# EAST GOSHEN MUNICIPAL AUTHORITY April 13, 2015 The meeting will start at 6 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. <u>SEWER REPORTS</u>
  - a. Director of Public Works Report
  - b. Pennoni Engineer's Report
  - c. Big Fish Environmental Inc. Report with DMR's
  - d. East Goshen Township Flows
- 3. APPROVAL OF MINUTES
  - a. March 9, 2015
- 4. <u>APPROVAL OF INVOICES</u>

a.	Pennoni	Invoice #630705	\$1,756.25
b.	Pennoni	Invoice #630706	\$ 368.75
	Pennoni	Invoice #630707	\$2,593.75
d.	Pennoni	Invoice #630893	\$6,619.50
	Pennini	Invoice #630894	\$11,988.25
f.	Gawthrop	Invoice #129252	\$ 660.00

- 5. LIAISON REPORTS
- 6. FINANCIAL REPORTS
  - a. March 2015 Report
- 7. OLD BUSINESS
- 8. GOALS
  - a. Submit an article for each newsletter Due date for newsletter Need by 1/30/15 Jack Completed Need by 5/1/15
     Need by 8/31/15
     Need by 10/30/15

- b. Obtain construction permits for the Reservoir Road Pump Station December 31, 2015 2/6 Test boring done, meeting with Mike to review preliminary site plan and discuss control options. 3/9 concept design completed, met with PA DEP.
- c. Attend West Goshen Meetings quarterly more often if needed.

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1<sup>st</sup> Quarter – Jack - Completed
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2<sup>nd</sup> Quarter

3<sup>rd</sup> Quarter

4<sup>th</sup> Quarter

- d. Respond to capacity requests in 45 days or less.
- e. Continue to implement I & I Plan
- f. Operate RCSTP in compliance with NPDES Permit February

## 9. NEW BUSINESS

- a. Review two quotes from Lenni Electric for two surge protectors at Ridley Creek
- b. Reservoir Road Pump Station review progress prints (Mike will bring to meeting)
- c. Consider proposal to update 2007 Sewer Needs Analysis
- 10. <u>CAPACITY REQUESTS</u>
- 11. ANY OTHER MATTER
- 12. CORRESPONDENCE AND REPORTS OF INTEREST
- 13. PUBLIC COMMENT
- 14. ADJOURNMENT

#### EAST GOSHEN MUNICIPAL AUTHORITY EAST GOSHEN TOWNSHIP

1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

April 10, 2015

To:

**Municipal Authority** 

From:

Mark Miller

Re:

March 2015 Monthly Report

Meters:

All meters were read on a daily basis.

C.C. Collection:

We responded to 4 lateral clogs, two were in Grand Oak, one in Hershey

Mills and one in White Chimney. All clogs were cleared.

R.C. Collection:

Pump Stations were visited on a daily basis with no problems to report.

R.C. Plant:

No problems to report.

Re-sale Inspections: We had four re-sale lateral inspections in the Twp. I inspected them and

found no problems.

<u>Alarms:</u>

We responded to 14 alarms for March.

PA One Calls:

We received 46 PA One calls since March.



## **MEMORANDUM**

TO:

East Goshen Municipal Authority Board

Rick Smith, Township Manager

FROM:

Michael Ellis, P.E.

**Authority Engineer** 

DATE:

April 9, 2015

**SUBJECT:** 

Engineer's Report

#### **Invoices**

Invoices with summaries are provided under separate cover.

## Ridley Creek Sewage Treatment Plant (RCSTP)

- We provided consultation and correspondence to the Township on the proposed surge protection addition and replacement and the premature UV ballast failures. We agree with the proposed approach to add a new TVSS immediately prior to the ballasts and that the ballast failures are likely due to surges. The Township should consider contacting the new ballast vendor and manufacturer to determine their troubleshooting and customer support capabilities now in the event there continue to be issues following the new TVSS installation.
- We attended a tour of the plant and a field visit to the Ashbridge Pump Station with Mark Miller and Pat McKenna on April 2<sup>nd</sup>.

## Reservoir Road Pump Station

- We attended the PADEP Water Quality Management (WQM) Permit pre-application with Rick Smith at PADEP's Norristown office on March 13<sup>th</sup>. PADEP had some minor comments, but they were agreeable to the design and permitting approach for the project. The project will require an individual WQM permit instead of a general permit due to the proposed daily pump volume.
- We initiated the progress design including site layout, diversion details and diversion piping profiles, pump design, wet well and valve vault, building architectural and HVAC, power, and controls. A current draft of plans will be presented at the April 13<sup>th</sup> Municipal Authority meeting.
- The existing conditions field survey work continued and has been substantially completed. An existing conditions plan is nearly complete. Once complete, force main plans and profiles will be prepared.

#### EGMA 1501

• We are coordinating with the PW Department to perform two infiltration tests at the proposed pump station site within the next 2 weeks. The tests are needed for future stormwater management design. Once the tests are performed, we will schedule a NPDES Stormwater pre-application meeting with PADEP and the Chester County Conservation District.

#### **Chapter 94 Reports**

 We completed the 2014 Chapter 94 Reports for the RCSTP, West Goshen Service Area (WGSA), and Westtown Service Area, and we submitted them to PADEP on March 31<sup>st</sup>. The RCSTP, pump stations, and sewers all have adequate capacity. A summary of the RCSTP and WGSA reports follows:

#### **RCSTP**

The 2014 annual average influent flow (not including recycle flows) was 0.409 MGD, and the 3-month maximum average flow was 0.479 MGD. The plant's permitted average capacity is 0.750 MGD. The 5-year projected annual average and maximum month flows are 0.396 MGD and 0.458 MGD respectively.

The 2014 annual average organic loading (not including recycle flows) was 701 lbs/day BOD<sub>5</sub>, and the maximum month loading was 930 lbs/day BOD<sub>5</sub>. The permitted capacity is 2,098 lbs/day. The 5-year projected annual average and maximum month loadings are 706 lbs/day and 1,085 lbs/day respectively.

The interceptor is considered to have had adequate capacity to convey the maximum daily flow in 2014. The Hershey's Mill and Hunt Country Pump Stations are projected to have adequate capacity for the projected 2-year peak day flows.

#### **WGSA**

The 2014 annual average flow was 0.771 MGD, the 3-month maximum average flow was 0.930 MGD, and the maximum daily flow was 2.142 MGD. The 5-year projected annual average and maximum month flows are 0.827 MGD and 0.982 MGD respectively.

The interceptor had more-than-adequate capacity to convey the maximum daily flow in 2014. The Ashbridge and Barkway Pump Stations are projected to have adequate capacity for the projected 2-year peak day flows.

## Semi-Annual I&I Report

• We analyzed portable and permanent meter flows for the past 6-month period, and we prepared the semi-annual I&I report. We expect to issue the report on April 10<sup>th</sup>.

## **Lockwood Chase STP Closure NPDES Permit N.O.T.**

 We plan to perform a site visit to the former LCSTP site to evaluate the consistency of as-built conditions with the permit plans within the next month, so that the NPDES Permit Notice of Termination paperwork can be finalized and submitted to the Chester County Conservation District.

## Hershey's Mill PS and Marydell PS Diversions

 The 2-year Maintenance Bonds on the Hershey's Mill PS and Marydell PS Diversions expire on July and August respectively. We recommend warranty inspections be performed by May.

## Hershey's Mill PS Muffin Monster

 We notified PADEP in early March that the comminutor has been installed in the pump station for their field evaluation as required by the permit, but we have not received a response.



## Monthly Operations Report: March 2015

## **Executive Summary**

The Ridley Creek sewage treatment plant outfall 001 achieved compliance with the NPDES discharge permit during February 2015. There was no discharge to Applebrook, which is identified as outfall 002. 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 the SBR and sludge dewatering equipment.

## **Treatment Process Operation**

During February 2015, there were no exceedances of the final effluent discharge limitations for outfall 001. The total phosphorus monthly average concentration of 0.26 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 2015 eDMR. During the month, the final effluent total phosphorus concentration discharged ranged from 0.15 mg/L to 0.36 mg/L. The aluminum sulfate daily average increased during February to 87.0 gpd.

Table 1

	Febru	ary 2	015 - F	inal	Efflue	nt - C	Out Fa	II 001	11			
NIDDEC Daniela	Flow	СВ	OD <sub>s</sub>	Т	ss	NI	H <sub>4</sub> -N	0.0000019	orus,Total ng/L	Fecal C	oliform	
NPDES Permit Discharge Limitations	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	21	131	7	44	0.5	3	200	1,000	
	Instantaneous Maximum	40		42							3,555	
Sample Date										_	_	
February 3, 2015	0.444	3.5	13.0	8	30	0.866	3.21	0.15	0.56	4	0.6021	
February 9, 2015	0.502	1000		9	38			0,10	0.00		0.0021	
February 10, 2015	0.391	3.4	11.1	8	26	0.372	1.2	0.21	0.68	1	0.0000	
February 17, 2015	0.430	4.7	16.9	12	43	1.790	6.4	0.31	1.11	1	0.0000	
February 25, 2015	0.330	2.5	6.9	7	19	1.96	5,4	0.50	1,38	2	0.3010	
Average	0.419	3.5	11.9	9	31	1.247	4.06	0.29	0.93	2	0.2258	
Minimum	0.330	2.5	6.9	7	19	0.372	1.21	0.15	0.56	1	0.0000	
Maximum	0.502	4.7	16.9	12	43	1.960	6.42	0.50	1.38	4	0.6021	

There was no discharge from Outfall 002 to Applebrook during February 2015.



Table 2 illustrates the influent wastewater pollutant loadings for February 20115. The influent loadings remained within the treatment facility design loadings.

Table 2

				1 410	10 2							
	Fe	brua	ry 2015	- Inf	luent	Was	tewat	er				
2011/2/3	Flow	В	DD <sub>5</sub>	T	ss	NI	I <sub>4</sub> -N	TKN	l, mg/L		rus,Total, g/L	
Design Basis		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				6/3								
February 3, 2015	0.502	200	837	194	812	29.6	124	35.4	3.8	3.8	16	
February 10, 2015	0.534	143	599	58	243	31.1	130	41.9	2.0	5.1	21	
February 17, 2015	0.492	204	854	117	490	34.3	144	50.5	4.6	5.5	23	
February 25, 2015	0.431	168	703	281	1,176	31.5	132	41.5	4.2	5,3	22	
Average	0.490	179	748	163	680	31.6	132	42.3	4	4.9	21	
Minimum	0.431	143	599	58	243	29.6	124	35.4	2	3.8	16	
Maximum	0.534	204	854	281	1176	34.3	144	50.5	5	5.5	23	

Table 3 presents the available Outfall 001 final effluent data for the month of March 2015. During March, excessive foam conditions on the surface of the SBRs resulting from filamentous growth, primarily *Microthrix parvicella*. This bacterium becomes excessively predominate at low organic loadings and water temperatures less than 15°C. Historically during the past three (3) years, it has been observed this filamentous growth becomes excessive during January, February and March of each year. As a result, solids carryover from the SBRs tend to become elevated, which can contribute to exceeding the permitted total suspended solids (TSS) discharge concentrations. The final effluent TSS discharge concentrations were observed to periodically elevated, however, additional sample collection of the final effluent quality resulted in a monthly TSS concentration within the permitted discharge limitations.

Process control measures to minimize the adverse effects of the *Microthrix* parvicella bacterium included increased lowering the MLSS concentrations. One impact of lowering the MLSS concentrations during this time of year as temperatures and hydraulic conditions vary, result in inhibiting the effectiveness of nitrification. During March, the final effluent ammonia as nitrogen concentrations became elevated.



At the present time, there are no anticipated exceedances of the permitted limitations for the month. Split sampling of the composite sample collected by Applied Laboratory Services (ALS) is ongoing for comparative analysis and daily results.

Table 3

	Mar	ch 20	15 - Fi	nal Ef		t - Oı	ıt Fall	001			
	Flow	СВ	OD <sub>5</sub>	т	SS	NI	I <sub>4</sub> -N		orus,Total mg/L	Fecal C	Coliform
NPDES Permit Discharge Limitations	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	21	131	7	44	0.5	3	200	1,000
	Instantaneous Maximum	40		42							
Sample Date											-
March 3, 2015	0.371	3.5	10.8	15	46	2.000	6.19		0.00	89	1.9494
March 9, 2015	0.460			9	35			1			2.0151
March 10, 2015	0.528	4.4	19.4	4	18	4.440	19.6	0.20	0.88	1	0.0000
March 12, 2015	0.410			7	24						0,0000
March 17, 2015	0.411	4.7	16.1	6	21	10.300	35.3	0.30	1.03	14	1.1461
March 18, 2015	0.426			6	21	THE SA		110000			4.1701
March 19, 2015	0.360			15	45	Ewil					
March 24, 2015	0.454	5.40	20.4	15	57	11.10	42.0	0.26	0.98	2	0.3010
March 25, 2015	0.354			15	44	-	1000	Permi			0.5010
March 27, 2015	0.506			7	30						
March 31, 2015	0.381	2.40	7.63	10	32			0.15	0.48	2	0.3010
Average	0.424	4.1	14.9	10	34	6.960	25.77	0.23	0.67	7	0.8491
Minimum	0.354	2.4	7.6	4	18	2.000	6.19	0.15	0.00	i	0.0000
Maximum	0.528	5.4	20.4	15	57	11.100	42.03	0.30	1.03	89	1.9494

During March 2015, there was no discharge of treated effluent to Applebrook. The pump has been placed in the off mode during the winter months.

The influent wastewater pollutant concentrations and loading entering the wastewater treatment facility remained within the design concentrations and loadings. 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 2015.



Table 4

	٨	/larch	2015	- Infl	uent V	Vaste	ewate	r				
2/10/2016	Flow	В	OD₅	1	ss	NI	I <sub>4</sub> -N	TKN	, mg/L	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	rus,Total,	
Design Basis		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 3, 2015	0.485	171	692	104	421	31.0	125	39.1	3.8	4.2	17	
March 10, 2015	0.836	199	805	64	259	33.7	136	31.9	2,0	3.8	15	
March 17, 2015	0.551	42.8	173	69	279	16.8	68	17.8	4.6	2.0	8	
March 24, 2015	0.444	186	752	210	849	27.5	111	40.4	4.2	4.6	19	
March 31, 2015	0.460	189	764	199		28.8	116			4.2	17	
Average	0.555	158	637	129	452	27.6	111	32.3	4	3.8	15	
Minimum	0.444	43	173	64	259	16.8	68	17.8	2	2.0	8	
Maximum	0.836	199	805	210	849	33.7	136	40.4	5	4.6	19	

Sequencing batch reactors (SBRs) numbered 1, 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. Foam concentrations increased slightly during November and December. The average coverage of the surface area was estimated at 90%. Increased sludge wasting rates were maintained to manage the MLSS concentrations and F:M ratio within the desired goals. Daily monitoring of the influent and final effluent 24-hour composites samples for total phosphorus is ongoing. 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 increased to a daily average of 87.0 gpd during March. During March, soda ash daily addition decreased to 389 lbs. per day. 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.

SBR No. 2 remains out of service as a treatment unit. Minor repairs will be scheduled as weather conditions permit.



## Solids Dewatering and Disposal: March 2015

Sludge Dev	vatering Summary	
Gallons of sludge dewatered	315,382	
Average Dewatered Total Solids, %	NA	
Wet Tons	NA	
Dry Tons	NA	
Number of dumpsters	6	

<sup>\*</sup>Twenty two (22) days of centrifuge operation

#### Flow data:

	March 2	2015	
Flow Meter Location	Total Volume for Month, MG	Average Daily Flow, gpd	Daily Maximum Flow, gpd
Influent Wastewater to Screening Building*	16.685	538,237	902,200
Influent Wastewater to SBRs	16.307	526,041	769,984
Internal Recycle	0.417	13,445	139,042
Treated Effluent to Disc Filters	15.671	505,505	739,392
Final Effluent Discharge	13.381	431,645	617,000
Applebrook Golf Course	0	0	0

<sup>\*</sup>The final effluent daily maximum flow of 919,000 is attributed to the result of an erroneous level meter reading. The transducer and v-notch weir were cleaned and the subsequent flow measurements recorded were within the anticipated range.

#### Chemical Usage:

	March 2015	
Chemical	Daily Average	Total Monthly
Soda Ash	389	11,650
Aluminum Sulfate solution	87.0	2,696
Polymer (centrifuge)	0.84	18.44

<sup>\*</sup>twenty two (22) 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 was in service. The level at the beginning of March was 6.20 feet and the level at the end of the month was 9.08 feet. The initial total solids concentration was 0.76% decreasing to 0.66% at the end of the month. The average pH concentration was 6.90 S.U. Zero gallons of supernatant were decanted during the month. A total of 1,400 pounds of soda ash were added.

Sludge holding tank No. 2 was in service. The level at the beginning of the month was 11.40 feet and the level at the end was 8.73. The initial total solids concentration was 1.29% total solids decreasing to 0.85% at the end of the month. The average pH concentration was 6.75 S.U. and 850 pounds of soda ash was added. Zero gallons of supernatant were decanted.

#### Significant Storm/Hydraulic Loading Events

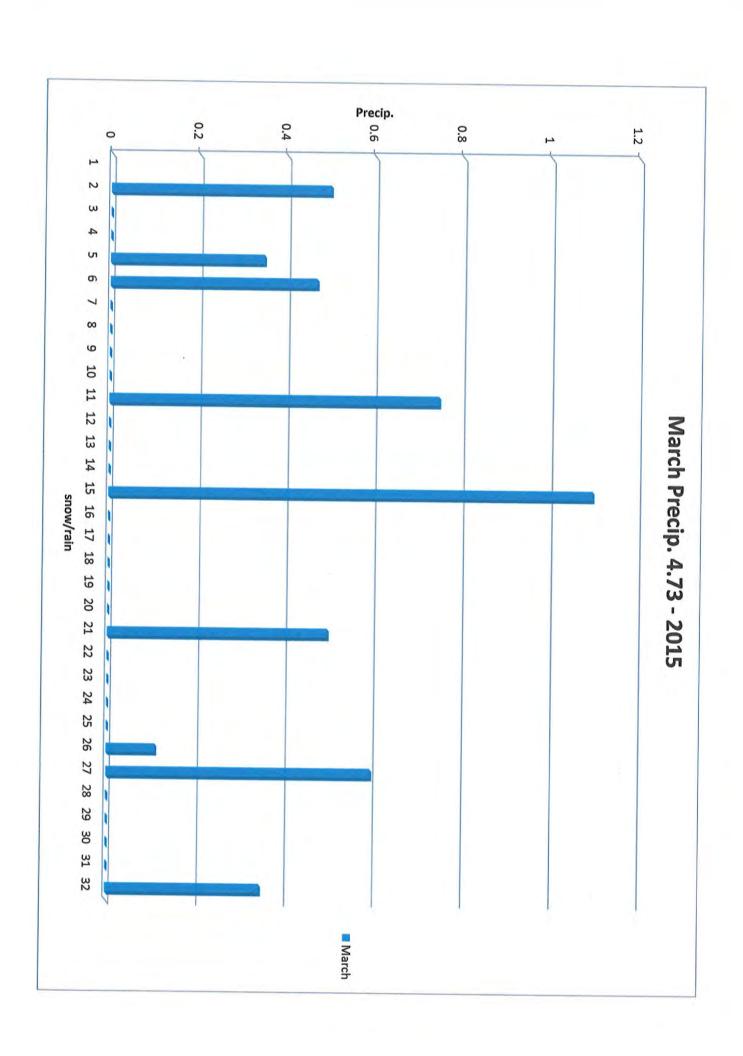
During March, there were four storm events resulting in daily precipitation amounts greater than 0.5 inches measured during a 24 hour period. A total of 4.4 inches of rainfall and 10.0 inches of snow were measured at the facility during March. Influent flows nearly doubled from a monthly average of 538,237 gpd to 841,790 gpd on March 4<sup>th</sup>, 836,410 gpd on March 16<sup>th</sup> and 902,200 gpd on March 14<sup>th</sup>.

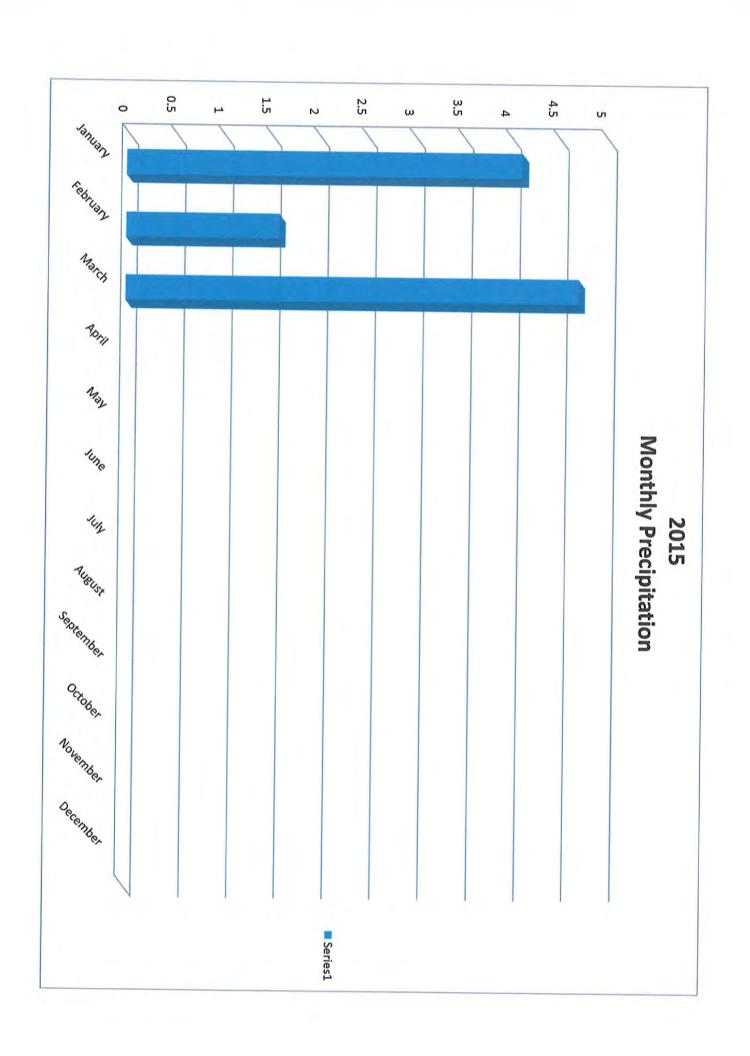
## Minor Repairs and Preventative Maintenance

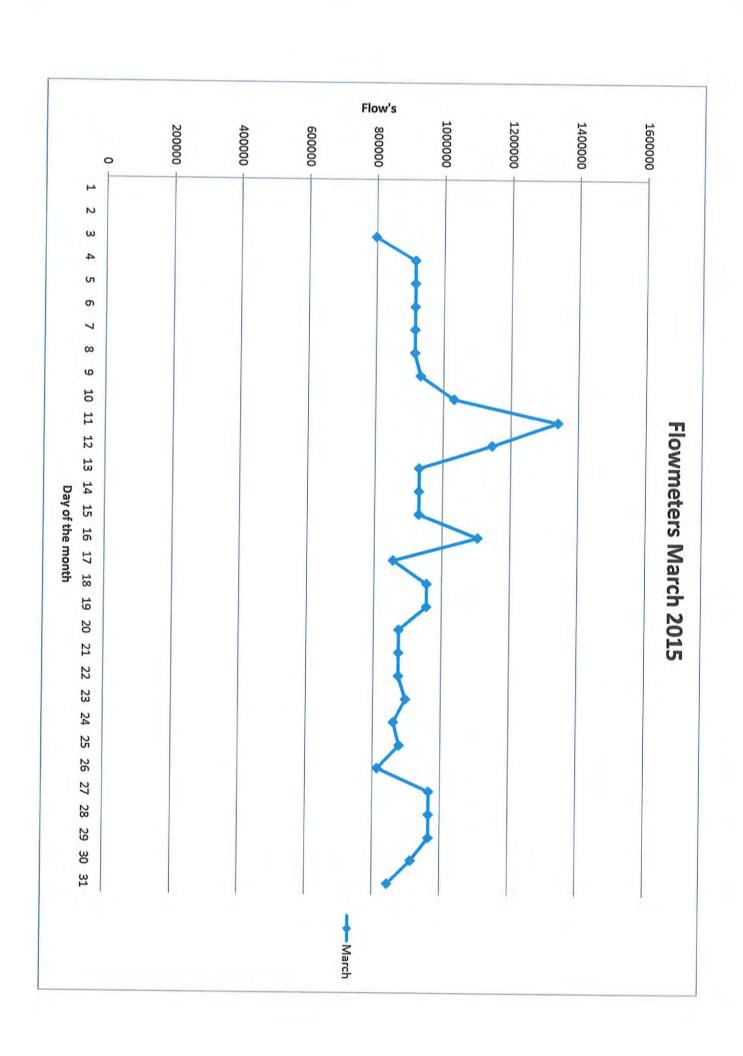
No unscheduled repairs preventative maintenance items were performed during March.

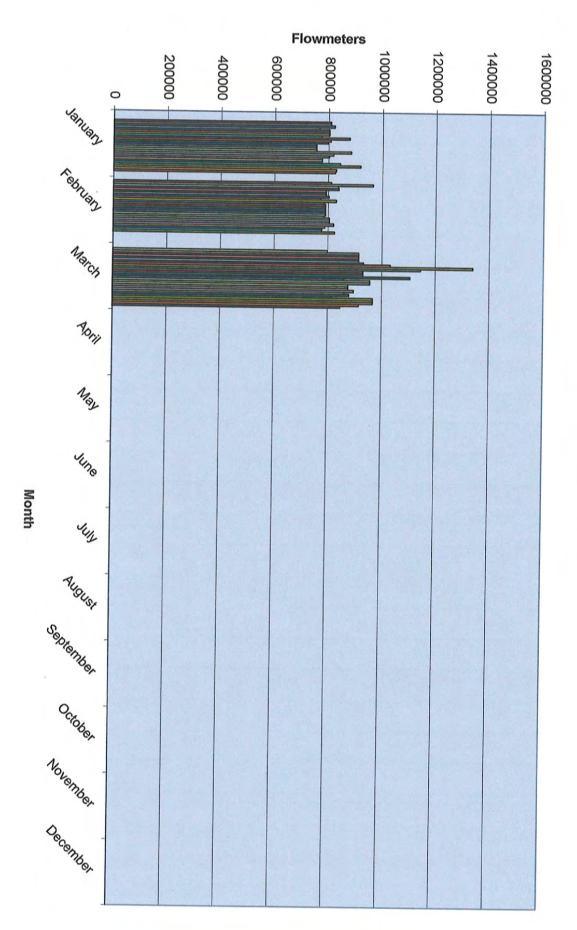
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HERSHEYS MILL   ASHBRIDGE				010711010	3/30/2015	3/29/2015	3/28/2015	3/27/2015	3/26/2015	3/25/2015	3/24/2015	3/23/2015	3/22/2015	3/21/2015	3/20/2015	2/10/2012	3/1//2015	3/16/2015	3/15/2015	3/14/2015	3/13/2015	3/12/2015	3/11/2015	3/10/2015	3/9/2015	3/8/2015	3/7/2015	3/6/2015	3/4/2015	3/3/2015	3/2/2015	3/1/2015	DATE	
ASHBRIDGE         HICKS METER         RESERVOIR         BARWWA           READING         GPD         CPD         READING         GPD				20,000,002	33,312,854			33,017,272	32,925,852	32,842,490	32,753,270	32,665,172		02,071,000	32 371 950	32,1/8,2/6	32,074,604	31,962,500					1	T	T				T				READING	HERSHE
	18	17,053,174	947,399	175	985,273			914,200	833,620	892,200	880,980	977,407		900,370	968 370	1,036,720	1,121,040	1,207,633			995,040	1.051 860	1 078 680	027,120	821 276				736,660	700,055			GPD	Y'S MILL
				2,080,089	2,095,987			2,093,612	2,092,751	2.092.101	2,091,371	2,090,688		2,000,300	3 089 355	2,086,947	2,086,225	2,085,494		-1000	2 082 550	2 081 820	2,079,401	2070,072	2 078 572				2,074,376	2,073,608			READING	ASHBE
	18	1,459,812	81,101	70,200	79,167			86,100	65,000	73.000	68,300	77.767		70,400	70 400	72,200	73,100	97,833		10,000	73 000	106,000	08,900	02,520	22 000				76,800	67,325			GPD	RIDGE
				20,106,056	20,079,378		20,001,010	20 007 678	19.975.372	19 948 144	19.920.498	19.891 742		19,819,040	10000	19,762,264	19,731,672	19,699,942		19,012,912	19,000,022	10,500,500	19,499,044	19,403,400	40 400 400				19,330,306	19,299,364			READING	HICKS
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				69,665,041	69,590,009		100,200,60	130 035 03	69 272 784	620,727,020	69 127 623	69 051 797		68,827,658		68,675,270	68,594,667	68.509.640		68,230,480	68,144,836	68,039,199	67,918,505	67,823,495	200				67,424,177	67,342,706		The second	READING	RESE
	18	15,061,101	836,728	750,320	759,827		07,570	000,000	608 400	750,000	758 260	747 430		761,940				A		856,440	1,056,370	1,206,940							814,710	669.215		200	Cen	RVOIR
							3,308,834	3,007,700	3,567,758	3,303,707	3,565,767	3 564 500		3,560,946		3,558,777	3,557,654	3 556 665		3,552,125	3,550,980	3,549,219	3,546,966	3,545,336					3,537,073	3.535 731		NEADING	DEADING	BARK
	18	233,613	12.978	9,730	11,847		10,760	9,700	10,210	11,680	12,111	10.17		10,845		11.230	9.890	15 122		11,450	17,610	22,530	16,300	16,526					13,420	12 575		GPD	COO	WAY









1 2 3 4 5	EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY MEETING MINUTES March 9, 2015
6 7 8 9 10 11	The East Goshen Township Municipal Authority held their regular public meeting on Monday, March 9, 2015 at 6:00 pm at the East Goshen Township building. Members in attendance were: Vice Chairman Dana Pizarro, Jack Yahraes, Fran Beck, and Ed McAssey. Also in attendance were: Rick Smith (Township Manager), Carmen Battavio (Township Supervisor), Mike Ellis (Pennoni), Patrick McKenna (Attorney) and Walter Wujcik (Conservancy Board).
12 13 14 15 16 17 18 19 20 21 22	COMMON ACRONYMS:  BFES – Big Fish Environmental Services BOS – Board of Supervisors CB – Conservancy Board DEP – Department of Environmental Protection EPA – Environmental protection Agency HC – Historical Commission I&I – Inflow & Infiltration LCSTP – Lockwood Chase Sewer Treatment Plant  SFE – Big Fish Environmental Services MA- Municipal Authority NPDES – National Pollutant Discharge Elimination System PC – Planning Commission PM – Prevention Maintenance PR – Park & Recreation Board RCSTP – Ridley Creek Sewer Treatment Plant SBR – Sequencing Batch Reactor SSO – Sanitary System Overflow WAS – Waste Activated Shudge
23 24 25 26 27	Call to Order & Pledge of Allegiance Dana 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 the troops and all veterans. Dana asked if anyone would be recording the meeting and there was no response.
28 29 30	<ul> <li>Chairman's Report/Other Members' Reports</li> <li>1. Jack reported that he attended the West Goshen meeting which was very short. No report.</li> </ul>
31 32 33 34 35 36 37 38 39 40 41	<ul> <li>Sewer Reports</li> <li>1. Director of Public Works  Mark Miller reported for February 2015: Due to the weather a majority of our time was spent on equipment repairs and road repairs.  Meters: All meters were read on a daily basis.  C.C. Collection: We could not do any televising due to the cold temperatures.  R.C. Collection: Pump Stations were visited on a daily basis with no problems to report.  R.C. Plant: No problems to report.  Alarms: We responded to 19 alarms for the month of February.  PA One Calls: We received 51 PA One calls in February.</li> </ul>
42 43 44 45 46 47 48	<ul> <li>2. Pennoni Engineer's Report</li> <li>Mike Ellis gave the following report:</li> <li>Invoices: Invoices with summaries are provided under separate cover.</li> <li>Reservoir Rd Pump Station:</li> <li>1. The geotechnical report and boring logs were submitted to the Township.</li> <li>2. We prepared a 3<sup>rd</sup> draft/revision of the concept design consisting of: a pump station site sketch plan including conceptual diversion details and diversion piping profiles, a</li> </ul>

- written outline of pump station controls and critical features, and a ballpark construction cost estimate. During further concept evaluation and vendor coordination, it was determined that suction-lift pumps on the building floor are not feasible because the maximum suction head of the available pumps is exceeded. Options were discussed with township staff, and it was decided to proceed with submersible pumps in the wet well. This concept will be presented in more detail at the March 9<sup>th</sup> Municipal Authority meeting.
- 3. A Water Quality Management Permit pre-application meeting with PADEP is scheduled for March 13<sup>th</sup> at 10:00 am and will be attended by Pennoni Associates and Township staff.
- 4. The existing conditions field survey work began on February 24<sup>th</sup>. We completed topography on the Bow tree pond lot and across the Ridley Creek to the existing sewer interceptor, and we have begun to survey the Bow Tree Drive cartway. We anticipate another 7-8 days to complete the field topography and property boundary work. An exact schedule is not yet known due to snow cover.
- <u>Chapter 94 reports</u> We continue work on the 2014 Chapter 94 reports. We anticipate submitting drafts of the reports to the Township for review around March 16<sup>th</sup>.
- Lockwood Chase STP Closure NPDES Permit N.O.T.- Once the snow melts and ground dries out, we will perform a site visit to the former LCSTP site to evaluate the consistency of as-built conditions with the permit plans, so that the NPDES Permit Notice of Termination paperwork can be finalized and submitted to the Chester County Conservation District.
- <u>Hershey's Mill PS and Marydell PS Diversions</u> The 2-year Maintenance Bonds on the Hershey's Mill PS and Marydell PS Diversions expire in July and August respectively. We recommend warranty inspections be performed by May.
- <u>Hershey's Mill PS Muffin Monster</u> we notified PADEP that the comminutor has been installed in the pump station for their field evaluation as required by the permit.
- 3. Big Fish Environmental Services Scott reported that the Ridley Creek sewage treatment plant outfall 001 reported a weekly maximum TSS exceedance of 16 mg/L, as compared to the permit limitation of 15 mg/L on January 28, 2015. There was no discharge to Applebrook, which is identified as outfall 002. 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 the wastewater treatment process and sludge dewatering equipment. Routine preventative maintenance activities were completed.

#### **Approval of Minutes**

Jack moved to accept the minutes of February 9, 2015 as corrected. Fran seconded the motion. The motion passed unanimously.

#### **Approval of Invoices**

- 1. Ed moved to approve payment of the following Pennoni invoices:
  - a. Pennoni #626537 \$ 1,306.25
  - b. Pennoni #626538 \$ 4.378.75
  - c. Pennoni #626539 \$10,394.70
- Jack seconded the motion. The motion passed unanimously.

2. Fran moved to approve payment of the Gawthrop Invoice #128180 for \$300.00. Ed seconded the motion. The motion passed unanimously.

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#### **Liaison Reports**

- 5 <u>Conservancy Board</u> Walter reminded everyone that Keep East Goshen Beautiful Day is on
- Saturday, April 11 at 8:30 am. Also the Board will have a planting in late April or early May.
- 8 Board of Supervisors Carmen mentioned that tomorrow March 10 at 7:00 pm the BOS will
- 9 have a combined meeting with the Planning Commission to review Swiss Farms and Dunkin
- 10 Donuts requests.

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#### Financial Reports

- Jon Altshul provided the following report:
- 14 In February, the Municipal Authority recorded \$966.25 in revenues, and \$10,954.30 in expenses
- 15 (all for engineering) for a variance of -\$9,988. As of February 28, the fund balance was
- 16 \$1,576,043 of which \$1,515,579 is in the construction account.

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#### Goals

Dana will do an article for the next Township newsletter.

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#### **New Business**

1. The quote from Lenni Electric for a new surge protector to be added before the TVSS was reviewed. They are trying to avoid replacing the valves on the UV. The Authority members thought the main was protected. Mike will check into this.

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- 2. Phase 2 Proposal Mike reviewed the Proposal for Professional Services for Phase 2:
- Progress Design and Infiltration Testing Reservoir Road Pump Station Design & Permitting.
- The Phase 2 Scope of Work is divided into 2 tasks -1 Progress Design, and 2 Infiltration Testing.
- 30 The proposed schedule is:

31	Notice to proceed	March 9
32	1 <sup>st</sup> Progress design Submission	April 10
33	1 <sup>st</sup> Township Review Meeting	April 17
34	Infiltration Testing	TBD
35	NPDES Permit Pre-Application Meeting	by April 24
36	2 <sup>nd</sup> Progress Design Submission	May 1
37	2 <sup>nd</sup> Township Review Meeting	May 7
38	Estimated Fee is:	Ž
39	Task 1 – Progress Design	\$39,100.00
40	Task 2 – Infiltration Testing	\$ 1,800.00
41	TOTAL	\$40,900.00

Mike estimates the total cost for the Reservoir Road Pump Station to be \$1.7 million plus 20% contingency.

Jack moved to accept the proposal as presented. Ed seconded the motion. The motion passed unanimously.

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4	<u>Adjourment</u>
5	There being no further business, Jack moved to adjourn the meeting. Fran seconded the motion
6	The motion passed unanimously. The meeting was adjourned at 8:00 pm.
7	
8	Respectfully submitted,
9	
10	
11	Ruth Kiefer
12	Recording Secretary



## 302-655-4451 Fax: 302-654-2895

Remit Payment To: Pennoni Associates Inc. 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 #: 630705 Invoice Date: 04/01/2015 Project: EGMA1501

Project Name: 2015 General Services

For Services Rendered through: 3/22/2015

Reviewed Lockwood Chase STP's 2014 groundwater monitoring report approval letter from PADEP; reviewed status of PADEP permit construction completion certifications for diversion projects and began to fill out certification forms; prepared March Engineer's Report; prepared for and attended March MA meeting including Reservoir Road PS project status presentation; coordinated with Township regarding electrical surge protection of UV ballasts at RCSTP and other possible ballast failure mechanisms; and prepared Township-wide sewer drainage basins exhibit for use in Comprehensive Plan Update.

Phase: \*\*\*\* -- Professional Services

Total Phase: \*\*\*\* -- Professional Services

Labor :

1,756.25

Expense:

0.00

Phase Total:

1.756.25

Amount Due This Invoice

\$1,756.25

Fee:

12,000.00

Prior Billings: **Current Billings:** 

1,967.50 1,756.25

Total Billings:

3,723.75

Phase: \*\*\*\* -- Professional Services

Labor	Hours/		
Class	Units	Rate	Amount
Authority Engineer	10.75	115.00	1,236.25
Staff Engineer	2.00	90.00	180.00
Associate Engineer	4.00	85.00	340.00
Labor Total:	16.75		1,756.25

Total Phase: \*\*\*\* -- Professional Services

Labor :

\$1,756.25

Expense:

\$0.00

Total Project : EGMA1501 - 2015 General Services

Labor:

\$1,756.25

Expense:

\$0.00

to **Date:** 

3/22/2015

4/1/2015

Project:

EGMA1501

Pennoni Job No.:

2015 General Services

Invoice No:

630705

Invoice Period:	2/16/2015		
Initial Authorization:	\$ 12,000.00		
Contract Amount:	\$	12,000.00	
Previously Invoiced:	\$ 1,967.50		
<b>Current Invoice:</b>	\$	1,756.25	
Invoiced to Date (\$);	\$	3,723.75	
Invoiced to Date (%):		210/	

Remaining Budget (\$): \$
Remaining Budget (%):

31% 8,276.25

69%

#### **Budget by Phase:**

Phase Name:	2015 General Services
Phase Budget:	\$ 12,000.00
Previously Invoiced:	\$ 1,967.50
Current Invoice:	\$ 1,756.25
Invoiced to Date (\$):	\$ 3,723.75
Invoiced to Date (%):	31%
Remaining Budget (\$):	\$ 8,276.25
Remaining Budget (%):	69%

#### Comments:

Reviewed Lockwood Chase STP's 2014 groundwater monitoring report approval letter from PADEP; reviewed status of PADEP permit construction completion certifications for diversion projects and began to fill out certification forms; prepared March Engineer's Report; prepared for and attended March MA meeting including Reservoir Road PS project status presentation; coordinated with Township regarding electrical surge protection of UV ballasts at RCSTP and other possible ballast failure mechanisms; and prepared Township-wide sewer drainage basins exhibit for use in Comprehensive Plan Update.



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

Remit Payment To: Pennoni Associates Inc. 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 #: 630706 Invoice Date: 04/01/2015 Project: EGMA1502

Project Name: 2015 Semi-Annual I&I Reports

For Services Rendered through: 3/22/2015 Performed a cursory analysis of February 2015 portable meter data. Phase: \*\*\*\* -- Professional Services Total Phase : \*\*\*\* -- Professional Services Labor: 368.75 Expense: 0.00 Phase Total: 368.75 **Amount Due This Invoice** \$368.75 10,500.00 Fee: **Prior Billings:** 2,053.75 **Current Billings:** 368.75 Total Billings: 2,422.50 Phase: \*\*\*\* -- Professional Services Labor Hours/ Class Units Rate Amount **Authority Engineer** 0.25 115.00 28.75 Associate Engineer 4.00 85.00 340.00 Labor Total: 4.25 368.75 Total Phase : \*\*\*\* -- Professional Services Labor : \$368.75 Expense: \$0.00 Total Project : EGMA1502 - 2015 Semi-Annual I&I Reports Labor: \$368.75

PJ 4/10

\$0.00

Expense:

Project: EGMA1502

Pennoni Job No.: 2015 Semi-Annual I&I Reports

Invoice No: 630706

 Invoice Period:
 1/19/2015
 to
 3/22/2015

 Initial Authorization:
 \$ 10,500.00
 Date:
 4/1/2015

**Contract Amount:** \$ 10,500.00 Previously Invoiced: \$ 2,053.75 **Current Invoice:** \$ 368.75 Invoiced to Date (\$); \$ 2,422.50 Invoiced to Date (%): 23% Remaining Budget (\$): \$ 8,077.50 Remaining Budget (%): 77%

#### **Budget by Phase:**

Phase Name: 2015 Semi-Annual I&I Reports

Phase Budget: \$ 10,500.00 \$ Previously Invoiced: 2,053.75 Current Invoice: \$ 368.75 Invoiced to Date (\$): \$ 2,422.50 Invoiced to Date (%): 23% Remaining Budget (\$): 8,077.50 Remaining Budget (%): 77%

Comments: Performed a cursory analysis of February 2015 portable meter data.



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

Remit Payment To: Pennoni Associates Inc. 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 #: 630707 Invoice Date: 04/01/2015 Project: EGMA1503

Project Name: 2014 Chapter 94 Reports

For Services Rendered through: 3/22/2015

Continued preparation of RCSTP, West Goshen (Chester Creek), and Westtown Chp. 94 Reports including analysis of flow and organic data and preparation of report narratives, tables, and charts.

Phase: \*\*\*\* -- Professional Services

Total Phase: \*\*\*\* -- Professional Services

Labor: 2,593.75 Expense: 0.00

Phase Total : 2,593.75

Amount Due This Invoice \$2,593.75

Fee: 14,800.00

 Prior Billings :
 6,206.25

 Current Billings :
 2,593.75

 Total Billings :
 8,800.00

Phase: \*\*\*\* - Professional Services

Labor Hours/

 Class
 Units
 Rate
 Amount

 Authority Engineer
 0.75
 115.00
 86.25

 Associate Engineer
 29.50
 85.00
 2,507.50

Labor Total: 30.25 2,593.75

Total Phase: \*\*\*\* - Professional Services Labor: \$2,593.75

Total Project : EGMA1503 - 2014 Chapter 94 Reports Labor : \$2,593.75

Expense: \$0.00

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\$0.00

Expense:

Project:

EGMA1503

\$

Pennoni Job No.:

2015 Chapter 94 Reports

**Invoice No:** 

630707

Invoice Period:

2/16/2015 14,800.00

to **Date:** 

3/22/2015 4/1/2015

**Contract Amount:** 

**Current Invoice:** 

Initial Authorization:

Previously Invoiced:

\$ 10,500.00 \$ 6,206.25

\$ 6,206.25 \$ 2,593.75

Invoiced to Date (\$): Invoiced to Date (%): 8,800.00 84%

Remaining Budget (\$): Remaining Budget (%):

1,700.00 16%

#### **Budget by Phase:**

Phase Name:

2015 Chapter 94 Reports

Phase Budget: Previously Invoiced:

\$ 10,500.00 \$ 6,206.25

Gurrent Invoice; Invoiced to Date (\$):

\$ 2,593.75 \$ 8,800.00

Invoiced to Date (%):

84%

Remaining Budget (\$):

1,700.00

Remaining Budget (%):

16%

#### Comments:

Continued preparation of RCSTP, West Goshen (Chester Creek), and Westtown Chp. 94

Reports including analysis of flow and organic data, and preparation of report narratives,

tables, and charts.



#### INVOICE Newark, DE 302-655-4451 Fax; 302-654-2895

Remit Payment To: Pennoni Associates Inc. 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 #: 630893 Invoice Date: 04/01/2015 Project: EGMA1504

Project Name: Reservoir Rd PS Design &

Permittina

For Services Rendered through: 3/22/2015

Phase 01 - We prepared the 2nd and 3rd (final) iterative drafts of the concept site plan, profiles, diversion approach, and building layout; updated cost estimates accordingly; updated the outline of pump station design, operations, and controls parameters accordingly; continued coordination with vendors and Township staff to determine suction lift pumps are infeasible and to design for submersibles in a wet well; and prepared for the final concept plan presentation at the March MA meeting. Phase 01 is completed. FINAL INVOICE FOR PHASE 01.

Phase 02 - We prepared for and attended the permit pre-application meeting at PADEP's office. Preparation included evaluation of permitting forms and typical requirements, revisions to concept plans to address comments from March MA meeting, and coordination with Township Manager. We also prepared meeting minutes. Phase 02 is completed. FINAL INVOICE FOR PHASE 02.

Phase 09 - We initiated the progress design effort including site layout, wet well sizing and sections, pump and operating range design, and cursory evaluation of availability of 3-phase electric.

Phase: 01 -- Concept Design

Total Phase : 01 -- Concept Design Labor : Expense :

Expense: 0.00 Phase Total: 2,797.50

2,797.50

Phase: 02 -- PADEP WQM Permit Pre-Application Mt

Total Phase : 02 -- PADEP WQM Permit Pre-Application Mt Labor : 1,300.00

Expense: 0.00 Phase Total: 1,300.00

Phase: 09 -- Progress Design

Total Phase: 09 -- Progress Design Labor: 2,522.00

Expense: 0.00 Phase Total: 2,522.00

Amount Due This Invoice

Fee: 68,600.00

 Prior Billings :
 15,695.00

 Current Billings :
 6,619.50

 Total Billings :
 22,314.50

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\$6,619.50

Continued on next page...

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

to

Date:

3/22/2015

4/1/2015

Project:

**Contract Amount:** 

**Current Invoice:** 

Previously Invoiced:

EGMA1504

Pennoni Job No.:

Reservoir Rd PS Design & Permitting

Invoice No:

630893 & 630894

Invoice Period: Initial Authorization:

2/16/2015 \$ 103,920.00 \$ 103,920.00 \$ 15,695.00 \$ 18,607.75 \$ 34,302.75

Invoiced to Date (\$): Invoiced to Date (%): Remaining Budget (\$):

\$ 34,302.75 33% \$ 69,617.25

Remaining Budget (%):

67%

#### **Budget by Phase:**

Phase Name:	Con	cept Plans	Phase 01
Phase Budget:	\$	13,700.00	
Previously Invoiced:	\$	10,858.25	
Current Invoice:	\$	2,797.50	
invoiced to Date (\$):	\$	13,655.75	
Invoiced to Date (%):		99.7%	
Remaining Budget (\$):	\$	44.25	
Remaining Budget (%):		0.3%	

#### Comments:

Phase 01 - We prepared the 2nd and 3rd (final) iterative drafts of the concept site plan, profiles, diversion approach, and building layout; updated cost estimates accordingly; updated the outline of pump station design, operations, and controls parameters accordingly; continued coordination with vendors and Township staff to determine suction lift pumps are infeasible and to design for submersibles in a wet well; and prepared for the final concept plan presentation at the March MA meeting. Phase 01 is completed. FINAL INVOICE FOR PHASE 01.

Project:

EGMA1504

Pennoni Job No.:

Reservoir Rd PS Design & Permitting

Invoice No:

630893 & 630894

Invoice Period: Initial Authorization: \$

2/16/2015 to 103,920.00 Date:

3/22/2015 4/1/2015

**Contract Amount:** Previously Invoiced: **Current Invoice:** 

Invoiced to Date (\$):

\$ 103,920.00 \$ 15,695.00 \$ 18,607.75 \$ 34,302.75 33%

Invoiced to Date (%): Remaining Budget (\$): Remaining Budget (%):

69,617.25 67%

#### **Budget by Phase:**

PADEP WQM

Permit Pre-Phase Name: **Appllication Mt** 

Phase 02

Phase Budget:

\$ 1,400.00 \$ Previously Invoiced: **Current Invoice:** 1,300.00 Invoiced to Date (\$): \$ 1,300.00 Invoiced to Date (%): 93% Remaining Budget (\$): 100.00

Remaining Budget (%):

7%

#### Comments:

Phase 02 - We prepared for and attended the permit pre-application meeting at PADEP's office. Preparation included evaluation of permitting forms and typical requirements, revisions to concept plans to address comments from March MA meeting, and coordination with Township Manager. We also prepared meeting minutes. Phase 02 is completed. FINAL **INVOICE FOR PHASE 02** 

Project: EGMA1504

Pennoni Job No.: Reservoir Rd PS Design & Permitting

Invoice No: 630893 & 630894

 Invoice Period:
 2/16/2015
 to
 3/22/2015

 Initial Authorization:
 \$ 103,920.00
 Date:
 4/1/2015

**Contract Amount:** \$ 103,920.00 Previously Invoiced: \$ 15,695.00 **Current Invoice:** 18,607.75 Invoiced to Date (\$): \$ 34,302.75 Invoiced to Date (%): 33% Remaining Budget (\$): \$ 69,617.25 Remaining Budget (%): 67%

#### **Budget by Phase:**

	Existing		
Phase Name:	Co	nditions Survey	Phase 03
Phase Budget:	\$	23,300.00	
Previously Invoiced:	\$	836.75	
Current Invoice:	\$	11,988.25	
Invoiced to Date (\$):	\$	12,825.00	
Invoiced to Date (%):		55%	
Remaining Budget (\$):	\$	10,475.00	
Remaining Budget (%):		45%	

Comments:

Phase 03 - We performed field survey at the proposed point of connection to the Ridley Creek interceptor sewer, around the Bow Tree pond, and along a portion of Bow Tree Drive; and we created an existing conditions and topography plan from the surveyed data.

Project: EGMA1504

Pennoni Job No.: Reservoir Rd PS Design & Permitting

Invoice No: 630893 & 630894

 Invoice Period:
 2/16/2015
 to
 3/22/2015

 Initial Authorization:
 \$ 103,920.00
 Date:
 4/1/2015

**Contract Amount:** \$ 103,920.00 **Previously Invoiced:** \$ 15,695.00 **Current Invoice:** 18,607.75 Invoiced to Date (\$): \$ 34,302.75 Invoiced to Date (%): 33% Remaining Budget (\$): \$ 69,617.25 Remaining Budget (%): 67%

#### **Budget by Phase:**

		Stakeout in	
Phase Name:	Ea	sement Areas	Phase 04
Phase Budget:	\$	3,600.00	
Previously Invoiced:	\$	-	
Current Invoice:	\$	-	
Invoiced to Date (\$):	\$	•	
Invoiced to Date (%):		0%	
Remaining Budget (\$):	\$	3,600.00	
Remaining Budget (%):		100%	

Comments: ta.

3/22/2015 4/1/2015

Project:	
Donnaut	

EGMA1504

Pennoni Job No.:

Reservoir Rd PS Design & Permitting

67%

Invoice No:

630893 & 630894

Invoice Period:		2/16/2015	to
Initial Authorization:	\$	103,920.00	Date:
<b>Contract Amount:</b>	\$	103,920.00	
Previously invoiced:	\$	15,695.00	
Current Invoice:	\$	18,607.75	
Invoiced to Date (\$):	\$	34,302.75	
Invoiced to Date (%):	•	33%	
Remaining Budget (\$);	\$	69.617.25	

Budget by Phase:

Remaining Budget (%):

Phase Name:	36 Bow Tree Dr ndry Survey & Easement	Dhana Af
	Lasement	Phase 05
Phase Budget:	\$ 4,020.00	
Previously Invoiced:	\$ -	
Current Invoice:	\$ -	
Invoiced to Date (\$):	\$ -	
Invoiced to Date (%):	0%	
Remaining Budget (\$):	\$ 4,020.00	
Remaining Budget (%):	100%	

#### **Comments:**

Project: EGMA1504

Pennoni Job No.: Reservoir Rd PS Design & Permitting

Invoice No: 630893 & 630894

Invoice Period: 2/16/2015 to 3/22/2015 **Initial Authorization:** \$ 103,920.00 Date: 4/1/2015 **Contract Amount:** \$ 103,920.00 Previously Invoiced: \$ 15,695.00 **Current Invoice:** 18,607.75 Invoiced to Date (\$): 34,302.75 Invoiced to Date (%): 33% Remaining Budget (\$): 69,617.25 Remaining Budget (%): 67%

#### **Budget by Phase:**

	Add'l Bndry		
	Survey &		
Phase Name:	Easement	Phase 06	
Phase Budget:	\$ 9,000.00		
Previously Invoiced:	\$ -		
Current Invoice:	\$ -		
Invoiced to Date (\$):	\$ -		
Invoiced to Date (%):	0%		
Remaining Budget (\$):	\$ 9,000.00		
Remaining Budget (%):	100%		

#### Comments:

Project: EGMA1504

Pennoni Job No.: Reservoir Rd PS Design & Permitting

Invoice No: 630893 & 630894

 Invoice Period:
 2/16/2015
 to
 3/22/2015

 Initial Authorization:
 \$ 103,920.00
 Date:
 4/1/2015

**Contract Amount:** \$ 103,920.00 Previously Invoiced: \$ 15,695.00 **Current Invoice:** 18,607.75 Invoiced to Date (\$): \$ 34,302.75 Invoiced to Date (%): 33% Remaining Budget (\$): \$ 69,617.25 Remaining Budget (%): 67%

#### **Budget by Phase:**

Phase Name:	Ged	technical Boring	Phase 07
Phase Budget:	\$	4,000.00	
Previously Invoiced:	\$	4,000.00	
Current Invoice:	\$	, -	
Invoiced to Date (\$):	\$	4,000.00	
Invoiced to Date (%):		100%	
Remaining Budget (\$):	\$	-	
Remaining Budget (%):		0%	

#### Comments:

# East Goshen Municipal Authority EGMA1504 Invoice Summary Invoice Date04/01/2015

Project: EGMA1504

Pennoni Job No.: Reservoir Rd PS Design & Permitting

Invoice No: 630893 & 630894

 Invoice Period:
 2/16/2015
 to
 3/22/2015

 Initial Authorization:
 \$ 103,920.00
 Date:
 4/1/2015

**Contract Amount:** \$ 103,920.00 Previously Invoiced: \$ 15,695.00 **Current Invoice:** \$ 18,607.75 Invoiced to Date (\$): \$ 34,302.75 Invoiced to Date (%): 33% Remaining Budget (\$): \$ 69,617.25 Remaining Budget (%): 67%

# **Budget by Phase:**

Phase Name:	nanent Survey chmarks	Phase 08
Phase Budget:	\$ 4,000.00	
Previously Invoiced:	\$ -	
Current Invoice:	\$ -	
Invoiced to Date (\$):	\$ -	
Invoiced to Date (%):	0%	
Remaining Budget (\$):	\$ 4,000.00	
Remaining Budget (%):	100%	

### Comments:

# East Goshen Municipal Authority EGMA1504 Invoice Summary Invoice Date04/01/2015

Project: EGMA1504

Pennoni Job No.: Reservoir Rd PS Design & Permitting

Invoice No: 630893 & 630894

 Invoice Period:
 2/16/2015
 to
 3/22/2015

 Initial Authorization:
 \$ 103,920.00
 Date:
 4/1/2015

**Contract Amount:** \$ 103,920.00 Previously Invoiced: \$ 15,695.00 **Current Invoice:** 18,607.75 Invoiced to Date (\$): \$ 34,302.75 Invoiced to Date (%): 33% Remaining Budget (\$): \$ 69,617.25 Remaining Budget (%): 67%

## **Budget by Phase:**

Phase Name:	Pro	gress Design	Phase 09
Phase Budget:	\$	39,100.00	
Previously Invoiced:	\$	-	
Current Invoice:	\$	2,522.00	
Invoiced to Date (\$):	\$	2,522.00	
Invoiced to Date (%):		6%	
Remaining Budget (\$):	\$	36,578.00	
Remaining Budget (%):		94%	

### Comments:

Phase 09 - We initiated the progress design effort including site layout, wet well sizing and sections, pump and operating range design, and cursory evaluation of availability of 3-phase electric.

# East Goshen Municipal Authority EGMA1504 Invoice Summary Invoice Date04/01/2015

to

Date:

Project:

EGMA1504

Pennoni Job No.:

Reservoir Rd PS Design & Permitting

**Invoice No:** 

630893 & 630894

Invoice Period:

2/16/2015 103,920.00

3/22/2015 4/1/2015

Initial Authorization: Contract Amount: \$ 103,920.00 \$ 103,920.00

Previously Invoiced:

\$ 15,695.00 \$ 18,607.75

Invoiced to Date (\$):

**Current Invoice:** 

\$ 34,302.75

Invoiced to Date (%): Remaining Budget (\$):

33% 69,617.25

Remaining Budget (%):

67%

## **Budget by Phase:**

Phase Name:	Infi	Itration Testing	Phase 10
Phase Budget:	\$	1,800.00	
Previously Invoiced:	\$	-	
Current Invoice:	\$	~	
Invoiced to Date (\$):	\$	-	
Invoiced to Date (%):		0%	
Remaining Budget (\$):	\$	1,800.00	
Remaining Budget (%):		100%	

\$

### Comments:



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

Remit Payment To: Pennoni Associates Inc. 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 #: 630894

Invoice Date: 04/01/2015 Project: EGMA1504

Project Name: Reservoir Rd PS Design &

Permitting

For Services Rendered through: 3/22/2015

Phase 03 - We performed field survey at the proposed point of connection to the Ridley Creek interceptor sewer, around the Bow Tree pond, and along a portion of Bow Tree Drive; and we created an existing conditions and topography plan from the surveyed data.

Phase: 03 -- Existing Conditions Survey

Contract Amount

\$23,300.00

Percent Complete

55.04%

Contract Amount Completed

\$12,825.00

Less Previous Billed

\$(836.75)

Phase Subtotal

\$11,988.25

\$11,988.25

**Amount Due This Invoice** 

\$11,300.25

OK 75 4-10

Expense:

Project : EGMA1504 Reservoir Rd	PS Design & Pe	rmitting	Invoid	e # : 630893
Continued from previous page				
Phase : 01 — Concept Design				
<b>Labor</b> <i>Class</i>	Hours/			
Authority Engineer	<u>Units</u>	Rate		Amoun
	7.75	115.00		891.25
Senior Engineer	3.00	110.00		330.00
Project Engineer	16.25	97.00		1,576.25
Labor Total:	27.00			2,797.50
Total Phase : 01 Concept Design			Labor :	\$2,797.50
		and the second s	Expense :	\$0.00
Phase : 02 PADEP WQM Permit Pre-Applic	cation Mt			
_abor	Hours/			
Class	<u>Units</u>	Rate		Amount
Authority Engineer	10.25	115.00		1,178.75
Project Engineer	1.25	97.00		121.25
Labor Total:	11.50			1,300.00
Total Phase : 02 PADEP WQM Permit Pre-	Application Mt		Labor :	\$1,300.00
			Expense :	\$0.00
Phase : 09 — Progress Design				
.abor	Hours/			
Authority Engineer	<u>Units</u>	Rate		Amount
Authority Engineer	3.50	115.00		402.50
Project Engineer	11.00	97.00		1,067.00
Staff Engineer	1.00	90.00		90.00
Engineering Technician II	12.50	77.00		962.50
Labor Total:	28.00			2,522.00
otal Phase : 09 Progress Design			Labor :	\$2,522.00
			Expense :	\$0.00
otal Project : EGMA1504 — Reservoir Rd PS	Design & Permit	ting	Labor :	\$6,619.50

\$0.00



# Gawthrop Greenwood, PC Attorneys at Law

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

(f) 610-344-0922

East Goshen Municipal Authority 1580 Paoli Pike West Chester PA 19380

Page: 1 03/09/2015

Client No: Invoice No.

6604-001M 129252

General Authority Services

#### Fees

JKW Review meeting packet in preparation for Municipal Authority meeting.  02/09/2015  JKW Attend Municipal Authority meeting. For Current Services Rendered  Recapitulation Timekeeper Jessica K. Wiesak  Previous Balance  Total Current Charges  360  361	02/06/2015				Hours	
JKW Attend Municipal Authority meeting. For Current Services Rendered  Recapitulation Timekeeper Jessica K. Wiesak  Previous Balance  Total Current Charges  1.30 1.80 36i 1.80  Recapitulation 1.80  Hourly Rate \$\frac{1}{3}\text{Total}\$ \$\frac{1}{3}\tex	02/06/2015 JKW		al Authority		0.50	
For Current Services Rendered  Recapitulation Timekeeper Jessica K. Wiesak  Previous Balance Total Current Charges  1.80  Recapitulation Hours 1.80 Hourly Rate 5200.00 \$360.00		Attend Municipal Authority meeting.			1.30	
Timekeeper Jessica K. Wiesak  Previous Balance  Total Current Charges  Hours 1.80  Hourly Rate 5200.00  \$360.00		BELT :			-	360.00
Jessica K. Wiesak 1.80 \$200.00 \$360.00  Previous Balance \$300  Total Current Charges 360		Recapitulation				
Total Current Charges 366	The state of the s		marked to the property of	Annual Control of Cont		Management of Contract of
		Previous Balance				\$300.00
Rajanca Dua		Total Current Charges				360.00
balance Due		Balance Due				\$660.00

# Memo

To: Municipal Authority

From: Jon Altshul

Re: MA March Financial Reports

Date: April 8, 2015

In March, the Municipal Authority recorded \$132 in revenues and \$24,672 in expenses (including \$8,292 for the quarterly overhead chargeback, \$10,395 for Reservoir Rd Pump Station engineering and \$5,685 for general engineering), for a variance of -\$24,540. As of March 31, the fund balance was \$1,551,504, of which \$1,505,313 is in the construction account.

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

# **EAST GOSHEN TOWNSHIP** 1580 PAOLI PIKE

Municipal Authority March 2015 WEST CHESTER, PA

Account Title	Acct #	Annual Budget	Month To Date Actual	e Year To Date Actual
ICIPAL AUTHORITY BEGINNING FUND BALANCE			1,576,043.38	

Account title	ACCT #	Budget	Actual	Actual	
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE			1,576,043.38		
RCSTP BUDGET					
REVENUE					
INTEREST EARNED - RCSTP EXPANSION	07341 1020	1,600.00	131.27	382.32	
GRANT REVENUE	07392 0800	0.00	0.00	0.00	
TOTAL REVENUE		1,600.00	131.27	382.32	
EXPENSES					
R.CCAP. PROJENGINEER	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		1,600.00	131.27	382.32	

# EAST GOSHEN TOWNSHIP 1580 PAOLI PIKE

WEST CHESTER, PA Municipal Authority March 2015

		Annual	Month To Date	Year To Date
Account Title	Acct #		Actual	Actual
OPERATING BUDGET				
REVENUE				
INTEREST EARNINGS	07341 1000	15.00	1.03	3.64
C.C. TAPPING FEES	07364 1100	0.00	0.00	0.00
R.C.TAPPING FEES	073641110	14,296.00	000	0.00
CONNECTION FEES - SEWER	07364 1130	0.00	000	845.64
MISCELLANEOUS REVENUE	07380 1000	0.00	0.00	423.36
TRANSFER FROM SEWER OPERATING	07392 0500	105,105.00	0.00	0.00
TOTAL REVENUE		119,416.00	1.03	1,272.64
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	33,323.00	8,292.10	8,292.10
MISCELLANEOUS EXPENSE	07424 3000	3,000.00	0.00	1,450.00
MUNIC.AUTHAUDITING	074243110	10,984.00	0.00	00.00
ENGINEERING SERVICES	07424 3130	37,300.00	5,685.00	12,518.00
LEGAL SERVICES	07424 3140	9,000.00	300.00	300.00
M.CDVRFA-DEBT SERVICE	07471 1000	23,240.00	0.00	0.00
M.CDVRFA-INTEREST PAYMN	07472 1000	4,169.00	0.00	0.00
M.CDVRFA-INTEREST PAYMN	07472 1010	0.00	0.00	0.00
TOTAL EXPENSES		121,016.00	14,277.10	22,560.10
A III COLO BAIN O INVANCA		THE PERSON NAMED IN	The Control of the Co	100000
OPERATING NET RESULT		(1,600.00)	(14,276.07)	(21.287.46)

# EAST GOSHEN TOWNSHIP 1580 PAOLI PIKE

WEST CHESTER, PA Municipal Authority March 2015

		- Annual	Month To Date	Vort To Date
Account Title	Acct #	Budget	Actual	Actual
CAPITAL BUDGET				
REVENUE				
LOAN PROCEEDS-SEWER PROJECT	07393 1001	0.00	00.0	00.00
TRANSFER FROM SEWER CAP RESERVE	07392 0900	0.00	0.00	0.00
TOTAL BEVENILE		000	0	000
פוטריייד		000	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	00.00	0.00
MANHOLE COVER REPLACEMENTS	07424.7405	0.00	00.0	00.00
C.C. CAPITAL - COLLECTION	07424.7420	0.00	00.0	00.0
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	0.00	00.00	00:0
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	0.00	00.0	00.0
LOCHWOOD ELIMINATION PHASE 2	07424 7477	0.00	00.00	00:0
HERSHEY MILL STATION - ENGINEER	07426 1000	0.00	00.00	00.0
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	0.00	00.00	00.0
RESERVE PUMP STATION - ENGINEER	07427 1000	00.00	00.00	00.00
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	000	0000	00.0
RESERVOIR PUMP STATION - ENGINEER	07428 1000	100,000,001	10,394.70	16,767.50
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00
TOTAL EXPENSES		100,000.00	10,394.70	16,767.50
CAPITAL NET RESULT		(100,000.00)	(10,394,70)	(16,767.50)
MINICIPAL ALITHOBITY ENDING FLIND BALANCE			1 551 503 88	
MONICIL ALACTICINI LINGUIS LONG DATA			DO'COC'TCC'T	

Report Date 04/08/15

GL Transaction Details

PAGE

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
 07341-1000	INTE	 REST	EARNINGS	 }		0.00				
	1501	JE	46156					INTEREST		INTEREST EARNED JANUARY 2015 07 FUND
		****		0.00		-1.44				
	1502		46526		1.17		03/02/15	INTEREST		INTEREST EARNED FEBRUARY 2015 07 FUND
						-2.61		int int int int 500 the 504 the 504 the 504 the 504 the 504 the		
	1503		46944				04/02/15			INTEREST EARNED MARCH 2015 07 FUND
				0.00	1.03	-3.64				
				0.00	3.64					
07341-1020	INTE	REST	EARNED -	RCSTP EXP	NSION	0.00				
	1501		46156		131.97		02/03/15	INTEREST		INTEREST EARNED JANUARY 2015 07 FUND
						-131.97				
	1502		46526							INTEREST EARNED FEBRUARY 2015 07 FUND
						-251.05				
	1503		46944		131.27		04/02/15	Interest		INTEREST EARNED MARCH 2015 07 FUND
				0.00	131.27	-382.32				
				0.00	382.32	-382.32				
07364-1130	CONN	ECTI(	ON FEES -	SEWER		0.00				
	1501	CR	45967		423.00		01/16/15	789	8648	L GEORGE SMITH & CHRISTINA CONLE
		JE	45968	141.12				PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				141.12	423.00	-281.88				
	1502	CR	46296		423.00		02/13/15			L JACOBS, ROBERT & CHERYL
			46479		423.00		02/26/15		8649	L STOFFLET, MICHAEL
		JE		141.12				PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			46480	141.12		*****	02/26/15	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				282.24	846.00	-845.64				

Report Date 04/08/15

GL Transaction Details

PAGE

Credits Beg/End Bal Date Check/Ref # ID # Acct # Per Src Trx # Debits Name/Description 141.12 01/16/15 PINE ROCK ANNUAL PINE ROCK INSTALLMENT 0.00 141.12 -141.12 141.12 141.12 46297 02/13/15 PINE ROCK 1502 ANNUAL PINE ROCK INSTALLMENT 02/26/15 PINE ROCK 46480 ANNUAL PINE ROCK INSTALLMENT 282.24 -423.36 0.00 423.36 -423.36 07424-1400 ADMINISTRATIVE WAGES 0.00 03/30/15 2267 1503 CD 46874 8,292.10 425 EAST GOSHEN TOWNSHIP - GENERAL 1ST QTR.2015 REIMBURS. FR: MUN.A 8,292.10 0.00 8,292.10 0.00 8,292.10 8,292.10 07424-3000 MISCELLANEOUS EXPENSE 0.00 01/02/15 2260 2132 PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOC 1501 45777 950.00 2015 ACTIVE MEMBERSHIP DUES 46110 500.00 01/29/15 2263 2737 COMMONWEALTH OF PA ANNUAL FEE - NPDES PERMIT -CHAP. 0.00 1,450.00 1,450.00 1,450.00 0.00 1,450.00 07424-3130 ENGINEERING SERVICES 01/15/15 2261 1052 PENNONI ASSOCIATES INC. 45953 621.50 SERVICES THRU 12/7/14 GENERAL 46013 640.00 01/22/15 2262 1052 PENNONI ASSOCIATES INC. SERVICE THRU 11/9/14 GEN.SERVICE \_\_\_\_\_\_ 1,261.50 0.00 1,261.50 46311 5,571.50 02/13/15 2264 1502 1052 PENNONI ASSOCIATES INC. SERVICES THRU 1/18/15 2014 CHAP. 5,571.50 0.00 6,833.00 1503 46649 5,685.00 03/12/15 2266 1052 PENNONI ASSOCIATES INC. SERVICES THRU 2/15/15 2014 CHAP. 5,685.00 0.00 12,518.00

12,518.00 0.00 12,518.00

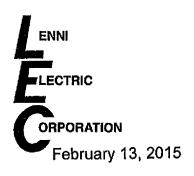
Report Date 04/08/15

Beg Bal

GL Transaction Details

PAGE

Acct # Per Src Trx # Debits Credits Beg/End Bal Date Check/Ref # ID # Name/Description 07424-3140 LEGAL SERVICES 0.00 03/12/15 2265 300.00 528 GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - 1/12/15 GEN.AUT 300.00 0.00 300.00 300.00 0.00 300.00 07428-1000 RESERVOIR PUMP STATION - ENGINEER 0.00 01/15/15 10029 1052 PENNONI ASSOCIATES INC. 1501 45954 137.50 SERV.THRU 12/7/14 RESERV.RD ACT 46014 852.50 01/22/15 10030 1052 PENNONI ASSOCIATES INC. SERVICE THRU 11/9/14 RESERVOIR R 990.00 0.00 990.00 1502 46312 5,382.80 02/13/15 10031 1052 PENNONI ASSOCIATES INC. SERV.THRU 1/18/15 RESERVOIR RD.P ACT 537 PLANNING 5,382.80 0.00 6,372.80 03/12/15 10032 1052 PENNONI ASSOCIATES INC. 1503 46650 10,394.70 SERV. THRU 2/15/15 RESERVOIR RD. 10,394.70 0.00 16,767.50 16,767.50 0.00 16,767.50 0.00 39,750.96 2,078.32 37,672.64



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

Attn: Mr. Mark Miller

Re: Ridley Creek WWTP - TVSS Replacement

We offer a T & M budget price of \$4,168.85 for the following electrical work at the above referenced location. Our price includes:

1 – Replace existing GE TPHE2774OME TVSS in MDP-B

Materials	\$3,339.00
15%	\$500.85
Labor mechanic 4 hrs. @ \$75.50	\$307.00
Service Truck	\$27.00
OCIVIOS TIAGN	\$4,168.85

If you have any questions, please do not hesitate to contact me directly @ 610-636-6511.

Sincerely,

LENNI ELECTRIC CORPORATION

James C. Hallman, Jr.

C & I Division



February 13, 2015

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

Attn: Mr. Mark Miller

Re: Ridley Creek WWTP - TVSS for UV System

We offer a T & M budget price of \$5,402.80 for the following electrical work at the above referenced location. Our price includes:

- 1 Install new GE TPR7120S12WMNiD TVSS in control room after the transformer install, ahead of the UV system controls install
- LS Rework pipe and wire

Materials	\$4,092.00
15%	\$613.80
Labor mechanic 5 hrs. @ \$75.50	\$377.50
Labor apprentice 5 hrs. @ \$58.50	\$292.50
Service Truck	\$27.00
	\$5,402.80

If you have any questions, please do not hesitate to contact me directly @ 610-636-6511.

Sincerely,

LENNI ELECTRIC CORPORATION

James C. Hallman, Jr.

C & I Division



## April 10, 2015

Rick Smith, Township Manager East Goshen Township 1580 Paoli Pike West Chester, PA 19380

Re: Proposal for Professional Services

Township Wastewater Capacity Needs Evaluation Update

Dear Mr. Smith:

Pennoni Associates Inc. is pleased to submit the following proposal to update the East Goshen Township Wastewater Capacity Needs Evaluation.

### **BACKGROUND**

Pennoni evaluated and projected the potential maximum future wastewater flows throughout East Goshen Township in the attached "Township Wastewater Capacity Needs Evaluation" letter, dated February 9, 2007. The maximum Township-wide future public wastewater flow was projected to be 1.736 MGD. This evaluation was the basis for the recent expansion of the Ridley Creek Sewage Treatment Plant (RCSTP), several constructed pump station and gravity sewer diversions, and the planned Reservoir Road Pump Station diversion.

This evaluation is over eight years old, and actual flows, existing connections, and projected connections vary from that which was predicted in 2007. There is also interest from adjacent municipalities to connect new development(s) and an existing development with failing on-lot systems to East Goshen's sewer system. The Needs Evaluation needs to be revisited and updated to determine East Goshen's current wastewater needs as well as the feasibility of additional connections from other municipalities.

#### SCOPE OF WORK

Pennoni will update the Needs Evaluation based on existing flows, currently committed and approved flows, and potential flows from within the Township. Potential flows will be focused on large undeveloped tracts but may also include existing developments with problematic on-lot systems. The total future projected flow in the Township will be compared to the capacity of the RCSTP and the allowable capacity of the intermunicipal agreement with West Goshen Township to determine available capacity for connections from other municipalities. We will prepare a letter report to summarize the analysis in a similar format to the attached 2007 letter.

### **SCHEDULE**

We anticipate the evaluation can be completed within 30 days of Notice to Proceed.

### **FEE**

Our estimated fee, to be billed on a time and material basis, is \$2,050.00. Work will be completed on an hourly basis, billed at the Authority's approved rates for Pennoni for the year in which work is performed.

Extraordinary expenses, authorized in advance and identifiable to the specific project will be billed in addition to the above stated fees. These expenses include, but are not limited to: application fees, UPS and delivery charges, and the reproduction of plans and specifications by outside services. We do not bill for such items as relatively small amounts of in-house printing, mailing expenses, reasonable telephone calls, and travel expenses.

## **BILLING AND PAYMENT**

Fees will be billed monthly, based on actual services completed. Payment is due upon receipt of invoice. Billing and Payment shall be in accordance with Item three (3) of the below-referenced General Terms and Conditions.

The client acknowledges that the method of Billing and Payment has been discussed in detail; that the terms agreed upon can only be changed by a written addendum agreed to by both parties; and work may be stopped until payment is made in accordance with the agreement.

# TERMS AND CONDITIONS

### General

Pennoni Associates Inc. General Terms and Conditions (Form No. LE01, Rev. 09/2002) are considered as part of this proposal.

We appreciate this opportunity to submit our proposal. Should you have any questions or need additional information, please do not hesitate to call. Please sign and return one (1) copy of this proposal as our Notice to Proceed.

Sincerely,

PENNONI ASSOCIATES INC.

Michael J. Ellis, P.E. Authority Engineer

ACCEPTED BY:		
	(Print Name and Title)	
DATE:		