February 7, 2017	0.312	4.4	11.4	22	57.2	14.4	37.5	0.35	0.91	1	0.0000
February 8, 2017	0.272			17	38.6						
February 10, 2017	0.339			12	33.9						
February 13, 2017	0.332			11	30.5						
February 14, 2017	0.315	2.5	6.6	11	28.9	14.2	37.3	0.31	0.81	1	0.0000
February 15, 2017	0.342			9	25.7						
February 16, 2017	0.373			9	28.0						
February 21, 2017	0.309	2.1	5.4	10	25.8	9.1	23.5	0.23	0.59	1	0.0000
February 28, 2017	0.301	4.1	10.3	11	27.6	0.42	1.0	0.25	0.63	1	0.0000
Average	0.322	3.3	8.4	12	32.9	9.5	24.8	0.29	0.74	1	0.0000
Minimum	0.272	2.1	5.4	9	25.7	0.42	1.0	0.23	0.59	1	0.0000
Maximum	0.373	4.4	11.4	22	57.2	14.4	37.5	0.35	0.91	1	0.0000

Table 2 illustrates the influent composite sample data reported for the month of January 2017.

Table 2

February 2017 - Influent Wastewater											
Design Basis	Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
	MGD Average	335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
February 7, 2017	0.385	79.6	256	59	189	49.4	159	44.6	143	5.6	18
February 14, 2017	0.402	133	427	214	687	40.7	131	43.5	146	4.7	15
February 21, 2017	0.395	103	331	136	437	45.6	146	53.3	176	4.9	16
February 28, 2017	0.383	94.5	303	85	273	37.3	120	38.7	124	3.7	12
Average	0.391	103	329	124	397	43.3	139	45.0	147	4.7	15
Minimum	0.383	80	256	59	189	37.3	120	38.7	124	3.7	12
Maximum	0.402	133	427	214	687	49.4	159	53.3	176	5.6	18



**RCSTP Monthly Operations
Report:
March 2017**

Table 3 presents the available Outfall 001 final effluent data for the month of March 2017.

Table 3

March 2017 - Final Effluent - Out Fall 001											
NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD Average	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	Geo Mean	Geo Mean
	0.75	20	125	10	131	7	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											
March 7, 2017	0.343	2.3	6.6	8	22.9	0.347	0.99	0.18	0.51	1	0.0000
March 9, 2017	0.234			6	11.7						
March 16, 2017	0.423	2.9	10.2	10	35.3	0.100	0.35	0.24	0.85	1	0.0000
March 17, 2017	0.311			4	10.4						
March 21, 2017	0.366	2.0	6.1	1	3.1	0.114	0.35	0.24	0.73	2	0.3010
March 23, 2017	0.341			6	17.1						
March 28, 2017	0.398										
Average	0.345	2.4	7.6	6	16.7	0.187	0.56	0.22	0.70	1	0.1003
Minimum	0.234	2.0	6.1	1	3.1	0.100	0.35	0.18	0.51	1	0.0000
Maximum	0.423	2.9	10.2	10	35.3	0.347	0.99	0.24	0.85	2	0.3010

During March, the presence of foam conditions on the surface of the SBRs began to increase with foam concentrations ranging from 80% to 100% of the area. In addition, excessive filled decant coupled with adjustments to the dissolved oxygen controls to obtain adequate aeration for nitrification adversely impacted the final effluent ammonia as nitrogen and TSS concentrations. During the month several adjustments were implemented, including manual calibration of dissolved oxygen probes, adjustments to process control settings and increasing blower operating hours.

During March, additional TSS samples were collected. Several final effluent pollutant concentrations were elevated during the month; however, there are anticipated exceedances of the permitted limitations for Outfall 001. There was no discharge from outfall 002. Split sampling of the composite sample collected by Applied Laboratory Services (ALS) is ongoing for comparative analysis and daily results. Permit compliance is forecasted for the month of March 2017.



**RCSTP Monthly Operations
Report:
March 2017**

The influent wastewater pollutant concentrations and loading entering the wastewater treatment facility remained within the design concentrations. Composite samples are collected at the influent doghouse manhole and influent wet well. The influent flow meter reading is collected from the influent flow meter located prior to the Screening Building, excluding the internal recycle flows.

Table 4 presents the available pollutant data for the influent wastewater collected at the doghouse manhole during March 2017.

Table 4

March 2017 - Influent Wastewater											
Design Basis	Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
	MGD Average	335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
March 7, 2017	0.394	80.4	264	102	335	37.1	122	37.4	123	3.8	12
March 16, 2017	0.389	84.8	279	64	210	34.6	114	37.1	120	4.5	15
March 21, 2017	0.542	172	565	140	460	31.3	103	32.4	146	4.6	15
March 28, 2017	0.520										
Average	0.461	112	369	102	335	34.3	113	35.6	130	4.3	14
Minimum	0.389	80	264	64	210	31.3	103	32.4	120	3.8	12
Maximum	0.542	172	565	140	460	37.1	122	37.4	146	4.6	15

Sequencing batch reactors (SBRs) numbered 2, 3 and 4 were in service during February and March. Process monitoring of each SBR included ammonia as N, nitrite as N, Nitrate as N, COD, SSV, MLSS and total phosphorus. Daily analysis of the final effluent flow equalization grab sample is total phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at the influent pump station wet well is ongoing.

Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued. The volume of aluminum sulfate solution to the SBRs decreased to from 92.9 gpd to 53.1 gpd. Soda ash daily addition increased from 421 lbs./day to 445 lbs./day. Soda ash assists towards maintaining SBR pH



**RCSTP Monthly Operations
Report:
March 2017**

concentrations above 7.0 standard units and assists to replenish alkalinity consumed during the nitrification process and aluminum sulfate solution addition.

Solids Dewatering and Disposal: March 2017

Sludge Dewatering Summary	
Gallons of sludge dewatered	290,336
Number of dumpsters	4

**Eighteen (18) days of centrifuge operation*

Flow data:

February 2017			
Flow Meter Location	Total Volume for Month, MG	Average Daily Flow, gpd	Daily Maximum Flow, gpd
Influent Wastewater to Screening Building*	13.739	443,194	983,690
Influent Wastewater to SBRs	14.261	460,039	798,784
Internal Recycle	0.775	24,985	81,750
Treated Effluent to Disc Filters	14.030	452,591	786,944
Final Effluent Discharge	11.109	358,355	642,000
Applebrook Golf Course	No Discharge	No Discharge	No Discharge

Chemical Usage:

February 2017		
Chemical	Daily Average	Total Monthly
Soda Ash	445	13,750
Aluminum Sulfate solution	53	1,645
Polymer (centrifuge)	0.84	15.96

**Eighteen (18) days of centrifuge operation*

During March, sludge wasting to the sludge holding tanks and decanting of the sludge holding tanks was ongoing. Process monitoring included pH, total alkalinity and total solids.

Sludge holding tank No. 1 and sludge holding tank No. 2 were in service.



PA DEP

No activity

Minor Repairs and Preventative Maintenance

- 3/1/2017: SBR 3 dissolved oxygen was observed as reading 0.00 mg/L on Siemens panel. The dissolved oxygen reading at the local transmitter mounted on the hand railing of the SBR was observed to display "sensor missing" in the "error list". Replaced dissolve oxygen cap and calibrated meter.
- Power failure from 10:00 - 10:30 . All ok. Generators off at 10:3
- 3/2/2017: Siemens panel alarm- low alum tank, however, the alum tank level was 6.72 feet. Rest the alarm.
- 3/9/2017: Drained and cleaned both disc filters.
- 3/13/2017: Replaced the sampler suction line for the Influent wet well sampler.
- 3/22/2017: Township installed new entrance gate opener.
- 3/24/2017: Chemical delivery received.
- 3/30/2017: Replaced disc cloth media for disc filter number 1.
- 3/31/2017: Adjusted SBR set points to prepare for heavy rainfall.

Draft
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
March 13, 2017

The East Goshen Township Municipal Authority held their regular public meeting on Monday, March 13, 2017 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Ed McAssey, Dana Pizarro, and Jack Yahraes. Also in attendance were: Rick Smith (Township Manager), Mike Lynch (Supervisor), Mike Ellis (Pennoni), Stacey Fuller, Attorney, and Walter Wujcik, Conservancy Board.

COMMON ACRONYMS:

<i>BFES – Big Fish Environmental Services</i>	<i>MA- Municipal Authority</i>
<i>BOS – Board of Supervisors</i>	<i>NPDES – National Pollutant Discharge Elimination System</i>
<i>CB – Conservancy Board</i>	<i>PC – Planning Commission</i>
<i>DEP – Department of Environmental Protection</i>	<i>PM – Prevention Maintenance</i>
<i>EPA – Environmental protection Agency</i>	<i>PR – Park & Recreation Board</i>
<i>HC – Historical Commission</i>	<i>RCSTP – Ridley Creek Sewer Treatment Plant</i>
<i>I&I – Inflow & Infiltration</i>	<i>SBR – Sequencing Batch Reactor</i>
<i>LCSTP – Lockwood Chase Sewer Treatment Plant</i>	<i>SSO – Sanitary System Overflow</i>
	<i>WAS – Waste Activated Sludge</i>

Call to Order & Pledge of Allegiance

Ed called the meeting to order at 7:00 pm and led those present in the Pledge of Allegiance. There was a moment of silence to remember our troops and first responders. Ed asked if anyone would be recording the meeting. There was no response.

Sewer Reports

1. Director of Public Works, Mark Miller reviewed the following report for February:

Monthly Flows: The average daily flow to West Goshen was 764,000 gallons per day.

No problems to report.

Meters: All meters were read on a daily basis. The portable meters are being read on a bi-weekly basis and batteries were changed out.

C.C. Collection: Pump stations were visited on a daily basis. We were notified of missing sewer caps, which were replaced. We televised and cleaned 2500 feet of pipe.

R.C. Collection: Pump stations were visited on a daily basis. We cleared the sewer right-of-way in Hershey Mill Estates. We also raised and replaced the castings and lids. The system was cleaned and televised.

R.C. Plant: Pumps were pulled in SBR and sent out to be re-built. The new gate opener has been installed and should be operational by the end of the week.

The Board of Supervisors approved the purchase of the 8' trailer mounted pump \$51,270.76.

Alarms: We responded to 28 alarms for February.

PA One Calls: We received 56 PA One calls for February.

2. Pennoni Engineer's Report for February

Mike Ellis provided the following report.

Invoices: Invoices with summaries are provided under separate cover.

1 Ridley Creek Sewage Treatment Plant (RCSTP):

2 The NPDES Permit expired on February 28, 2017. The permit renewal application was
3 finalized and submitted to PADEP on August 31, 2016. DEP provided the draft permit in
4 February 2017. The mass unit (lbs/day) and concentration (mg/L) for Total Suspended
5 Solids in the draft permit are approximately half of the levels in the prior permit. There
6 were no other notable changes to the permit. Note: The NPDES permit was received
7 today March 13, 2017.

8 We are meeting at the RCSTP with the contract operator and Public Works Director on
9 Friday, March 10, to discuss the potential alkalinity and phosphorus chemical treatment
10 changes. An update will be verbally presented at the March MA meeting with an updated
11 feasibility study letter to follow.

12 We are still awaiting a response from the CIM manufacturer about the progressive
13 deterioration of the SBR tank coatings and rehabilitation vs. replacement approaches for
14 all the tanks.

15
16 Reservoir Rd Pump Station:

17 PADEP issued the State Water Obstruction and Encroachment Permit for the pump
18 station site and Chester Creek utility crossing in June 2016; however, they are requiring a
19 separate federal authorization by the Army Corps of Engineers (ACOE). We coordinated
20 with both PADEP and ACOE on this additional review in July and are still awaiting
21 feedback. (No update since last report) Note: The NPDES permit was received today
22 March 13, 2017.

23 CCCD is satisfied with the NPDES plans and permit application and has forwarded he
24 documents onto PADEP to issue the NPDES Permit.

25 The Water Quality Management (WQM) Permit application was submitted to PADEP on
26 April 13, 2016. They have informally notified us that they have no comments and are
27 prepared to issue the WQM Permit once the aforementioned NPDES Permit is issued.

28 (No update since last report) 3/13/17 note: We should receive this next week.

29 We previously prepared the front end of the bid document and Division 01 specification
30 sections, including a draft Bid Form. The Bid Form still needs to be finalized. Technical
31 specifications were already prepared as part of the WQM Permit application. The full bid
32 document will be completed, assembled, and forwarded to the Township upon receipt of
33 the three remaining permits. (No update since last report)

34 We will complete a listing of the permits, expiration dates, and renewal deadlines once
35 the three remaining permits are issued. We anticipate including that listing in future
36 Engineer's Reports to track the permit statuses. (No update since last report) 3/13/17
37 note: Mike has a list of permits with expiration dates.

38 RCSTP and Pump Stations' O&M Manual

39 We intend to meet with the PW Director next week to perform an updated review of the
40 Manual to determine what else needs to be added.

41 White Chimneys Manhole Replacement

42 We will provide assistance as requested by the Township during construction.

43 Semi-Annual I&I Reports

44 We previously evaluated apparent inconsistencies in the overall Chester Creek sub-basin
45 flows (as metered at the Westtown Way Meter) between meter data, averages provided

1 by East Goshen and billing records from West Goshen, and we will discuss with the PW
2 Department to resolve.
3 We analyzed permanent and portable flow meter data for the upcoming first 2017 semi-
4 annual report including an analysis of sewer billing EDUs by sub-basin and conversion of
5 our prior sewer system maps into GIS to facilitate the analyses. We intend to review our
6 findings and recommendations with the PW Director next week and to issue the report by
7 the end of March.

8 Chapter 94 Reports

9 We prepared the 2016 Chapter 94 Annual Sewer Facilities Reports for the RCSTP, West
10 Goshen (Chester Creek) Service Area and Westtown Service Area. The Westtown
11 Report was submitted to the Township staff for review, and we expect to submit the other
12 two reports for review next week.
13 We also provided 5-year projected connections in the West Goshen Service Area to West
14 Goshen Township per their request for use in preparation of their Chapter 94 Report.

15 Sunoco Pipeline

16 Sunoco previously agreed to add a condition to the approval letter they are requesting
17 from East Goshen that they (Sunoco) will physically locate the Ashbridge PS force main
18 at the proposed pipeline crossing location and that an East Goshen representative must be
19 present when any work is done near the force main. We have also coordinated with them
20 on a potential conflict with the proposed Reservoir Road PS force main, but there has not
21 yet been a resolution to our knowledge. (No update since last report)

22 New Connections

23 1420 E. Strasburg Road, Brakman Property – We reviewed another revised design
24 submission for the 3-lot subdivision and provided a few remaining sanitary sewer
25 comments. The applicant proposes 2 gravity sewer laterals and 1 grinder pump instead of
26 the 3-grinder pump system that was originally proposed. 3/13/17 Note: This request was
27 approved.

28 1680 E. Boot Road, Knauer Property – We reviewed another revised design submission
29 for the 2 proposed gravity sewer laterals and found the submission to be acceptable.

30 DCED Small Water & Sewer Program Grant

31 The Township submitted a grant application for the installation of three permanent
32 gravity sewer flow meters in October. The grant agency, the Commonwealth Financing
33 Authority, is scheduled to award grants in March 2017. (No update since last report.)

34 West Goshen Sewer System Consultation

35 No activity since last report.
36

37 **3. Big Fish Environmental Services** – Scott's report for January showed that the Ridley Creek
38 sewage treatment plant outfall 001 experienced two (2) exceedances of the permitted discharge
39 limitations during the month of January 2017. The monthly average ammonia as nitrogen
40 reported concentration of 7.11 mg/L exceeded the permit limitation of 7.0 mg/L. There was one
41 (1) week TSS average reported as 16 mg/L as compared to the permitted limitation of 15 mg/L.
42 In addition to the DMR report, a separate letter explaining the causes and corrections was
43 provided. Discharge to Applebrook remained off line. Chemical usage utilized for total
44 phosphorus removal, pH and total alkalinity remained consistent with previous months. No
45 mechanical or operational issues were observed during operation of sludge dewatering
46 equipment.

1
2 **Approval of Minutes**

3 The minutes of the February 13, 2017 meeting were approved as amended.
4

5 **Approval of Invoices**

6 1. Dana moved to approve payment of the following Pennoni invoices:

- 7 a. Pennoni #735670 \$2,009.00
8 b. Pennoni #735671 \$3,288.25
9 c. Pennoni #735672 \$2,664.75

10 Jack seconded the motion. The motion passed unanimously.

11 2. Dana moved to approve payment of the following Gawthrop invoices:

- 12 a. Gawthrop Invoice #177124 \$597.50 (already paid)
13 b. Gawthrop Invoice #177910 \$655.00

14 Jack seconded the motion. The motion passed unanimously.
15

16 **Liaison Report**

17 Conservancy Board – Walter reported that Keep East Goshen Beautiful Day will be held on
18 Saturday, April 22, 2017, which is Earth Day. The Spring planting will be held on May 6, 2017
19 on Reservoir Road and the Marydell pond. The mulch disbursement in Clymer's Woods was
20 postponed due to the weather.
21

22 **Financial Reports**

23 Jon Altshul provided the following written report:

24 In February 2017, the Municipal Authority recorded \$1,805 in income and \$4,064 in expenses,
25 for a negative variance of \$2,259. Expenses included \$2,044 in regular engineering; \$1,423 in
26 engineering for the Reservoir Road Pump Station; and \$598 for legal expenses.
27

28 As of February 28th, the fund balance was \$1,404,738, of which \$1,370,615 is in the main
29 construction account (most of which represents the 2013 note.)
30

31 **Goals**

32 Goals for 2017 were reviewed.
33

34 **Old Business**

35 RCSTP Alkalinity Chemical Feed Alternatives – Mike reported that he met at the plant with
36 Rick and Scott to discuss alternatives. He explained the process to feed from the screen building
37 into each SBR tank. They need to send a letter to DEP to get permission to change this process.
38 Scott will work on a plan. They need to do some lab tests for alkalinity using caustic.
39

40 West Goshen Sewer Authority - Rick provided copies of the current agreement with West
41 Goshen and addendums. Definitions were discussed. Dana suggested using a map to define
42 what facilities East Goshen uses. West Goshen approved 20 year bond. East Goshen
43 Supervisors will discuss this in 2 weeks. Rick will meet with the Township solicitor. Rick asked
44 West Goshen for clarification of items on the HRG spreadsheet.

45 West Goshen is meeting on March 28th at 1:00 pm at the Sewer Treatment Plant. Ed and Jack
46 will attend.

1
2
3 **Adjournment**

4 There being no further business, Jack moved to adjourn the meeting. Dana seconded the motion.
5 The meeting was adjourned at 8:30 pm. The next meeting will be held on Monday, April 10,
6 2017 at 7:00 pm.
7

8 Respectfully submitted,
9

10
11
12 Ruth Kiefer
13 Recording Secretary

Rick Smith

From: Michael Ellis <MEllis@Pennoni.com>
Sent: Friday, April 07, 2017 7:48 AM
To: Rick Smith
Cc: Mark Miller (mmiller@eastgoshen.org); Nathan M. Cline; 'ssmith@eastgoshen.org'
Subject: Pennoni Invoices - Municipal Authority - March 2017
Attachments: EGMA Invoices (03-2017).pdf

Hi Rick,

Current Municipal Authority invoices are attached.

Our invoiced effort on two projects is beyond the previously estimated contract amounts as described below. I respectfully request the Municipal Authority consider a supplement on both projects for the currently invoiced effort and additional estimated effort to complete the assignments as described below.

EGMA1504 Reservoir Road Pump Station

The effort over the past month to wrap up permitting, renew the PennDOT HOP, and prepare documentation for NPDES SWM plan recording has exceeded the previously supplemented budget. As you know, these efforts were not expected nor part of our prior scopes. **I respectfully request a supplement of approximately \$4,000 for these additional services to cover the currently invoiced effort and expected effort to complete the project.** A description of this additional effort follows:

1. Army Corps of Engineers (ACOE) permit – DEP issued the general permit for filling in the floodplain and crossing the Chester Creek, but they had to attach 12 conditions to it from Fish & Wildlife for the adjacent bog turtle habitat. Since those conditions are not the standard for that permit, they said they forwarded it to ACOE over 6 months ago to approve the conditions. We've followed up with ACOE and DEP numerous times since then to no avail. Two weeks ago, the ACOE notified us that they cannot find a copy of the application from DEP (it appears DEP did not send it), and they asked us to assemble another complete copy of the application and submit it to them with a letter explaining the needed approval. We have spent time coordinating this with DEP and ACOE over the past few weeks and will assemble the application upon Township/MA approval to do so. Extra effort ≈ \$3,000
2. PennDOT HOP renewal. Extra effort ≈ \$400
3. Stormwater recording plans/info for NPDES ≈ \$500

ok RS

EGMA1606 RCSTP NPDES Permit Renewal

The approved budget was \$4,500. The permit application was prepared under budget with time allowance for review of the issued permit. However, additional time has been needed to evaluate and address the discrepancies in the permit with PADEP. The extra effort on this invoice is \$209.25. **We request a supplement of \$1,000 to cover the currently invoiced effort and expected effort to complete the assignment.**

ok RS

Please call me if you would like to discuss.

Thanks,
Mike

Michael Ellis, PE
Municipal Division Manager

Pennoni

121 Continental Drive, Suite 207 | Newark, DE 19713

Direct: 302-351-5236 | **Mobile:** 302-561-4235

www.pennoni.com | MEllis@Pennoni.com



PARTNERS FOR WHAT'S POSSIBLE



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 740666
Invoice Date : 03/30/2017
Project : EGMA1504
Project Name : Reservoir Rd PS Design & Permitting

For Services Rendered through: 3/19/2017

Assembled specifications and bid document; reproduced NPDES permit application documents as requested by CCCD, and coordinated with CCCD for permit issuance; and coordinated with PADEP and Army Corps of Engineers (ACOE) for permitting approval for Chester Creek floodplain impact and creek crossing.

Phase : 11 -- Final Design

Total Phase : 11 -- Final Design

Labor :	808.00
Expense :	0.00
Phase Total :	808.00

Phase : 12 -- Permitting

Total Phase : 12 -- Permitting

Labor :	708.50
Expense :	0.00
Phase Total :	708.50

Amount Due This Invoice

\$1,516.50

OK TJS

Continued on next page...

INVOICES DUE ON RECEIPT. Invoices outstanding over 30 days will have a Service Charge of 1 1/2% per month.

...Continued from previous page

Phase : 11 -- Final Design

Labor	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
<i>Class</i>			
Project Engineer	8.00	101.00	808.00
Labor Total:	8.00		808.00

Total Phase : 11 -- Final Design

Labor : \$808.00
Expense : \$0.00

Phase : 12 -- Permitting

Labor	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
<i>Class</i>			
Authority Engineer	0.25	119.00	29.75
Sr. Environmental Scientist	3.75	101.00	378.75
Graduate Engineer	3.75	80.00	300.00
Labor Total:	7.75		708.50

Total Phase : 12 -- Permitting

Labor : \$708.50
Expense : \$0.00

Total Project : EGMA1504 -- Reservoir Rd PS Design & Permitting

Labor : \$1,516.50
Expense : \$0.00

East Goshen Municipal Authority
EGMA1504 Invoice Summary
Invoice Date 3/30/2017

Project: EGMA1504
Pennoni Job No.: Reservoir Rd PS Design & Permitting
Invoice No: 740666
Invoice Period: 7/18/2016 to 3/19/2017
Initial Authorization: \$ 167,120.00 **Date:** 3/30/2017
Contract Amount: \$ 183,120.00
Previously Invoiced: \$ 182,175.00
Current Invoice: \$ 1,516.50
Invoiced to Date (\$): \$ 183,691.50
Invoiced to Date (%): 100.31%
Remaining Budget (\$): \$ (571.50)
Remaining Budget (%): -0.31%

Budget by Phase:

Phase Name:	Final Design	Phase 11
Phase Budget:	\$ 64,160.25	
Previously Invoiced:	\$ 64,160.25	
Current Invoice:	\$ 808.00	
Invoiced to Date (\$):	\$ 64,968.25	
Invoiced to Date (%):	101.26%	
Remaining Budget (\$):	\$ (808.00)	
Remaining Budget (%):	-1.26%	

Comments: Assembled specifications and bid document; reproduced NPDES permit application documents as requested by CCCD, and coordinated with CCCD for permit issuance; and coordinated with PADEP and Army Corps of Engineers (ACOE) for permitting approval for Chester Creek floodplain impact and creek crossing.

East Goshen Municipal Authority
EGMA1504 Invoice Summary
Invoice Date 3/30/2017

Project: EGMA1504
Pennoni Job No.: Reservoir Rd PS Design & Permitting
Invoice No: 740666
Invoice Period: 1/16/2017 to 3/19/2017
Initial Authorization: \$ 167,120.00 **Date:** 3/30/2017
Contract Amount: \$ 183,120.00
Previously Invoiced: \$ 182,175.00
Current Invoice: \$ 1,516.50
Invoiced to Date (\$): \$ 183,691.50
Invoiced to Date (%): 100.31%
Remaining Budget (\$): \$ (571.50)
Remaining Budget (%): -0.31%

Budget by Phase:

Phase Name:	Permitting	Phase 12
Phase Budget:	\$ 41,950.25	
Previously Invoiced:	\$ 41,099.00	
Current Invoice:	\$ 708.50	
Invoiced to Date (\$):	\$ 41,807.50	
Invoiced to Date (%):	99.66%	
Remaining Budget (\$):	\$ 142.75	
Remaining Budget (%):	0.34%	

Comments: Assembled specifications and bid document; reproduced NPDES permit application documents as requested by CCCD, and coordinated with CCCD for permit issuance; and coordinated with PADEP and Army Corps of Engineers (ACOE) for permitting approval for Chester Creek floodplain impact and creek crossing.

Reservoir Road Pump Station Design & Permitting

INVOICE SUMMARY

For Services Rendered through: 3/19/2017

Task No.	Activity	Contract Amount*	Invoiced Effort thru 3/19/2017	Remaining Budget (\$)	Remaining Budget (%)	Completed?
1	Concept Design	\$13,655.75	\$13,655.75	-	-	Yes
2	DEP WQM Pre-App. Meeting	\$1,300.00	\$1,300.00	-	-	Yes
3	Existing Conditions Survey	\$22,783.75	\$22,783.75	-	-	Yes
4	Sewer Stakeout in Easements	\$0.00	\$0.00	-	-	Scope eliminated
5	1636 Bow Tree Dr. Boundary Survey & Easement	\$4,020.00	\$4,020.00	-	-	Yes
6	Additional Boundary Surveys & Easements	\$0.00	\$0.00	-	-	Scope eliminated
7	Geotechnical Borings	\$4,000.00	\$4,000.00	-	-	Yes
8	Install Permanent Survey Benchmarks	\$0.00	\$0.00	-	-	Scope eliminated
9	Progress Design	\$29,450.00	\$29,450.00	-	-	Yes
10	Infiltration Testing	\$1,800.00	\$1,800.00	-	-	Yes
11	Final Design	\$64,160.25	\$64,968.25	-\$808.00	-1%	No**
12	Permitting	\$41,950.25	\$41,714.00	\$236.25	0.6%	No***
	TOTAL	\$183,120.00	\$183,961.80	-\$571.75	-0.3%	

*After 12/14/2015 approved re-allocation of task budgets, 5/9/2016 approval of \$7,000 supplement, 7/11/16 approval of \$4,000 supplement, and 11/14/16 approval of \$5,000 supplement.

**Need to complete Bid Form and assemble full bid document package for Township once remaining permits are issued.

*** All permit applications have been submitted, and we are awaiting issuance of one remaining permit: Army Corps of Engineers federal authorization on the Chester Creek Small Projects Joint Permit. We are also applying for a 1-year extension on the PennDOT Highway Occupancy Permit.



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 740667
Invoice Date : 03/30/2017
Project : EGMA1606
Project Name : Ridley Creek STP Permit Renewal

For Services Rendered through: 3/19/2017

Reviewed draft NPDES permit issued by PADEP including comparison to prior permitting, plant design, and identification of discrepancies.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	419.00
Expense :	0.00
Phase Total :	419.00

Amount Due This Invoice

419.00

Fee :	4,709.25
Prior Billings :	4,290.25
Current Billings :	419.00
Total Billings :	4,709.25

Phase : **** -- Professional Services

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	1.00	119.00	119.00
Graduate Engineer	3.75	80.00	300.00
Labor Total:	4.75		419.00

Total Phase : **** -- Professional Services

Labor :	\$419.00
Expense :	\$0.00

Total Project : EGMA1606 -- Ridley Creek STP Permit Renewal

Labor :	\$419.00
Expense :	\$0.00

ok 75

East Goshen Municipal Authority
EGMA1606 Invoice Summary
Invoice Date 03/30/2017

Project: EGMA1606
Pennoni Job No.: Ridley Creek STP Permit Renewal
Invoice No: **740667**
Invoice Period: 9/19/2016 to 3/19/2017
Initial Authorization: \$ 4,500.00 **Date:** 3/30/2017
Contract Amount: \$ 4,709.25
Previously Invoiced: \$ 4,290.25
Current Invoice: \$ 419.00
Invoiced to Date (\$): \$ 4,709.25
Invoiced to Date (%): 100%
Remaining Budget (\$): \$ -
Remaining Budget (%): 0%

Budget by Phase:

Phase Name: Ridley Creek STP Permit Renewal
Phase Budget: \$ 4,709.25
Previously Invoiced: \$ 4,290.25
Current Invoice: \$ 419.00
Invoiced to Date (\$): \$ 4,709.25
Invoiced to Date (%): 100%
Remaining Budget (\$): \$ -
Remaining Budget (%): 0%

Comments: Reviewed draft NPDES permit issued by PADEP including comparison to prior permitting, plant design, and identification of discrepancies.



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 740668
Invoice Date : 03/30/2017
Project : EGMA1608
Project Name : West Goshen Sewer System
Consultati

For Services Rendered through: 3/19/2017

Reviewed WGSA's proposed draft replacement of the intermunicipal agreement.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	220.00
Expense :	0.00
Phase Total :	220.00

Amount Due This Invoice

\$220.00

Fee :	5,000.00
Prior Billings :	373.75
Current Billings :	220.00
Total Billings :	593.75

Phase : **** -- Professional Services

Labor Class	Hours/ Units	Rate	Amount
Graduate Professional	2.75	80.00	220.00
Labor Total:	2.75		220.00

Total Phase : **** -- Professional Services

Labor :	\$220.00
Expense :	\$0.00

Total Project : EGMA1608 -- West Goshen Sewer System Consultati

Labor :	\$220.00
Expense :	\$0.00

OK RS

East Goshen Municipal Authority
EGMA1608 Invoice Summary
Invoice Date 3/30/2017

Project: EGMA1608
Pennoni Job No.: West Goshen Sewer System Consultation
Invoice No: 740668
Invoice Period: 12/12/2016 to 3/19/2017
Initial Authorization: \$ 5,000.00 **Date:** 3/30/2017
Contract Amount: \$ 5,000.00
Previously Invoiced: \$ 373.75
Current Invoice: \$ 220.00
Invoiced to Date (\$): \$ 593.75
Invoiced to Date (%): 12%
Remaining Budget (\$): \$ 4,406.25
Remaining Budget (%): 88%

Budget by Phase:

Phase Name: West Goshen Sewer System Consultation
Phase Budget: \$ 5,000.00
Previously Invoiced: \$ 373.75
Current Invoice: \$ 220.00
Invoiced to Date (\$): \$ 593.75
Invoiced to Date (%): 12%
Remaining Budget (\$): \$ 4,406.25
Remaining Budget (%): 88%

Comments: Reviewed WGSA's proposed draft replacement of the intermunicipal agreement.



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 740669
Invoice Date : 03/30/2017
Project : EGMA1701
Project Name : 2017 General Services

For Services Rendered through: 3/19/2017

Continued study of chemical and automated feed alternatives for alkalinity control at the RCSTP, attended field meeting at the RCSTP with the operator and Township staff to review alternatives and pilot study scope, conceptual design of caustic soda pilot study, coordinated with chemical vendors on pricing, and continued limited evaluation of plant operator's additional recommendation to switch phosphorus treatment from alum to polyaluminum chloride. Reviewed February and March monthly RCSTP plant operator's report, prepared March Engineer's Report, and attended February and March MA meetings. Coordinated with Township Engineer and Township staff on prior plan reviews and discussions with Sunoco about sanitary sewer crossing concerns for the Mariner pipeline.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor : 2,601.00
Expense : 0.00
Phase Total : 2,601.00

Amount Due This Invoice

\$2,601.00

Fee : 12,700.00
Prior Billings : 2,572.00
Current Billings : 2,601.00
Total Billings : 5,173.00

Phase : **** -- Professional Services

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	18.00	119.00	2,142.00
Senior Engineer	2.50	114.00	285.00
Senior Engineering Technician	2.00	87.00	174.00
Labor Total:	22.50		2,601.00

Total Phase : **** -- Professional Services

Labor : \$2,601.00
Expense : \$0.00

Total Project : EGMA1701 -- 2017 General Services

Labor : \$2,601.00
Expense : \$0.00

OK TJ

East Goshen Municipal Authority
EGMA1701 Invoice Summary
Invoice Date 3/30/2017

Project:	EGMA1701		
Pennoni Job No.:	2017 General Services		
Invoice No:	740669		
Invoice Period:	2/13/2017	to	3/19/2017
Initial Authorization:	\$ 12,700.00	Date:	3/30/2017
Contract Amount:	\$ 12,700.00		
Previously Invoiced:	\$ 2,572.00		
Current Invoice:	\$ 2,601.00		
Invoiced to Date (\$):	\$ 5,173.00		
Invoiced to Date (%):	41%		
Remaining Budget (\$):	\$ 7,527.00		
Remaining Budget (%):	59%		

Budget by Phase:

Phase Name:	2017 General Services		
Phase Budget:	\$ 12,700.00		
Previously Invoiced:	\$ 2,572.00		
Current Invoice:	\$ 2,601.00		
Invoiced to Date (\$):	\$ 5,173.00		
Invoiced to Date (%):	41%		
Remaining Budget (\$):	\$ 7,527.00		
Remaining Budget (%):	59%		

Comments: Continued study of chemical and automated feed alternatives for alkalinity control at the RCSTP, attended field meeting at the RCSTP with the operator and Township staff to review alternatives and pilot study scope, conceptual design of caustic soda pilot study, coordinated with chemical vendors on pricing, and continued limited evaluation of plant operator's additional recommendation to switch phosphorus treatment from alum to polyaluminum chloride. Reviewed February and March monthly RCSTP plant operator's report, prepared March Engineer's Report, and attended February and March MA meetings. Coordinated with Township Engineer and Township staff on prior plan reviews and discussions with Sunoco about sanitary sewer crossing concerns for the Mariner pipeline.



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 740670
Invoice Date : 03/30/2017
Project : EGMA1702
Project Name : 2017 Semi-Annual I&I Reports

For Services Rendered through: 3/19/2017

Analyzed portable and permanent meter data from the 1st quarter of 2017, including continued analysis of 2016 sewer billing records and determination of expected flows upstream of all portable and permanent meters, evaluation of expected vs. actual flows, updating of prior CAD mapping of sewer system into GIS including sewer billing records by metered subarea, and preparation of draft Semi-Annual I&I Report #16 for PW Director review.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	1,680.75
Expense :	0.00
Phase Total :	1,680.75

Amount Due This Invoice

\$1,680.75

Fee :	11,500.00
Prior Billings :	3,288.25
Current Billings :	1,680.75
Total Billings :	4,969.00

Phase : **** -- Professional Services

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	0.75	119.00	89.25
Project Engineer	1.50	101.00	151.50
Graduate Engineer	18.00	80.00	1,440.00
Labor Total:	20.25		1,680.75

Total Phase : **** -- Professional Services

Labor :	\$1,680.75
Expense :	\$0.00

Total Project : EGMA1702 -- 2017 Semi-Annual I&I Reports

Labor :	\$1,680.75
Expense :	\$0.00

01c 721

East Goshen Municipal Authority
EGMA1702 Invoice Summary
Invoice Date 3/30
/2017

Project: EGMA1702
Pennoni Job No.: 2017 Semi-Annual I&I Reports
Invoice No: **740670**
Invoice Period: 2/13/2017 to 3/19/2017
Initial Authorization: \$ 11,500.00 **Date:** 3/30/2017
Contract Amount: \$ 11,500.00
Previously Invoiced: \$ 3,288.25
Current Invoice: \$ 1,680.75
Invoiced to Date (\$): \$ 4,969.00
Invoiced to Date (%): 43%
Remaining Budget (\$): \$ 6,531.00
Remaining Budget (%): 57%

Budget by Phase:

Phase Name: 2017 Semi-Annual I&I Reports
Phase Budget: \$ 11,500.00
Previously Invoiced: \$ 3,288.25
Current Invoice: \$ 1,680.75
Invoiced to Date (\$): \$ 4,969.00
Invoiced to Date (%): 43%
Remaining Budget (\$): \$ 6,531.00
Remaining Budget (%): 57%

Comments: Analyzed portable and permanent meter data from the 1st quarter of 2017, including continued analysis of 2016 sewer billing records and determination of expected flows upstream of all portable and permanent meters, evaluation of expected vs. actual flows, updating of prior CAD mapping of sewer system into GIS including sewer billing records by metered subarea, and preparation of draft Semi-Annual I&I Report #16 for PW Director review.



INVOICE

Newark, DE
302-655-4451 Fax: 302-654-2895

Remit Payment To:
Pennoni
P.O. Box 827328
Philadelphia, PA 19182-7328

East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6199
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 740671
Invoice Date : 03/30/2017
Project : EGMA1703
Project Name : 2016 Chapter 94 Reports

For Services Rendered through: 3/19/2017

Continued data analysis, connection projections, and report preparation of Ridley Creek and Chester Creek Chapter 94 Reports.

Phase : ** -- Professional Services**

Total Phase : ** -- Professional Services**

Labor :	2,385.75
Expense :	0.00
Phase Total :	2,385.75

Amount Due This Invoice

\$2,385.75

Fee :	15,000.00
Prior Billings :	3,149.25
Current Billings :	2,385.75
Total Billings :	5,535.00

Phase : ** -- Professional Services**

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	2.75	119.00	327.25
Project Engineer	8.50	101.00	858.50
Graduate Engineer	15.00	80.00	1,200.00
Labor Total:	26.25		2,385.75

Total Phase : ** -- Professional Services**

Labor :	\$2,385.75
Expense :	\$0.00

Total Project : EGMA1703 -- 2016 Chapter 94 Reports

Labor :	\$2,385.75
Expense :	\$0.00

ok RS

East Goshen Municipal Authority
EGMA1703 Invoice Summary
Invoice Date 3/30/2017

Project: EGMA1703
Pennoni Job No.: 2016 Chapter 94 Reports
Invoice No: **740671**
Invoice Period: 2/13/2017 to 3/19/2017
Initial Authorization: \$ 15,000.00 **Date:** 3/30/2017
Contract Amount: \$ 15,000.00
Previously Invoiced: \$ 3,149.25
Current Invoice: \$ 2,385.75
Invoiced to Date (\$): \$ 5,535.00
Invoiced to Date (%): 37%
Remaining Budget (\$): \$ 9,465.00
Remaining Budget (%): 63%

Budget by Phase:

Phase Name: 2016 Chapter 94 Reports
Phase Budget: \$ 15,000.00
Previously Invoiced: \$ 3,149.25
Current Invoice: \$ 2,385.75
Invoiced to Date (\$): \$ 5,535.00
Invoiced to Date (%): 37%
Remaining Budget (\$): \$ 9,465.00
Remaining Budget (%): 63%

Comments: Continued data analysis, connection projections, and report preparation of Ridley Creek and Chester Creek Chapter 94 Reports.

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA March Financial Report
Date: April 6, 2017

In March, the Municipal Authority recorded \$26,170 in income (primarily a \$25,000 transfer from the sewer operating fund) and \$20,941 in expenses (including \$7,724 in administrative wages; \$4,600 for the audit; and \$7,962 in general engineering expenses), for a positive variance of \$5,229.

As of March 31st, the fund balance was \$1,409,967 of which \$1,371,347 is in the main construction account (most of which represents the 2013 note).

A copy of the 2016 Financial Statement for the Municipal Authority is attached.

Please be aware that PFM, the Township's Financial Advisor, is planning to attend the May 2nd BOS meeting to discuss bond financing. Municipal Authority members are encouraged to attend.

A complete list of all year-to-date expenses and revenues is provided.

**EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
March 2017**

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE			1,404,737.81	
RCSTP BUDGET				
REVENUE				
INTEREST EARNED - RCSTP EXPANSION	07341 1020	3,250.00	743.58	1,874.37
GRANT REVENUE	07392 0800	0.00	0.00	0.00
TOTAL REVENUE		3,250.00	743.58	1,874.37
EXPENSES				
R.C.-CAP. PROJ.-ENGINEER	07424 7451	0.00	0.00	0.00
R.C. CAP EXPANSION GEN'L CONTRACTOR	07424 7452	0.00	0.00	0.00
R.C. CAP EXPANSION - ELECTRICAL	07424 7453	0.00	0.00	0.00
R.C. CAP EXP CONTINGENCY CAPITAL	07424 7454	0.00	0.00	0.00
R.C. CAP EXP CONTINGENCY ONGOING	07424 7455	0.00	0.00	0.00
R.C. CAP EXP ADDITIONAL CONTINGENCY	07424 7456	0.00	0.00	0.00
TRANSFER TO SEWER SINKING FUND	07492 0550	0.00	0.00	0.00
TRANSFER TO AUTHORITY CAP FUND	07492 0990	0.00	0.00	0.00
TOTAL EXPENSES		0.00	0.00	0.00
RCSTP NET RESULT		3,250.00	743.58	1,874.37

**EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
March 2017**

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
OPERATING BUDGET				
REVENUE				
INTEREST EARNINGS	07341 1000	10.00	3.84	4.13
C.C. TAPPING FEES	07364 1100	14,296.00	0.00	0.00
R.C.TAPPING FEES	07364 1110	0.00	0.00	0.00
CONNECTION FEES - SEWER	07364 1130	0.00	423.00	1,692.00
MISCELLANEOUS REVENUE	07380 1000	0.00	0.00	0.00
TRANSFER FROM SEWER OPERATING	07392 0500	100,755.00	25,000.00	25,000.00
TOTAL REVENUE		115,061.00	25,426.84	26,696.13
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	31,620.00	7,724.00	7,724.00
MISCELLANEOUS EXPENSE	07424 3000	2,500.00	0.00	987.52
MUNIC.AUTH.-AUDITING	07424 3110	9,078.00	4,600.00	4,600.00
ENGINEERING SERVICES	07424 3130	37,500.00	7,962.00	14,405.50
LEGAL SERVICES	07424 3140	9,250.00	655.00	2,192.50
M.C.-DVRFA-DEBT SERVICE	07471 1000	26,320.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1000	0.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1010	2,043.00	0.00	0.00
TOTAL EXPENSES		118,311.00	20,941.00	29,909.52
OPERATING NET RESULT		(3,250.00)	4,485.84	(3,213.39)

**EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
March 2017**

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
CAPITAL BUDGET				
REVENUE				
LOAN PROCEEDS-SEWER PROJECT	07393 1001	0.00	0.00	0.00
TRANSFER FROM SEWER CAP RESERVE	07392 0900	0.00	0.00	0.00
TOTAL REVENUE		0.00	0.00	0.00
EXPENSES				
MARYDELL PUMP STATION - ENGINEER	07425 1000	0.00	0.00	0.00
MARYDELL PUMP STATION -CONSTRUCTION	07425 2000	0.00	0.00	0.00
MANHOLE COVER REPLACEMENTS	07424.7405	0.00	0.00	0.00
C.C. CAPITAL - COLLECTION	07424.7420	212,486.00	0.00	0.00
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	0.00	0.00	0.00
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	0.00	0.00	0.00
LOCHWOOD ELIMINATION PHASE 2	07424 7477	0.00	0.00	0.00
HERSHEY MILL STATION - ENGINEER	07426 1000	0.00	0.00	0.00
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	0.00	0.00	0.00
RESERVE PUMP STATION - ENGINEER	07427 1000	0.00	0.00	0.00
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	0.00	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	0.00	0.00	4,344.25
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00
ASBSTOS CONCRETE ENGINEERING	07429 3130	0.00	0.00	0.00
DIVERSION PROJ.- LEGAL	07429 3166	0.00	0.00	0.00
TOTAL EXPENSES		212,486.00	0.00	4,344.25
CAPITAL NET RESULT		(212,486.00)	0.00	(4,344.25)
MUNICIPAL AUTHORITY ENDING FUND BALANCE			1,409,967.23	

Report Date 04/06/17

GL Transaction Details

PAGE 1

MGRP18 run by BRIAN

2 : 41 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1000	INTEREST EARNINGS					0.00				
	1701 JE	56730			0.23		02/03/17	INTEREST		INTEREST EARNED JANUARY 2017 07 FUND
	1701			0.00	0.23	-0.23				
	1702	57134			0.06		03/06/17	INTEREST		INTEREST EARNED FEBRUARY 2017 07 FUND
	1702			0.00	0.06	-0.29				
	1703	57173			3.23		03/08/17	INTEREST		ADD'L INTEREST ADDED FROM JAN. 2017
		57549			0.61		04/05/17	INTEREST		INTEREST EARNED MARCH 2017 07 FUND
	1703			0.00	3.84	-4.13				
07341-1000	****	***	****	0.00	4.13	-4.13				
07341-1020	INTEREST EARNED - CONSTRUCTION					0.00				
	1701	56730			594.59		02/03/17	INTEREST		INTEREST EARNED JANUARY 2017 07 FUND
	1701			0.00	594.59	-594.59				
	1702	57134			536.20		03/06/17	INTEREST		INTEREST EARNED FEBRUARY 2017 07 FUND
	1702			0.00	536.20	-1,130.79				
	1703	57549			743.58		04/05/17	INTEREST		INTEREST EARNED MARCH 2017 07 FUND
	1703			0.00	743.58	-1,874.37				
07341-1020	****	***	****	0.00	1,874.37	-1,874.37				
07364-1130	CONNECTION FEES - SEWER					0.00				
	1702 CR	56762			423.00		02/07/17	125 25	10162	1 JACOBS, ROBERT & CHERYL

Report Date 04/06/17

GL Transaction Details

PAGE 2

MGRP18 run by BRIAN

2 : 41 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07364-1130	1702	CR	56823		423.00		02/13/17	125 26	10160	1 GEORGE SMITH & CHRISTINA CONLE
					423.00		02/13/17	125 27	10161	1 STOFFLET, MICHAEL
		**		0.00	846.00	***				
1702				0.00	1,269.00	-1,269.00				
1703		57212			423.00		03/09/17	125 54	10163	1 PAPPANO, JOSEPH & PATRICIA
1703				0.00	423.00	-1,692.00				
07364-1130	****	***	****	0.00	1,692.00	-1,692.00				
07392-0500			TRANSFER FROM SEWER OPERATING			0.00				
	JE	57171			25,000.00		03/08/17	DEPOSIT		DEPOSIT FR: SEWER TO MUNICIPAL
1703				0.00	25,000.00	-25,000.00				
07392-0500	****	***	****	0.00	25,000.00	-25,000.00				
07424-1400			ADMINISTRATIVE WAGES			0.00				
	CD	57378		7,724.00			03/22/17	3048		425 EAST GOSHEN TOWNSHIP - GENERAL QTR.1 2017 REIMBURSEMENT FROM MA
1703				7,724.00	0.00	7,724.00				
07424-1400	****	***	****	7,724.00	0.00	7,724.00				
07424-3000			MISCELLANEOUS EXPENSE			0.00				
	1701	56280		984.30			01/04/17	3040		2132 PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOC 2017 ACTIVE MEMBERSHIP DUES
		56424		3.22			01/13/17	3041		425 EAST GOSHEN TOWNSHIP - GENERAL CORRECT BB&T DEPOSIT OF REMAININ BALANCE OF CLOSED ACCT.1100.1010 07100.1000
1701				987.52	0.00	987.52				
07424-3000	****	***	****	987.52	0.00	987.52				

Report Date 04/06/17

GL Transaction Details

PAGE 3

MGRP18 run by BRIAN

2 : 41 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-3110					0.00				
	1703	57470	4,600.00			03/30/17	3049	808	MAILLIE FALCONIERO & CO. PROGRESS BILLING 2016 MUN.AUTH.
	1703		4,600.00	0.00	4,600.00				
07424-3110	****	***	4,600.00	0.00	4,600.00				
07424-3130					0.00				
	1701	56425	4,399.50			01/13/17	3042	1052	PENNONI ASSOCIATES INC. SERVICES THRU 10/16/16 RCSTP & P STATION
	1701		4,399.50	0.00	4,399.50				
	1702	56874	2,044.00			02/17/17	3045	1052	PENNONI ASSOCIATES INC. SERVICES THRU 1/15/17 2016 CHAP
	1702		2,044.00	0.00	6,443.50				
	1703	57328	7,962.00			03/17/17	3047	1052	PENNONI ASSOCIATES INC. SERV.THUR 2/12/17 2017 GEN.SERV
	1703		7,962.00	0.00	14,405.50				
07424-3130	****	***	14,405.50	0.00	14,405.50				
07424-3140					0.00				
	1701	56550	940.00			01/25/17	3043	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - DEC. 2016 GEN.AU
	1701		940.00	0.00	940.00				
	1702	56874	597.50			02/17/17	3044	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - JAN.2017 GEN.AUT
	1702		597.50	0.00	1,537.50				
	1703	57328	655.00			03/17/17	3046	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERV. FEB.2017 GEN.AUTHORI

Report Date 04/06/17

GL Transaction Details

PAGE 4

MGRP18 run by BRIAN

2 : 41 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1703				655.00	0.00	2,192.50				
07424-3140	****	***	****	2,192.50	0.00	2,192.50				
07428-1000	RESERVOIR PUMP STATION - ENGINEER					0.00				
1701		56426		2,546.50			01/13/17	22002		1052 PENNONI ASSOCIATES INC. SERVICE THRU 10/16/16 RESERV.RD
		56551		375.00			01/25/17	22003		263 CHESTER COUNTY CONSERVATION DISTRICT RESERVOIR RD. NPDES PLAN REVIEW
1701				2,921.50	0.00	2,921.50				
1702		56875		1,422.75			02/17/17	22004		1052 PENNONI ASSOCIATES INC. SERVICES THRU 1/15/17 RESERV.RD
1702				1,422.75	0.00	4,344.25				
07428-1000	****	***	****	4,344.25	0.00	4,344.25				
Grand Total				34,253.77	28,570.50	5,683.27				

Source	Debits	Credits
JE	0.00	26,878.50
CR	0.00	1,692.00
CD	34,253.77	0.00
	34,253.77	28,570.50

Memo
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380

Voice (610) 692-7171
Fax (610) 692-8950
E-mail rsmith@eastgoshen.org

Date: April 7, 2017
To: Board of Supervisors
From: Rick Smith, Township Manager
Re: 1662 East Boot Road

John O'Connell purchased a building lot at 1662 East Boot and has a permit to construct a new house. The approved plan calls for the house to be served by an on-lot system and permit has been issued by the CCHD.

Mr. & Mrs. Ludin owns the property at 1670 East Boot Road (which is adjacent to the O'Connell lot) and their property is served by public sewer via an easement across lots owned by Mr. & Mrs. Duffy and Mr. & Mrs. Day in the Clocktower subdivision. His easement allows for the installation of a sewer line to provide service to one single family dwelling.

Mr. O'Connell would like to connect the new house to the public sewer system, however in order to do so he would need to obtain an easement from the Ludin's and amend Ludin's Easement with the Day's and Duffy's.

At your December meeting you grant Mr. O'Connell capacity, with the caveat that he provide the Authority with documentation that the easements are in place.

Mr. O'Connell has obtained the required easements and the site plan has been updated to reflect the connection.

Accordingly, I would recommend that you allow him to connect his new home the public sewer.

Prepared by and Return to:

UPINos: 53-4-426
53-4-436
53-4-131.1A
53-4-131.1

**AMENDMENT TO SANITARY SEWER
EASEMENT AGREEMENT**

THIS AMENDMENT TO SANITARY SEWER EASEMENT AGREEMENT (the "Amendment") is made and entered into effective as of the 29 day of November, 2016 (the "Effective Date"), by, between, and among **PATRICK AND AMY DAY**, husband and wife ("Day"), **BRIAN AND DEBORAH DUFFY**, husband and wife ("Duffy"), **DAVID AND CHRISTINA LUDIN**, husband and wife ("Ludin"), and **JLOC PROPERTIES, LLC**, a Pennsylvania limited liability company ("JLOC").

WITNESSETH:

WHEREAS, Henrietta Hankin and William Waid entered into that certain Sanitary Sewer Easement Agreement dated as of October 27, 1995, recorded in the public records of Chester County, Pennsylvania on March, 12, 1996, as Instrument No. 13432, at Book 4003, page 2085, (the "Easement Agreement") (Capitalized terms utilized in this Amendment and not separately defined herein shall have the meanings ascribed to them in the Easement Agreement);

WHEREAS, at the time that the Easement Agreement was executed, Hankin was the owner of the properties identified as 53-4-426 ("Lot 348") and 53-4-436 ("Lot 358") in the Chester County, Pennsylvania Assessment Department, while Waid was the owner of the property so identified as 53-4-131.1A ("Lot 11") (an overhead map of said parcels is attached hereto for reference as Exhibit 1);

WHEREAS, through their respective chains of title, Day has acquired Lot 348, Duffy has acquired Lot 358, and Ludin has acquired Lot 11, and each has succeeded to the rights and duties under the Easement Agreement appurtenant to their respective parcels;

WHEREAS, under the terms of the Easement Agreement, the easement granted over Lots 348 and 358 provided for the extension of sanitary sewer service for "one single family dwelling" on Lot 11;

WHEREAS, JLOC is the owner of the property identified as 53-4-131.1, by a deed dated and recorded December 22, 2015, at Book 9238, Page 811, Instrument #11449717 (the "JLOC Lot"), and has the need to access sanitary sewer service at the property, which is immediately adjacent to Lot 11; and

2nd 

WHEREAS, the parties desire to amend the Easement Agreement, in accordance with the terms and provisions of this Amendment, so as to provide for the extension of the sanitary sewer line from Lot 11 onto the JLOC Lot for the provision of sanitary sewer service to the JLOC Lot.

AGREEMENTS;

NOW, THEREFORE, in consideration of the foregoing Recitals, which are hereby incorporated into the body of this Amendment, and for other good, fair and valuable consideration (including the payment of One Dollar and Zero Cents to each signatory of this Agreement), the receipt and sufficiency of which are hereby acknowledged, the parties agree to amend the Easement Agreement as follows:

1. Paragraph 1 of the Easement Agreement is hereby amended so that the easement granted over Lots 348 and 358 is granted for the purpose of installing, constructing and maintaining a sewer lateral to provide sanitary sewer service for single-family dwellings on each of Lot 11 and the JLOC Lot, as identified above.

2. Ludin and JLOC, their heirs, successors and assigns in title, shall each be solely responsible for the maintenance of the portions of the sanitary sewer that exclusively serve their respective lots. With respect to the maintenance of portions of the sanitary sewer that serve both Lot 11 and the JLOC Lot ("Shared Sewers"), the cost thereof shall be borne in equal portions by Ludin and JLOC, their heirs, successors and assigns in title. When either JLOC or Ludin determines that maintenance of any portion of the Shared Sewers is reasonably necessary, it will provide thirty (30) days' notice to the other thereof (except in the event of an emergency for which no such notice shall be required), and the parties will meet and confer in good faith to agree upon the appropriate cost and course of action with respect to such maintenance. If the parties cannot agree within the thirty (30) day period or in the event of emergency, the party that initially determined the need for maintenance shall have the right to proceed with said maintenance, and the reasonable cost thereof will be shared equally by the parties. The party which has paid the cost of such maintenance share submit proof of payment and an invoice therefor to the other which shall be paid within thirty (30) days of receipt.

3. JLOC, its successors and assigns shall be solely responsible for the extension and installation of the sewer lateral onto the JLOC Lot, which shall include the responsibility to restore the JLOC Lot and Lot 11 to their prior condition to the fullest extent possible, at JLOC's sole cost and expense. Ludin hereby grants to JLOC a twenty (20) foot wide easement over Lot 11 to install and maintain the sanitary sewer lateral serving the JLOC Lot upon the same terms as were established in Paragraphs 2 and 3 of the Easement Agreement.

4. No surface activity of any kind shall take place on Lots 348 and 358. It is understood that this Amendment creates no obligation upon Day or Duffy, their heirs or assigns, over and beyond those established by the Easement Agreement except to allow for sanitary sewer service to be extended onto a single-family dwelling at the JLOC Lot. It is hereby agreed that JLOC, its successors and assigns in title by this Amendment shall be a party to the Easement Agreement and all references to the Grantee therein shall mean Ludin and JLOC and all references to Grantor in the Easement Agreement, with respect to the easement granted over Lot 11, shall mean Ludin.¹

¹ For purposes of notice before construction of the sanitary sewer lateral to serve the JLOC Lot, such written notice shall be required to be provided five (5) day before commencing construction.

5. The terms and provisions of this Amendment shall control over any conflicting provision of the Easement Agreement and any other agreement entered into among or between all or any of the parties to this Amendment.

6. Except as expressly modified hereby, all the remaining terms and conditions of the Easement Agreement shall remain unmodified and in full force and effect.

7. This Amendment may be executed in any number of counterparts, each of which shall be an original and all of which together shall constitute and be construed as one and the same instrument.

8. Notices provided for in this Agreement shall be in writing and shall be addressed to the lots specified in this Agreement, but any owner of any lot may also designate a different address to which notices shall be sent. All notices shall be effective upon receipt (or upon refusal to accept delivery) by the party to whom the notice is being sent.

9. This Agreement shall be construed according to the laws of the Commonwealth of Pennsylvania.

CERTIFICATE OF RESIDENCE

I, the undersigned, do hereby certify that Grantee's precise residence is:

327 South High Street
West Chester, PA 19382

WITNESS my hand this 19 day of November, 2016.



IN WITNESS WHEREOF and intending to be legally bound, the parties hereto have executed this Agreement as of the day and year first above written.

(signature pages to follow)

BD DD

Am 

JLOC PROPERTIES, LLC

By: John O'Connell

Title: MANAGING PARTNER

Commonwealth of Pennsylvania)

) ss:

County of Chester)

On this the 1st day of December, 2016, before me, a Notary Public, the undersigned officer, personally appeared John O'Connell known to me (or satisfactorily proven) to be the Managing Partner of JLOC Properties, LLC, a Pennsylvania limited liability company, and acknowledged that he/she, as such officer, being duly authorized to do so, executed the same on behalf of said non-profit corporation for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Kathleen A. Pavlovitch

My Commission expires:

4/26/2020

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Kathleen A. Pavlovitch, Notary Public
Springfield Twp., Delaware County
My Commission Expires April 26, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

BD DD

for [Signature]

PATRICK AND AMY DAY

Patrick Day
Patrick Day

Commonwealth of Pennsylvania)

) ss:

County of Chester)

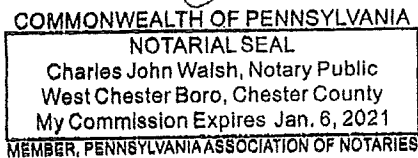
On this the 10th day of MARCH, 2018, before me, a Notary Public, the undersigned officer, personally appeared Patrick Day known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Charles John Walsh

My Commission expires:

01/06/2021



Amy Day
Amy Day

Commonwealth of Pennsylvania)

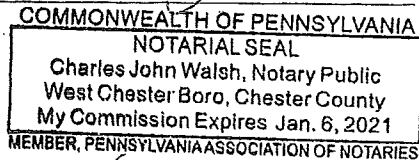
) ss:

County of Chester)

On this the 16 day of March, 2018, before me, a Notary Public, the undersigned officer, personally appeared Amy Day known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Charles John Walsh



BO DD

P.O. D

BRIAN AND DEBORAH DUFFY

B. Duffy
Brian Duffy

Commonwealth of Pennsylvania)

) ss:

County of Chester)

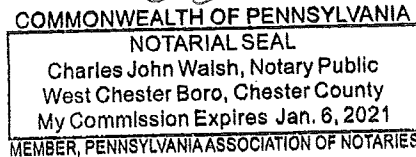
On this the 11 day of MARCH, 2016⁷, before me, a Notary Public, the undersigned officer, personally appeared Brian Duffy known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Charles John Walsh

My Commission expires:

01/06/2021



Deborah Duffy
Deborah Duffy

Commonwealth of Pennsylvania)

) ss:

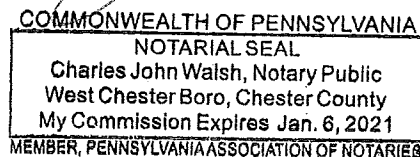
County of Chester)

On this the 11 day of MARCH, 2016⁷, before me, a Notary Public, the undersigned officer, personally appeared Deborah Duffy known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

01/06/2021

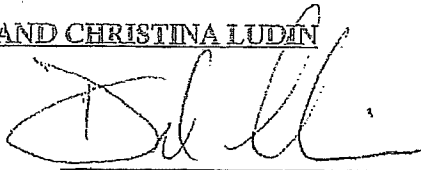
Charles John Walsh



B7 DD

PDW JD

DAVID AND CHRISTINA LUDIN



David Ludin

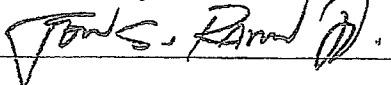
Commonwealth of Pennsylvania)

) ss:

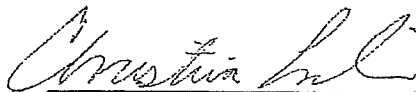
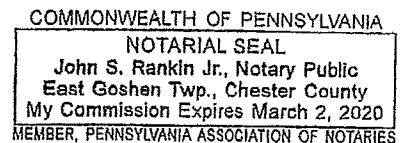
County of Chester)

On this the 29 day of November, 2016, before me, a Notary Public, the undersigned officer, personally appeared David Ludin known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



My Commission expires: 03/02/2020



Christina Ludin

Commonwealth of Pennsylvania)

) ss:

County of Chester)

On this the 29 day of November, 2016, before me, a Notary Public, the undersigned officer, personally appeared Christina Ludin known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

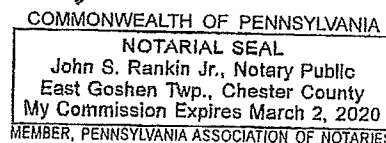
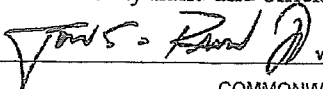



Exhibit 1

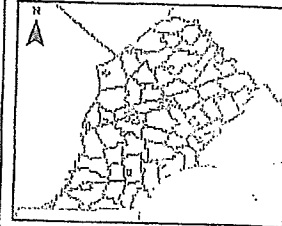
BD DD

Pro 

Map



COUNTY OF CHESTER
PENNSYLVANIA



Find Address Information

PARID: 5304 04360000
 UPE: 53-4-136
 Owner1: DUFFY BRIAN
 Owner2: DEBORAH M
 Mail Address 1: 725 PEACH TREE DR
 Mail Address 2: WEST CHESTER PA
 Mail Address 3:
 ZIP Code: 19380
 Deed Book: 4120
 Deed Page: 1371
 Deed Recorded Date: 12/19/1996
 Legal Desc 1: NWS PEACH TREE DR CUL
 DES
 Legal Desc 2: 1.5 AC & DWG LOT 358
 Acres: 1.5
 LUC: R-10
 Lot Assessment: \$ 76,560
 Property Assessment: \$ 313,340
 Total Assessment: \$ 389,900
 Assessment Date: 12/18/2013
 Property Address: 725 PEACH TREE DR
 Municipality: EAST GOSHEN
 School District: West Chester Area

Map Created:
 Friday, August 26, 2016



County of Chester

Limitations of Liability and Use:
 County of Chester, Pennsylvania makes no claims in the completeness, accuracy, or content of any data contained herein, and makes no representation of any kind, including, but not limited to, the warranties of merchantability or fitness for a particular use, nor are any such warranties to be implied or inferred with respect to the information or data furnished herein. For information on data sources visit the GIS Services page listed at www.chesco.org/gis.

Rick Smith

From: Fox, Joshua <jfox@hrg-inc.com>
Sent: Thursday, April 06, 2017 11:21 AM
To: Bill Malin; Casey Lalonde; Dave Woodward; Michael, Dennis; Ed McAssey; George Hook; Jack Yahraes; Jon Altshul; Mark Gross; Mark Miller; Mike Ellis; Mike Moffa; Mimi Gleason; Phil Mayer; Rick Smith; Rob Pingar; Ross Unruh; Ted Otteni; Dan Tierney; Lisa Covatta; Phil Corvo; Shawn Walsh; Ted Murphy; Tina Charron; Tina Smith; Ben Ried; Chris Donahue; Dan O'Brien; James Gray; Jens Damgaard
Subject: WGSA Proposed Capital Projects Cost Breakdown
Attachments: 2017 Municipal Cost Breakdown.pdf
Importance: High

Good morning,

As requested and on behalf of the West Goshen Sewer Authority, please find the proposed capital projects estimated costs attached for your use. These estimates include a breakdown of each of the contributing municipalities estimated proportionate shared costs in each of the capital projects. Please note that the proportionate shares were adjusted for each relevant pumping station as provided in the existing agreements.

Please let Mike or I know if you have any questions or concerns.

4-7-16

Take care and have a great day.

Sincerely,
Josh

WE WILL DISCUSS
ON MONDAY

Joshua T. Fox, P.E.
Regional Service Group Manager
Water & Wastewater Services

Rick

Herbert, Rowland & Grubic, Inc.
369 East Park Drive
Harrisburg, PA 17111
717.564.1121 (o) 717.979.1526 (c) 717.564.1158 (f)
jfox@hrg-inc.com



hrg-inc.com | [Facebook](#) | [LinkedIn](#) | [Subscribe to Our Newsletter](#)

Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

WEST GOSHEN SEWER AUTHORITY PROJECT	Total Estimated Project Cost	Estimated Cost Based on Applicable Scope to Municipalities	Westtown % Allocation	East Goshen % Allocation	West Whiteland % Allocation	Thornbury % Allocation
			8.833%	16.67%	13.667%	0.1584%
Contract 16-1: 2016 Sanitary Sewer System Repairs (1)	\$ 537,000.00	\$ 327,661.64	\$ 16,915.02	\$ 24,239.84	\$ 30,085.14	\$ 291.20
Contract 16-2: WWTP Emergency Generator Replacement	\$ 705,000.00		\$ 62,272.65	\$ 117,523.50	\$ 96,352.35	\$ 1,116.72
Contracts 17-1 & 17-2: Headworks Improvement Project	\$ 2,188,475.00		\$ 193,308.00	\$ 364,818.78	\$ 299,098.88	\$ 3,466.54
Anaerobic Digester Replacement Project	\$ 4,295,750.00		\$ 379,443.60	\$ 716,101.53	\$ 587,100.15	\$ 6,804.47
Pump Station Phase I Improvements	\$ 914,800.00					
Washington Street PS		\$ 130,150.00			\$ 17,787.60	
Westtown Way PS		\$ 132,550.00	\$ 11,708.14	\$ 72,630.77		
Taylor Run PS		\$ 113,250.00			\$ 15,477.88	
2017 Sanitary Sewer System Repairs (2)	\$ 1,606,000.00	\$ 963,600.00	\$ 85,114.79	\$ 160,632.12	\$ 131,695.21	\$ 1,526.34
Enhanced Chemical Addition Project (3)	\$ 292,750.00		\$ 25,858.61	\$ 48,801.43	\$ 40,010.14	\$ 463.72
WWTP Phase II Improvements	\$ 7,362,800.00		\$ 650,356.12	\$ 1,227,378.76	\$ 1,006,273.88	\$ 11,662.68
Pump Station Phase II Improvements	\$ 4,967,690.00					
Westtown Way PS	\$ 2,000,000.00		\$ 176,660.00	\$ 1,095,900.00		
Taylor Run PS	\$ 1,210,000.00				\$ 165,370.70	
2018 Sanitary Sewer Improvements (4)	\$ 512,000.00	\$ 256,000.00	\$ 22,612.48	\$ 42,675.20	\$ 34,987.52	\$ 405.50
2019 Sanitary Sewer Improvements (4)	\$ 512,000.00	\$ 256,000.00	\$ 22,612.48	\$ 42,675.20	\$ 34,987.52	\$ 405.50
Misc. Capital Costs, Engineering, Legal, and Administrative Fees (5)	\$ 2,124,000.00		\$ 187,612.92	\$ 354,070.80	\$ 290,287.08	\$ 3,364.42
TOTALS	\$ 26,018,265.00	\$ 2,179,211.64	\$ 1,834,474.81	\$ 4,267,447.93	\$ 2,749,514.05	\$ 29,507.09

1. Estimated final cost including WCD No. 1
2. Assumes that 60% of the Project cost can be attributed to Municipal Partners
3. Project Cost Reduced by Grant Amount
4. Assumes that 50% of the Project cost can be attributed to Municipal Partners
5. Assumes average cost of \$59k per month for 36 months
6. Costs associated with Projects shown above that were invoiced to municipalities in 2016 were not excluded from total applicable Project costs.

Memo
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380

Date: April 6, 2017
To: Municipal Authority
From: Rick Smith, Township Manager
Re: West Goshen Sewer Agreement

Attached is Draft Memorandum Agreement No. VIII. It was modeled after the Memorandum Agreement No. VII which covered how we paid for our share of the project costs when West Goshen expanded the treatment plant to 6,000,000 MGD in 1997.

I have also attached an updated cost breakdown based on the recent meeting at West Goshen. HRG is supposed to prepare and update the cost breakdown that will refine how the costs for some of the items listed will be apportioned. So these costs will probably change.

WEST GOSHEN WER COSTS

East Goshen has 1 mgd of reserved capacity in the West Goshen Sewer Plant which has a capacity of 6 mgd.

We are responsible for 1/6 of the cost of the improvements for the facilities that we use.

West Goshen is under a consent agreement to try to achieve a total phosphorus (TP) limit of 0.8 mg/L by the end of 2018

EPA wants West Goshen to get to a TP limit of 0.04 mg/L. This issue is in Federal court.

Project	Cost	Applicable to East Goshen	East Goshen's Share of Cost (1/6) 16.67%	Comment
Structural Repairs to Clarifier No. 3	\$363,700	\$363,700	\$60,629	We use these facilities
2016 Sewer System Repair Project	\$537,000	?	?	See Note 2
Generator	\$705,000	\$705,000	\$117,524	We use these facilities
Headworks	\$2,188,475	\$2,188,475	\$364,819	We use these facilities
Anaerobic Digester	\$4,295,750	\$4,295,750	\$716,102	We use these facilities
Pump Station Phase 1 (8 pump stations)	\$914,800	\$114,350	\$19,062	Assumes we are responsible for 1 pump station - HRG to update costs so this may change
2017 Sewer System Repair Project	\$1,606,000	?	?	See Note 2
Enhanced Chemical Addition Required to achieve total phosphorus (TP) limit of 0.8 mg/L	\$582,750	\$582,750	\$97,144	We use these facilities
Wastewater Treatment Plant Phase 2 Improvements	\$7,362,800	\$7,362,800	\$1,227,379	See Note 1
2018 Sewer System Repair Project	\$512,000	?	?	See Note 2
Pump Station Phase 2 Improvements (4 pump stations)	\$4,493,780	\$1,123,445	\$187,278	Assumes we are responsible for 1 pump station - HRG to update costs so this may change
2019 Sewer System Repair Project	\$512,000	?	?	See Note 2
Total (Assumes court decides WG must get TP to 0.04 mg/L)	\$24,074,055	\$16,736,270	\$2,789,936	
Note 1- The Phase 2 Improvements include the Ballasted Clarification System is estimated to cost \$3,500,000. This is required to get the TP to 0.04 mg/L	-\$3,500,000	-\$3,500,000	-\$583,450	If WG does not have to get TP to 0.04 mg/L this can be eliminated
Total (Assumes court decides WG can stay with a TP of 0.8 mg/L)	\$20,574,055	\$13,236,270	\$2,206,486	

Note 2 - We would also be responsible for our share of the Sewer System Repair Projects for facilities that we use.

1 MEMORANDUM AGREEMENT NO. VIII

2
3
4 **THIS AGREEMENT** made the ____ day of _____, 20__, by and
5 among WEST GOSHEN SEWER AUTHORITY (“West Goshen Authority”) and the
6 TOWNSHIP OF WEST GOSHEN (“West Goshen”), both of 1025 Paoli Pike, West Chester,
7 Pennsylvania (sometimes collectively referred to as “West Goshen”) and the EAST GOSHEN
8 MUNICIPAL AUTHORITY (“East Goshen Authority”) and the TOWNSHIP OF EAST
9 GOSHEN (“East Goshen”), both of 1580 Paoli Pike, West Chester, Pennsylvania (sometimes
10 collectively referred to as “East Goshen”), bodies corporate and politic organized and existing
11 under the laws of the Commonwealth of Pennsylvania.

12 **WITNESSETH:**

13
14 WHEREAS, all of the parties hereto entered into an agreement dated September 6, 1977,
15 which dealt with the construction and sharing of certain sanitary sewage facilities located in East
16 Goshen and West Goshen Township (the “1977 Agreement”); and

17 WHEREAS, the 1977 Agreement has been amended seven (7) times: by Memorandum
18 Agreement executed by the parties in June 1981; by Memorandum Agreement II executed by the
19 parties in September 1982; by Memorandum Agreement III executed by the parties on May 22,
20 1990; by Memorandum Agreement IV executed by the parties on May 14, 1991; by
21 Memorandum Agreement V executed by the parties on August 18, 1992; by Memorandum
22 Agreement VI executed by the parties on April 9, 1997; and by Memorandum Agreement VII
23 executed by the parties August 27, 1997; and

24

25

1 WHEREAS, pursuant to Exhibit "C" of the 1977 Agreement, subject to the payment of
2 charges and the limitations of the 1977 Agreement, the West Goshen Authority and West
3 Goshen have granted to East Goshen Authority and East Goshen the right, during the term of the
4 1977 Agreement, to discharge sewage waste into the West Goshen Waste Water Treatment Plant
5 ("Treatment Plant") in the maximum quantities specified therein, and West Goshen, as lessee of
6 West Goshen Authority's Sewer System and Treatment Plant has agreed to convey, treat and
7 dispose of said sewage waste; and

8 WHEREAS, West Goshen Authority and West Goshen have decided to replace, improve,
9 modify, repair and update some of the facilities and equipment in their Sewer System and at the
10 Treatment Plant (collectively the "Treatment Plant Project"), and East Goshen Township and
11 East Goshen Authority are obligated to pay its proportional share of the costs for the facilities
12 and equipment in the Treatment Plant Project that they utilize; and

13 WHEREAS, the parties hereto have agreed upon the replacements, improvements and
14 modifications for the Treatment Plant Project for which East Goshen is obligated to contribute,
15 as well as the percentage of the costs East Goshen is responsible to pay West Goshen; and

16 WHEREAS, the purpose of this Memorandum is to set forth the understandings of East
17 Goshen and West Goshen in this regard.

18 NOW, THEREFORE. The parties hereto, each binding itself, its successors and assigns,
19 and each presenting that it has proper legal authority to enter into this Memorandum Agreement
20 VIII, and each intending to be legally bound hereby, do mutually represent, covenant and agree
21 as follows:

1 1. Each paragraph of the foregoing recital is incorporated herein by reference and
2 made a part of this Memorandum Agreement VIII.

3 2. Attached hereto and incorporated herein by reference as Exhibit "A" is a letter
4 memorandum of Dennis Michael for Joshua T. Fox, P.E., Engineer from HRG for West Goshen,
5 dated March 28, 2017, which sets forth the scope of the work generally to be completed as part
6 of the Treatment Plant Project. Although Exhibit "A" sets forth estimated costs, East Goshen's
7 obligations herein shall be based upon the actual cost of each Item as herein defined.

8 3. East Goshen shall pay its proportionate 1/6 (16.6%) share of the costs of the
9 following items ("Item(s)"), as outlined in Exhibit "A":

- 10 a. Structural Repairs to Primary Clarifier No. 3
- 11 b. Emergency Generator Replacement Project (Contract 16-2)
- 12 c. Headworks Improvement Project (Contracts 17-1 & 17-2)
- 13 d. Anaerobic Digester Replacement Project (Contracts 17-3 & 17-4)
- 14 e. Pump Station Phase I Improvements: By-Pass Pump Connections
15 (Contract 17-5), Westtown Way Pump Station (No. 13) only
- 16 f. Enhanced Chemical Addition Project
- 17 g. Wastewater Treatment Plant Phase II Improvements
- 18 h. Pump Station Phase II Improvements, Westtown Way Pump Station
19 (No. 13) only

20 4. East Goshen shall be responsible for financing its share of the costs set forth
21 herein. Accordingly, East Goshen shall not be responsible to pay to West Goshen Project related
22 costs related to financing and interest costs during construction.

23 5. As soon as practical after receipt of the actual construction bids for each of the
24 Items listed in Exhibit "A", West Goshen shall deliver to East Goshen calculations of East

1 Goshen's obligations to West Goshen pursuant to this Memorandum Agreement No. VIII. This
2 calculation shall include the actual engineering costs for the design, permitting, and bidding of
3 each Item and the estimated engineering cost of the inspection and project closeout for the Item.
4 Within forty-five (45) days thereafter, East Goshen shall pay to West Goshen Sewer Authority a
5 sum equaling its total obligation pursuant to the Memorandum Agreement No. VIII for its share
6 of the costs. East Goshen's money shall be deposited into a separate interest bearing account,
7 with interest accruing to the benefit of East Goshen. From time to time withdrawals shall be
8 made by West Goshen from said account as is necessary for East Goshen's proportionate share
9 of the cost of the Treatment Plant Project, as identified in the attached Exhibit "A." Each
10 withdrawal from the said interest-bearing account made by West Goshen shall be for completed
11 and inspected work only and shall be in an amount which is not in excess of East Goshen's 1/6
12 (16.6%) proportionate share of that part of the work on that Item for which the draw has been
13 requested and for which payment has been authorized by West Goshen. At the completion of
14 each Item, if there are any adjustments, through change order or otherwise, East Goshen shall be
15 billed for the additional charges and/or refunded any excess money as set forth herein. Payment
16 for any additional charges shall be within thirty (30) days from the date of the bill and any refund
17 shall be made within thirty (30) days of the final payment to the applicable contractor. Finally,
18 as soon as practical, West Goshen shall inform East Goshen in writing of any change orders or
19 adjustments which would affect East Goshen's proportionate share of the costs of each Item.

20 6. To the extent not inconsistent herewith, all provisions of the 1977 Agreement and
21 the subsequent Memorandum Agreements I through VII are hereby ratified and confirmed.

22 IN WITNESS WHEREOF, the parties have caused these presents to be duly executed
23 and their respective corporate seals affixed the day and year first written above.

1 ATTEST:

WEST GOSHEN SEWER AUTHORITY

2

3 _____
4 Secretary

By: _____

5
6 ATTEST:

WEST GOSHEN TOWNSHIP

7

8 _____
9 Secretary

By: _____

10

11 ATTEST:

EAST GOSHEN MUNICIPAL AUTHORITY

12

13 _____
14 Secretary

By: _____

15

16 ATTEST:

EAST GOSHEN TOWNSHIP

17

18 _____
19 Secretary

By: _____

20

21

22 F:\Data\Shared Data\West Goshen\Sewer Agreement\2017\MEMORANDUM AGREEMENT
23 NO VIII Draft RS Clean.docx

EXHIBIT - A



Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

AN EMPLOYEE-OWNED COMPANY

369 East Park Drive
Harrisburg, PA 17111
717.564.1121
(FAX) 717.564.1158
www.hrg-inc.com

March 28, 2017

Re: Description of Capital Projects for
West Goshen Sewer Authority

Dear Municipal Partners:

On behalf of the West Goshen Sewer Authority (Authority), Herbert, Rowland & Grubic, Inc. (HRG) has prepared a summary of the proposed improvements to the Authority's collection, conveyance, and treatment systems that were originally proposed in the 2015 Capital Improvement Plan and further defined as additional information has been made available during planning and design phases of other projects.

The proposed improvements are based on our professional judgement. Our recommendations were made using information available and include, but are not necessarily limited to: record documents, operational data, physical site visits, interviews with Township Operations Staff, third party inspections and/or site visits, other engineer's reports and recommendations, and our experience with similar systems.

The recommendations have been broken into the below list of Projects. These Projects may be further combined, or separated, as decided by the Authority and based on available resources, schedule, and financing.

Each of the Capital Projects identified below includes a brief Project description, status in the Project delivery cycle, and estimated project cost.

STRUCTURAL REPAIRS TO PRIMARY CLARIFIER NO. 3

The Structural Repairs to Primary Clarifier No. 3 includes selective demolition; reinforcing and pouring of new concrete launders and structural supports; replacement of bridge decking, handrails, and access stairs; and coating of mechanical components and selective concrete.

This Project was initiated due to several structural cracks along the effluent launders and supporting corbels. The cracks were actively leaking and had progressively gotten worse. It should be noted that the clarifier had previously been repaired to address similar cracks that had been present.

The Project is anticipated to be complete (final completion) in March 2017 with a final cost for this Project of \$363,700.39.

2016 SANITARY SEWER SYSTEM REPAIR PROJECT (CONTRACT 16-1)

The 2016 Sanitary Sewer System Repair Project consists of repairs and rehabilitation of approximately 2,100 L.F. of sanitary sewer mains (8-inch and 14-inch diameter) and 16 manholes that were identified as priority repairs through closed circuit televisual inspections (CCTV) and visual manhole inspections as a result of a sewer manhole collapse on December 31, 2015. The manholes that were identified to be replaced or rehabilitated were a result of significant hydrogen sulfide deterioration. A majority of the manholes were located at downstream forcemain discharge locations and/or along interceptors. Failure to repair these manholes would result in a high risk of collapse. Replacement of Manhole 1206 was found to be required

March 28, 2017

Page 2

during preparation of the rehabilitation and was added to the Project at a cost of \$59,000. The Project is anticipated to be completed by April 2017.

The estimated cost for this Project is \$537,000.

EMERGENCY GENERATOR REPLACEMENT PROJECT (CONTRACT 16-2)

The existing emergency generator was installed in the 1970's and had exceeded its useful life. The Authority's former consulting engineer had identified that parts were becoming increasingly difficult to obtain and Township Staff had concerns about the generator's reliability during an extensive power outage. Additionally, the underground fuel storage tank was not permitted and was identified as an environmental risk that, if it began leaking, could have significant clean-up costs associated with its removal.

The Emergency Generator Replacement Project generally includes, but is not limited to, demolition of an existing generator and related building appurtenances; demolition of an existing 4,000 gallon underground fuel storage tank; installation of two new 500 kW exterior generators, generator pad and platform, and related electrical controls; and minor building demolition, concrete, and masonry modifications to the existing Blower Building at the Authority's WWTP. The Project is currently under construction and is expected to be substantially complete in April 2017.

The estimated cost for this Project is \$705,000.

HEADWORKS IMPROVEMENT PROJECT (CONTRACTS 17-1 & 17-2)

In accordance with discussions with the Township Staff, the grit system that was installed in 1998 never operated properly and was taken off-line several years ago. The Headworks Building, specifically, the screening room, contains motor control centers, control panels, motors, and other electrical equipment that is not explosion proof and therefore does not meet regulatory requirements as well as posing a safety risk to Staff. Over the past year, the Operations Staff started experiencing issues with the existing mechanical screen and utility water system. The manufacturer for the mechanical screen reviewed the equipment and proposed that the system be rebuilt or replaced. The automatic controls for the utility water system had ceased to work properly and the strainer needed replaced. As a result the utility water skid system was recommended to be replaced to better accommodate the additional water demand for the mechanical screen and the grit removal system. Finally, the lower bearing assemblies for the existing screw pumps originally installed in 1998 were identified by Township Staff to be replaced as a maintenance item in conjunction with the non-explosion proof motors.

The Headworks Improvement Project generally includes, but is not limited to, demolition of an existing fine screen, utility water system, and grit removal system; construction of building addition to accommodate new vortex style grit removal system; provision and installation of utility water system; installation of two (2) new fine screens, vortex grit removal system, grit classifier, screenings and grit conveyors, and related electrical controls; relocation of electrical equipment to an expanded electrical room; replacement of screw pump motors and lower bearing assemblies; minor site work including upgrading an existing rain garden; and minor building demolition and concrete and masonry modifications to the existing Headworks Building at the Authority's WWTP. The proposed improvements for this Project will provide compliance with NFPA 820 and NEC requirements.

The estimated cost for this Project is \$2,188,475 and is anticipated to be fully constructed by February 2018.

ANAEROBIC DIGESTER REPLACEMENT PROJECT (CONTRACTS 17-3 & 17-4)

The Anaerobic Digester and associated building, built as a component of the original wastewater treatment plant was identified as needing significant improvements based on our initial assessment. A complete list of recommendations is included in pages 13-19 of the 2015 Capital Improvement Plan. A summary of the issues observed are as follows: lack of operational gas safety equipment and inadequate size based on regulatory requirements, leaking roofs, corroded rollers on Secondary Digester; corrosion of gas burner and inadequate operations controls requiring manual ignition, and compliance issues associated with hazardous rated areas.

During evaluation of the anaerobic digesters for repair, rehabilitation, or conversion to mechanically thickened aerobic digestion, a significant gas leak occurred and was reported by the Township Staff. The Authority authorized emergency repairs which included three phases: 1) repair to Primary Digester roof at the interface point with the parapet (goal of reducing gas leaking from digester under membrane roof into leaking control building roof); 2) temporary repair of roller assemblies for Secondary Digester; and 3) replacement of pressure regulators and relief valves, flame arrestors, and other gas safety equipment on Primary and Secondary Digesters. During this time two, third party, companies reviewed the condition of the Digesters and associated control building and provided correspondence to the Township Staff identifying their safety and operational concerns.

The evaluation completed by HRG recommended that the Anaerobic Digesters be repaired and rehabilitated in lieu of replacement with an aerobic operation based on present worth costs. The Authority then decided to replace the existing digester tanks as part of the Project to physically separate them from the control building, reduce risk of unknown interior conditions of existing tanks, and reduce the need for pumping and hauling operations during construction.

The Anaerobic Digester Replacement Project generally includes, but is not limited to, demolition of existing primary and secondary digesters; selective demolition of components of the Digester Building, and process equipment; construction of new primary and secondary anaerobic digesters, cover, and mixing equipment, gas conditioning equipment, sludge piping, and miscellaneous process and process control equipment and piping; new building ventilation system, lighting, and replacement of the existing roof. The Project is currently under design and is tentatively scheduled to be advertised for public bidding in July 2017.

The estimated cost for the Project is \$4,295,750 and is anticipated to be fully constructed by October 2018, pending any project delays.

PUMP STATION PHASE 1 IMPROVEMENTS: BY-PASS PUMP CONNECTIONS (CONTRACT 17-5)

The Pump Station Phase 1 Improvements include the installation of by-pass pump connections at the following pump stations:

1. Montgomery Avenue Pump Station (No. 1)
2. Trinity Drive Pump Station (No. 2)
3. Spruce Avenue Pump Station (No. 3)
4. Ellis Lane Pump Station (No. 6)
5. Taylor Run Pump Station (No. 11)
6. Washington Street Pump Station (No. 12)
7. Westtown Way Pump Station (No. 13)
8. Fern Hill Pump Station (No. 16)

The installation of by-pass pump connections allow for temporary by-pass pumps to be installed and utilize the existing pump station forcemain during routine, emergency, or planned repairs to the existing pumps, pump motors, or electrical equipment (power, drives, etc.). Although the installation of by-pass pump

connections is not required, their installation and use will reduce future operations costs (highest during emergency repairs) by reducing or even eliminating the need for pumping and hauling operations, or extensive temporary by-pass pump piping. The installation of the by-pass pump connections will also help facilitate construction of the Pump Station Phase II Improvements for the Trinity Drive Pump Station, Westtown Way Pump Station, and Taylor Run Pump Station. The Project is currently under design and is anticipated to be advertised for public bidding in April 2017.

The estimated Project cost is \$914,800 and is expected to be substantially completed by December 2017. A break-down of anticipated inter-municipal costs will be provided during public bidding and confirmed after bid opening.

2017 SANITARY SEWER SYSTEM REPAIR PROJECT (CONTRACT 17-6)

The 2017 Sanitary Sewer System Repair Project consists of replacement, repairs and rehabilitation of 27 discrete sewer and manhole areas in the Township identified as priority repairs through closed circuit televisual inspections (CCTV) and visual manhole inspections conducted as a result of continued investigation and maintenance. Additional repair areas were identified but will be completed by Township Staff using their own labor and equipment. These areas if not repaired, would result in either failure or more expensive repairs (such as full replacement). The Project is currently under design and is anticipated to be advertised for public bidding in July 2017.

The estimated Project cost is \$1,606,000 and is expected to be substantially completed by June 2018. A break-down of anticipated inter-municipal costs will be provided following the bid opening.

ENHANCED CHEMICAL ADDITION PROJECT

The Enhanced Chemical Addition Project includes upgrade of existing chemical addition equipment and the installation of advanced controls to reduce total phosphorus (TP) effluent limits to 0.8 mg/L and maintain compliance with pH effluent limits as required by the interim settlement agreement with the Environmental Protection Agency. The Project was submitted for a CFA Small Water and Sewer Program Grant. The schedule is dependent on the award of the Grant in March 2017. If the Grant is not received, final design would proceed in April 2017 and the Project would be advertised for public bids by September 2017.

The estimated Project cost is \$582,750 and is expected to be substantially completed by April 2018.

WASTEWATER TREATMENT PLANT PHASE II IMPROVEMENTS

The Wastewater Treatment Plant Phase II Improvements Project include several upgrades and/or improvements to the existing WWTP that generally include four (4) major areas:

1. Aeration Basin Improvements

- A. Replace 16-inch diameter buried aeration piping between Blower Building and Aeration Tank that has been identified to be leaking (as found during rain events)
- B. Installation of variable frequency drives (VFDs) on existing blowers to reduce power consumption and improve flexibility and operability of blowers; minimize operating costs
- C. Installation of DO sensors in Aeration Basins to improve operability and control blower speed/output

The repair and improvements to the Aeration Basin will help reduce operations cost and provide additional flexibility for the operations staff.

2. Ballasted Clarification System (Advanced TP Removal)

The ballasted clarification system includes installation of the following components:

- A. Chemical feed equipment for addition of caustic, coagulant, and polymer
- B. Static mixer
- C. Coagulant tank and mixer
- D. Ballast tank and mixer
- E. Polymer tank and mixer
- F. Sludge shear mixer
- G. Magnetic drum separator
- H. RAS/WAS Pumps
- I. Controls (flow meters, turbidity meters, control valves, PLC, etc.)

The ballasted clarification system is intended to reduce effluent TP concentrations to the TMDL limit of 0.04 mg/L as imposed by EPA. The implementation of this component of the Phase II Project is dependent on successful pilot testing of the equipment. The pilot testing is scheduled to be completed in April 2017.

3. Clarifier Rehabilitation

- A. Inspection and maintenance of drives by certified manufacturer's technician
- B. Rebuild or replace clarifier drives and mechanisms for eight (8) of nine (9) clarifiers
- C. Install TSS and Sludge Level probes for improved wasting operations

The clarifiers that are being evaluated and scheduled for overhaul and/or repairs were original 1961 and 1975 equipment. Clarifiers installed in 2000 are not currently scheduled for repair. Inspections of the equipment is being performed by Evoqua's certified technician in the Spring and Summer of 2017. Repairs, rebuilds, or replacement of components will only be completed if inspections indicate that they are required for proper operation of the system.

4. Dewatering System Improvements

The Dewatering System Improvements include rebuilding or replacing the existing belt filter presses originally installed in the 1980s (refurbished around 2007) and 1999; improvements to the Dewatered Sludge Building including upgrade of ventilation equipment to reduce the humidity currently causing corrosion of equipment; replacement of media cartridges in odor control equipment; replacement of corroded electrical and process equipment; replacement of sludge conveyor; installation of flow meters to record volume of sludge delivered to dewatering equipment; re-installation of sludge grinders; replacement of deteriorated piping; general building improvements including new light fixtures, replace corroded doors, etc. These improvements were originally scheduled in 2014 to be completed by 2019.

The total estimated Project cost is \$7,362,800 and is expected to be substantially complete by December 2020.

2018 SANITARY SEWER SYSTEM REPAIR PROJECT

The 2018 Sanitary Sewer System Repair Project consists of replacement, repairs, and rehabilitation of priority repair areas identified by the Township through closed circuit televisual inspections (CCTV) and visual manhole inspections. The conceptual cost estimate below is based on size and scope of 2016 Sanitary Sewer System Repairs.

The estimated Project cost is \$512,000 and is expected to be substantially completed by November 2018. It is not known at this time if any of these improvements will result in shared costs with the municipal partners.

PUMP STATION PHASE II IMPROVEMENTS

Pump Station Phase II Improvements include major repairs to the Trinity Drive Pump Station, Westtown Way Pump Station, and Taylor Run Pump Station as well as replacement of the Downing Avenue Pump Station.

Trinity Drive (Pump Station No. 2)

Repairs to the Trinity Drive Pump Station generally includes the following:

1. Replace submersible pumps
2. Replace 4-inch diameter forcemain
3. Replace non-functioning 4-inch diameter mag meter and install new data logger
4. Installation of fall protection system
5. Repair spalling/cracked concrete around wet well
6. Replace water service to pump station
7. Install sewage grinder on wet well influent
8. Minor site improvements

The repairs are necessary to replace aged and deteriorated equipment as well as to correct issues with the pumps including, but not limited to, clogging due to rags, lack of automatic alternating operation, head conditions (impaired pump capacity) most likely as a result of forcemain condition (reduced diameter or increased roughness coefficient typical in cast iron forcemains).

Westtown Way (Pump Station No. 13)

Repairs to the Westtown Way Pump Station generally includes the following:

1. Upgrade electrical equipment in the wet well to meet hazardous area requirements
2. Rehabilitate deteriorated ferrous metal and concrete components
3. Evaluate installation of a wet well mixing system to keep grease in suspension in the wastewater and prevent from accumulating in the wet well
4. Relocation of the influent sewage grinder to the end of the influent channel to reduce the headloss impact and therefore reduce grit accumulation. This may require the installation of new a new railing system to support the sewage grinder.

5. Minor building improvements:
 - A. Replace existing windows
 - B. Repair, replace and upgrade existing HVAC equipment
 - C. Block in any building penetrations no longer needed
 - D. Seal leaking wall penetrations
 - E. Cut new floor drain piping into the floor.
6. Replace existing valve with a new gate valve. This will require the installation of a temporary line stop or new valve outside of the pump station in order to prevent wastewater from draining out of the force main.
7. Replacement of the existing emergency generator
8. The existing diesel fuel tank for the emergency generator is located outside above the wet well. If the emergency generator is replaced with an exterior rated unit, a subbase fuel tank can be combined into the base for the new generator.
9. Install new VFDs
10. Evaluate replacement of MCC
11. Install mount-anywhere style discharge flow meter
12. Install gas detection equipment in the wet well
13. Evaluate the effectiveness of switching to a series pumping configuration should be performed due to high head conditions
14. Installation of a data logger or influent flow meter to monitor influent flows to the pump station
15. Modify louver over the wet well so the base of the louver is more than 18 inches above the top of the wet well tank.

Woodcrest/Downing Avenue (Pump Station No. 10)

Repairs to the Trinity Drive Pump Station generally includes replacement of the current dry well / wet well style pump station with a submersible style pump station due to the following:

1. Existing comminutor is no longer operational
2. Concrete and ferrous metal deterioration from exposure to hydrogen sulfide gas was observed in the wet well
3. Evidence of infiltration in the dry well
4. Observed corrosion of the below grade steel dry well, particularly near the pipe penetrations
5. Township Staff reported that maintenance of the existing equipment in the dry well is very difficult given the arrangement of the various pumps, piping, valves, controls, and other components in the small dry well area
6. The existing pumps are 41 years old

Taylor Run (Pump Station No. 11)

Repairs to the Taylor Run Pump Station include the following:

1. Block doorway between pump room and wet well to physically separate wet well from the rest of the building. Upgrade electrical and HVAC equipment in the wet well to meet hazardous area requirements. Relocate sewage grinder hydraulic power pack out of the hazardous rated area.
2. Rehabilitate deteriorate ferrous metal and concrete components
3. Replace steel roof support
4. Replace existing door and windows
5. Replace failed ventilation systems
6. Seal leaking wall penetrations in dry well
7. Install new variable frequency drives
8. Install new electrical conduit, including lights, switches, and outlets.
9. Replace existing emergency generator with outdoor enclosed generator. The existing generator radiator leaks and the Township has experienced issues with equipment.
10. Remove underground fuel storage tank
11. Replacement of the motor control center
12. Install discharge flow meter
13. Install gas detection equipment in the wet well
14. Replace pump discharge header piping that has cracked flanges and replace non-functioning isolation valves

The total estimated Project cost is \$4,493,780 and is expected to be substantially complete by December 2020. A break-down of anticipated inter-municipal costs will be provided during public bidding and confirmed following the bid opening.

2019 SANITARY SEWER SYSTEM REPAIR PROJECT

The 2019 Sanitary Sewer System Repair Project consists of replacement, repairs and rehabilitation of priority repair areas identified by the Township through closed circuit televisual inspections (CCTV) and visual manhole inspections. The conceptual cost estimate below is based on size and scope of 2016 Sanitary Sewer System Repairs.

The estimated Project cost is \$512,000 and is expected to be substantially completed by November 2018. It is not known at this time if any of these improvements will result in shared costs with the municipal partners.

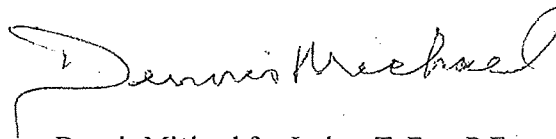
March 28, 2017

Page 9

Please feel free to contact me at jfox@hrg-inc.com or at 717-564-1121 if you have any questions or require any further clarification on the recommended improvements.

Sincerely,

Herbert, Rowland & Grubic, Inc.

A handwritten signature in black ink, appearing to read "Dennis Michael". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Dennis Michael for Joshua T. Fox, P.E.
WGSa Engineer

JTF/rb

007608.0426

2017.03.28 Summary of Capital Projects to Municipal Partners.docx

c: West Goshen Sewer Authority
Mr. Michael Moffa, Wastewater Superintendent
HRG File

EAST GOSHEN MUNICIPAL AUTHORITY
EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

April 7, 2017

To: Municipal Authority

From: Mark Miller

Re: Reservoir Road Replacement Meter

The Reservoir Road meter is out of service. The meter has been in service for 17 years. They no longer make those meters plus the technology has changed.

The cost to replace the meter is \$9000.00. I need a motion to purchase the meter.

EAST GOSHEN MUNICIPAL AUTHORITY
EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

April 7, 2017

To: Municipal Authority

From: Mark Miller

RE: Sewer System Fact Sheet

Jack asked if we could update the sewer fact sheet. Attached is the updated sheet with the 2017 information.

East Goshen Municipal Authority 2017 Fact Sheet

Number of homes on public sewer in East Goshen - 6061

Single Family -2941

Multi Family- 1433

Apartments – 1574

Commercial -113

Number of homes with on lot systems – 524

Number of homes on Hershey Mill Village 1725

Cost to tap in to public sewer – \$2000.00

Annual Operating Expenses Budget- (Municipal Authority) \$330,797

Annual Operating Expenses Budget – (Sewer Operating Fund) \$3,543,980

Annual sewer rate average - \$146.26

Per Thousand Gallons - \$8.38

Fixed Rate – \$27.26 per Quarter

Total miles of sewer main – 63.97

Total number of Manholes – 1787

Cost to Renovate Ridley Creek Plant- \$8.638.100

Permitted Gallons per day at Ridley Creek- 750,000

Average gallons per day to West Goshen -750,000

Amount of I&I located 2016- 100,000 gallons

Number of Pump Stations on Ridley Creek System - 2

Number of Pumping Stations that pump to West Goshen - 2