

EAST GOSHEN MUNICIPAL AUTHORITY

August 7, 2017

6:00 PM - Meet at Ridley Creek Sewer Treatment Plant

~7:00 PM – Regular meeting at Township Building.

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. July 10, 2017

5. APPROVAL OF INVOICES

- | | |
|-----------------------------|------------|
| a. Pennoni Invoice #759081 | \$2,589.25 |
| b. Pennoni Invoice #759083 | \$ 269.25 |
| c. Pennoni Invoice #759084 | \$2,621.25 |
| d. Gawthrop Invoice #182042 | \$ 940.00 |

6. LIAISON REPORTS

7. FINANCIAL REPORTS

- a. July Financial Report

8. OLD BUSINESS

- a.

9. GOALS

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

- 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. *May*
- f. Attend West Goshen Municipal Authority meetings to keep informed of planned capital expenditures and operation compliance. *January, February, March, April, May, June, July*

10. NEW BUSINESS

11. CAPACITY REQUESTS

12. ANY OTHER MATTER

- a. Discuss replacement of new probes and controller for the plant (Mark)

13. CORRESPONDENCE AND REPORTS OF INTEREST

14. PUBLIC COMMENT

15. ADJOURNMENT

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

August 5, 2017

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

Monthly Flows: The average daily flow to West Goshen was 719,000 gallons per day.

Meters: Meters were read on a daily basis with no problems to report

C.C. Collection: The pump stations were visited on a daily basis with no problems to report. We replaced the all the castings and lids along Reservoir Road and Meadow Drive and Hollyberry Lane.

R.C. Collection: Pump Stations were visited on a daily basis with no problems to report.

R.C. Plant: Pump Stations were visited on a daily basis with no problems to report.

Alarms: We responded to 20 alarms for July.

PA One Calls: We received 78 PA One calls in July.

**EAST GOSHEN MUNICIPAL AUTHORITY
ENGINEER'S REPORT
August 3, 2017**

Invoices

- Invoices with summaries are provided under separate cover.

Ridley Creek Sewage Treatment Plant (RCSTP)

- Caustic soda pilot study –
 - We previously calculated the estimated caustic soda feed rate to be 5-6 gallons/hour when the pilot study SBR tank is in a Fill cycle. We previously recommended a 7.7-gallon/hour pump be acquired for the study. We are obtaining pricing for a larger ± 19.9 gallon/hour pump as requested by the Municipal Authority in the event the recommended pump is found to be inadequate during the trial. Two 350-gallon totes should allow for a 2.5-3 week trial. We previously sent our recommendations to the plant operator for review and are awaiting a response.
 - A pilot study sampling plan was previously requested from Big Fish, and we are awaiting a response.
 - We provided recommendations to Public Works on the chemical feed tapping location to the influent SBR ductile iron piping including injection quill and ball valve.
 - The pilot study can begin once the tap is installed and the operator provides a sampling plan and confirms the caustic soda feed rate.
- SBR tanks CIM coatings –
 - We researched the history of the SBR tanks' structural design, construction, and CIM coating bubbling and peeling issues. A summary of findings and structural condition assessment testing alternatives will be provided at the August MA meeting.

Reservoir Road Pump Station

- We submitted revised plans to the Army Corps of Engineers (USACE) to address their last set of minor comments, and we are hopeful that this final permit will be issued by the end of August.
- The bid document will be finalized and submitted upon receipt of the remaining USACE permit.
- We will complete a listing of the permits, expiration dates, and renewal deadlines once the USACE permit is issued.

RCSTP and Pump Stations' O&M Manual

- We received comments on the near-final O&M Manual submission from Mark Miller. The comments were addressed, and the Manual has been finalized. We reproduced 22 bound, hard copies for the Public Works staff and other Township staff. We recommend the Manual be revisited in one year to determine if further updates are needed.

Supplee Valley Pipe Lining

- We reviewed several videos of the sewer mains and began prioritizing sewers for rehabilitation. Additional missing videos have been requested from the CCTV contractor so that we can complete the prioritization, scoping, and cost estimating.

New Connections

- Knauer Property, 1680 East Boot Road – We reviewed a revised plan submission for a proposed sewer connection to be installed with fewer lateral pipes at less-than-minimum slopes, and we provided comments to the Township and developer.
- Brakman Property, 1420 East Strasburg Road – We reviewed sanitary sewer shop drawings, attended a sewer pre-construction meeting, and performed construction observation of the horizontal directional drilling of the new gravity sewer main across East Strasburg Road.

West Goshen Sewer System Consultation

- We prepared and issued a Self-Liquidating Debt Certification for the portion of the upcoming bond issuance that will be used to pay East Goshen's portion of West Goshen's plant and sewer system upgrades.



**RCSTP Monthly Operations
Report:
July 2017**

Executive Summary

The Ridley Creek sewage treatment plant outfall 001 achieved compliance with the permitted discharge limitations during the month of June 2017. 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 or SBR treatment process.

Treatment Process Operation

The treatment process monitoring and adjustments resulted in compliance with the final effluent discharge limitations for outfall 001 during June 2017.

The total phosphorus monthly average was reported as 0.14 mg/L as compared to the permitted limitation of 0.50 mg/L. Total phosphorus discharge concentrations ranged from 0.10 to 0.17 mg/L. The ammonia as nitrogen monthly concentration was reported as 0.395 mg/L as compared to the permit discharge limitation of 2.5 mg/L. The ammonia as N weekly maximum was 0.707 mg/L. The total suspended solids (TSS) monthly concentration was reported as 2 mg/L as compared to the permit discharge limitation of 10 mg/L. The weekly maximum concentration was 3 mg/L as compared to the permit discharge limitation of 15 mg/L.

Table 1 illustrates the final effluent composite sample data reported for the June 2017 DMR. Discharge to Applebrook, Outfall 002, remained discontinued during June and July 2017.

The monthly average 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 2 presents the available pollutant data for the influent wastewater collected at the doghouse manhole during June 2017.



**RCSTP Monthly Operations
Report:
July 2017**

Table 1

June 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	2.5	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											
June 6, 2017	0.370	2.0	6.2	3	9.3	0.220	0.68	0.13	0.40	1	0.0000
June 9, 2017	0.277			3	6.9						
June 15, 2017	0.286	2.5	6.0	3	7.2	0.171	0.41	0.40	0.95	1	0.0000
June 20, 2017	0.314	2.0	5.2	2	5.2	0.483	1.26	0.13	0.34	1	0.0000
June 22, 2017	0.291							0.15			
June 23, 2017	0.343							0.14			
June 24, 2017	0.366							0.15			
June 25, 2017	0.279							0.17			
June 26, 2017	0.300							0.14			
June 27, 2017	0.301	2.2	5.5	1	2.5	0.707	1.77	0.10	0.25	1	0.0000
Average	0.313	2.2	5.7	2	6.2	0.395	1.03	0.17	0.49	1	0.0000
Minimum	0.277	2.0	5.2	1	2.5	0.171	0.41	0.10	0.25	1	0.0000
Maximum	0.370	2.5	6.2	3	9.3	0.707	1.77	0.40	0.95	1	0.0000

Table 2

June 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										
June 6, 2017	0.454	114	432	94	356	40.1	152	59.4	225	5.8	22.0
June 15, 2017	0.374	91.9	348	246	932	51.2	194	58.3	182	7.6	28.8
June 20, 2017	0.405	106	402	52	197	36.6	139	41.1	139	4.0	15.2
June 27, 2017	0.375	583	2,209	1090	4,131	36.2	137	51	160	7.8	29.6
Average	0.402	224	848	371	1404	41.0	155	52.5	176	6.3	23.9
Minimum	0.374	92	348	52	197	36.2	137	41.1	139	4.0	15.2
Maximum	0.454	583	2209	1090	4131	51.2	194	59.4	225	7.8	29.6



**RCSTP Monthly Operations
Report:
July 2017**

Table 3 presents the available Outfall 001 final effluent data for the month as of July 25, 2017,. The facility is anticipated to achieve compliance with the discharge permit limitations during the month of July.

Table 3

July 2017 - Final Effluent - Out Fall 001											
NPDES Permit Discharge Limitations	Flow	CBOD₅		TSS		NH₄-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	2.5	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											
July 6, 2017	0.320	2.0	5.3	1	2.7	0.119	0.32	0.19	0.51	1	0.0000
July 11, 2017	0.263	2.7	5.9	4	8.8	0.135	0.30	0.21	0.46	1	0.0000
July 18, 2017	0.282	2.0	4.7	1	2.4	0.243	0.57	0.14	0.33	1	0.0000
July 25, 2017											
Average	0.288	2.2	5.3	2	4.6	0.166	0.40	0.18	0.43	1	0.0000
Minimum	0.263	2.0	4.7	1	2.4	0.119	0.30	0.14	0.33	1	0.0000
Maximum	0.320	2.7	5.9	4	8.8	0.243	0.57	0.21	0.51	1	0.0000

During July, the presence of foam conditions on the surface of the SBRs began to decrease with foam concentrations ranging from 40% to 50% of the area. Reduction of filled decants and adjustments to the SBR dissolved oxygen control set points to ensure adequate aeration for nitrification assisted to sustain the final effluent water quality.

There are no anticipated exceedances of the permitted limitations for Outfall 001 for July 2017. 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.



**RCSTP Monthly Operations
Report:
July 2017**

Table 4

July 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											
July 5, 2017	0.392	243	794	222	726	35.8	4	51.4	168	6.9	22.6
July 11, 2017	0.348	186	608	410	1,340	43.5	142	49.9	145	6.1	19.9
July 18, 2017	0.357	111	363	56	183	42.3	138	44.7	133	5.1	16.7
July 25, 2017											
Average	0.366	180	588	229	750	40.5	95	48.7	149	6.0	19.7
Minimum	0.348	111	363	56	183	35.8	4	44.7	133	5.1	16.7
Maximum	0.392	243	794	410	1340	43.5	142	51.4	168	6.9	22.6

Sequencing batch reactors (SBRs) numbered 2, 3 and 4 were in service during June and July. 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. Soda ash assists towards maintaining SBR pH concentrations above 7.0 standard units and assists to replenish alkalinity consumed during the nitrification process and aluminum sulfate solution addition.

Significant Storm/Hydraulic Loading Events

As of July 25, 2017, there were three (3) storm events resulting in a daily precipitation amount equal to or greater than 0.5 inches measured during a 24 hour period. A total of 2.22 inches of rainfall measured during as of July 25th. These events occurred on:

July 2 nd	0.50inches
July 8 th	0.51 inches
July 14 th & 15 th	0.70 inches



**RCSTP Monthly Operations
Report:
July 2017**

Plant operations were adjusted to manage the precipitation to prevent exceedances of the permitted discharge limitations for Outfall 001. Adjustments included reading aeration minutes per cycle, extending decant minutes per cycle and reducing settling times. The facility experienced several filled decant cycles during the rain events.

PA DEP

No activity.

Minor Repairs and Preventative Maintenance

Flushed chemical feed lines to the SBRs.

Organized supply

Cleaned piping within SBR building

Look Ahead Preventative Maintenance Activities

Overhaul centrifuge drive gear boxes and evaluation of bearings for replacement.
Gathering information for parts.

DRAFT
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
July 10, 2017

The East Goshen Township Municipal Authority held their regular public meeting on Monday, July 10, 2017 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Ed McAssey, Jack Yahraes, Dana Pizzaro, Kevin Cummings and Phil Mayer. Also in attendance were: Rick Smith (Township Manager), Carmen Battavio (Township Supervisor), Mark Miller (Public Works Director), Mike Ellis (Pennoni), and Anthony Verwey (Attorney).

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.

Chairman's Report

Phil reported that West Goshen reviewed the proposed East Goshen agreement. The bond issue is closed and they should receive the funds soon. Jack mentioned that West Goshen was adopting by-laws.

Sewer Reports

1. Director of Public Works, Mark Miller's report for May:

Monthly Flows: The average daily flow to West Goshen was 801,000 gallons per day.

Meters: Meters were read on a daily basis. The new meter has been installed at the Reservoir Road location. However, we are still waiting on the modem. The portable meters are still in operation.

C.C. Collection: The pump stations were visited on a daily basis. Routine maintenance was performed. We replaced the force main manhole on Marie Road. The job went very well; we also installed a charcoal filter in the manhole to eliminate any odors. We bypassed the station. That is why we removed the old manhole. We have been owing the sewer right of ways.

R.C. Collection: Pump stations were visited on a daily basis. Routine maintenance was performed. We completed the paving overlay of the pump station. The neighbor called to thank us for all the work that was done. We had a sewer clog on Beaumont Circle. The clog was caused by roots in the cleanout. Our guys were able to grab the root ball with mechanical spoons. We flushed the lateral to make sure the line was cleared.

1 R.C. Plant: The security system installation is underway. We had to fabricate a pole in order
2 to get a view of the four SBRs. As I stated last month, the team that Scott has in place has
3 been doing a good job.

4 Alarms: We responded to 21 alarms for June.

5 PA One Calls: We received 60 PA One calls for June.
6

7 **2. Pennoni Engineer's Report for June**

8 Mike Ellis provided the following report.
9

10 **Invoices**

- 11 • Invoices with summaries are provided under separate cover.

12 **Ridley Creek Sewage Treatment Plant (RCSTP)**

- 13 • Caustic soda pilot study –
 - 14 ○ There was a significant difference between the jar testing in May and the equivalent
 - 15 caustic soda quantity of soda ash currently being used. We revisited and calculated the
 - 16 estimated caustic soda demand for the pilot study. We are estimating that caustic soda
 - 17 should be fed at 5-6 gallons/hour when the pilot study SBR tank is in a Fill cycle. We
 - 18 recommend a 7.7-gallon/hour pump be acquired for the study. Two 350-gallon totes
 - 19 will allow for a 2.5-3 week trial. We have sent our recommendations to the plant
 - 20 operator for review.
 - 21 ○ A pilot study sampling plan has been requested from Big Fish.
 - 22 ○ Our intent is to begin the pilot study by the week of July 24th.
- 23 • SBR tanks CIM coatings –
 - 24 ○ We provided a summary narrative of the SBR tanks' CIM coating bubbling and
 - 25 peeling issues to Supervisor Battavio as an update to the Board of Supervisors. The
 - 26 narrative described that which was discussed at the June Municipal Authority meeting.

27 **Reservoir Road Pump Station**

- 28 • PADEP issued the State Water Obstruction and Encroachment Permit for the pump station
29 site and Chester Creek utility crossing in June 2016; however, they are requiring a separate
30 federal authorization by the Army Corps of Engineers (ACOE). Due to lack of coordination
31 between PADEP and ACOE, we have had to initiate an application process directly with the
32 ACOE. The ACOE provided lengthy comments and questions on May 5, 2017, including
33 items outside the scope of the Chester Creek encroachment permit application before them
34 such as work at the Ridley Creek, that we are in the process of addressing.

35 We have continued to address those comments including attending a site walk with Mr. Dave
36 Caplan of the ACOE, obtained confirmation from USFWS that the previous approval of the
37 bog turtle habitat study and exclusionary measures remains valid, obtained a finding of "no
38 impact" from PA Fish & Boat Commission in response to the new PNDI potential endangered
39 species impact, revised plans, and submitted supplemental documentation to the ACOE. We
40 expect to submit the revised plans to ACOE by July 14, 2017, and we are hopeful that this
41 final permit will be issued 30-60 days thereafter.

- The bid document will be finalized and submitted upon receipt of the remaining ACOE permit.
- We will complete a listing of the permits, expiration dates, and renewal deadlines once the ACOE permit is issued.

RCSTP and Pump Stations' O&M Manual

- We have briefly discussed the near-final O&M Manual submission with Mark Miller, and we performed a field visit to the Hunt Country Pump Station to document equipment. We request a budget supplement to conduct a review meeting with Mr. Miller, make edits, incorporate any available information into the Manual to fill in blanks, and produce hard copy sets for use by the PW Department staff.

New Connections

- No activity since last report.

West Goshen Sewer System Consultation

- No activity since last meeting

3. Big Fish Environmental Services – Scott's report for June showed that the Ridley Creek sewage treatment plant outfall 001 achieved compliance with the permitted discharge limitations during the month of May 2017. 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 or SBR treatment process.

Jack asked about the discharge to Applebrook. Mark confirmed that it just started the end of June.

Approval of Minutes

The minutes of the June 12, 2017 meeting were approved.

Approval of Invoices

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

- a. Pennoni #754474 \$2,726.00
- b. Pennoni #754475 \$ 89.25
- c. Pennoni #754476 \$ 1,904.00

Jack seconded the motion. The motion passed unanimously.

2. Jack moved to approve payment of Pennoni invoice #754474 in the amount of \$1,173.50 and approve Pennoni's request for a supplement of \$3,000 to the original budget of \$12,500 for the O&M Manual. Phil seconded the motion. The motion passed unanimously.

3. Kevin moved to approve payment of the following Delaware River Basin invoices:

- a. #2101 \$610.00
- b. #2181 \$610.00

Jack seconded the motion. The motion passed unanimously.

1 **Liaison Report**

2 **Board of Supervisors** – At the public meeting on June 27, 2017 at Fugett Middle School, Emergency
3 services had a simulated event to show where each level of EMS kicks in. Carmen pointed out that
4 the BOS decided not to fight Sunoco. He will ask Sunoco to check the wells near Matlack Florist
5 again.
6

7 **Financial Reports**

8 Jon Altshul provided the following written report:

9 In June 2017, the Municipal Authority recorded \$843.89 in interest income and \$18,341.50 in
10 expenses for a negative variance of \$17,497.61. Expenses included \$2,805 for general engineering,
11 \$3,363 for legal services, \$1,220 for Delaware River Basin Commission, \$2,083 for engineering costs
12 related to the Reservoir Road Pump Station and \$1,146 for Pennoni in support of the West Goshen
13 project.

14 As of June 30, the fund balance was \$1,181,977 of which \$1,144,516 is in the main construction
15 account (most of which represents the 2013 note.)

16 The competitive bond sale is scheduled for Tuesday, July 11th at 11 am. I will provide information of
17 the results shortly thereafter.
18

19 **Goals**

20 Goals for 2017 were reviewed.
21

22 **New Business**

23 **Supplee Valley Slip Lining & Manhole Lining** – Mark mentioned that \$100,000 was budgeted for this
24 year. Mark is requesting \$7,000 to have Mike prepare the bid documents for this project. Mike
25 explained what needs to be done. Jack moved to authorize funds not to exceed \$7,000 to prepare bid
26 documents for the Supplee Valley Slip Lining & Manhole Lining project. Dana seconded the motion.
27 The motion passed unanimously.
28

29 **Adjournment**

30 The meeting was adjourned at 7:40 p.m. The Municipal Authority went into executive session. The
31 next meeting will be held on Monday, August 14, 2017 at 7:00 pm.
32

33 Respectfully submitted,
34
35
36

37 Ruth Kiefer
38 Recording Secretary



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 # : 759081
Invoice Date : 07/27/2017
Project : EGMA1504
Project Name : Reservoir Rd PS Design & Permitting

For Services Rendered through: 7/16/2017

Army Corps of Engineers (ACOE) permitting work in response to ACOE comments: attended field meeting with ACOE to pump station site and along force main alignment, obtained PA Fish & Boat Commission clearance re-confirmation, measured ordinary high water at Ridley Creek, submitted revised plans and comment response letter to ACOE, and responded to their follow-up questions.

Phase : 12 -- Permitting

Total Phase : 12 -- Permitting

Labor :	2,589.25
Expense :	0.00
Phase Total :	2,589.25

Amount Due This Invoice

\$2,589.25

Phase : 12 -- Permitting

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	4.25	119.00	505.75
Sr. Environmental Scientist	13.50	101.00	1,363.50
Graduate Professional	9.00	80.00	720.00
Labor Total:	26.75		2,589.25

Total Phase : 12 -- Permitting

Labor :	\$2,589.25
Expense :	\$0.00

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

Labor :	\$2,589.25
Expense :	\$0.00

OLC TFS 8-4-17

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

East Goshen Municipal Authority
EGMA1504 Invoice Summary
Invoice Date 7/27/2017

Project: EGMA1504
Pennoni Job No.: Reservoir Rd PS Design & Permitting
Invoice No: 759081
Invoice Period: 6/19/2017 to 7/16/2017
Initial Authorization: \$ 167,120.00 **Date:** 7/27/2017
Contract Amount: \$ 193,200.00
Previously Invoiced: \$ 189,762.00
Current Invoice: \$ 2,589.25
Invoiced to Date (\$): \$ 192,351.25
Invoiced to Date (%): 99.56%
Remaining Budget (\$): \$ 848.75
Remaining Budget (%): 0.44%

Budget by Phase:

Phase Name:	Permitting	Phase 12
Phase Budget:	\$ 50,940.25	
Previously Invoiced:	\$ 47,759.00	
Current Invoice:	\$ 2,589.25	
Invoiced to Date (\$):	\$ 50,348.25	
Invoiced to Date (%):	98.84%	
Remaining Budget (\$):	\$ 592.00	
Remaining Budget (%):	1.16%	

Comments: Army Corps of Engineers (ACOE) permitting work in response to ACOE comments: attended field meeting with ACOE to pump station site and along force main alignment, obtained PA Fish & Boat Commission clearance re-confirmation, measured ordinary high water at Ridley Creek, submitted revised plans and comment response letter to ACOE, and responded to their follow-up questions.

Reservoir Road Pump Station Design & Permitting

INVOICE SUMMARY

For Services Rendered through: 7/16/2017

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	\$65,170.25	\$64,993.50	\$176.75	0.3%	No**
12	Permitting	\$50,940.25	\$50,348.50	\$591.75	1%	No***
TOTAL		\$193,120.00	\$192,351.50	\$768.50	0.4%	

*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, 11/14/16 approval of \$5,000 supplement, 4/10/17 approval of \$4,000 supplement, and 6/12/17 approval of \$6,000 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.



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 # : 759083
Invoice Date : 07/27/2017
Project : EGMA1608
Project Name : West Goshen Sewer System
Consultati

For Services Rendered through: 7/16/2017

Initiated financial analysis and preparation of self-liquidating debt certification report for portion of bond issuance for the Municipal Authority's 2017-2020 West Goshen Sewer System Upgrade costs.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	269.25
Expense :	0.00
Phase Total :	269.25

Amount Due This Invoice

\$269.25

Fee :	5,000.00
Prior Billings :	2,444.75
Current Billings :	269.25
Total Billings :	2,714.00

Phase : **** -- Professional Services

Labor

Class	Hours/ Units	Rate	Amount
Authority Engineer	0.75	119.00	89.25
Graduate Professional	2.25	80.00	180.00
Labor Total:	3.00		269.25

Total Phase : **** -- Professional Services

Labor :	\$269.25
Expense :	\$0.00

Total Project : EGMA1608 -- West Goshen Sewer System Consultati

Labor :	\$269.25
Expense :	\$0.00

olc 175 8-4-17

East Goshen Municipal Authority
EGMA1608 Invoice Summary
Invoice Date 7/27/2017

Project: EGMA1608
Pennoni Job No.: West Goshen Sewer System Consultation
Invoice No: 759083
Invoice Period: 5/15/2017 to 7/16/2017
Initial Authorization: \$ 5,000.00 **Date:** 7/27/2017
Contract Amount: \$ 5,000.00
Previously Invoiced: \$ 2,444.75
Current Invoice: \$ 269.25
Invoiced to Date (\$): \$ 2,714.00
Invoiced to Date (%): 54%
Remaining Budget (\$): \$ 2,286.00
Remaining Budget (%): 46%

Budget by Phase:

Phase Name: West Goshen Sewer System Consultation
Phase Budget: \$ 5,000.00
Previously Invoiced: \$ 2,444.75
Current Invoice: \$ 269.25
Invoiced to Date (\$): \$ 2,714.00
Invoiced to Date (%): 54%
Remaining Budget (\$): \$ 2,286.00
Remaining Budget (%): 46%

Comments: Initiated financial analysis and preparation of self-liquidating debt certification report for portion of bond issuance for the Municipal Authority's 2017-2020 West Goshen Sewer System Upgrade costs.



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 # : 759084
Invoice Date : 07/27/2017
Project : EGMA1701
Project Name : 2017 General Services**

For Services Rendered through: 7/16/2017

Prepared July Engineer's Report, reviewed July RCSTP operator's report, and attended July MA meeting.

RCSTP SBR Tanks CIM Coatings - Reviewed documentation on history of coatings including installation rationale, correspondence, deficiencies, and warranty information provided by Township Manager; located additional documentation in Pennoni files; and initiated further research and preparation of concrete condition assessment recommendations by structural staff as requested at July MA meeting.

RCSTP Caustic Soda Pilot Study - Calculated expected caustic soda demand, feed rate, and trial quantity and recommended chemical feed rate and pump selection; emailed recommendations to plant operator for review; field visit to plant to identify if any spares pumps would work (determined they will not); and evaluated operator's questions about chemical feeding during fill-decant phase.

Phase : ** -- Professional Services**

Total Phase : ** -- Professional Services**

Labor :	2,621.25
Expense :	0.00
Phase Total :	2,621.25

Amount Due This Invoice

\$2,621.25

Fee :	12,700.00
Prior Billings :	9,894.75
Current Billings :	2,621.25
Total Billings :	12,516.00

OK 75 8-4-17

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 : **** -- Professional Services

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	10.25	119.00	1,219.75
Senior Professional	11.00	114.00	1,254.00
Senior Engineering Technician	1.50	87.00	130.50
Technician I	0.25	68.00	17.00
Labor Total:	23.00		2,621.25

Total Phase : **** -- Professional Services

Labor : \$2,621.25

Expense : \$0.00

Total Project : EGMA1701 -- 2017 General Services

Labor : \$2,621.25

Expense : \$0.00

East Goshen Municipal Authority
EGMA1701 Invoice Summary
Invoice Date 7/27/2017

Project:	EGMA1701		
Pennoni Job No.:	2017 General Services		
Invoice No:	759084		
Invoice Period:	6/19/2017	to	7/16/2017
Initial Authorization:	\$ 12,700.00	Date:	7/27/2017
Contract Amount:	\$ 12,700.00		
Previously Invoiced:	\$ 9,894.75		
Current Invoice:	\$ 2,621.25		
Invoiced to Date (\$):	\$ 12,516.00		
Invoiced to Date (%):	99%		
Remaining Budget (\$):	\$ 184.00		
Remaining Budget (%):	1%		

Budget by Phase:

Phase Name:	2017 General Services
Phase Budget:	\$ 12,700.00
Previously Invoiced:	\$ 9,894.75
Current Invoice:	\$ 2,621.25
Invoiced to Date (\$):	\$ 12,516.00
Invoiced to Date (%):	99%
Remaining Budget (\$):	\$ 184.00
Remaining Budget (%):	1%

Comments: Prepared July Engineer's Report, reviewed June RCSTP operator's report, and attended July MA meeting.

RCSTP SBR Tanks CIM Coatings - Reviewed documentation on history of coatings including installation rationale, correspondence, deficiencies, and warranty information provided by Township Manager; located additional documentation in Pennoni files; and initiated further research and preparation of concrete condition assessment recommendations by structural staff as requested at July MA meeting.

RCSTP Caustic Soda Pilot Study - Calculated expected caustic soda demand, feed rate, and trial quantity and recommended chemical feed rate and pump selection; emailed recommendations to plant operator for review; field visit to plant to identify if any spares pumps would work (determined they will not); and evaluated operator's questions about chemical feeding during fill-decant phase.



Gawthrop Greenwood, PC
Attorneys at Law

17 East Gay Street, Suite 100 (p) 610-696-8225
West Chester, PA 19381-0562 (f) 610-344-0922
gglaw@gawthrop.com www.gawthrop.com

East Goshen Municipal Authority
1580 Paoli Pike
West Chester PA 19380

Page: 1
07/06/2017
Client No: 6604-001R
Invoice No: 182042

General Authority Services

Fees

		Hours	
06/01/2017	PMM	Email from R Smith regarding agreement with West Goshen.	0.20
06/07/2017	PMM	Emails from R Unruh and R Smith regarding agreement with West Goshen.	0.30
06/08/2017	PMM	Emails (5) from R Unruh and R Smith regarding agreement with West Goshen.	0.60
06/12/2017	PMM	Review and analyze meeting packet in preparation for Authority meeting; Attend Authority meeting; Email to R Unruh regarding approval of agreement with West Goshen.	2.40
06/15/2017	PMM	Letter to R Smith regarding recorded NPDES permit.	0.20
06/23/2017	PMM	Emails from R Smith and R Unruh regarding approval of Sewer Agreement.	0.20
06/29/2017	PMM	Emails to/from R Smith and M Ellis regarding Dutchland.	0.40
06/30/2017	PMM	Emails from/to R Smith regarding Dutchland.	0.40
		For Current Services Rendered	4.70
			940.00

Recapitulation

Timekeeper	Hours	Hourly Rate	Total
Patrick M. McKenna	4.70	\$200.00	\$940.00

East Goshen Municipal Authority

General Authority Services

Page: 2

07/06/2017

Client No: 6604-001R

Invoice No. 182042

Previous Balance \$1,640.00

Total Current Charges 940.00

06/23/2017 Payment -1,640.00

Balance Due \$940.00

7-13-17

OK TO PAY

Rick

TO MA

THIS HAS BEEN PAID

Rick

To ensure proper credit, please write client number on
your check when returning payment. Thank You.
A finance charge of 1.25% per month (15% annually) may be
charged on balances not paid 60 days after the invoice date.

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA July Financial Report
Date: August 3, 2017

In July, the Municipal Authority recorded \$5,982 in interest income (mostly from a \$5,000 transfer from the sewer fund) and \$5,893 in expenses, for a positive variance of \$90. Expenses included \$3,167 for general engineering and \$2,726 for Reservoir Road Pump Station engineering.

As of June 30th, the fund balance was \$1,182,067 of which \$1,142,761 is in the main construction account (most of which represents the 2013 note).

The July 11th bond sale was very successful. Six investment banks made 59 bids on the bonds over the course of 30 minutes. The low bid came from Janney Montgomery Scott with a yield (effective interest rate) of 2.778%. The closing will occur on August 15th, at which point the funds will be wired to the bank. I have attached a copy of the bond sale document for your review.

The bonds sold at a slight “premium”, meaning that we received more in proceeds than the face value of the bonds. As a result, there is \$2,891,009 is available for West Goshen projects, plus the balance of the 2013 notes or about \$4.29 million total (\$212,486 was already paid to West Goshen for the project two months ago, meaning that after the closing there will be a little over \$4 million in funds remaining).

Getting a bit into the weeds, unlike past DelVal notes, these bonds were issued by the Township rather than by the Municipal Authority. Therefore, the money will be accounted for separately from other MA assets. However, as part of the monthly reports moving forward, I will provide a drawdown schedule for the West Goshen project that includes both the 2013 notes and the 2017 bonds.

Also, note that we are in the process of moving the balance of the MA operating account from BB&T to M&T. This move is long overdue, as M&T has been the primary Township depository for six years. Consolidating as many accounts with M&T as possible will make doing transfers from the Sewer Fund to the MA much easier and will simplify our bank relationships, which until very recently were unwieldy.

East Goshen Township

BOND SALE DOCUMENT *General Obligation Bonds* *Series of 2017*

Results of Competitive Sale

\$8,150,000

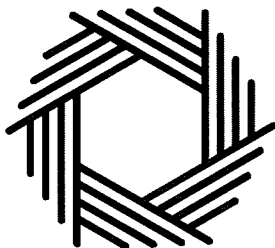
July 11, 2017

(Parameters Ordinance enacted on June 6, 2017)

Prepared by:

Chris Bamber, CFA

Senior Managing Consultant



pfm

PFM Financial Advisors LLC
2533 Yellow Springs Road
Malvern, PA 19355
717.232.2723 (P)
717.232.8610 (F)
www.pfm.com

EAST GOSHEN TOWNSHIP
(Chester County, Pennsylvania)
General Obligation Bonds, Series of 2017

July 11, 2017

1	2	3	4	5
<u>Bidder</u>	<u>True Interest Cost</u>	<u>Bond Discount</u>	<u>Interest Rate Range*</u>	<u>Number of Bids</u>
1. Janney Montgomery Scott	2.778404	6.00	1.000-4.000	9
2. FTN Financial	2.783790	Unavailable	2.000-3.250	20
3. PNC Capital Markets	2.911166	10.00	2.000-3.125	4
4. UBS Financial Services	2.923795	10.25	2.000-5.000	20
5. Robert Baird	2.989755	14.43	2.000-3.300	1
6. Raymond James	2.997369	Unavailable	3.000-3.250	5
TOTAL				59

Based on Preliminary Issue Size of \$8,240,000*

*2018 through 2037 (Series of 2017)

- | | | |
|----|-------------------------------|-----------|
| 1. | Moody's: Aaa (Stable Outlook) | Bid Alone |
| 2. | Moody's: Aaa (Stable Outlook) | Bid Alone |
| 3. | Moody's: Aaa (Stable Outlook) | Bid Alone |
| 4. | Moody's: Aaa (Stable Outlook) | Bid Alone |
| 5. | Moody's: Aaa (Stable Outlook) | Bid Alone |
| 6. | Moody's: Aaa (Stable Outlook) | Bid Alone |

PAYING AGENT:

Manufacturers & Traders Trust Company

OPTIONAL REDEMPTION DATE:

10/1/22 @ PAR

EAST GOSHEN TOWNSHIP

Summary of Financing Structure

1

SOURCES
Series of 2017 Bonds
Net Original Issue Premium
Trail Grants ^[1]
Park Grants ^[1]
Dam Grants ^[1]
Sewer Grants & Existing Proceeds ^[1]
TOTAL SOURCES

2

GENERAL FUND
5,310,000.00
13,257.05
3,072,400.00
475,000.00
500,000.00
9,370,657.05

3

SEWER FUND
2,840,000.00
51,008.85
1,398,333.33
4,289,342.18

4

TOTAL
8,150,000.00
64,265.90
3,072,400.00
475,000.00
500,000.00
1,398,333.33
13,659,999.23

5

USES
Paoli Pike Trail ^[1]
Park Master Plan ^[1]
Milltown & Hershey Dams ^[1]
West Goshen WTP Upgrades ^[1]
Costs of Issuance
Misc. Expenses/Rounding
TOTAL USES

6

GENERAL FUND
5,197,359.00
751,562.00
3,341,760.00
77,061.50
2,914.55
9,370,657.05

7

SEWER FUND
4,244,376.60
41,588.50
3,377.09
4,289,342.18

8

TOTAL
5,197,359.00
751,562.00
3,341,760.00
4,244,376.60
118,650.00
6,291.63
13,659,999.23

^[1] Estimated per Township

EAST GOSHEN TOWNSHIP

Series of 2017

General Fund Pro-Rata

GENERAL FUND PORTION

Settle

8/15/2017

Dated

8/15/2017

1	2	3	4	5	6	7	8	9
							Existing	Total
<u>Date</u>	<u>Principal</u>	<u>Coupon</u>	<u>Yield</u>	<u>Interest</u>	<u>Semi-Annual Debt Service</u>	<u>Fiscal Year Debt Service</u>	<u>Non-Electoral Debt Service</u>	<u>Non-Electoral Debt Service</u>
10/1/2017				18,182.78	18,182.78	18,182.78	557,532.73	575,715.50
4/1/2018				71,150.00	71,150.00			
10/1/2018	5,000	1.000	1.000	71,150.00	76,150.00	147,300.00	560,339.79	707,639.79
4/1/2019				71,125.00	71,125.00			
10/1/2019	5,000	3.000	1.100	71,125.00	76,125.00	147,250.00	559,161.73	706,411.73
4/1/2020				71,050.00	71,050.00			
10/1/2020	5,000	4.000	1.190	71,050.00	76,050.00	147,100.00	556,137.91	703,237.91
4/1/2021				70,950.00	70,950.00			
10/1/2021	5,000	4.000	1.270	70,950.00	75,950.00	146,900.00	557,224.68	704,124.68
4/1/2022				70,850.00	70,850.00			
* 10/1/2022	5,000	4.000	1.450	70,850.00	75,850.00	146,700.00	529,011.80	675,711.80
4/1/2023				70,750.00	70,750.00			
10/1/2023	5,000	2.000	1.600 **	70,750.00	75,750.00	146,500.00	530,164.73	676,664.73
4/1/2024				70,700.00	70,700.00			
10/1/2024	320,000	2.000	1.750 **	70,700.00	390,700.00	461,400.00		461,400.00
4/1/2025				67,500.00	67,500.00			
10/1/2025	330,000	2.000	1.900 **	67,500.00	397,500.00	465,000.00		465,000.00
4/1/2026				64,200.00	64,200.00			
10/1/2026	335,000	2.000	2.100	64,200.00	399,200.00	463,400.00		463,400.00
4/1/2027				60,850.00	60,850.00			
10/1/2027	340,000	2.125	2.200	60,850.00	400,850.00	461,700.00		461,700.00
4/1/2028				57,237.50	57,237.50			
10/1/2028	350,000	2.250	2.350	57,237.50	407,237.50	464,475.00		464,475.00
4/1/2029				53,300.00	53,300.00			
10/1/2029	355,000	2.500	2.500	53,300.00	408,300.00	461,600.00		461,600.00
4/1/2030				48,862.50	48,862.50			
10/1/2030	365,000	3.000	2.600 **	48,862.50	413,862.50	462,725.00		462,725.00
4/1/2031				43,387.50	43,387.50			
10/1/2031	375,000	3.000	2.750 **	43,387.50	418,387.50	461,775.00		461,775.00
4/1/2032				37,762.50	37,762.50			
10/1/2032	390,000	3.000	2.800 **	37,762.50	427,762.50	465,525.00		465,525.00
4/1/2033				31,912.50	31,912.50			
10/1/2033	400,000	3.000	2.850 **	31,912.50	431,912.50	463,825.00		463,825.00
4/1/2034				25,912.50	25,912.50			
10/1/2034	410,000	3.000	2.900 **	25,912.50	435,912.50	461,825.00		461,825.00
4/1/2035				19,762.50	19,762.50			
10/1/2035	425,000	3.000	2.950 **	19,762.50	444,762.50	464,525.00		464,525.00
4/1/2036				13,387.50	13,387.50			
10/1/2036	435,000	3.000	3.050	13,387.50	448,387.50	461,775.00		461,775.00
4/1/2037				6,862.50	6,862.50			
10/1/2037	450,000	3.050	3.100	6,862.50	456,862.50	463,725.00		463,725.00
TOTALS	5,310,000			2,073,207.78	7,383,207.78	7,383,207.78	3,849,573.37	11,232,781.14

* Optional redemption date of October 1, 2022

** Yield to optional redemption date

EAST GOSHEN TOWNSHIPSeries of 2017
Sewer Fund Pro-Rata**SEWER FUND PORTION**Settle
Dated8/15/2017
8/15/2017

1	2	3	4	5	6	7
<u>Date</u>	<u>Principal</u>	<u>Coupon</u>	<u>Yield</u>	<u>Interest</u>	<u>Semi-Annual Debt Service</u>	<u>Fiscal Year Debt Service</u>
10/1/2017				10,227.17	10,227.17	10,227.17
4/1/2018				40,019.38	40,019.38	
10/1/2018	20,000	1.000	1.000	40,019.38	60,019.38	100,038.75
4/1/2019				39,919.38	39,919.38	
10/1/2019	115,000	3.000	1.100	39,919.38	154,919.38	194,838.75
4/1/2020				38,194.38	38,194.38	
10/1/2020	120,000	4.000	1.190	38,194.38	158,194.38	196,388.75
4/1/2021				35,794.38	35,794.38	
10/1/2021	120,000	4.000	1.270	35,794.38	155,794.38	191,588.75
4/1/2022				33,394.38	33,394.38	
* 10/1/2022	125,000	4.000	1.450	33,394.38	158,394.38	191,788.75
4/1/2023				30,894.38	30,894.38	
10/1/2023	130,000	2.000	1.600 **	30,894.38	160,894.38	191,788.75
4/1/2024				29,594.38	29,594.38	
10/1/2024	135,000	2.000	1.750 **	29,594.38	164,594.38	194,188.75
4/1/2025				28,244.38	28,244.38	
10/1/2025	135,000	2.000	1.900 **	28,244.38	163,244.38	191,488.75
4/1/2026				26,894.38	26,894.38	
10/1/2026	140,000	2.000	2.100	26,894.38	166,894.38	193,788.75
4/1/2027				25,494.38	25,494.38	
10/1/2027	145,000	2.125	2.200	25,494.38	170,494.38	195,988.75
4/1/2028				23,953.75	23,953.75	
10/1/2028	145,000	2.250	2.350	23,953.75	168,953.75	192,907.50
4/1/2029				22,322.50	22,322.50	
10/1/2029	150,000	2.500	2.500	22,322.50	172,322.50	194,645.00
4/1/2030				20,447.50	20,447.50	
10/1/2030	155,000	3.000	2.600 **	20,447.50	175,447.50	195,895.00
4/1/2031				18,122.50	18,122.50	
10/1/2031	160,000	3.000	2.750 **	18,122.50	178,122.50	196,245.00
4/1/2032				15,722.50	15,722.50	
10/1/2032	160,000	3.000	2.800 **	15,722.50	175,722.50	191,445.00
4/1/2033				13,322.50	13,322.50	
10/1/2033	165,000	3.000	2.850 **	13,322.50	178,322.50	191,645.00
4/1/2034				10,847.50	10,847.50	
10/1/2034	170,000	3.000	2.900 **	10,847.50	180,847.50	191,695.00
4/1/2035				8,297.50	8,297.50	
10/1/2035	175,000	3.000	2.950 **	8,297.50	183,297.50	191,595.00
4/1/2036				5,672.50	5,672.50	
10/1/2036	185,000	3.000	3.050	5,672.50	190,672.50	196,345.00
4/1/2037				2,897.50	2,897.50	
10/1/2037	190,000	3.050	3.100	2,897.50	192,897.50	195,795.00
TOTALS	2,840,000			950,327.17	3,790,327.17	3,790,327.17

* Optional redemption date of October 1, 2022

** Yield to optional redemption date

EAST GOSHEN TOWNSHIP

Series of 2017

Overall Amortization

Settle

8/15/2017

Dated

8/15/2017

1	2	3	4	5	6	7
<u>Date</u>	<u>Principal</u>	<u>Coupon</u>	<u>Yield</u>	<u>Interest</u>	<u>Semi-Annual Debt Service</u>	<u>Fiscal Year Debt Service</u>
10/1/2017				28,409.95	28,409.95	28,409.95
4/1/2018				111,169.38	111,169.38	
10/1/2018	25,000	1.000	1.000	111,169.38	136,169.38	247,338.75
4/1/2019				111,044.38	111,044.38	
10/1/2019	120,000	3.000	1.100	111,044.38	231,044.38	342,088.75
4/1/2020				109,244.38	109,244.38	
10/1/2020	125,000	4.000	1.190	109,244.38	234,244.38	343,488.75
4/1/2021				106,744.38	106,744.38	
10/1/2021	125,000	4.000	1.270	106,744.38	231,744.38	338,488.75
4/1/2022				104,244.38	104,244.38	
* 10/1/2022	130,000	4.000	1.450	104,244.38	234,244.38	338,488.75
4/1/2023				101,644.38	101,644.38	
10/1/2023	135,000	2.000	1.600 **	101,644.38	236,644.38	338,288.75
4/1/2024				100,294.38	100,294.38	
10/1/2024	455,000	2.000	1.750 **	100,294.38	555,294.38	655,588.75
4/1/2025				95,744.38	95,744.38	
10/1/2025	465,000	2.000	1.900 **	95,744.38	560,744.38	656,488.75
4/1/2026				91,094.38	91,094.38	
10/1/2026	475,000	2.000	2.100	91,094.38	566,094.38	657,188.75
4/1/2027				86,344.38	86,344.38	
10/1/2027	485,000	2.125	2.200	86,344.38	571,344.38	657,688.75
4/1/2028				81,191.25	81,191.25	
10/1/2028	495,000	2.250	2.350	81,191.25	576,191.25	657,382.50
4/1/2029				75,622.50	75,622.50	
10/1/2029	505,000	2.500	2.500	75,622.50	580,622.50	656,245.00
4/1/2030				69,310.00	69,310.00	
10/1/2030	520,000	3.000	2.600 **	69,310.00	589,310.00	658,620.00
4/1/2031				61,510.00	61,510.00	
10/1/2031	535,000	3.000	2.750 **	61,510.00	596,510.00	658,020.00
4/1/2032				53,485.00	53,485.00	
10/1/2032	550,000	3.000	2.800 **	53,485.00	603,485.00	656,970.00
4/1/2033				45,235.00	45,235.00	
10/1/2033	565,000	3.000	2.850 **	45,235.00	610,235.00	655,470.00
4/1/2034				36,760.00	36,760.00	
10/1/2034	580,000	3.000	2.900 **	36,760.00	616,760.00	653,520.00
4/1/2035				28,060.00	28,060.00	
10/1/2035	600,000	3.000	2.950 **	28,060.00	628,060.00	656,120.00
4/1/2036				19,060.00	19,060.00	
10/1/2036	620,000	3.000	3.050	19,060.00	639,060.00	658,120.00
4/1/2037				9,760.00	9,760.00	
10/1/2037	640,000	3.050	3.100	9,760.00	649,760.00	659,520.00
TOTALS	8,150,000			3,023,534.95	11,173,534.95	11,173,534.95

* Optional redemption date of October 1, 2022

** Yield to optional redemption date

EAST GOSHEN TOWNSHIP

Series of 2017

Sources & Uses of Funds

SOURCES:

Bond Proceeds	8,150,000.00
Net Original Issue Premium	64,265.90
Accrued Interest	0.00
Total	8,214,265.90

USES:

Deposit to Construction Fund	8,089,324.27
Underwriter's Discount (Janney) \$6.00	48,900.00
Bond Insurance	0.00
Total Legal Fees and Expenses	20,000.00
Financial Advisor	24,000.00
OS Printing & Word Processing	8,500.00
Credit Rating (Moody's Aaa)	14,000.00
Internet Auction Administrator	2,750.00
Paying Agent (M&T Bank)	500.00
Miscellaneous Expenses/Rounding	6,291.63
Total	8,214,265.90

Dated Date 8/15/2017

Settlement Date 8/15/2017

Yield of the Issue 2.704621**OIP/(OID) Calculation**

<u>Date</u>	<u>Price</u>	<u>OIP/(OID)</u>
10/1/2018	100.000%	0.00
10/1/2019	103.984%	4,780.80
10/1/2020	108.601%	10,751.25
10/1/2021	110.943%	13,678.75
10/1/2022	112.556%	16,322.80
10/1/2023	101.960%	2,646.00
10/1/2024	101.220%	5,551.00
10/1/2025	100.485%	2,255.25
10/1/2026	99.172%	(3,933.00)
10/1/2027	99.321%	(3,293.15)
10/1/2028	99.024%	(4,831.20)
10/1/2029	100.000%	0.00
10/1/2030	101.906%	9,911.20
10/1/2031	101.186%	6,345.10
10/1/2032	100.947%	5,208.50
10/1/2033	100.708%	4,000.20
10/1/2034	100.471%	2,731.80
10/1/2035	100.234%	1,404.00
10/1/2036	99.277%	(4,482.60)
10/1/2037	99.253%	(4,780.80)
TOTAL		64,265.90

**EAST GOSHEN TOWNSHIP****Pricing Comparison**

	1	2
Issuer:	East Goshen Township	West Goshen Sewer Authority
Pricing Date:	Tuesday, July 11, 2017	Tuesday, May 23, 2017
Total Principal:	\$8,150,000	\$17,055,000
Enhanced Rating:		
Underlying Rating:	Aaa (Stable Outlook)	AA+
Insurer:	None	None
Financial Advisor:	PFM Financial Advisors LLC	None
Underwriter:	Janney Montgomery Scott	RBC Capital Markets
Type of Sale:	Competitive	Negotiated
BQ Status:	BQ	Non-BQ
Security:	General Obligation	Guaranteed Sewer Revenue
Call Date:	10/1/2022	5/1/2025



3	4	5	6	7	8	9	10	11	12
Year	Principal	Coupon	Yield to Call	Spread to MMD	Principal	Coupon	Yield to Call	Spread to MMD	MMD Spread Difference
0 2017									
1 2018	25,000	1.000%	1.000%	5 bps	5,000	0.900%	0.900%	7 bps	(2 bps)
2 2019	120,000	3.000%	1.100%	1 bps	620,000	3.000%	1.030%	11 bps	(10 bps)
3 2020	125,000	4.000%	1.190%	1 bps	640,000	3.000%	1.180%	15 bps	(14 bps)
4 2021	125,000	4.000%	1.270%	0 bps	665,000	4.000%	1.320%	17 bps	(17 bps)
5 2022	130,000	4.000%	1.450%	5 bps	685,000	1.750%	1.500%	21 bps	(16 bps)
6 2023	135,000	2.000%	1.600%	6 bps	705,000	4.000%	1.640%	22 bps	(16 bps)
7 2024	455,000	2.000%	1.750%	9 bps	735,000	5.000%	1.780%	23 bps	(14 bps)
8 2025	465,000	2.000%	1.900%	10 bps	775,000	5.000%	1.960%	23 bps	(13 bps)
9 2026	475,000	2.000%	2.100%	15 bps	815,000	5.000%	2.160%	27 bps	(12 bps)
10 2027	485,000	2.125%	2.200%	13 bps	850,000	4.000%	2.430%	44 bps	(31 bps)
11 2028	495,000	2.250%	2.350%	18 bps	885,000	4.000%	2.600%	51 bps	(33 bps)
12 2029	505,000	2.500%	2.500%	22 bps	920,000	4.000%	2.750%	55 bps	(33 bps)
13 2030	520,000	3.000%	2.600%	23 bps	960,000	4.000%	2.840%	55 bps	(32 bps)
14 2031	535,000	3.000%	2.750%	32 bps	1,000,000	4.000%	2.920%	55 bps	(23 bps)
15 2032	550,000	3.000%	2.800%	30 bps	1,040,000	4.000%	3.000%	56 bps	(26 bps)
16 2033	565,000	3.000%	2.850%	29 bps					
17 2034	580,000	3.000%	2.900%	28 bps					
18 2035	600,000	3.000%	2.950%	29 bps					
19 2036	620,000	3.000%	3.050%	36 bps					
20 2037	640,000	3.050%	3.100%	39 bps	5,755,000	3.250%	3.420%	72 bps	(33 bps)
21 2038									
22 2039									
23 2040									
24 2041									
25 2042									
26 2043									
27 2044									
28 2045									
29 2046									
30 2047									

**EAST GOSHEN TOWNSHIP****Pricing Comparison**

	1	2
Issuer:	East Goshen Township	Lower Moreland Township
Pricing Date:	Tuesday, July 11, 2017	Wednesday, April 19, 2017
Total Principal:	\$8,150,000	\$6,190,000
Enhanced Rating:		
Underlying Rating:	Aaa (Stable Outlook)	AA+
Insurer:	None	None
Financial Advisor:	PFM Financial Advisors LLC	None
Underwriter:	Janney Montgomery Scott	Boenning & Scattergood
Type of Sale:	Competitive	Negotiated
BQ Status:	BQ	BQ
Security:	General Obligation	General Obligation
Call Date:	10/1/2022	8/1/2022



3	4	5	6	7	8	9	10	11	12
Year	Principal	Coupon	Yield to Call	Spread to MMD	Principal	Coupon	Yield to Call	Spread to MMD	MMD Spread Difference
0 2017					1,045,000	2.000%	0.850%		
1 2018	25,000	1.000%	1.000%	5 bps	1,080,000	2.000%	1.050%	16 bps	(11 bps)
2 2019	120,000	3.000%	1.100%	1 bps	1,095,000	3.000%	1.200%	21 bps	(20 bps)
3 2020	125,000	4.000%	1.190%	1 bps	1,140,000	3.000%	1.350%	22 bps	(21 bps)
4 2021	125,000	4.000%	1.270%	0 bps	965,000	2.000%	1.550%	28 bps	(28 bps)
5 2022	130,000	4.000%	1.450%	5 bps					
6 2023	135,000	2.000%	1.600%	6 bps					
7 2024	455,000	2.000%	1.750%	9 bps					
8 2025	465,000	2.000%	1.900%	10 bps	180,000	2.200%	2.350%	51 bps	(41 bps)
9 2026	475,000	2.000%	2.100%	15 bps					
10 2027	485,000	2.125%	2.200%	13 bps					
11 2028	495,000	2.250%	2.350%	18 bps					
12 2029	505,000	2.500%	2.500%	22 bps	205,000	2.750%	2.850%	62 bps	(40 bps)
13 2030	520,000	3.000%	2.600%	23 bps					
14 2031	535,000	3.000%	2.750%	32 bps					
15 2032	550,000	3.000%	2.800%	30 bps	165,000	3.000%	3.200%	72 bps	(42 bps)
16 2033	565,000	3.000%	2.850%	29 bps					
17 2034	580,000	3.000%	2.900%	28 bps					
18 2035	600,000	3.000%	2.950%	29 bps					
19 2036	620,000	3.000%	3.050%	36 bps					
20 2037	640,000	3.050%	3.100%	39 bps	315,000	3.300%	3.450%	73 bps	(34 bps)
21 2038									
22 2039									
23 2040									
24 2041									
25 2042									
26 2043									
27 2044									
28 2045									
29 2046									
30 2047									



EAST GOSHEN TOWNSHIP

Pricing Comparison



	1	2
Issuer:	East Goshen Township	State College Area School District
Pricing Date:	Tuesday, July 11, 2017	Tuesday, June 13, 2017
Total Principal:	\$8,150,000	\$43,840,000
Enhanced Rating:		
Underlying Rating:	Aaa (Stable Outlook)	Aa1
Insurer:	None	None
Financial Advisor:	PFM Financial Advisors LLC	NW Financial Group
Underwriter:	Janney Montgomery Scott	Bank of America Merrill Lynch
Type of Sale:	Competitive	Negotiated
BQ Status:	BQ	Non-BQ
Security:	General Obligation	General Obligation
Call Date:	10/1/2022	5/15/2027



3	4	5	6	7	8	9	10	11	12
Year	Principal	Coupon	Yield to Call	Spread to MMD	Principal	Coupon	Yield to Call	Spread to MMD	MMD Spread Difference
0 2017									
1 2018	25,000	1.000%	1.000%	5 bps	1,105,000	3.000%	0.820%	1 bps	4 bps
2 2019	120,000	3.000%	1.100%	1 bps	975,000	5.000%	0.990%	7 bps	(6 bps)
3 2020	125,000	4.000%	1.190%	1 bps	1,035,000	4.000%	1.100%	8 bps	(7 bps)
4 2021	125,000	4.000%	1.270%	0 bps	1,075,000	5.000%	1.220%	10 bps	(10 bps)
5 2022	130,000	4.000%	1.450%	5 bps	1,125,000	3.000%	1.380%	15 bps	(10 bps)
6 2023	135,000	2.000%	1.600%	6 bps	1,160,000	5.000%	1.520%	18 bps	(12 bps)
7 2024	455,000	2.000%	1.750%	9 bps	1,220,000	5.000%	1.650%	20 bps	(11 bps)
8 2025	465,000	2.000%	1.900%	10 bps	1,280,000	5.000%	1.830%	23 bps	(13 bps)
9 2026	475,000	2.000%	2.100%	15 bps	1,345,000	5.000%	2.030%	26 bps	(11 bps)
10 2027	485,000	2.125%	2.200%	13 bps	1,410,000	5.000%	2.150%	28 bps	(15 bps)
11 2028	495,000	2.250%	2.350%	18 bps	1,480,000	5.000%	2.270%	30 bps	(12 bps)
12 2029	505,000	2.500%	2.500%	22 bps	1,555,000	5.000%	2.370%	30 bps	(8 bps)
13 2030	520,000	3.000%	2.600%	23 bps	1,635,000	5.000%	2.470%	30 bps	(7 bps)
14 2031	535,000	3.000%	2.750%	32 bps	1,715,000	5.000%	2.550%	30 bps	2 bps
15 2032	550,000	3.000%	2.800%	30 bps	1,800,000	3.000%	3.120%	80 bps	(50 bps)
16 2033	565,000	3.000%	2.850%	29 bps	1,855,000	3.000%	3.170%	78 bps	(49 bps)
17 2034	580,000	3.000%	2.900%	28 bps	1,910,000	3.000%	3.220%	77 bps	(49 bps)
18 2035	600,000	3.000%	2.950%	29 bps	1,970,000	3.125%	3.300%	80 bps	(51 bps)
19 2036	620,000	3.000%	3.050%	36 bps	2,030,000	3.125%	3.340%	80 bps	(44 bps)
20 2037	640,000	3.050%	3.100%	39 bps	2,095,000	3.250%	3.380%	80 bps	(41 bps)
21 2038									
22 2039									
23 2040									
24 2041									
25 2042									
26 2043					14,065,000	3.250%	3.500%	82 bps	
27 2044									
28 2045									
29 2046									
30 2047									

**EAST GOSHEN TOWNSHIP
SUMMARY OF OUTSTANDING INDEBTEDNESS**

Debt Service Requirements												
	1	2	3	4	5	6	7	8	9	10	11	12
	Electoral Debt			Non-Electoral Debt					Guaranteed Debt			
Fiscal Year Ended	(Del Val) G.O. Note Series of 1999 ^[1]	Total Electoral Debt Service	(Del Val) G.O. Note Series of 2000	(Del Val) G.O. Note Series of 2003	(Pro-Rata) G.O. Bonds Series of 2012 ^[2]	G.O. Bonds Series of 2017 ^[3]	Total Non-Electoral Debt Service	(Del Val) Sewer Rev Note Series of 1998	(Del Val) Sewer Rev Note Series of 2008	(Del Val) Sewer Rev Note Series of 2013	Total Guaranteed Debt Service	Total Debt Service
12/31/2017	239,998	239,998	22,966	410,199	124,368	28,410	585,943	101,298	613,903	166,865	882,065	1,708,005
12/31/2018	242,235	242,235	23,148	408,925	128,268	247,339	807,679	101,393	613,458	166,793	881,644	1,931,557
12/31/2019	245,019	245,019	24,260	408,129	126,773	342,089	901,250		613,480	167,622	781,101	1,927,370
12/31/2020			24,317	406,773	125,048	343,489	899,627		612,946	167,336	780,283	1,679,910
12/31/2021			24,333	404,857	128,035	338,489	895,713		612,839	167,952	780,791	1,676,504
12/31/2022				403,377	125,635	338,489	867,501		613,118	167,453	780,571	1,648,072
12/31/2023				402,290	127,875	338,289	868,453		612,763	167,856	780,619	1,649,072
12/31/2024						655,589	555,589		612,755	168,136	780,891	1,436,479
12/31/2025						656,489	556,489		612,073	168,294	780,367	1,436,856
12/31/2026						657,189	557,189		611,899	168,330	780,029	1,437,218
12/31/2027						657,689	557,689		611,592	168,245	779,837	1,437,525
12/31/2028						657,383	557,383		611,713	169,029	780,742	1,438,125
12/31/2029						656,245	556,245		612,022	168,669	780,691	1,436,936
12/31/2030						658,620	558,620		611,499	169,180	780,679	1,439,299
12/31/2031						658,020	558,020		611,125	169,538	780,663	1,438,683
12/31/2032						656,970	556,970		610,860	169,743	780,603	1,437,573
12/31/2033						655,470	555,470			169,796	169,796	825,266
12/31/2034						653,520	553,520					653,520
12/31/2035						656,120	556,120					656,120
12/31/2036						658,120	558,120					658,120
12/31/2037						659,520	559,520					659,520
12/31/2038												
12/31/2039												
12/31/2040												
Totals	727,251	727,251	119,024	2,844,549	886,000	11,173,535	15,023,108	202,690	9,797,845	2,860,836	12,861,371	28,611,730
Principal: ^[4]	676,000	676,000	89,000	2,420,000	820,000	8,150,000	11,479,000	193,000	5,927,000	2,218,000	9,338,000	21,493,000
Call Date:	Make-whole		Make-whole	Make-whole	12/15/2017	10/1/2022		Make-whole	Make-whole	Make-whole		
Purpose:	New Money		New Money	New Money	Pro-Rata 2004 Refunding	New Money		New Money	New Money	New Money		

Del Val Information

Fixed/Variable:	Fixed	Fixed	Fixed	Bonds	Bonds	Bonds
Fixed Through:	Maturity	Maturity	Maturity	n/a	n/a	n/a
Fixed Rate:	3.660%	3.760%	3.910%	n/a	n/a	n/a
Del Val Spread ^[5]:	0.400%	0.400%	0.400%	n/a	n/a	n/a
All-in Rate:	4.060%	4.160%	4.310%	n/a	n/a	n/a
				10/25/2017	3.840%	3.560%
				0.400%	0.400%	0.400%
				4.240%	3.960%	3.049%

Notes

- ^[1] The Township has 0.13 mills in place dedicated to this issue.
^[2] Per Township, represents approximately 46% pro-rata share of Westtown Township Series of 2012 Bonds originally allocable to the Series of 2004 Bonds
^[3] Includes both General Fund portion and Sewer Fund portion
^[4] Outstanding as of July 11, 2017
^[5] Per Del Val, rates assume 0.40% spread for Del Val administrative expenses and interest rate swap agreements

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

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - CAPITAL				
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - 2013 NOTES (FULTON BANK)			1,177,932.80	
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE DNB CAPITAL ACCOUNT			1,144,516.21	
			33,416.59	
CAPITAL:				
REVENUE				
INTEREST EARNED - CONSTRUCTION	07341 1020	3,250.00	982.28	5,369.54
TOTAL REVENUE		3,250.00	982.28	5,369.54
EXPENSES				
C.C. CAPITAL - COLLECTION	07424 7420	212,486.00	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	0.00	2,726.00	13,715.50
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00
WEST GOSHEN CAPITAL	07429 6100	0.00	0.00	0.00
TOTAL EXPENSES		212,486.00	2,726.00	13,715.50
NET CAPITAL		(209,236.00)	(1,743.72)	(8,345.96)
MUNICIPAL AUTHORITY ENDING FUND BALANCE - CAPITAL				
MUNICIPAL AUTHORITY ENDING FUND BALANCE - 2013 NOTES (FULTON BANK)			1,176,189.08	
MUNICIPAL AUTHORITY ENDING FUND BALANCE DNB CAPITAL ACCOUNT			1,144,516.21	
			33,416.59	

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

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
OPERATING:				
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - OPERATING (BB&T)				
REVENUE			4,044.61	
INTEREST EARNINGS	07341 1000	10.00	0.16	6.97
C.C. TAPPING FEES	07364 1100	14,296.00	0.00	4,000.00
CONNECTION FEES - SEWER	07364 1130	0.00	0.00	1,692.00
TRANSFER FROM SEWER OPERATING	07392 0500	100,755.00	5,000.00	70,000.00
TOTAL REVENUE		115,061.00	5,000.16	75,698.97
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	31,620.00	0.00	15,448.00
MISCELLANEOUS EXPENSE	07424 3000	2,500.00	0.00	2,207.52
MUNIC.AUTH.-AUDITING	07424 3110	9,078.00	0.00	9,200.00
ENGINEERING SERVICES	07424 3130	37,500.00	3,166.75	41,312.25
LEGAL SERVICES	07424 3140	9,250.00	0.00	10,103.16
M.C.-DVRFA-DEBT SERVICE	07471 1000	26,320.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1010	2,043.00	0.00	0.00
TOTAL EXPENSES		118,311.00	3,166.75	78,270.93
NET OPERATING		(3,250.00)	1,833.41	(2,571.96)
MUNICIPAL AUTHORITY ENDING FUND BALANCE - OPERATING				
			5,878.02	
MUNICIPAL AUTHORITY ENDING FUND BALANCE CAPITAL + OPERATING				
			1,182,067.10	

Report Date 08/02/17

GL Transaction Details

PAGE 1

MGRP18 run by BRIAN 1 : 00 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				
	1704	57927		1.06		05/03/17	INTEREST		INTEREST EARNED APRIL 2017 07 FUND
	1704		0.00	1.06	-5.19				
	1705	58423		0.96		06/02/17	INTEREST		INTEREST EARNED MAY 2017 07 FUND
	1705		0.00	0.96	-6.15				
	1706	58876		0.66		07/03/17	INTEREST		INTEREST EARNED JUNE 2017 07 FUND
	1706		0.00	0.66	-6.81				
	1707	59333		0.16		08/01/17	INTEREST		INTEREST EARNED JULY 2017 07 FUND
	1707		0.00	0.16	-6.97				
07341-1000	****	*** ****	0.00	6.97	-6.97				
07341-1020		INTEREST EARNED - CONSTRUCTION			0.00				

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1701	JE	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				
1704		57927		854.28		05/03/17	INTEREST		INTEREST EARNED APRIL 2017 07 FUND
1704			0.00	854.28	-2,728.65				
1705		58423		815.38		06/02/17	INTEREST		INTEREST EARNED MAY 2017 07 FUND
1705			0.00	815.38	-3,544.03				
1706		58876		843.23		07/03/17	INTEREST		INTEREST EARNED JUNE 2017 07 FUND
1706			0.00	843.23	-4,387.26				
1707		59333		982.28		08/01/17	INTEREST		INTEREST EARNED JULY 2017 07 FUND
1707			0.00	982.28	-5,369.54				
07341-1020	****	*** ****	0.00	5,369.54	-5,369.54				
07364-1100	C.C.	TAPPING FEES			0.00				
1704		57798		2,000.00		04/25/17	RECLASS		RECLASS TAP IN FEE
	RE	57797		2,000.00		04/25/17	57797 1		SEWER TAP IN - 5 SCHOOL LN C.C. TAPPING FEES

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1704			0.00	4,000.00	-4,000.00				
07364-1100	****	*** ****	0.00	4,000.00	-4,000.00				
07364-1110		R.C.TAPPING FEES			0.00				
	JE	57798	2,000.00			04/25/17	RECLASS		RECLASS TAP IN FEE
	RE	57795		2,000.00		04/25/17	57795 1		SEWER TAP IN - 3 SCHOOL LN
1704			2,000.00	2,000.00	0.00				
07364-1110	****	*** ****	2,000.00	2,000.00	0.00				
07364-1130		CONNECTION FEES - SEWER			0.00				
1702	CR	56762		423.00		02/07/17	125 25	10162	1 JACOBS, ROBERT & CHERYL
		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				
1704		57579		40,000.00		04/06/17	DEPOSIT		DEPOSIT TO MA ACCT.7100.1000
1704			0.00	40,000.00	-65,000.00				
1707		59229		5,000.00		07/26/17	XFER		XFER \$ FROM 05 TO 07 OPERATING

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1707			0.00	5,000.00	-70,000.00				
07392-0500	****	*** ****	0.00	70,000.00	-70,000.00				
07424-1400					0.00				
1703	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				
1706		58848	7,724.00			06/30/17	3059	425	EAST GOSHEN TOWNSHIP - GENERAL 2017 QTR.2 REIMBURSEMENT FROM MA
1706			7,724.00	0.00	15,448.00				
07424-1400	****	*** ****	15,448.00	0.00	15,448.00				
07424-3000					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				
1706		58814	1,220.00			06/29/17	3058	3871	DELAWARE RIVER BASIN COMMISSION D-1984-056 CP ANNUAL FEE - WATER DISCHARGE
1706			1,220.00	0.00	2,207.52				
07424-3000	****	*** ****	2,207.52	0.00	2,207.52				
07424-3110					0.00				
1703		57470	4,600.00			03/30/17	3049	808	MAILLIE FALCONIERO & CO. PROGRESS BILLING 2016 MUN.AUTH.

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1703			4,600.00	0.00	4,600.00				
1704	57655		4,600.00			04/13/17	3052	808	MAILLIE FALCONIERO & CO. 2016 EXAM. FINAN. STMTS. MUN.AUT
1704			4,600.00	0.00	9,200.00				
07424-3110	****	*** ****	9,200.00	0.00	9,200.00				
07424-3130	ENGINEERING SERVICES				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				
1704	57510		5,416.50			04/03/17	3050	1052	PENNONI ASSOCIATES INC. SERV.THUR 12/11/16 2016 GEN.SERV
	57655		7,306.50			04/13/17	3053	1052	PENNONI ASSOCIATES INC. SERVICE THRU 3/19/17 RCSTP PERMI
1704			12,723.00	0.00	27,128.50				
1705	58070		8,211.75			05/11/17	3054	1052	PENNONI ASSOCIATES INC. SERVICE THRU 4/16/17 RCSTP & PUM STATION
1705			8,211.75	0.00	35,340.25				
1706	58614		2,805.25			06/14/17	3057	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/14/17 RCSTP PERM

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1706			2,805.25	0.00	38,145.50				
1707	58978		3,166.75			07/12/17	3060	1052	PENNONI ASSOCIATES INC. SERVICES THRU 6/18/17 WHITE CHIM
1707			3,166.75	0.00	41,312.25				
07424-3130	****	***	41,312.25	0.00	41,312.25				
07424-3140	LEGAL SERVICES				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
1703			655.00	0.00	2,192.50				
1704	57655		2,140.00			04/13/17	3051	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - MARCH 2017 GEN.A
1704			2,140.00	0.00	4,332.50				
1705	58187		2,407.41			05/19/17	3055	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE 4/4-4/28/17 GEN.AU
1705			2,407.41	0.00	6,739.91				
1706	58614		1,640.00			06/14/17	3056	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERV. - MAY 2017 GEN.AUTH.
			1,723.25			06/14/17	3057	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/14/17 2017 GEN.S
	**		3,363.25	0.00	***				

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1706			3,363.25	0.00	10,103.16				
07424-3140	****	*** ****	10,103.16	0.00	10,103.16				
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				
1704		57511	1,784.25			04/03/17	22005	1052	PENNONI ASSOCIATES INC. SERV.THURU 12/11/17 RESERVOIR RD.
		57656	1,516.50			04/13/17	22006	1052	PENNONI ASSOCIATES INC. SERV.THURU 3/19/17 RESERV.RD PS
1704			3,300.75	0.00	7,645.00				
1705		58071	1,261.50			05/11/17	22007	1052	PENNONI ASSOCIATES INC. SERVICES THRU 4/16/17 RESERV.RD
1705			1,261.50	0.00	8,906.50				
1706		58616	2,083.00			06/14/17	22009	1052	PENNONI ASSOCIATES INC. SERVICE THRU 5/24/17 RESERV.RD P
1706			2,083.00	0.00	10,989.50				
1707		58979	2,726.00			07/12/17	22010	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/18/17 RESERV.RD P
1707			2,726.00	0.00	13,715.50				
07428-1000	****	*** ****	13,715.50	0.00	13,715.50				

East Goshen Township General Ledger

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07429-6100	WEST	GOSHEN CAPITAL			0.00				
	1705	58071	705.00			05/11/17	22007	1052	PENNONI ASSOCIATES INC.
									SERV. THRU 4/16/17 W.GOSHEN SEWE
			220,814.48			05/11/17	22008	3843	WEST GOSHEN SEWER AUTHORITY
									PROJECT COSTS RE: CONSTRUCTION,
									LABOR, PARTS, ENGINEERING, LEGAL
									TESTING
		**	221,519.48	0.00	***				
	1705		221,519.48	0.00	221,519.48				
	1706	58616	1,146.00			06/14/17	22009	1052	PENNONI ASSOCIATES INC.
									SERVICE THRU 5/24/17 W.GOSHEN SE
	1706		1,146.00	0.00	222,665.48				
07429-6100	****	***	222,665.48	0.00	222,665.48				
Grand Total			316,651.91	83,068.51	233,583.40				

Source	Debits	Credits
JE	2,000.00	77,376.51
RE	0.00	4,000.00
CR	0.00	1,692.00
CD	314,651.91	0.00
	316,651.91	83,068.51