### **EAST GOSHEN MUNICIPAL AUTHORITY**

### September 10, 2012 Monday 7:00 PM

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

- a. Ask if anyone will be taping the meeting?
- 2. CHAIRMAN'S REPORT/OTHER MEMBERS REPORTS
- 3. APPROVAL OF MINUTES
  - a. August 13, 2012
- 4. APPROVAL OF INVOICES

a.	Pennoni	#517331	\$ 716.50
b.	Pennoni	#517332	\$ 6,890.75
c.	Pennoni	#517333	\$ 258.00
d.	Pennoni	#517334	\$ 190.50
e.	Pennoni	#517336	\$ 3,966.00
f.	Pennoni	#App. No. 3	\$ 13,632.57

- 5. <u>LIAISON REPORTS</u>
- 6. FINANCIAL REPORTS
  - a. August 2012 Report
- 7. OLD BUSINESS
- 8. GOALS
  - a. August Goals
- 9. <u>NEW BUSINESS</u>
- 10. <u>CAPACITY REQUESTS</u>
- 11. <u>SEWER REPORTS</u>
  - a. Director of Public Works Report
  - b. Pennoni Engineer's Report
  - c. DEP Stream Report for Ridley Creek
  - d. Big Fish Environmental Inc Report with DMR's
  - e. East Goshen Township Flows for August 2012
- 12. ANY OTHER MATTER
- 13. CORRESPONDENCE AND REPORTS OF INTEREST

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- 14. PUBLIC COMMENT
- 15. <u>ADJOURNMENT</u>

<u>Reminder</u> – NEWSLETTER ARTICLE SUBMISSION DUE DATES:

Article Due Date
Aug 1, 2012

Website Posting Date

### 1 draft 2 EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY 3 **MEETING MINUTES** 4 August 13, 2012 5 6 The East Goshen Township Municipal Authority held their regularly scheduled meeting on Monday, August 13, 2012 at 7:00pm at the East Goshen Township building. Members in 7 attendance were: Chairman Dana Pizarro, Vice Chairman Fran Beck, Jack Yahraes and Kevin 8 Cummings. Also in attendance were: Rick Smith (Township Manager), Dan Barbato 9 (Pennoni), Bob Adams, Scott Towler (BFES), and Walter Wujick (Conservancy Board). 10 11 12 Call to Order & Pledge of Allegiance Dana called the meeting to order at 7:00pm and led those present in the Pledge of Allegiance. 13 There was a moment of silence to remember the troops. Dana asked if anyone would be 14 recording the meeting and there was no response. 15 16 17 Chairman's Report 18 Dana will attend the PMAA meeting this month. 19 Dana was at a meeting in Harrisburg and saw Lee McDonald who said there are no 20 changes in SEPA for now. 21 Dana will submit an article for the Fall Newsletter. 22 23 **Approval of Minutes** The Chairman noted that the minutes of the July 9, 2012 meeting were approved as corrected. 24 25 26 Approval of Invoices 27 Fran moved to approve payment of Pennoni invoices: 28 #514183 \$ 5,848.50 29 #514184 \$ 2,976.25 30 #514185 \$ 670.50 31 #514186 \$ 2,283.75 32 #514187 \$ 1,441.50 33 Jack seconded the motion. The motion passed unanimously. 34 Dan verified that the construction phase for Lockwood is done. 35 36 Fran moved to approve payment of Gawthrop Greenwood invoice: 37 #100917 475.00 Rick verified that invoice #100326 for \$684 was already approved. 38 39 Jack seconded the motion. The motion passed unanimously. 40 41 Rick presented an invoice dated August 13, 2012 for reimbursement of the Township staff's time at Lockwood for \$43,397.75 for the time period 7/1/12 to 8/12/12. He pointed out that if the 42 Public Works Dept. did not do this work, it would cost \$112,000. Fran moved to approve 43 payment. Jack seconded the motion. The motion passed unanimously. 44 45

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### **Liaison Reports**

Conservancy Board - Walter reported that the Board has a new member, Bill Coffey. The Board of Supervisors approved the name of Clymer's Woods for the reforested area in Applebrook. On July 31, 2012, the Board and some residents walked the Goshen Meadows site. They met with the contractor who currently sprays for invasives to discuss expanding this area.

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### **Financial Reports**

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Jon Altshul, CFO, provided reports in a new format that the Authority members 1 found easier to understand.

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### **Old Business**

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A letter from the DEP to Goshen Meadows listing the items the need to submit 1. was reviewed.

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2. Saturday October 20, 2012 will be the tour of the Ridley Creek Sewer Treatment Plant from 10:00 am to 12:00 noon. Jack suggested a handout be designed. Scott will make posters. Rick suggested making a tape and put it on the website. Employees need to be there for safety reasons.

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### Goals

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- 1. Newsletter Joe will do an article for the next Newsletter.
- 2. Dana will attend the September meeting at West Goshen.

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### **New Business**

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### **Capacity Requests**

None

None

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### **Sewer Reports**

Mark Miller, Director of Public Works, provided the following report for July: Lockwood: About 90% of the closure of the Lockwood Plant is completed. They raked and seeded and laid down straw on the disturbed areas. As a matter of fact, the grass has started to come up. Mark is happy to report that the only hauling costs were for the fill dirt they stack piled at the Milltown yard. He was able to contact several contractors including Lyons & Hohl. Inc., who hauled in fill from two of the sites, approx. 25,000 yards. If the Township would have had to pay the trucking costs, it would have been \$112,000.00. The Public Works employees did an excellent job as the bulk of the work was done during those hot and humid days.

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Have been read on a daily basis. The meter on Paoli Pike appears to have Meters: been struck by lightning. Mark contacted the insurance company to see if a claim can be filed.

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C.C. Collection: Pumping Stations have been visited on a daily basis. They had to do some repair work at the Barkway Pump Station because they received alarms for a pump failure. They found that pump 2 sheared the impeller shaft. When they pulled the pump, they also found problems with the new style elbow. It would not fit the connection.

They had to take the equipment back to the shop and fabricate a new elbow. They also drilled and tapped the force main and installed pressure gauges. By doing so, it now allows them to get an actual pressure reading on each pump. Mark met John Laidley at the station to discuss the discharge pressure on the pumps. Because Mark didn't like the pump down time after reviewing the pump curve, they decided to increase the impeller size to 10". After doing so, they increased the gpm (gallons per minute). Pump 1 was pulled and the impeller was changed. Also, the station was put back on line and is working very well.

They located the utilities on Paoli Pike for the Marydell Pump Station abandonment. Shainline Excavation used their Vac Truck to locate the lines rather than using a backhoe. R.C. Collection: The pumping station was visited on a routine basis. They found the automatic dialer died. John Laidly checked it out and recommended that the unit be replaced as the original dialer had 30 years of service. A new unit was installed August 8, 2012.

<u>Ridley Creek Plant</u>: The new flow meter was delivered last week. Once they complete the Lockwood Closure, they will get it installed.

The Township was notified of six sewer lateral backups. They were able to clear all of them.

PA-One Calls: 168 calls were made in July.

### 2. <u>Dan Barbato, Pennoni, provided the engineer's report:</u>

<u>Invoices</u>: Invoices with summaries are provided under separate cover.

<u>Ridley Creek Sewage Treatment Plant (RCSTP)</u> – No activity this period. We will assist with supporting and reviewing warranty claims, plant troubleshooting and operations support as requested.

### LCSTP Elimination

Existing sewers and manholes to be abandoned in-place were filled with flowable fill material. The contractor's only remaining work at the time of this report is preparation of as-built plans and to install lot pins at two property corners between 920 and 922 Dolphin Drive.

We performed on-site, part-time construction inspection services during the flowable fill work. We have also provided in-office construction support to coordinate completion of the punchlist items.

We have requested the contractor complete the remaining work, submit a final payment request, and submit contract closeout documents prior to the August 13<sup>th</sup> Authority meeting.

### Hershey's Mill PS Diversion and Reserve PS Elimination

We submitted the Reserve PS and the Hershey's Mill PS GP-5 "General Permit for Utility Line Stream Crossing" application to DEP on June 27 and June 22 respectively, and we are awaiting DEP's answer.

We made Erosion and Sedimentation Pollution Control Plan submissions for both projects to the Chester Co Conservation District on Friday July 6<sup>th</sup>, and we are awaiting CCCD's review.

We are finalizing the Closure Plan for the Reserve PS and the Part 2 WOM Permit Amendment for the Hershey's Mill PS, and will make both submissions to DEP within the next two weeks.

We have begun to prepare four (4) sanitary sewer easement legal descriptions and exhibits for both diversions projects - one (1) for the Hershey's Mill PS and three (3) for the Reserve PS.

### Marydell PS Elimination

We observed the soft-dig exploratory test pits along the shoulder of Paoli Pike to determine the exact location and depth of Verison's communication ductbank and if a gas anode line exists. The gas anode line was not found and the Verizon ductbank is in a location that will allow for installation of the sanitary sewer along the shoulder, while still maintaining four (4) feet between PECO's overhead utility poles and the edge of trenches.

We revised the design plans to route the sanitary sewer under the shoulder of Paoli Pike. It was previously designed in the lawn on the shopping center side of the utility poles. A small additional easement will be required from the shopping center for this revised sewer route, and we will prepare an easement legal description and exhibit if/when the shopping center owner and Township work out terms of the easement.

We finalized and submitted the Pump Station Closure Plan to DEP on July 31 and are awaiting DEP's answer.

We also prepared a Highway Occupancy Permit application for the sewer construction and expect to submit it to PennDOT by August 7th. The application proposes a jack & bore (trenchless) installation across Boot Road and open-cut trenching for the remainder of the work. The Paoli Pike crossing at Saratoga Drive is proposed to occur at night with a full road closure and detour, not to exceed three (3) consecutive nights.

### Hershey's Mill PS Muffin Monster

We completed a draft design and conducted field meetings with the Muffin Monster supplier and Public Works to review the concept, identify electrical needs and equipment locations, and determine who will perform the construction. It was agreed that Pennoni will prepare final mechanical and electrical plans (no specifications or Dib documents) and coordinate with the supplier to obtain purchase order pricing. The

Township/Authority will then purchase the equipment directly from the supplier, and the Public works Department will perform the installation.

We have since finalized the mechanical and electrical plans and are preparing a submission to DEP to notify them of the Muffin Monster installation. DEP has previously advised us that a formal pump station permit amendment is not required.

2011 Chapter 94 Reports

DEP provided review comments on the Westtown Chapter 94 Report requesting additional information about the sewer system condition, maintenance, and rehabilitation. We are preparing a brief response letter that we expect to submit to DEP by August 17<sup>th</sup>. DEP previously provided a letter approving the Ridley Creek STP Chapter 94 Report. They have not yet provided any comments on the West Goshen or Lockwood Chase STP Chapter 94 Reports.

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- 3. Big Fish Environmental Services, Inc., Scott Towler presented the following:
  - **Treatment Process Operation**

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- Sequencing batch reactors (SBRs) numbered 1, 3, & 4 were in service during the month 3 4 of July. SBR No. 2 remains out of service with approximately a mixture of 1 foot of 5 sludge and rainwater within the tank.
- 6 During the month of June, there was one exceedance of the permitted effluent
- 7 limitation for total phosphorus. Table 1 provides the June and July (partial) influent total 8 phosphorus mass loading data. On site analysis of split, samples with the certified 9 contract laboratory are on-going.
- 10 Adjustments to the SBR process during July include lowering the mixed liquor
- concentration (MLSS), reduce the sludge age and increase the food to mass ration (F:M 11
- ratio) to eliminate favorable conditions for the filamentous bacteria Micothrix parvicella. 12
- 13 A noticeable reduction in the amount of foam covering the surface area of the SBRs was 14
- observed in the React phase with aeration and mixing. Reduction of the MLSS and
- 15 sludge adversely affected biological phosphorous concentration. Final effluent
- 16 phosphorus concentrations in the SBR effluent ranged from 2 to 4 mg/L.
- 17 Process adjustments during the last week of July and early August resulted in Lowering 18
- the SBR phosphorus concentrations, which resulted in lowering the alum feed rate. At 19 the time of this report, no phosphorus data for final effluent samples collected during
- 20 August are available.
- 21 Solids Dewatering and Disposal
- 22 The centrifuge dewatering system was placed in service during the month of July.
- During the month, sludge wasting and decanting of the sludge holding tanks was 23
- 24 ongoing. A total volume of 265,650 gallons of supernatant was decanted from the sludge
- 25 holding tanks. pH and alkalinity were monitored on average twice per week and total 26 solids once per week.
- Sludge holding tank No. 1 began the month as 0.93% total solids and ended the month at 27 28 0.94% total solids. 29
  - Sludge holding tank No.2 began the month as 0.87% total solids and ended the month at 1.08% total solids.
- 31 Maintenance, Repairs and Warranty
- 32 Outstanding: Centrifuge replacement parts Worth & Co to replace parts used for 33 warranty repair. ACTION: BFESI will provide Worth & Co a letter requesting 34 resolution of the matter on or before October 1, 2012.
- Outstanding: SBR and Centrifuge MCC panel hour meters Worth & Co. informed. 35
- ACTION: Pennoni Associates/Township to provide Worth & Co. a copy of the short 36 37 circuit study completed by Clinger Corp.
- 38 Outstanding: SBR No. 4 Alum valve fails to open. ACTION: Found a loose relay and the 39 valve is functioning as intended.
- 40 Outstanding: Screen Building overhead door. ACTION: Worth & Co will be contacted 41 to investigate the malfunctioning door.
- 42 Scheduled Maintenance/Repairs
- 43 Greased the bearings for the sludge holding tank and final effluent EQ tank blowers.
- 44 Removed the alum chemical feed line from the static mixer for cleaning.
- 45 Generators were serviced on August 13<sup>th</sup>. 46

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4	Any Other Matter
5	1. Rick commented that the Township negotiated a contract with Scott Towler/Big Fish
6	Environmental to continue operating the Ridley Creek Sewer Plant.
7	Environmental to continue operating the Ridley Creek Sewer Plant.
8	
9	Correspondence and Reports of Interest Dans colmonical and an analysis of Interest Dans colmonical and
10	<u>Correspondence and Reports of Interest</u> – Dana acknowledged correspondence that was received.
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12	Public Comment - None
13	Table Comment None
14	Adjournment
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16	There being no further business, Jack moved to adjourn the meeting. Fran seconded the motion The motion passed unanimously. The meeting was adjourned at 7:45pm.
17	The meton passed unanimously. The meeting was adjourned at 7:45pm.
18	Respectfully submitted,
19	respectuny submitted,
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21	Ruth Kiefer
22	
يدن	Recording Secretary



### 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 #: 517331 Invoice Date: 08/22/2012 Project: EGMA1107

Project Name: HersheyMill &Reserve PS Div Des

Per

For Services Rendered through: 08/12/2012

Review CCCD comments, begin preparation of easement documents, begin development of closure plan for The Reserves PS.

Phase: 1 -- Design

Total Phase : 1 -- Design

Labor: 69.75 Expense: 0.00

Phase Total : 69.75

Phase: 2 -- Sewer Stakeout and Easements

Total Phase: 2 -- Sewer Stakeout and Easements

Labor : 203.25 Expense : 0.00

Phase Total: 203.25

Phase: 5 -- Water Quality Mgmt Part 2 Permit

Total Phase: 5 -- Water Quality Mgmt Part 2 Permit

Labor : 443.50 Expense : 0.00

Expense: 0.00 Phase Total: 443.50

Amount Due This Invoice \$716.50

Fee: 60,200.00

 Prior Billings :
 22,659.50

 Current Billings :
 716.50

 Total Billings :
 23,376.00

oh 9/7/2012

	&Reserve PS Div	Des Per	Invoice	# : 517331
Continued from previous page				
Phase : 1 — Design				
Labor	Hours/			
Class	Units	Rate		Amount
Project Engineer	0.75	93.00		69.75
Labor Total:	0.75			69.75
Total Phase : 1 - Design			Labor :	\$69.75
			Expense :	\$0.00
Phase : 2 — Sewer Stakeout and Easemen	ts			
Labor	Hours/			
Class	Units	Rate		Amount
Project Engineer	1.25	93.00		116.25
Senior Surveyor	1.00	87.00		87.00
Labor Total:	2.25			203.25
Total Phase:2 — Sewer Stakeout and Eas	ements		Labor :	\$203.25
Total Phase : 2 — Sewer Stakeout and Eas	ements			
			Labor : Expense :	\$203.25 \$0.00
Total Phase : 2 — Sewer Stakeout and Eas  Phase : 5 — Water Quality Mgmt Part 2 Per  Labor	mit			
Phase : 5 — Water Quality Mgmt Part 2 Per Labor		Rate		
Phase : 5 — Water Quality Mgmt Part 2 Per	mit Hours/	<i>Rate</i> 93.00		\$0.00
Phase : 5 — Water Quality Mgmt Part 2 Per Labor Class	rmit Hours/ Units	<del></del>		\$0.00
Phase: 5 — Water Quality Mgmt Part 2 Per Labor Class Project Engineer	rmit  Hours/ Units  0.75	93.00		\$0.00 Amount 69.75
Phase: 5 — Water Quality Mgmt Part 2 Per Labor Class Project Engineer Engineering Technician I	######################################	93.00		#0.00 Amount 69.75 373.75
Phase: 5 — Water Quality Mgmt Part 2 Per Labor Class Project Engineer Engineering Technician I Labor Total:	######################################	93.00	Expense :	#0.00  Amount 69.75 373.75 443.50
Phase: 5 — Water Quality Mgmt Part 2 Per Labor Class Project Engineer Engineering Technician I Labor Total:	######################################	93.00 65.00	Expense :	#0.00  Amount 69.75 373.75 443.50

### East Goshen Municipal Authority EGMA1107 Invoice Summary Invoice Date 8/22/2012

Project: EGMA1107

Pennoni Job No.: Hershey Mill & Reserve PS Div Des Per

Invoice No: 517331

Invoice Period: 7/16/2012 to 8/12/2012 **Initial Authorization:** \$ 60,200.00 Date: 7/7/2011 **Contract Amount:** \$ 60,200.00 Previously Invoiced: \$ 22,659.50 **Current Invoice:** \$ 716.50 Invoiced to Date (\$): \$ 23,376.00 Invoiced to Date (%): 39% Remaining Budget (\$): \$ 36,824.00 Remaining Budget (%):

61%

**Budget by Phase:** 

Phase No. \*\*\*\*

	He	rshey Mill &
Phase Name:		Reserve
Phase Budget:	\$	60,200.00
Previously Invoiced:	\$	22,659.50
Current Invoice:	\$	716.50
Invoiced to Date (\$):	\$	23,376.00
Invoiced to Date (%):		39%
Remaining Budget (\$):	\$	36,824.00
Remaining Budget (%):		61%

Comments: Review CCCD comments, begin preparation of easement documents,

begin development of closure plan for The Reserves PS.



### 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 #: 517332 Invoice Date: 08/22/2012 Project: EGMA1109

Project Name: Marydell Pump Station Diversion

For Services Rendered through: 08/12/2012

Observation of test pits/soft dig on Paoli Pike, revise existing conditions plan and profiles to reflect new data. Completion and submission of DEP closure plan. Develop HOP paperwork and plans, prepare HOP application and submit for review. Developed detour sketch plans.

Phase: 1 -- Design

Total Phase: 1 -- Design Labor: 2,322.75

Expense: 0.00 Phase Total: 2,322.75

Phase: 3 -- PaDEP Closure Plan

Total Phase : 3 -- PaDEP Closure Plan Labor : 2.783.25

Expense: 0.00 Phase Total: 2,783.25

Phase: 4 -- PennDOT Highway Occupancy Permits

Total Phase : 4 -- PennDOT Highway Occupancy Permits Labor : 1,784.75

Expense: 0.00 Phase Total: 1,784.75

Amount Due This Invoice

\$6,890.75

Fee: 45,100.00
Prior Billings: 9,500.25
Current Billings: 6,890.75
Total Billings: 16,391.00

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Project: EGMA1109 Ma	rydell Pump Station Diversior
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Expense:

<u>Project: EGMA1109 Marydell Pump S</u> Continued from previous page	Station Divers	ion	Invoic	e # : 517332
Phase: 1 - Design				
Labor	Hours/			
Class	Units	Rate		Amoun
Project Engineer	10.25	93.00		953.25
Associate Engineer	16.50	83.00		1,369.50
Labor Total:	26.75			2,322.75
Total Phase : 1 — Design			Labor :	\$2,322.75
			Expense :	\$0.00
Phase : 3 — PaDEP Closure Plan				
Labor	Hours/			
Class	Units	Rate		Amount
Authority Engineer	0.75	110.00		82.50
Project Engineer	13.75	93.00		1,278.75
Associate Engineer	14.00	83.00		1,162.00
Engineering Technician I	4.00	65.00		260.00
Labor Total:	32.50			2,783.25
Total Phase:3 - PaDEP Closure Plan			Labor :	\$2,783.25
			Expense :	\$0.00
Phase : 4 PennDOT Highway Occupancy Per	mits			
abor	Hours/			
Class	Units	Rate		Amount
Project Engineer	6.25	93.00		581.25
Associate Engineer	14.50	83.00		1,203.50
Labor Total:	20.75			1,784.75
Total Phase:4 — PennDOT Highway Occupand	y Permits		Labor :	\$1,784.75
			Expense :	\$0.00
otal Project : EGMA1109 — Marydell Pump Sta	tion Diversion		Labor :	\$6,890.75

\$0.00

### East Goshen Municipal Authority EGMA 1109 Invoice Summary Invoice Date 8/22/2012

Project: EGMA1109

Pennoni Job No.: Marydell Pump Station Diversion

Invoice No: 517332

 Invoice Period:
 7/16/2012
 to
 8/12/2012

 Initial Authorization:
 \$ 45,100.00
 Date:
 2/22/2012

 Contract Amount:
 \$ 45,100.00

\$ Previously Invoiced: 9,500.25 **Current Invoice:** \$ 6,890.75 Invoiced to Date (\$): \$ 16,391.00 Invoiced to Date (%): 36% Remaining Budget (\$): \$ 28,709.00 Remaining Budget (%): 64%

**Budget by Phase:** 

Phase No. \*\*\*\*

Marydell Pump Phase Name: **Station Diversion Phase Budget:** \$ 45,100.00 Previously Invoiced: \$ 9,500.25 \$ **Current Invoice:** 6,890.75 Invoiced to Date (\$): \$ 16,391.00 Invoiced to Date (%): 36% Remaining Budget (\$): \$ 28,709.00 Remaining Budget (%): 64%

Comments:

Observation of test pits/soft dig on Paoli Pike, revise existing conditions plan and profiles to reflect new data. Completion and submission of DEP closure plan. Develop HOP paperwork and plans, prepare HOP application

and submit for review. Developed detour sketch plans.



### 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 #: 517333 Invoice Date: 08/22/2012 Project: EGMA1201

Project Name: 2012 General Services

For Services Rendered through: 08/12/2012

Engineer's report for August MA meeting, summarize diversion projects for Board.

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

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

Labor : 258.00

9/7/2012

Expense: 0.00 Phase Total: 258.00

Amount Due This Invoice \$258.00

Fee: 10,000.00

Prior Billings : 3,587.25

Current Billings : 258.00

Total Billings : 3,845.25

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

Labor Hours/ Class Linits

 Class
 Units
 Rate
 Amount

 Authority Engineer
 1.50
 110.00
 165.00

 Project Engineer
 1.00
 93.00
 93.00

Labor Total: 2.50 258.00

Total Phase: \*\*\*\* -- Professional Services Labor: \$258.00

Star Project : EGMA1201 - 2012 General Services Labor : \$258.00

Expense : // \$0.00

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

### East Goshen Municipal Authority EGMA1201 Invoice Summary Invoice Date 8/22/2012

Project: EGMA1201

Pennoni Job No.: 2012 General Services

Invoice No: 517333

 Invoice Period:
 7/16/2012
 to
 8/12/2012

 Initial Authorization:
 \$ 10,000.00
 Date:
 2/22/2012

**Contract Amount:** \$ 10,000.00 \$ Previously Invoiced: 3,587.25 **Current Invoice:** \$ 258.00 Invoiced to Date (\$): \$ 3,845.25 Invoiced to Date (%): 38% Remaining Budget (\$): \$ 6,154.75 Remaining Budget (%): 62%

**Budget by Phase:** 

Phase No. \*\*\*\*

	20	12 General
Phase Name:		Services
Phase Budget:	\$	10,000.00
Previously invoiced:	\$	3,587.25
Current invoice:	\$	258.00
Invoiced to Date (\$):	\$	3,845.25
Invoiced to Date (%):		38%
Remaining Budget (\$):	\$	6,154.75
Remaining Budget (%):		62%

**Comments:** Engineer's report for August MA meeting, summarize diversion projects for Board.



### 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 #: 517334 Invoice Date: 08/22/2012 Project: EGMA1203 Project Name: 2011 Chapter 94

For Services Rendered through: 08/12/2012

Review DEP comments on Westtown report, discuss comments with DEP, draft response letter.

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

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

Labor : 190.50

Expense : 0.00

Phase Total:

\$190.50

190.50

Amount Due This Invoice

Fee: 14,000.00
Prior Billings: 13,667.75
Current Billings: 190.50

Total Billings : 190.50

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

Labor Hours/ Class Units

 Project Engineer
 1.00
 93.00
 93.00
 93.00

 Engineering Technician I
 1.50
 65.00
 97.50

Labor Total: 2.50 190.50

Total Phase: \*\*\*\* -- Professional Services Labor: \$190.50

Expense : \$0.00

Total Project : EGMA1203 -- 2011 Chapter 94 Labor : \$190.50

Expense : \$0.00

### East Goshen Municipal Authority EGMA1203 Invoice Summary Invoice Date 8/22/12

Project:	EGMA1203
Pennoni Job No.:	2011 Chapter 94

Invoice No: 517334

5173	34		
	4/16/2012	to	8/12/2012
\$	14,000.00	Date:	2/22/2012
\$	14,000.00		, ,
\$	13,667.75		
\$	190.50		
\$	13,858.25		
	99%		
\$	141.75		
	1%		
	\$ \$ \$ \$	4/16/2012 \$ 14,000.00 \$ 14,000.00 \$ 13,667.75 \$ 190.50 \$ 13,858.25 99% \$ 141.75	\$ 14,000.00 <b>Date:</b> \$ 14,000.00 \$ 13,667.75 \$ 190.50 \$ 13,858.25 99% \$ 141.75

### **Budget by Phase:**

Phase No. \*\*\*\*

Phase Name:	2011	Chapter 94
Phase Budget:	\$	14,000.00
Previously Invoiced:	\$	13,667.75
Current Invoice:	\$	190.50
Invoiced to Date (\$):	\$	13,858.25
Invoiced to Date (%):		99%
Remaining Budget (\$):	\$	141.75
Remaining Budget (%):		1%

Comments: Review DEP comments on Westtown report,

discuss comments with DEP, draft response letter.



### 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 #: 517336 Invoice Date: 08/22/2012 Project: EGMA1206

Project Name: Hershey Mill PS Muffin Monster

Desi

For Services Rendered through: 08/12/2012

Field meeting for design review with vendor and electrical designer. Electrical and mechanical design plans. Note sheets and details.

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

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

Labor : 3,966.00 Expense : 19.80

Amount

3,534.00

432.00

Amount

Phase Total: 3,985.80

Amount Due This Invoice \$3,985.80

Fee: 12,000.00
Prior Billings: 1,441.50
Current Billings: 3,985.80
Total Billings: 5,427,30

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

 
 Labor
 Hours/ Units
 Rate

 Project Engineer
 38.00
 93.00

 Engineering Technician II
 6.00
 72.00

 Labor Total:
 44.00

abor Total: 44.00 3,966.00

 Expenses
 Units
 Rate

 Travel
 Travel

19.80 Expense Total: \$19.80

Total Phase: \*\*\*\* -- Professional Services Labor: \$3,966.00

Total Project : EGMA1206 -- Hershey Mill PS Muffin Monster Desi Labor : \$3,966.00

Expense : \$19.80

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

### East Goshen Municipal Authority EGMA1206 Invoice Summary Invoice Date 8/22/2012

Project: EGMA1206

Pennoni Job No.: Hershey Mill PS Muffin Monster Design

Invoice No: 517336

**Invoice Period:** 7/16/2012 to 8/12/2012 **Initial Authorization:** \$ 12,000.00 Date: 5/15/2012 **Contract Amount:** \$ 12,000.00 Previously Invoiced: \$ 1,441.50 **Current Invoice:** \$ 3,985.80 Invoiced to Date (\$): \$ 5,427.30 Invoiced to Date (%): 45% Remaining Budget (\$): \$ 6,572.70

55%

**Budget by Phase:** 

Remaining Budget (%):

Phase No.

	Mu	Iffin Monster
Phase Name:		Design
Phase Budget:	\$	12,000.00
Previously Invoiced:	\$	1,441.50
Current Invoice:	\$	3,985.80
Invoiced to Date (\$):	\$	5,427.30
Invoiced to Date (%):		45%
Remaining Budget (\$):	\$	6,572.70
Remaining Budget (%):	•	55%

**Comments:** Field meeting for design review with vendor and electrical designer.

Electrical and mechanical design plans. Note sheets and details.

### 21301 PAGES 3/12/2012 DISTRIBUTION TO: CONTRACTOR PAGE ONE OF 2 ARCHITECT OWNER 3 FINAL AIA DOCUMENT G702 CONTRACT DATE APPLICTION NO: **ARCHITECT'S** PROJECT NO: LOCKWOOD CHASE SAN SEWER SJM Construction Co., Inc. Spring House, Pa. 19477 APPLICATION AND CERTIFICATE FOR PAYMENT EAST GOSHEN MUA CONTRACTOR PO Box 373 PROJECT: EAST GOSHEN MUNICIPAL AUTHORITY WEST CHESTER, PA. 19380 PENNONI ASSOCIATES 1580 PAOLI PIKE TO (OWNER): ATTENTION: MIKE ELLIS

# Application is made for Payment, sd shown below, in connection with the Contract. CONTRACTOR'S APPLICTION FOR PAYMENT

Continuation Sheet, AIA Document G703, is attached

CHANGE (	CHANGE ORDER SUMMARY			
Change Or	Change Orders approved	ADDITIONS	DEDUCTIONS	SNOIT
in previous Owner	in previous months by Owner			
	TOTAL	S	S	,
Approved this Month	his Month			
Number	Date Approved			
	TOTALS	S	s	•
Net change	Net change by Change Orders		s	

Application for Payment has been completed in accordance with the Work for which previous Certificates for Payment were issued and Contract documents, that all amounts have been paid by him for payments received from the Owner, and that current payments knowledge,information and belief the Work covered by this The undersigned Contractor certifies that to the best of his shown herin is now due.

CONTRACTOR:

By:

ARCHITECT'S CERTIFICATE FOR PAYMENT 8/22/2012

ARCHITECT work is in accordance with the Contract Documents; and the Contractor is that to the best of his knowledge, information and belief, the quality of the certifies to the Owner that the Work has progressed to the point indicated; observations and the data comprising the above application, the Architect In accordance with the Contract Cocuments, based on on-the-site entitled to payment of the AMOUNT CERTIFIED.

ORIGINAL CONTRACT SUM	B	178,179.20
Net change by Change Order	ശ	•
CONTRACT SUM TO DATE	w	178,179.20
TOTAL COMPLETED & STORED TO DATE	S	161,193.48
(Column 5 on 5/05) RETAINAGE	63	
or total in Column I on G703 TOTAL EARNED LESS RETAINAGE	ь	161,193.48
LESS PREVIOUS CERTIFICATES FOR PAYMENT	69	147,560.91
CURRENT PAYMENT DUE	s	13,632.57

County of: Montgomery State of: Pennsylvania

Subscribed and sworn to before me this Notary Public: Jame It of My Commission expires:

My commission expires March 26, 2014 Whitemarsh Twp, Montgomery County Tamie H. Ladley, Notary Public DANGE RIAL SEKE

2012

COMMONWEALTH OF BENNSYLVANIA

Attach explanation if amount certified differs from the amount applied for.) AMOUNT CERTIFIED.....

Date: 3.0

83112

Issuance, Payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herin. under this Contract.

9-6-12

CONTINUATION SHEET

AIA DOCUMENT G703

PAGE 2 OF 2 PAGES DATE:

INVOICE #

AIA Document G702, APPLICATION AND CERTIFICATE FOR PAYMENT, containing Contractor's signed Certification is

in tabulations below, amounts are stated to the nearest dollar.

Use Column I on Contracts where variable retainage for line items may apply.

٨	B	O		<b>4</b>	4	ŋ	a serious labora del de la compansión	T	to be the factorial for the first was represented by the factorial for the factorial f
				WORK COMPLETED	0	A TA COMPANY WAS ARREST OF THE ROLL OF THE SAME OF THE	Established was the second person of the second of the sec	A ten e accidence propinsion per particular de la company	mentella de principal properties de la company de la compa
				This Applicati	plication	<b>4</b> • ^			
ITEM		SCHEDULED	Previous		Stored Materials (not in D or	TOTAL COMPLETED	8	CT FOING IAB	
No.	DESCRIPTION OF WORK		Application	Work in Place		DATE (D+E+F)	(0/0)	FINISH (C-G)	RETAINAGE
1:1	I Installation, Maintenance, and Ren S	\$ 21,900.00	\$ 21,900.00	\$ 0	1	\$ 21,900.00	Į		9
2 &	28 Sanitary Sewer Main in Paved Ar. S.	34,364.00	\$ 25,851.10	\$ 0		\$ 25,851.10	75% \$	8,512.90	
3.6	3 8 Sanitary Sewer Main in Non-Paw S	29,181.90	\$ 33,871.08	8 \$	mananona manano . Promis del del marco del del del del mento del del del mento del mananone dela	\$ 33,871.08		(4,689.18)	\$
4	4 Manholes. Price complete, in plac	20,728.00	\$ 20,728.00	\$ 0		\$ 20,728.00	100%		\$
3	5 Drop Connection to Existing Manh	5,448.00	\$ 5,448.00	s Q		\$ 5,448.00	ļ	TO AN IN AN ANNUAL TO THE AN IN A COMMISSION OF MAIN	9
7.9	6.4 Laterals. Price complete, in place	4,286.70	\$ 4,633.10	0 S 1,169.10	.10			(1,515.50)	8
),	7 Cleanouts. Price complete, in place S	6,348.00	\$ 6,348.00	S 0	-	\$ 6,348.00	100%	A SANTA SANTA COLOR DE LA COLOR DE COLO	
ω ∞	8 8 Superpave 25 mm Base Course		\$ 16,443.00	<del>s</del>		\$ 16,443.00		(1,323.00)	9
6	9 In-Kind Concrete Curb Replaceme		\$ 5,670.00	& □		\$ 5,670.00	116% \$	(770.00)	9
7 01	10 Abandon Existing 8 Sewer Main.	3,140.60	- -	\$ 3,612.10	.10	\$ 3,612.10	115% \$		8
11 /	11 Abandon Existing Manholes. Price	•••••	\$ 1,085.00	0 \$ 1,085.00	.00	\$ 2,170.00	100% \$	A Company and many open one of company of the company of the company open of the company of the	8
12 1	12 Miscellaneous Excavation and Bac		S	ь		9	<u>į</u>	4,050.00	6
13	13 Miscellaneous Excavation and Bac	2,375.00	9	æ		- 3	s %0	2,375.00	6
14.(	14. Concrete Encasement. Price com:	3,367.00	(4)	9		9	s %0	3,367.00	69
15.0	15 Clearing. Price complete, in place		8,000.00	s 0		\$ 8,000.00	100% \$	A con succession and the section of	69
16.1	16 Rock Removal, Price complete, in		5,350.00	o s	4.	\$ 5,350.00	71% \$	2,150.00	S
T 21	17 Demolish and Re-Build Exist Drop	5,300.00	4	₩.		ر د	s %0	5,300.00	9
18	0		တ	છ		9	\$ i0/AlG#	and the action of the contract	\$
<u>ლ</u>	Q		S	8	A Proposition of the Contract	9	\$  0/AlG#	-	\$
		THE PARTY AND ADDRESS OF THE PARTY ADDRESS	The state of the s			and it is not been been been been been been been bee		and the second s	The manufacture of the property of the second of the secon
	TOTAL CHANGE ORDERS	A THE RESIDENCE OF THE PARTY OF	and algebra (100 algebra (100 algebra) algeb	forbid proministrator and a security appearance of the security of the securit	A Cold of Martin, the Architecture of Appropriate Color of the Color o	A A SAME AND A SAME AN	a jeganje i stranjek teresi i sjema jeganje	e reference con constituent de const	and the state of t
	Security of the contract of th	178,179.20	\$ 155,327.28	8 \$ 5.866.20	20 8 -	\$ 161.193.48	\$ %06	16 985 72 :	Section of the sectio
AIA DOCL	AIA DOCUMENT G703 CONTINUATION SHEET APRIL 1978 EDIT	,	ON AIA 1978	refreshed by the first of the second data of the second second second second second second second second second	a destruction and a second destruction of the second secon	The same of the sa	; -	G7031978	Constitution and a state on the desperation of the state of

THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 NEW YORK AVENUE., N.W., WASHINGTON, D.C. 20006

# SJM CONSTRUCTION COMPANY, INC.

Spring House, Pa. 19477-0373

Phone 215-628-3905

Fax 215-628-3922

ITEM			PERIOD ENDING COMPLETION:	PERIOD ENDING: COMPLETION:	8/22/2012		DAYS USED: NOTICE TO PROCEED:	CEED:				
de:	TEM DESCRIPTION	OUA	BID UNIT PRICE	BID AMOUNT	COMPLETED PRIOR QUANTITY AMOUN	ED PRIOR AMOUNT	INCREASE THIS PERIOD OUANTITY AMOUN	IS PERIOD AMOUNT	TOTALS	TOTALS TO DATE	RETAINAGE QUANTITY 0% REMAINING	QUANTITY
2 8	Installation, Maintenance, and Removal of E 8 Sanitary Sewer Main in Paved Areas, Pric	484 LF	\$21,900.00	\$21,900.00	364.1	\$21,900.00		S0.00	1.00	\$21,900.00	20.00	0.00
3	8 Sanitary Sewer Main in Non-Paved Areas	814 LF	\$35.85	\$29,181.90	944.8	\$33.871.08		S0.00	944.80	\$33.871.08	1	-130 80
4 W	Manholes. Price complete, in place	8 EA	\$2,591.00	\$20,728.00	00	\$20,728.00		80.00	8.00	\$20,728.00	80.00	00'0
20.0	Drop Connection to Existing Manhole EXMI-	1 LS	\$5,448.00	\$5,448.00	-	\$5,448.00		80.00	1.00	\$5,448.00	Na.	0.00
9	4 Laterals. Price complete, in place	99 LF	\$43.30	\$4,286.70	101	\$4,633.10	27	\$1,169.10	134,00	\$5,802,20	4	-35.00
Ö	Cleanouts. Price complete, in place	6 EA	\$1,058.00	\$6,348.00	9	\$6,348.00		80.00	00'9	\$6,348.00	80.00	00:0
00	8 Superpave 25 mm Base Course Paving.		\$63.00	\$15,120.00	261	\$16,443.00		80.00	261.00	\$16,443.00		-21.00
6	In-Kind Concrete Curb Replacement, Price		\$35.00	\$4,900.00	162	\$5,670.00		80.00	162.00	\$5,670.00	80.00	-22.00
10 AE	Abandon Existing 8 Sewer Main. Price con	766 LF	\$4.10	\$3,140.60	0	\$0.00	881	\$3,612.10	881.00	\$3,612.10		-115.00
II AE	Abandon Existing Manholes. Price comple		\$1,085.00	\$2,170.00	-	\$1,085.00	1	\$1,085.00	2.00	\$2,170.00		000
12 Mil	Miscellaneous Excavation and Backfill with:	50 CY	\$81.00	\$4,050.00	0	80.00		80.00	0.00	80.00		50.00
I3 Mil	Miscellaneous Excavation and Backfill with	50 CY	\$47.50	\$2,375.00	0	80.00		20.00	00.00	80.00	80.00	50.00
2	Concrete Encasement. Price complete, in p.	100 LF	\$33.67	\$3,367.00	0	S0.00		\$0.00	00'0	80.00		100.00
15	Clearing. Price complete, in place	115	\$8,000.00	\$8,000.00	100%	\$8,000.00		\$0.00	1.00	\$8,000.00		00.0
16 Rc	Rock Removal. Price complete, in place	75 CY	\$100.00	\$7,500.00	53.5	\$5,350.00		80.00	53.50	\$5,350.00		21 50
17 De	Demolish and Re-Build Exist Drop Connecti	1 LS	\$5,300.00	\$5,300.00	0	80.00		80.00	00.00	80.00	20.00	1.00
18			80.00	20.00	0	80.00	-	80.00	00'0	80.00		0.00
19			80.00	20.00	0	80.00		80.00	00.00	80.00	1	00'0
al Amount c	Total Amount of Items 1 through 19		-	\$178.179.20		\$155 327 28		06 998 53		\$161 102 49	00 03	

SJM CONSTRUCTION CO., INC.

Pennoni ASSOCIATES INC.

P. C.

\$5,866.20 \$0.00 \$5,866.20 \$5,866.20 LESS RETAINAGE
NET AMOUNT DUE:
LESS PREVIOUS PAYMENTS:
TOTAL AMOUNT PAYABLE: TOTAL AMOUNT DUE:

\$161,193.48 \$0.00 \$161,193.48

Total to Date

This Period

\$161,193.48

DO AN APPROVED BY:

APPROVED BY: APPROVED BY:

# SJM CONSTRUCTION COMPANY, INC.

CHECK	R AMOUNT	2093 \$105,473.97	2105 \$ 42,086,94
ECK CHECK	DATE NUMBER	6/7/2012 209	7/9/2012 210
INVOICE # CHECK CHECK CHECK		1 6/7	2 7/9

**************************************	
TOTAL PAID	

### Lockwood Chase Sanitary Sewer Diversion Contract No. SS-2012-1

Sheet 1 of 2

## (TO BE COMPLETED AFTER CONSTRUCTION) <u>CONTRACTOR'S RELEASE</u>

KNOW ALL MEN BY THESE PRESENTS THAT:
SJM Construction Company Inc.
(Contractor)
of Montgomery County and State of Pennsylvania
does hereby acknowledge that he has received this day of and from the
East Goshen Municipal Authority
(Owner)
the sum of ONE DOLLAR (\$1.00) and other valuable consideration in full satisfaction  Balance owed to SJM Construction Company Inc. as of 8/16/12 is \$13,632.  and payment of all sums of money owing payable and belonging to
SJM Construction Company Inc.
(Contractor)
by any means whatsoever, for on account of a certain agreement hereinafter called the CONTRACT, between the said East Goshen Municipal Authority
(Owner)
andSJM Construction Company Inc.  datedMarch 12, 2012 (Contractor)
NOW THEREFORE, the said SJM Construction Company Inc. (Contractor)
(for myself, my heirs, executors and administrators) (for itself, its successors and assigns) do by these presents remise, release, quit-claim and forever discharge the
said East Goshen Municipal Authority (Owner)
its successors and assigns, of and from all claims and demands arising from or in connection with the
said CONTRACT dated March 12, 2012 and of and from all, and all manner of

### Lockwood Chase Sanitary Sewer Diversion Contract No. SS-2012-1

Sheet 2 of 2

action and actions, cause and causes	of action and actions, suits, debts, dues, duties, sum and sums of
money, accounts, reckonings, bonds	, bills, specialties, covenants, contracts, agreements, promises,
variances, damages, judgments, exter	nts executions, claims and demand, whatsoever, in
	inst the said East Goshen Municipal Authority (Owner)
	now have, or which (I, my heirs, executors, or administrators)
(it, its successors and assigns) hereaf	ter can, shall or may have, for upon or by reason of any matter,
cause or thing whatsoever, from the b	beginning of the work to the date of these presents.
IN WITNESS WHEREOF	SJM Construction Company Inc.
	(Contractor)
has caused these presents to be duly e  August, 20 12.  Signed, Sealed and Delivered in the presence of:	executed the day of
in the presence of	(SEAL)
	(Individual)
	(Partnership Contractor) (SEAL)
	By (SEAL) (Partner)
1000s	(ranner)
Attest:	(SEAL)
Tanie HLadley	By Atmin
(Secretary) $ extstyle U$ Tamie H Ladley, $ ext{Admin Assist}$	(President or Vice-President) ant Stephen J. McGlynn, PResident

(CORPORATE SEAL)

### Lockwood Chase Sanitary Sewer Diversion Contract No. SS-2012-1

### (TO BE COMPLETED AFTER CONSTRUCTION) STATEMENT OF SURETY COMPANY

East Goshen Municipal Authority (Owner) and SJM Construction Company, Inc. (Contractor) , the Liberty Mutual Insurance Company (Surety) , SURETY on the Material and Labor  Payment BOND of SJM Construction Company, Inc.  (Contractor)  after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
(Contractor)
(Contractor)
(Contractor)  , the Liberty Mutual Insurance Company (Surety)  , SURETY on the Material and Labor  Payment BOND of SJM Construction Company, Inc.  (Contractor)  after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
(Contractor)  , the Liberty Mutual Insurance Company (Surety)  , SURETY on the Material and Labor  Payment BOND of SJM Construction Company, Inc.  (Contractor)  after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
(Surety)
(Surety)
Payment BOND of SJM Construction Company, Inc.  (Contractor)  after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
(Contractor)  after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
(Contractor)  after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for abor and materials have been satisfactorily settled, hereby approved of the final payment to the said
CONTRACTOR and by these presents witnesseth that payment to the CONTRACTOR of the final estimates shall not relieve SURETY of any of its obligations to
East Goshen Municipal Authority, as (Owner)
et forth in the said SURETY COMPANY'S BOND.
N WITNESS WHEREOF, said SURETY has hereunto set its hand and seal this
9 day of <u>August</u> , 20 <u>12</u> .
ATTEST:
SEAL) HIVE PEPE BY Theliand I Clareleigh
President Richard G. Anderson, Attorney-in- IOTE: This statement, if executed by any person other than the President or Vice President of the

H-6

Company, must be accompanied by a certificate of even date showing authority conferred upon the person so signing to execute such instruments on behalf of the Company represented.

THIS FOWER OF ALTORNEY IS NOT VA	LID UNLESS IT IS PRINTED ON RED BACKGROUND.	40
	THE BACKGROUND,	Au
This Down of Attarnov limits the		サフ

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. extent herein stated.

### LIBERTY MUTUAL INSURANCE COMPANY **BOSTON, MASSACHUSETTS** POWER OF ATTORNEY

IICHARD G. ANDERSON, JOSEPH T. CATANIA, GINA M. PEPE, ALL OF THE CITY OF WILMIN	nereby name, constitute and appoint ANNA EVERLY,  IGTON, STATE OF DELAWARE
each individually if there be more than one named, its true and lawful attorney-in-fact ehalf as surety and as its act and deed, any and all undertakings, bonds, recognizang IFTY MILLION AND 00/100*********************************	ces and other surety obligations in the penal sum not exceeding
s if they had been duly signed by the president and attested by the secretary of the Co	rsuance of these presents, shall be as binding upon the Company mpany in their own proper persons.
hat this power is made and executed pursuant to and by authority of the following By-la	i i
ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertak Any officer of the Company authorized for that purpose in writing by the chairman or the president may prescribe, shall appoint such attorneys-in-fact, execute, seal, acknowledge and deliver as surety any and all undertakings, bor in-fact, subject to the limitations set forth in their respective powers of attorney, execution of any such instruments and to attach thereto the seal of the Compa signed by the president and attested by the secretary.	airman or the president, and subject to such limitations as the as may be necessary to act in behalf of the Company to make, later than the sure of the company to make, later than the company to the sure of the
y the following instrument the chairman or the president has authorized the officer or ot	her official named therein to appoint attorneys-in-fact:
Pursuant to Article XIII, Section 5 of the By-Laws, David M. Carey, Assistant Secto appoint such attorneys-in-fact as may be necessary to act in behalf of the Corany and all undertakings, bonds, recognizances and other surety obligations.	retary of Liborty Mutual Inquironae Commencial
nat the By-law and the Authorization set forth above are true copies thereof and are now	v in full force and effect.
WiTNESS WHEREOF, this Power of Attorney has been subscribed by an authorized outual Insurance Company has been affixed thereto in Plymouth Meeting, Pennsylvania 2011	this day of 14th day of North
	LIBERTY MUTUAL INSURANCE COMPANY  By Lavid H. Cany
DMMONWEALTH OF PENNSYLVANIA ss DUNTY OF MONTGOMERY	David M. Carey, Assistant Secretary
. N. S. A dat.	David M. Carey, Assistant Secretary  Public, personally came <u>David M. Carey</u> , to me known, and that he knows the seal of said corporation; and that he executed Company thereto with the authority and at the direction of said
TESTIMONY WHEREOF have hereunto subscribed my name and affixed my notarial above written.	Company thereto with the authority and at the direction of said to seal at Plymouth Meeting, Pennsylvania, on the day and year By Lusa Pastella Teresa Pastella, Notary Public
ne undersigned, Assistant Segretary of Liberty Mutual Insurance Company, do hereby oull, true and correct copy, is in full force and effect on the date of this certificate; and I diver of attorney is an Assistant Secretary specially authorized by the chairman or the potion 5 of the By-laws of Liberty Mutual Insurance Company.	
s certificate and the above power of attorney may be signed by facsimile or mechanical e of the board of directors of Liberty Mutual Insurance Company at a meeting duly calle	ly reproduced signatures under and by authority of the following and held on the 12th day of March, 1980.
VOTED that the facsimile or mechanically reproduced signature of any assistant copy of any power of attorney issued by the company in connection with surety same force and effect as though manually affixed.	secretary of the company where a
TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the	corporate seal of the said company, this day of
	2010
	augu h Chinon

### Memo

To: Municipal Authority

From: Jon Altshul

Re: August 2012 Financial Report

Date: September 7, 2012

Attached please find the August Financial Report for the Municipal Authority. Total expenses were 66,584.27 compared with total revenue of \$100,010.99 (primarily due to a \$100,000 transfer from the sewer capital reserve fund), for a net change in fund balance of 33,426.72.

# EAST GOSHEN TOWNSHIP 1580 PAOLI PIKE WEST CHESTER, PA

Municipal Authority

August 2012

Account Title	Acct#	Annual Budget	Month To Date Actual	Year To Date Actual	
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE			52,283.93		
RCSTP BUDGET					
REVENUE INTEREST FARNED - RCSTP FXPANSION	07341 1020	00.0	2.91	59.89	
GRANT REVENUE	07392 0800	0.00	0.00	0.00	
TOTAL REVENUE		0.00	2.91	63.95	
EXPENSES					
R.CCAP. PROJENGINEER	07424 7451	00.00	00.00	00:0	
R.C. CAP EXPANSION GEN'L CONTRACTOR	07424 7452	00.00	00.00	0.00	
R.C. CAP EXPANSION - ELECTRICAL	07424 7453	00.0	00.00	1,228.08	
R.C. CAP EXP CONTINGENCY CAPITAL	07424 7454	00.0	00:00	0.00	
R.C. CAP EXP CONTINGENCY ONGOING	07424 7455	0.00	00:00	0.00	
R.C. CAP EXP ADDITIONAL CONTINGENCY	07424 7456	0.00	00.00	00.00	
TRANSFER TO AUTHORITY CAP FUND	07492 0990	0.00	0.00	00:00	
TOTAL EXPENSES		0.00	00.00	1,228.08	
RCSTP NET RESULT		0.00	2.91	(1,164.13)	

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

August 2012

R PERATING		Actual 8.08 0.00 0.00 0.00 0.00 0.00 0.00 0.0	34.25 0.00 4,000.00 845.64 423.36 30,700.00
IG BUDGET ST EARNINGS SPING FEES PPING FEES CTION FEES - SEWER LANGOUS REVENUE FER FROM SEWER OPERATING JENUE	2,00 2,00 1,00 125,00 130,00	8.08 0.00 0.00 0.00 0.00 8.08	34.25 0.00 4,000.00 845.64 423.36 30,700.00
ST EARNINGS PPING FEES PPING FEES CTION FEES - SEWER LANEOUS REVENUE FER FROM SEWER OPERATING JENUE	2,00 2,00 1,00 125,00 130,00	8.08 0.00 0.00 0.00 0.00	34.25 0.00 4,000.00 845.64 423.36 30,700.00
ST EARNINGS PPING FEES PPING FEES CTION FEES - SEWER LANEOUS REVENUE FER FROM SEWER OPERATING JENUE	2,00 2,00 1,00 125,00 130,00	8.08 0.00 0.00 0.00 0.00 8.08	34.25 0.00 4,000.00 845.64 423.36 30,700.00
FEES FEES - SEWER US REVENUE OM SEWER OPERATING IVE WAGES	2,0 2,0 1,0 125,0 130,0	0.00 0.	0.00 4,000.00 845.64 423.36 30,700.00
FEES - SEWER US REVENUE OM SEWER OPERATING IVE WAGES	2,0 1,0 125,0 130,0	0.00 0.	4,000.00 845.64 423.36 30,700.00 36,003.25
LIS REVENUE  JIM SEWER OPERATING  IVE WAGES	1,0 125,0 130,0	0.00 0.00 0.00 0.00	845.64 423.36 30,700.00 36,003.25
US REVENUE OM SEWER OPERATING IVE WAGES	1,0 125,0 130,0	0.00	423.36 30,700.00 36,003.25
OM SEWER OPERATING IVE WAGES		0.00	30,700.00
IVE WAGES	Н	8.08	36,003.25
STRATIVE WAGES			
	1400 37,669.00	0.00	16,783.88
MISCELLANEOUS EXPENSE 0/424 3000	3000 4,162.00	00.00	950.00
MUNIC.AUTHAUDITING 07424 3110	3110 8,843.00	0.00	7,900.00
ENGINEERING SERVICES 07424 3130	3130 37,066.00	670.50	22,977.50
LEGAL SERVICES 07424 3140	3140 12,485.00	475.00	4,770.68
M.CDVRFA-DEBT SERVICE 07471 1000	1000 19,600.00	0.00	0.00
M.CDVRFA-INTEREST PAYMN 07472 1000	1000 6,981.00	0.00	0.00
TOTAL EXPENSES	126,806.00	1,145.50	53,382.06
OPERATING NET RESULT	3,194.00	(1,137.42)	(17,378.81)

### EAST GOSHEN TOWNSHIP 1580 PAOLI PIKE WEST CHESTER, PA Municipal Authority August 2012

		Ichard	Month To Date Vear To Date	Vear To Date
Account Title	Acct#	Budget	Actual	Actual
CAPITAL BUDGET				
REVENUE LOAN PROCEEDS-SEWER PROJECT TRANSFER FROM SEWER CAP RESERVE	07392 0804 07392 0900	0.00	0.00	0.00
TOTAL REVENUE		828,000.00	100,000.00	400,000.00
EXPENSES				
MARYDELL PUMP STATION - ENGINEER	07425 1000	51,764.00	4,076.25	7,336.00
MARYDELL PUMP STATION -CONSTRUCTION	07425 2000	170,000.00	00.0	00.00
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	37,553.00	3,725.25	38,107.50
LOCHWOOD ABANDONMENT CONSTRUCTION	074247476	411,000.00	00.00	163,235.91
LOCHWOOD ELIMINATION PHASE 2	07424 7477	00.0	51,788.77	104,404.99
HERSHEY MILL STATION - ENGINEER	07426 1000	29,069.00	2,924.25	13,039.75
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	46,000.00	00.0	0.00
RESERVE PUMP STATION - ENGINEER	07427 1000	29,069.00	2,924.25	8,231.75
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	93,000.00	00.00	00.0
RESERVOIR PUMP STATION - ENGINEER	07428 1000	00.00	00.00	0.00
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00
TOTAL EXPENSES		867,455.00	65,438.77	334,355.90
CAPITAL NET RESULT		(39,455.00)	34,561.23	65,644.10
MUNICIPAL AUTHORITY ENDING FUND BALANCE			85,710.65	
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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1000		JE	31221			0.00	02/07/12	INTEREST		INTEREST EARNED JAN. 2012 7100.1000
	1202		31655	0.00	0.62 0.25		03/14/12			INTEREST EARNED FEB. 2012 7100.1000
	1203		31930		0.25 0.56	-0.87	04/04/12	INTEREST		INTEREST EARNED MARCH 2012 7100.1000
	1204		32293	0.00	0.56 <b>4</b> .97	-1.43	05/02/12	INTEREST		INTEREST EARNED APRIL 2012 7100.1000
	1205		32709	0.00	4.97 6.93	-6.40	06/05/12			INTEREST EARNED MAY 2012 7100.1000
	1206		33106	0.00		-13.33	07/03/12	INTEREST		INTEREST EARNED JUNE 2012 7100.1000
	1207		33554	0.00	5.80	-20.37	08/06/12	INTEREST		INTEREST EARNED JULY 2012 7100.1000
	1208	*****	33969	0.00	5.80	-26.17		INTEREST		INTEREST EARNED AUGUST 2012 7100.1000
			34004		4.04		09/06/12	INTEREST		INTEREST EARNED AUGUST 2012 07 FUND
				0.00	8.08	-34.25				
				0.00	34.25	-34.25				
07341-1020	INTE 1201		EARNED -	- RCSTP EXP	ANSION 0.40			INTEREST		INTEREST EARNED JAN. 2012 7105.1000
			31223		7.80		02/07/12	INTEREST		INTEREST EARNED JAN. 2012 7109.2000
			31270		0.05		02/09/12	INTEREST		INTEREST EARNED JAN.2012 7105.1500
	1202		31656	0.00	8.25 0.30			INTEREST		INTEREST EARNED FEB. 2012
			31657		7.30		03/14/12	INTEREST		7105.1000 INTEREST EARNED FEB. 2012 7109.2000

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/R	ef #	ID#	Name/Description
				0.00	7 60	-15.85					* *************************************
	1203		31931	0.00	0.15			INTEREST			INTEREST EARNED MARCH 2012 7105.1000
			31932		9.54		04/04/12	INTEREST			INTEREST EARNED MARCH 2012 7109.2000
				0.00	9.69	-25.54	30 M M M M M M M M				
	1204		32294		0.14		05/02/12	INTEREST			INTEREST EARNED APRIL 2012 7105.1000
			32295		9.52		05/02/12				INTEREST EARNED APRIL 2012 7109.2000
		***		0.00	9.66	-35.20					
	1205		32710		0.14		06/05/12	INTEREST			INTEREST EARNED MAY 2012 7105.1000
			32711		9.55		06/05/12	INTEREST			INTEREST EARNED MAY 2012 7109.2000
				0.00		-44.89		~~~~~			
	1206		33107		0.15		07/03/12	INTEREST			INTEREST EARNED JUNE 2012 7105.1000
			33108		9.52		07/03/12	INTEREST			INTEREST EARNED JUNE 2012 7109.2000
				0.00		-54.56					
	1207		33555		0.14		08/06/12	INTEREST			INTEREST EARNED JULY 2012 7105.1000
			33556		6.34		08/06/12	INTEREST			INTEREST EARNED JULY 2012 7109.2000
				0.00	6.48	-61.04					
	1208		33970		0.15		09/04/12	INTEREST			INTEREST EARNED AUGUST 2012 7105.1000
			34005		2.76		09/06/12	INTEREST			INTEREST EARNED AUGUST 2012 07 FUND - CONTRUCTION ACCTS.
				0.00	2.91	-63.95			~ ~ ~ ~ ~ ~		
				0.00	63.95	-63.95				A	
07364-1110			ING FEES	5	2,000.00	0.00	05/25/12	32596	1		TAP IN FEE FOR 1636 MANLEY RD
				0.00	2 000 00	-2,000.00					
	1206		32779	0.00	2,000.00	•	06/11/12	32779	1		TAP IN FEE FOR 913 SORRELL HIL R.C.TAPPING FEES
				0.00	2,000.00	-4,000.00					
del lad del lad our just pay yes but ton law den				0.00	4,000.00	-4,000.00	*****				

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID#	Name/Description
07364-1130	CONN	ECTI	ON FEES			0.00				
	1202	CR	31243		423.00		02/08/12	197	6576	1 JACOBS, ROBERT & CHERYL
			31437		423.00			2103	6575	1 STOFFLET, MICHAEL
		JE		141.12				PINE ROCK		ANNUAL PINE ROCK INSTALLMENT ANNUAL PINE ROCK INSTALLMENT
			31438	141.12		****	02/2//12	PINE ROCK		ANNUAL FINE ROCK INSTALLMENT
				282.24		-563.76				
	1203	CR	31489		423.00					1 GEORGE SMITH & CHRISTINA CONLE
				141.12				PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				141.12	423.00	-845.64				
						-845.64			* ***	
07380-1000	MISC	ELLA	NEOUS RE	VENUE		0.00				
	1202		31244		141.12			PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			31438		141.12			PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
						-282.24				
	1203		31490		141.12		03/01/12			ANNUAL PINE ROCK INSTALLMENT
				0.00	141 12	-423.36		* * * * * * * * * * * * * * * * * * *	200 Sec	
w m m m m m m m m						***				
				0.00		-423.36				
07392-0500						0.00				
	1202		31428		15,000.00		02/24/12			XFER FROM 5100.1000 TO 7100.1000
				0 00	15.000.00	-15,000.00				
	1203		31612			20,000.00		XFER		XFER FROM 5100.1000 TO
			•••		20,		,,			7100.1000 TO COVER MA EXP.
				0.00	15,700.00	-30,700.00				
				0.00	30,700.00	-30,700.00				
07392-0900	ממסיד	SPED	FDOM ST	WER CAP RES	EDVE	0.00				
0,002	1204		32045	an oak meo	100,000.00		04/12/12			XFER \$ FROM SEWER CAP.RESERVE TO MUN.AUTHORITY GEN.ACCT.
				0.00	100,000.00	-100,000.00				
	1206		32839	3.33	100,000.00		06/15/12			XFER FUNDS TO MA FROM SEWER CAPITAL RES. 5/14/12
				0.00		-200,000.00				
	1207		33176	0.00	100,000.00		07/11/12	XFER		XFER \$ FROM SEWER CAPITAL RESERVE TO MA OPERATING
				^ ^^	100 000 00	-300 000 00				
				0.00	100,000.00	-300,000.00				

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07392-0900	1208	JE	33682		100,000.00		08/14/12	XFER		XFER \$ TO MA FROM SEWER CAP. RESERVE
				0.00	100,000.00	-400,000.00				
			H 44 H 48 49	0.00	400,000.00	-400,000.00				
07424-1400			RATIVE 31601			0.00	03/13/12	2085	425	EAST GOSHEN TOWNSHIP 1ST QTR.2012 MUNICIPAL AUTHORITY EXPENSES
	1206		32849	8,391.94 8,391.94	0.00	8,391.94	06/15/12	2094	425	EAST GOSHEN TOWNSHIP 2ND QTR 2012 MUNICIPAL AUTHORITY EXPENSES
				8,391.94	0.00	16,783.88				
M				16,783.88	0.00	16,783.88				
07424-3000	MISC:		NEOUS 1 30772			0.00	01/06/12	2081	2132	PENNSYLVANIA MUNICIPAL AUTHORITIES ASSO 2012 ACTIVE MEMBERSHIP DUES
				950.00	0.00	950.00	504 506 506 506 508 506 506 506	MARINE   M	e and yet and had yet had het had den and	
	M M M M			950.00	0.00	950.00		and the and and link two see and and link link and and and		***********
07424-3110	MUNIO 1207		THAUI 33171			0.00	07/11/12	2103	808	MAILLIE FALCONIERO & CO. EXAMINATION OF FINANCIAL STATEME DECEMBER 31, 2011
	M M W 10			7,900.00	0.00	7,900.00				
				7,900.00	0.00	7,900.00	ter en ieu let uit len en ier	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
07424-3130	ENGII		ING SEI 31393			0.00	02/22/12	2084	1052	PENNONI ASSOCIATES INC. SERV.THRU 1/15/12 2011 ANNUAL SE
	1203		31608	220.00 1,182.50	0.00	220.00	03/13/12			PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 2011 ANN SERVICES
	1204		32043	1,182.50 4,971.75	0.00	1,402.50	04/12/12	2088		PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 2012 GEN.S

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
	1205		32450	4,971.75 14,501.00	0.00	6,374.25	05/15/12			PENNONI ASSOCIATES INC. SERVICE THRU 4/15/12 2011 CHAP.9
	1206		32809	14,501.00 289.75	0.00	20,875.25	06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/13/12 GENERAL SE
	1207		33171	289.75 1,142.00	0.00	21,165.00			1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 -GENERAL SE
	1208		33676	1,142.00 670.50	0.00	22,307.00	08/14/12	2131		PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 -2012 GENE SERVICES
				670.50	0.00	22,977.50				
				22,977.50	0.00	22,977.50				
07424-3140	LEGA 1202		RVICES 31393	1,825.68		0.00	02/22/12	2083	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 12/12/11 - GEN.AUTH.
	1204		32043	1,825.68 1,083.00	0.00	1,825.68	04/12/12	2087	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE 2/7-2/29/12 GEN.AU
	1205		32450	1,083.00 703.00	0.00	2,908.68	05/15/12	2089	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 3/12-3/21/12 GEN.AUT
	1207		33171	703.00 684.00	0.00	3,611.68	07/11/12	2102	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 5/14/12 - GENERAL AU
	1208	141 MM 141	33676	684.00 475.00	0.00	4,295.68	08/14/12		528	GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 7/9/12 - GEN.AUTHORI
				475.00	0.00	4,770.68	Per ere two test ent test test test	100 NO. (00 NO. 600 NO. 100 NO. 100 NO. 400 NO. 100 NO.		
				4,770.68	0.00	4,770.68				
07424-7453	R.C. 1206		EXPANS 32809	ION - ELECTRI 1,228.08	CAL	0.00	06/14/12	2091	2696	CLINGER CORP., WM. H. REPAIR TANK MIXER CONTROL CIRCUI

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Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
				1,228.08		1,228.08				
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				1,228.08		1,228.08				
	LOCH 1202	100D	ABANDO: 31393	NMENT ENGINEE 2,600.00	ER.	0.00	02/22/12	2082	2911	EARTHCORE SERVICES LLC MOBILIZATION, ATV RIG, AUGER PRO
				4,315.00	0.00		02/22/12	2084	1052	LOCKWOOD ENGINEERING PENNONI ASSOCIATES INC. SERV.THRU 1/15/12 LCSTP FINAL D
			***		0.00					
	1203		31608	6,915.00 7,440.50	0.00	6,915.00	03/13/12			PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 LCSTP FI DESIGN
	1204	in in an	32043	7,440.50 1,366.00	0.00	14,355.50	04/12/12		1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 LOCHWOOD
	1205		32450	1,366.00 4,124.25	0.00	15,721.50				PENNONI ASSOCIATES INC. SERVICES THRU 4/15/12 LCSTP
	1206		32809	4,124.25 7,527.25	0.00	19,845.75	06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/31/12 TO ACCOMADATE INCREASE IN FLOW TO P
	1207		33171	•	0.00	27,373.00	07/11/12	2104	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - LOCHWOOD CHASE PHASE S
	1208		33676	7,009.25 3,725.25	0.00	34,382.25	08/14/12	2131	1052	PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 -LOCHWOOD CONSTRUCTION PHASE S
				3,725.25	0.00	38,107.50				
				38,107.50	0.00	38,107.50			4	
07424-7476	1206	MOOD		NMENT CONSTRU 105,473.97	JCTION	0.00	06/14/12	2093	2947	SJM CONSTRUCTION CO. INC. APPLICATION 1 OF CONTRACT
				105,473.97	0.00	105,473.97				

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID#	Name/Description
07424-7476	1207	CD	33171	3,826.04			07/11/12	2101	425	EAST GOSHEN TOWNSHIP REIMBURSE GEN.FUND RE: LOCHWOOD PLANT CLOSING - LABOR COSTS AS O 6/30/12
				42,086.94	0.00		07/11/12	2105	2947	SJM CONSTRUCTION CO. INC. APPLICATION #2 - LOCHWOOD CONTRA
				45,912.98	0.00	***	07/11/10	0106	405	EROM COCURN MODRICUTD
				3,954.36			07/11/12			EAST GOSHEN TOWNSHIP REIMBURSE GEN.FUND RE: LOCHWOOD PLANT CLOSING - REGULAR TIME LAB
			33327	15,120.00			07/23/12	2113	800	MACANGA INC. HAUL FILL OUT OF WESTTOWN WAY 18 TONS
			33415	432.00			07/27/12	2116	489	FISHER & SON COMPANY INC 6 BAGS COMMERCIAL SEED MIX
				123.00			07/27/12	2117	61396	HAULER, JACK L. REIMBURSE -1/2 DOG FENCE REPAIR
			***	555.00	0.00					
		JE	33635		3,826.04		08/13/12			RECLASS CK.#'S 2101 & 2106 TO LOCHWOOD ELIMINATION PHASE 2 RECLASS CK.#'S 2101 & 2106 TO
			***	0.00	,		08/13/12	RECLASS		LOCHWOOD ELIMINATION PHASE 2
			***	0.00	7,780.40					
						163,235.91				
				171,016.31						
07424-7477	LOCH	MOOD	ELIMIN	NATION PHASE 2	<u>)</u>	0.00				
*****				352.68			06/29/12	2095	765	LENNI ELECTRIC CORPORATION SET UP TEMPORARY PUMP - LOCHWOOD
				450.00			06/29/12	2096	2342	POWERPRO EQUIPMENT 50 HYDRATED WHITE - LOCHWOOD PLA CLOSURE
				4,780.00			06/29/12	2097	550	XYLEM DEWATERING SOLUTIONS INC. (GODWIN) GODWIN SUBMERSIBLE PUMP & CONTRO PANEL, HEAVY DUTY LAYFLAT HOSE
			***	5,582.68	0.00	***		***************************************		,
				5,582.68	0.00	5,582.68				
	1207		33128	42.50			07/05/12	2100	1065	PETTY CASH TOLLS - TO AND FROM GODWIN PUMPS
			33209	123.87			07/13/12	2107	2936	LOCHWOOD ELIMINATION A ANCHOR TOILETS PORTABLE PORTABLE TOILET RENTAL 6/25-7/24
				4,640.85			07/13/12	2108	827	MARTIN LIMESTONE INC. 95.91 TONS MAG LIMESTONE
				390.00			07/13/12	2109	2342	POWERPRO EQUIPMENT 20 2200 M 95 DUST MA, 40 HYDRATE WHITE LI

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-7477	1207	CD	33209	1,265.00			07/13/12	2110	1876	RANSOME RENTAL COMPANY LP RENTAL - STANDARD TRACK - 6/20/1 6/25/12
				1,574.61			07/13/12	2111	1161	REILLY & SONS INC 259.4 GALLONS DIESEL - LOCHWOOD
				256.80			07/13/12	2112	550	XYLEM DEWATERING SOLUTIONS INC. (GODWIN) MALE AND FEMALE ADAPTORS, FEMALE CAM & GROOVE & MALE ADAPTOR
			***	8,251.13	0.00	***				
			33327	3,638.00			07/23/12	2114	1876	RANSOME RENTAL COMPANY LP ARTICULATED TRUCK RENTAL 6/26-6/
				5,941.45			07/23/12	2115	550	XYLEM DEWATERING SOLUTIONS INC. (GODWIN) 3" X 50' HEAVY DUTY LAYFLAT HOSE
			***	9,579.45	0.00	***				
			33415	174.82			07/27/12	2118	638	HOME DEPOT CREDIT SERVICES TARP & SIGNS - LOCHWOOD
				1,985.24			07/27/12	2119	827	MARTIN LIMESTONE INC. 72.56 TONS MAG LIMESTONE BULK
				423.00			07/27/12	2120	1087	PIPE XPRESS INC. 12X20 PE DBL WALL PIPE
				18,797.00			07/27/12	2121	1876	RANSOME RENTAL COMPANY LP D5 STANDARD TRUCK RENTAL 6/25/12 7/23/12
			***	21,380.06	0.00	***				,,,,
		JE	33635	3,826.04			08/13/12	RECLASS		RECLASS CK.#'S 2101 & 2106 TO LOCHWOOD ELIMINATION PHASE 2
				3,954.36			08/13/12	RECLASS		RECLASS CK.#'S 2101 & 2106 TO LOCHWOOD ELIMINATION PHASE 2
			***	7,780.40	0.00	***				
				47,033.54	0.00	52,616.22				
	1208	CD	33513	384.00		,	08/03/12	2122	489	FISHER & SON COMPANY INC 8 BAGS BUILDERS MIX/THROW & GROW GRASS SEED
				661.50			08/03/12	2123	1849	HICKS BROTHERS LLC 147 SMALL BALES OF STRAW
				271.15			08/03/12	2124	739	KNOX EQUIPMENT COMPANY TOWABLE STRAW MULCHER RENT 7/23/
				3,378.00			08/03/12	2125	1876	RANSOME RENTAL COMPANY LP STANDARD TRACK RENTAL 7/2-7/30/1
				1,368.05			08/03/12	2126	1161	REILLY & SONS INC 186.8 GALLONS DIESEL
			***	6,062.70	0.00	***				
			33667	675.00			08/14/12	2127	827	MARTIN LIMESTONE INC. 48.18 TONS AASHTO #1
			33676	43,397.75			08/14/12	2129	425	EAST GOSHEN TOWNSHIP REIMBURSE GEN.FUND RE: LOCHWOOD PLANT CLOSING - LABOR COSTS AS O
			33827	381.82			08/22/12	2132	598	8/12/12 HANSON AGGREGATES PENNSYLVANIA LLC 34.87 TONS STONE

GL Transaction Details

PAGE

9

MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-7477	1208	CD		123.50			08/22/12	2133	765	LENNI ELECTRIC CORPORATION DISCONNECT FRO STATION SHUTDOWN
			*** 33946	505.32 1,148.00	0.00	***	08/31/12	2134	1876	RANSOME RENTAL COMPANY LP BULL DOZER RENTAL 7/18-7/30/12
				51,788.77	0.00	104,404.99				
				104,404.99	0.00	104,404.99	the sea and sea and sea sea sea			
07425-1000	MARY	DELL	PUMP S	STATION - ENGIR	NEER	0.00				
	1203		31608				03/13/12	2086		PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 MARYDELL
	1204		32043	810.00 1,422.00	0.00	810.00	04/12/12	2088		PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 MARYDELL P
	1206	24 mi m	32809	1,422.00	0.00		06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/13/12 MARYDELL
	1207		33171	320.50 707.25	0.00	2,552.50	07/11/12	2104	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - MARYDELL
				707.25	0.00	3,259.75				
	1208		33667	1,100.00			08/14/12	2128	1248	SHAINLINE EXCAVATING INC HYDRO EXCAVATOR RENTAL 7/18/12
			33676	2,976.25			08/14/12	2131	1052	PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 - MARYDELL
				4,076.25	0.00	7,336.00				
* * * * * * * * * * * * * * *	~		****	7,336.00	0.00	7,336.00				
07426-1000	HERSI	EY M	AILL SI	ration - engine	EER	0.00				
	1203		31608	2,336.75			03/13/12	2086	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 HERSHEY
	1205		32450	2,336.75 2,917.50	0.00	•	05/15/12	2090	1052	PENNONI ASSOCIATES INC.
				,						SERVICE THRU 4/15/12 HERSHEY MIL
				,	0.00	5,254.25				
	1206		32809	498.50			06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/13/12 HERSHEY MI
			33047	250.00			06/29/12	2099		CHESTER COUNTY CONSERVATION DISTRICT PERMIT FEE HM PS PROJECT
	<b></b>	<b>-</b>		748.50	0.00		_ = = = = = = = =			

**GL** Transaction Details

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MGRP18 run by BRIAN

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID	#	Name/Description
07426-1000	1207	CD	33171	4,112.75		MR MR MR AND SAC DOS AND SAC DOS AND	07/11/12	2104			PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - HERSHEY M
	1208		33676	4,112.75 2,924.25	0.00	10,115.50	08/14/12			1052	PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 - H.MILL
				2,924.25		13,039.75					***************************************
				13,039.75		13,039.75					***************************************
07427-1000	RESEI 1203	RVE	31608	TATION - ENGI 605.00		0.00	03/13/12	2086		1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 RESERVE
	1204	***		605.00 <b>472.5</b> 0		605.00		2088			PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 RESERVE PU
	1205		32450	472.50 2,917.50	0.00	-,	05/15/12	2090		1052	PENNONI ASSOCIATES INC. SERVICE THRU 4/15/12 RESERVE PS
	1206		33047	2,917.50 250.00	0.00	3,995.00	06/29/12			263	CHESTER COUNTY CONSERVATION DISTRICT PERMIT FEE RESERVE PS PROJECT
	1207		33171	250.00 1,062.50	0.00	4,245.00	07/11/12	2104		1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - RESERVE P STATION
	1208		33676	1,062.50 2,924.25	0.00	•	08/14/12	2131			PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 - RESERVE
				2,924.25	0.00	8,231.75		***********			
	***		****	8,231.75	0.00	8,231.75		***************************************			
Beg Bal	M ++ in 10		0.00	397,169.80	444,270.96	-47,101.16		~~~~	**********		

## SEPTEMBER 2012 EAST GOSHEN MUNICIPAL AUTHORITY GOALS

## **ON-GOING**

- 1. Submit an article for each newsletter.
  - a. Need by 2/8/12 Kevin Completed
  - b. Need by 5/2/12 Jack Completed
  - c. Need by 8/1/12 Dana -Completed
  - d. Need by 11/7/12
  - e. February 2013
- 2. Attend West Goshen Meetings quarterly more often if needed.
  - a. 1st Quarter (March) Jack Completed
  - b. 2<sup>nd</sup> Quarter (June) Joe Not completed
  - c. 3<sup>rd</sup> Quarter (September) Dana Completed- Went to August Mtg
  - d. 4<sup>th</sup> Quarter (December) Kevin
- 3. Respond to capacity requests in 45 days or less.

## **Goshen Meadows**

- 4. Implement I & I Plan
- 5. Conduct a sewer facilities tour after RCSTP construction is complete Have tour in October (need to select a date) **October 20**

## **PROJECTS**

- 1. Lockwood
  - a. Bid Bid awarded 2/20 Contract executed 3/12
  - **b.** Pipe Installation Notice to proceed issued 3/20, Pipe work completed. Restoration work in progress. **Pipe Project Closed out 9/5/12**
- 2. Abandon Plant Treatment pond filled in. Currently pumping down the and filling in the storage lagoon. Still need to finish filling in ponds and remove structure.
- 3. Marydell Pump Station
  - a. Design/Permit In Progress Submitted HOP to Penn DOT. **HOP Received.**
  - b. Bid
  - c. Pipe Installation
  - d. Abandon Pump Station
- 4. Hershey Mill Pump Station
  - a. Design/Permit In Progress GP5 and CCCD approval letter issued
  - b. Bid
  - c. Pipe Installation
- 5. Reserve Pump Station In Progress
  - a. Design/Permit
  - b. Bid
  - c. Pipe Installation
  - d. Abandon Pump Station

## EAST GOSHEN MUNICIPAL AUTHORITY EAST GOSHEN TOWNSHIP

1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

September 7, 2012

To:

**Municipal Authority** 

From:

Mark Miller

Re:

**August 2012 Monthly Report** 

**Meters:** 

Have been read on a daily basis. The meter for Westtown Way stopped operating; Allied Control was called to make repairs. Allied Control said that the unit was not worth fixing and gave us a quote for a new meter (\$3,460.00). I contacted John Scott from West Goshen who agreed with replacing the meter.

<u>Pumping Stations:</u> Were visited on a routine basis, no problems to report.

C.C. Collection:

We did replace several sewer caps during the month and we were notified of one lateral clog which was cleared. The sewer right of ways were mowed and the manholes were inspected between Wilson Drive and Strasburg Road.

R.C. Collection:

No problems to report.

R.C. Plant:

Routine maintenance was performed during the month.

**Lockwood Plant:** 

We are waiting on PECO to turn off power and remove the

transformers.

Alarms: We responded to 17 alarms during the month ranging from

generators running to a high level alarm; all alarms were

cleared and all stations put back in service.

**PA One Calls:** We received 133 PA One calls for the month of August.



## MEMORANDUM

TO:

East Goshen Municipal Authority Board

Rick Smith, Township Manager

FROM:

Daniel Barbato, P.E.

**Authority Engineer** 

**DATE:** 

September 6, 2012

**SUBJECT:** 

Engineer's Report

## **Invoices**

• Invoices with summaries are provided under separate cover.

## Ridley Creek Sewage Treatment Plant (RCSTP)

• No activity this period. We will assist with supporting and reviewing warranty claims, plant troubleshooting, and operations support as requested.

## **LCSTP Elimination**

- The contractor has installed lot pins at two property corners between 920 and 922 Dolphin Drive and submitted as-built plans. All contract work is complete. The contract close-out documents (Contractor's Release and Statement of Surety) have also been submitted. A 2-year Maintenance Bond was provided at the start of the project. The Municipal Authority will verify that the lot pins were set and Pennoni is reviewing the asbuilt plans submitted by the contractor.
- A final payment request has been submitted, which we have reviewed and forwarded to the Township with a recommendation to make final payment.

## Hershey's Mill PS Diversion and Reserve PS Elimination

- We submitted the Reserve PS and the Hershey's Mill PS GP-5 "General Permit for Utility Line Stream Crossing" applications to DEP on June 27 and June 22 respectively. DEP has reviewed the Reserve PS application and has verbally informed us that we need to set up a bog turtle screening by the Army Corps of Engineers (ACOE). We have contacted the ACOE to set up the screening and are awaiting a response. We are still awaiting DEP's review of the Hershey's Mill PS application.
- We received comments from the Chester County Conservation District (CCCD) on the Erosion and Sediment Pollution Control Plan submissions for both projects. We revised the plans and made formal resubmissions to the CCCD. The revised plans were

- informally approved by CCCD via e-mail prior to formal resubmission. We are awaiting formal approval.
- We prepared four (4) DRAFT sanitary sewer easement legal descriptions and exhibits for the diversion projects one (1) for the Hershey's Mill PS and three (3) for the Reserve PS. The DRAFT documents were forwarded to the Township for review and comment.
- We recommend rock borings be performed along the alignment of both projects prior to bidding to determine if rock will be encountered during the work. Recommended boring locations were previously forwarded to the Township.

## **Marydell PS Elimination**

- We submitted the PennDOT HOP application for the sewer construction, and the permit has been issued. The permit provides for a jack & bore (trenchless) installation across Boot Road and open-cut trenching for the remainder of the work. The Paoli Pike crossing at Saratoga Drive is proposed to occur at night with a full road closure and detour.
- The Pump Station Closure Plan was submitted to DEP on July 31, 2012, and we are awaiting DEP's review.
- A small additional easement will be required from the shopping center for the proposed sewer, and we will prepare an easement legal description and exhibit if/when the shopping center owner and Township work out terms of the easement.
- Once the easement is obtained and the Pump Station Closure Plan is approved, all third
  party approvals and permits will be in place, and the project can be put out to bid. We
  anticipate putting the project out to bid in the winter so that construction can commence
  in early spring.

## Hershey's Mill Muffin Monster

- We finalized the mechanical and electrical plans and submitted them to DEP for review and approval on August 16, 2012. We requested feedback from DEP within 60 days.
- Once DEP approves the plans, we will coordinate with the Muffin Monster supplier to obtain formal product pricing.

## Semi-Annual Sewer System (formerly "CO&A") Status Report

• We have begun to analyze portable and permanent meter data from January-July 2012 for preparation of the internal semi-annual sewer system status report. This will be the first internal-only report since the semi-annual CO&A submissions to DEP are no longer required. The report format and content is intended to be similar to that in the previous CO&A Reports. We will submit the report to the Township by September 30, 2012.

## Commonwealth of Pennsylvania Department of Environmental Protection March 6, 2011

Subject: Aquatic Biology Investigation

Case – East Goshen Municipal Authority STP

Ridley Creek

East Goshen Twp, Chester County

To: Steve O'Neil

Environmental Group Manager

Clean Water

Through: Alan Everett

Water Pollution Biologist 3

SE Clean Water

From: Steven Unger

Water Pollution Biologist 2

SE Clean Water

### Introduction

On January 25, 2012 an aquatic biology investigation was conducted on Ridley Creek, in East Goshen Township; Chester County (Figure 1). The survey was conducted by the writer, Alan Everett, and, David Wolfinger (Water Quality Specialist). Jesse Goldberg from Miller Environmental, Inc. was also present during the survey. The purpose of the survey was to examine potential impacts to aquatic macroinvertebrates in Ridley Creek associated with East Goshen Municipal Authority STP. This is in response to a recent site visit by Mr. Wolfinger during which treatment plant solids were observed in the wetlands area that the plant discharges to. The Ridley Creek basin in the area is protected as HQ-TSF. Aquatic life uses are impaired due to urban runoff/storm sewers – siltation and water/flow variability pending EPA approval. The impairment is based on a 2011 Instream Comprehensive Evaluation survey. Land use in the watershed (9.6 square miles) consisted of predominantly developed open space and has a calculated % impervious cover of 6.9% (National Land Cover Database Zone 60 Imperviousness, USGS 2006) (Table 1). Surficial materials in the watershed are predominantly igneous and metamorphic rock types, specifically felsic and mafic gneiss.

### Methods

East Goshen discharges its treatment plant effluent into a wetland via 5 pipes. Flow through the wetland has become partially channelized and seems directed into a single main channel that discharges into Ridley Creek (Figure 2). Aquatic life protection is first applied where the wetland discharges into Ridley Creek. Two macroinvertebrate stations were examined: STA1 was located on the Ridley Creek approximately 250 feet upstream of the main wetland channel that discharges into it, and STA2 was located approximately 1150 feet downstream of the

channel (Figure 1). At each station field water quality parameters consisting of temperature, pH, dissolved oxygen, and specific conductance were recorded (Table 2) and a grab sample for lab analysis was taken (Table 3). Also, a habitat assessment was conducted (Table 4) and riffle streambed substrates were visually characterized. Benthic macroinvertebrate samples were collected at each station in accordance with the PADEP RBP qualitative method compiling 4 - 800 to 900micron kick nets and rock picks in a 100m reach and recording relative abundances of macroinvertebrate taxa in the field. A representative macroinvertebrate sample from each station was preserved in 70% ethanol for laboratory identification (Table 5). Field water quality and grab samples for lab analysis were also taken from one of the outfall pipes and in the wetland channel just prior to discharge into the Ridley Creek.

### Results

STA1: Ridley Creek N 39° 59' 04.6" W 75° 31' 27.8"

STA1 was selected as an upstream reference station (Figure 1 and 3). Above the wetland discharge channel, the Ridley Creek splits forming a slow moving, lower gradient, wide meander with about 60% of the flow, and a straighter, faster flowing, slightly higher gradient channel with about 40% of the flow. STA1 was located on the faster flowing channel which is the first location upstream that riffle substrates were found. STA1 riffle substrates were characterized as 0% boulder, 5% cobble, 60% gravel, 10% sand/silt, and 25% clay. Dissolved oxygen was slightly higher at STA1 than STA2 based on field chemistry (Table 2). Other field chemistry parameters were similar at both stations. Results from samples sent to the lab were also similar at both stations with elevated levels of nutrients noted (Table 3). The macroinvertebrate community consisted of 20 total taxa, and 9 EPT taxa (Table 5). Common netspinning caddisflies of the genus Ceratopscyche were very abundant and the dominant taxa. Sensitive taxa with Hilsenhoff scores between 0-3 identified in this sample were the flatheaded mayfly Maccaffertium (rare), the saddlecase maker caddisfly Glossosoma (present), the uenoid case maker caddisfly Neophylax (present), and the crane fly Antocha (rare). Red midges, worms, and leeches, having high organic pollution tolerance levels, were rare. The habitat assessment score at STA1 was lower than STA2 (Table 4). This was mostly due to a less diverse velocity/flow regime and marginal instream cover and epifaunal substrate scores. Substrate at both stations were embedded.

STA2: Ridley Creek N 39° 58' 59.0" W 75° 31' 13.6"

STA2 was selected as a potential area of impact downstream from the treatment plant (Figure 1 and 4). A small breached dam was observed approximately 300m downstream of the wetland channel. The stream between the wetland channel and the dam was a low gradient smooth glide with fairly low banks and a large floodplain, associated with aggraded sediments behind the dam. STA2 was located downstream of the dam on the first riffle substrate available. Riffle substrates were characterized as 5% boulder, 35% cobble, 45% gravel, 15% sand/silt, and 0% clay. The macroinvertebrate community consisted of 30 taxa, and 11 EPT taxa (Table 5). Net-spinning

caddisflies of the genus *Ceratopsyche* and fingernet caddisflies of the genus *Chimarra* were both very abundant and the dominant taxa. Sensitive taxa with Hilsenhoff scores between 0-3 identified in this sample were the mayfly *Maccaffertium* (common), the stoneflies *Prostoia* (rare), *Acroneuria* (present), and *Strophopteryx* (abundant), the riffle beetle *Macronychus* (rare), the caddisfly *Neophylax* (rare), and the crane flies *Antocha* (present) and *Dicranota* (rare). Red midges and sludge worms were rare and leeches and worms were present and common respectively. Better developed riffle and substrates are reflected in the higher habitat score compared to STA1 (Table 4).

## **Outfall 001 and Wetland Channel**

Treatment plant solids were observed interspersed throughout the wetland and collected several inches deep throughout the length of the wetland channel. Also, an area roughly 5 feet long, 3 feet wide, and 2 feet deep of solids was observed hugging the left bank of the Ridley Creek just downstream of the wetlands discharge channel. Macroinvertebrates were sampled from the wetland channel with the kicknet to determine if it was harboring an abundance of sludge worms and red midges which are typical of heavily impacted streams because of the behavioral and physiological adaptations they are capable of. These tolerant taxa were not observed. Field chemistry was similar in the outfall and the wetland channel with lower dissolved oxygen and higher conductivity than the Ridley Creek stations. Lab chemistry results show several things. Both the outfall and wetland channel have higher oxygen demand and also higher solids and mineral levels than the Ridley Creek stations. The higher amounts of aluminum in the outfall and wetland channel are most likely the result of alum use for phosphorus removal at the facility. This is further supported by the corresponding elevated phosphorus levels in in the outfall and wetland. The higher iron level in the wetland channel could be associated with groundwater influence from springs and seeps to the wetland.

## **Conclusions**

- 1. Results of macroinvertebrate sampling and chemistry are similar at STA1 and STA2 indicating that the treatment plant is not further degrading aquatic life in Ridley Creek.
- 2. Lab and field chemistry results suggest a wetland that is being influenced by groundwater flows and highly digested treatment plant solids and alum floc accumulation creating a possible nuisance in the wetland, wetland channel, and the Ridley Creek in the vicinity of the wetland channel discharge.
- 3. Lack of habitat availability and other geomorphological characteristics in the Ridley Creek in the immediate vicinity of the wetland channel discharge make it difficult to assess potential impacts from the treatment plant to the area where the permit was designed to first protect.

## Recommendation

1. It is the writer's understanding that a wetland discharge was originally designed as a polishing step to further protect Ridley Creek, a high quality stream. The wetland channel currently limits benefit of a wetland discharge by shortening wetland residence time. The Authority should investigate wetland conditions when the treatment plant originally came online and consider restoration of the original wetland contours.

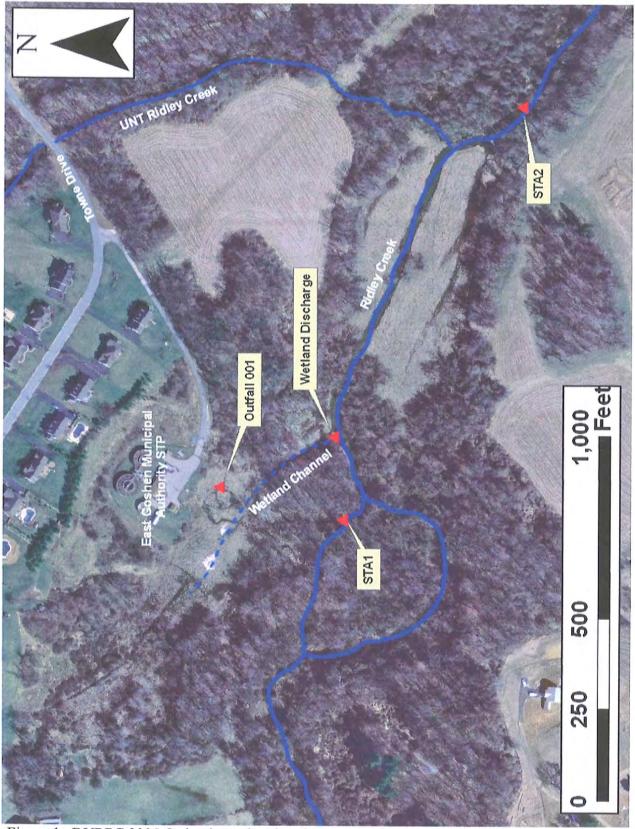


Figure 1. DVRPC 2005 Orthophoto showing the aquatic biology stations



Figure 2: Wetland Channel



Figure 4: Station 2



Figure 3: Station 1

Table 1. STA3 Watershed Percent Land Use and Impervious Cover.

Open water	0.1
Developed, open space	33.5
Developed, low intensity	9.4
Developed, medium intensity	3.2
Developed, high intensity	0.2
Deciduous forest	23.5
Evergreen forest	0.4
Mixed forest	1.5
Shrub/scrub	7.2
Grassland/herbaceous	0.4
Pasture/hay	13.5
Cultivated crops	5.4
Woody wetlands	1.7
Total	100.0
% Impervious Landcover	6.9

Table 2. Field chemistry

Field Chemistry	Units	Station 1	Station 2	Outfall 001	Wetland
Date	-4/4/4	1/25/2012	1/25/2012	1/25/2012	1/25/2012
Time		1300hr	1130hr	1040hr	1100hr
Temperature	°C	6.11	5,56	13.13	11.72
Dissolved Oxygen	mg/l	16.20	14.60	9.96	9.04
DO % Saturation	%	130.5	116.1	95.2	83.5
рН	s.u.	7.68	7.28	6.77	6.93
Sp. Conductivity	usem/cm	445	423	725	671

Table 3. Lab chemistry

Lab Chemistry	Units	Outfall 001	Wetland	STA1	STA2
Date		1/25/2012	1/25/2012	1/25/2012	1/25/2012
Time		1030hr	1100hr	1300hr	1130hr
BOD	mg/l	4.1	8.0	1.6	1.4
COD	mg/l	43.2	58.2	13.8	20.0
Alkalinity	mg/l	117.2	11.4	49.2	51.4
Total Residue	mg/l	452	474	274	266
Suspended Solids	mg/l	24	72	8	8
Settable Solids	mg/l	<0.2	0.3	<.2	<.2
TDS	mg/l	442	416	202	240
Turbidity	NTU	8.97	19.41	2.91	2.89
Total Nitrogen	mg/l	3.56	4.10	3.14	3.28
Ammonia	mg/l	0.08	0.15	0.13	0.16
Nitrite	mg/l	<.01	<.01	0.02	0.02
Nitrate	mg/l	1.78	1.70	2.98	2.87
Phosphorus	mg/l	0.677	1.206	0.166	0.147
Hardness	mg/l	153	155	106	105
Calcium	mg/l	38.8	39.0	22.3	22.4
Magnesium	mg/l	13.6	14.0	12.1	11.9

Chloride	mg/l	117.7	108.8	88.8	86.8
Sulfate	mg/l	55.63	53.85	16.61	16.69
Cadmium	ug/l	<0.2	<0.2	<0.2	<0.2
Chromium	ug/l	<4	<4	<4	<4
Copper	ug/l	22	36	<10	<10
Iron	ug/l	68	1320	249	252
Lead	ug/l	<1.0	1.4	<1.0	<1.0
Manganese	ug/l	19	59	47	52
Nickel	ug/l	<50	<50	<50	<50
Zinc	ug/l	89	92	<10	<10
Aluminum	ug/l	842	2140	<200	<200
Mercury	ug/l	<.2	<.2	<.2	<.2
Fecal Coliform	cfu/100ml	<20	180	40	160

Table 4. EPA Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers Second Edition Habitat Assessment Scores

Habitat Parameter	STA1	STA2
Instream Cover (Fish)	8	15
Epifaunal Substrate	7	12
Embeddedness	8	8
Velocity/Depth Regimes	11	17
Channel Alteration	18	15
Sediment Deposition	10	8
Frequency of Riffles	11	15
Channel Flow Status	15	18
Condition of Banks	10	12
Bank Vegetative Protection	15	17
Grazing or other Disruptive Pressure	18	14
Riparian Vegetative Zone Width	18	15
Total Score	149	166

Optimal: 20-16 Marginal: 10-6 Suboptimal: 15-11 Poor: 5-0

Table 5. Macroinvertebrate Taxa List for East Goshen Municipal Authority STP Cause/Effect Survey

Таха	Organic Pollution Tolerance	Functional Feeding Group	STA1	STA2
Hirudinea (leeches)				
Hirudinea	8	PR	R	Р
Oligochaeta (worms)				
Oligochaeta	8	CG	R	С
Planariidae (flat worms)				
Planariidae	7	PR	Р	R
Tubificidae (sludge worms)				
Tubificidae	10	CG		R

Physidae (physid snails) Physidae	8	00		-
	8	SC		R
Corbiculidae (asian clams)  Corbicula	4			-
	4	FC	R	С
Asellidae (sowbugs)  Caecidotea	6	00		
- CALLA LABORATION AND CONTRACTOR OF CONTRAC	6	CG		R
Crangonyctidae (scuds)		00		
Crangonyx	4	CG	R	С
Baetidae (small minnow mayflies)		200		
Baetis	6	CG	R	R
Heptageniidae (flatheaded mayflies)				
Maccaffertium 511	3	SC	R	С
Gomphidae (clubtail dragonflies)				
Stylogomphus	4	PR	_	R
Nemouridae (nemourid stoneflies)				
Prostoia	2	SH		R
Perlidae (common stoneflies)				
Acroneuria	0	PR		Р
Taeniopterygidae (winter stoneflies)				
Strophopteryx	3	SH	4 00-	Α
Elmidae (riffle beetles)				
Macronychus	2	SC		R
Optioservus	4	SC	Р	Р
Stenelmis	5	SC		P
Psephenidae (water pennies)				
Psephenus	4	SC		Α
Glossosomatidae (saddlecase maker caddisflies)				
Glossosoma	0	SC	Р	
Hydropsychidae (common netspinner caddisflies)				
Cheumatopsyche	6	FC	Р	Α
Ceratopsyche	5	FC	VA	VA
Hydropsyche	6	FC	Р	Α
Hydroptilidae (micro caddisflies)				
Leucotrichia	6	SC	R	R
Philopotamidae (fingernet caddisflies)				
Chimarra	4	FC	Α	VA
Uenoidae (uenoid case maker caddisflies)				
Neophylax	3	SC	Р	R
Chironomidae (non-biting midges)				
Chironomidae	6	CG	A	Α
Chironomidae (red)		CG	R	R
Simuliidae (black flies)		100		
Simulium	6	FC	A	Α
Tipulidae (crane flies)				
Antocha	3	CG	R	Р
Dicranota	3	PR	1,	R
Tipula	4	SH	С	P
EPT taxa		911	9	11
Total taxa			20	30

## Relative Abundance, where :

R = rare (<3)

P = present (3-9/kick)

C = common (10-24)

A = abundant (25-100)

VA = very abundant (>100)

Functional Feeding Group, where :

SH = shredder

FC = filter/collector

CG = collector/gatherer

SC = scraper

PR = predator

August 2012 - Ridley Creek Treatment Plant Operations Report

## **Treatment Process Operation**

Sequencing batch reactors (SBRs) numbered 1, 3 and 4 were in service during the month of August. SBR No. 2 remains out of service with a proximately a mixture of 1 foot of sludge and rainwater within the tank. Transfer of the contents of SBR 2 is planned during September.

During July, there was a total three (3) exceedances of the final effluent discharge limitations for total phosphorus. Two (2) exceedances were reported for outfall 011 and one (1) for outfall 002 (Applebrook). Available final effluent total phosphorus concentrations for samples collected during August exceed the effluent discharge limitation.

Adjustments to the SBR process during August include increasing the mixed liquor concentration (MLSS), increasing the sludge age and decreasing the food to mass ratio (F:M ratio). The objective of the process adjustments is to restore biological phosphorus removal and prepare for the autumn and winter operations. Grab samples from the final effluent flow equalization basin and final effluent discharge were routinely analyzed (daily Monday through Friday) for pH, alkalinity and total phosphorus was implemented for the final effluent flow equalization basin and final effluent discharge. The data is presented graphically in the following figures 1, 2 and 3.

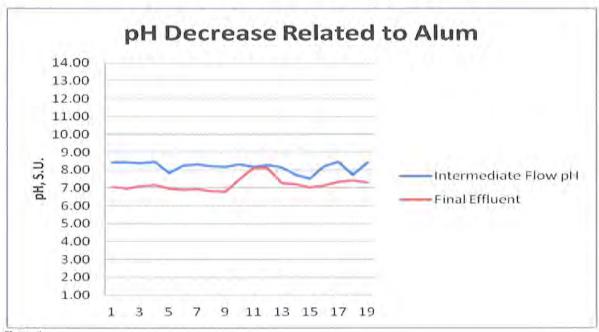


Figure 1

August 2012 - Ridley Creek Treatment Plant Operations Report

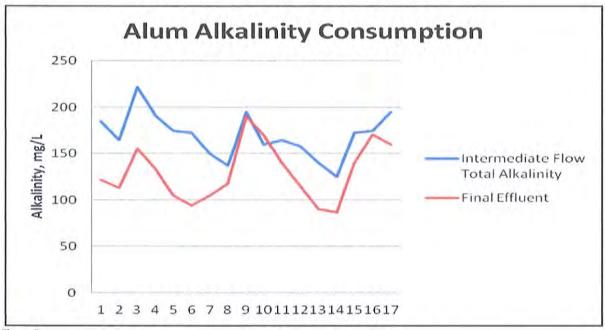


Figure 2

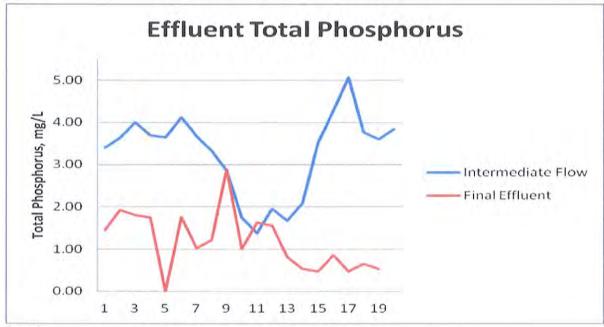


Figure 3

The process adjustments indicate the final effluent total phosphorus concentration was trending downward towards the discharge limitation concentration. Daily process monitoring of the final effluent and SBRs will continue to monitor improvement towards achieving consistent total phosphorus concentrations compliant with the discharge limitation.

August 2012 - Ridley Creek Treatment Plant Operations Report

Presented below is a summary of the flow data for July and August 2012:

## Flow data:

	July 2	012	August	2012
Flow Meter Location	Total Volume for Month, MGD	Average Daily Flow, gpd	Total Volume for Month, MGD	Average Daily Flow, gpd
Influent Wastewater	9.704	313,027	10.558	340,586
Treated Effluent to Disc Filters	8.309	268,025	8.691	280.353
Final Effluent Discharge	7.013	124,742	4.067	131,194
Applebrook Golf Course	2.189	70,608	2.178	70,262

**Chemical Usage: July 2012** 

Chemical	Daily Average	Total Monthly
Soda Ash	161 lbs./day	5,000 pounds
Magnesium Hydroxide	10.6 gpd	330 gallons
Alum	45.5 gpd	1,409 gallons
Polymer (centrifuge)	na	35 gallons

## Solids Dewatering and Disposal

During August, the centrifuge dewatering system was placed in service. Presented blow is a summary of the solids processing activity:

August Sludge	Dewatering Summary	
Gallons of sludge dewatered	228,000 gallons	
Average Dewatered Total Solids, %	17.6	
Wet Tons	Na Tons*	77-11-11
Dry Tons	Na Tons*	
Number of dumpsters	3	

Data was not available at the time of report preparation

During the month, sludge wasting and decanting of the sludge holding tanks was ongoing. A total volume of 103,425 gallons of supernatant was decanted form the sludge holding tanks. pH and alkalinity were monitored on average twice per week and total solids once per week.

Sludge holding tank No. 1 began the month as 0.90 % total solids and ended the month at 0.66% total solids. Tank level at the beginning of the month was 10.72 ft and at the end of the month was 4.52 ft.

August 2012 - Ridley Creek Treatment Plant Operations Report

Sludge holding tank No. 2 began the month as 0.87% total solids and ended the month at 1.08% total solids. Tank level at the beginning of the month was 11.22 ft and at the end of the month was 14.56 ft.

## Maintenance, Repairs and Warranty

Outstanding: Centrifuge replacement parts – Worth & Co. to replace parts used for warranty repair

ACTION: BFESI will provide Worth & Company a letter requesting resolution of the matter on or before October 1, 2012.

Outstanding: SBR and Centrifuge MCC panel hour meters - Worth & Co. informed

ACTION: Pennoni Associates/Township to provide Worth & Company a copy of the short circuit study completed by Clinger Corporation.

Outstanding: Screen Building overhead door.

ACTION: Worth and Company will be contacted to investigate the malfunctioning door.

## Scheduled Maintenance/Repairs

Tightened the drive belts for SBR No. 1 blower.

Removed the intake exhaust screen and tightened the belt for the SBR blower room exhaust fan.

Replaced the dissolved oxygen probe on SBR No. 4 with the dissolved oxygen probe from SBR No. 2

Flushed the chemical feed piping from chemical feed pumps MP-33 and MP 34 to SBRs 1, 3 and 4.

Repaired broken utility water supply piping to the fine screen

DRAFT REPORT

Ridley Creek Sewage Treatment Plant Monthly Operations Report

Design Basis	Flow	BODs	D <sub>5</sub>	_	TSS	N-™N	N-1	TKN, mg/L	g/L	Phosphorus Total me/I	Total mo/I
•		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/dav	I/ew	lbe/day	(m)	1 Pro / de
	MGD Average	335	2,098	320	2.001	33	2000	- /9	ins/cm	11/2/L	los/day
Sample Date						1	700	40	302	9.1	57
August 2, 2012	0.2692	1180	2,649	710	1.594	43.2	97	116	020	7 46	
August 9, 2012	0.2753	278	638	208	478	2.0°	70	25.0	627	35.b	08
August 16, 2012	0.2297	747	1431	305	587	2:50	6/	55.5	78	6.2	14
August 23, 2012	0.3594	309	926	55	168			26.9	109	11.5	22
August 30, 2012	0.3075				227						
Average	0.2882	629	1411	320	706	30	88	9	0.1		
Minimum	0.2297	278	638	56	168	37	8 8	60	neT	18	33
Maximum	0.3594	1180	26.40	210		5	2	30	78	9	14
	10000	777	5043	OT,	1594	43	97	115	528	36	80
									-		;

					Final Effluen	Final Effluent - Out Fall 001					
NDD EC Borneit	Flow	CBC	CBODs	ř	TSS	N-⁴NN	N	Phosphorus,Total, mg/L	otal, mg/L	Fecal Coliform	iform
Discharge Limitations	MGD Average	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	mø/t	lbs/month	Too Moss	11000
	0.75	20	125	21	131	7	44	- 6.0	3	200	GEO INICALI
	Instantaneous								,	007	T,000
	Maximum	40		42							
Sample Date											
August 2, 2012	0.100	2.0	1.7	20	17	0.10	80.0	1 10	200	7	
August 9, 2012	0.104	2.0	1.7	42	36	0.10	90.0	7 20	1.00	T .	0.000
August 16, 2012	0.123	3.3	3,4	39	40		600	2.30	1.33	-   ·	0.0000
August 23, 2012	0.164	2.2	3.0	11	15			2.20	77.7		0.0000
August 30, 2012	0.1050									1	0.0000
Average	0.1192	2.4	,	38	22	90.00					
25.55	10000		1	97	/7	0,100	0.09	1.87	1.72	-	0.000
Minimum	0.1000	2.0	2	11	15	0.100	0.08	1.10	0.92	1	0.000
Maximum	0.1640	3.3	3	42	40	0.100	0.09	2.30	2.26	1	00000
										•	2225

3800-FM-WSFR0435 7/2009

# SUPPLEMENTAL REPORT

# DAILY EFFLUENT MONITORING

Chester County: Ridley Creek Sewgae Treatment Plant East Goshen Municipal Authority 3-G ALS Environmental

Permit No.: PA0050504 Outfall: 002
This permit will account to expiration.

Total Phosphorus 3.40 3.70 #REF! 4.10 1.1 February 28, 2017 0.100 0.231 0.100 0.100 #REF! 0,133 子立と 0,231 0.08 0,2 v v v v vv Fecal Coliform 1.000 1,000 1,000 1,000 18 #REF! This permit will expire on: 0.7 a v ٧ v v v v v 11 11 #REF! 5 5 132 TSS # # #REF! 2.0 2.0 #REF! CBODS 38 a v v v v Dissolved Oxygen REF #REF! 7.03 8.42 n 249 a 1 表匠 7.98 7.99 7.99 7.90 7.90 8.03 #REF! 6.83 8.15 둉 0.05399 0.070994 0.073714 0.072438 0.054708 0.0742 0.06144 0.057378 0.07219 0.07323 0,070608 0,076646 0.070582 0.074028 0.093106 0.076636 0.093106 0.05281 0,06725 0.086076 0.074254 0.05778 0.06995 0,07368 0,05891 0.05281 Flow 7/10/12 7/14/12 7/15/12 7/16/12 7/17/12 7/18/12 7/24/12 7/25/12 7/26/12 7/27/12 Stage 7/28/12 7/12/12 7/21/12 7/5/12 7/8/12 7/22/12 7/30/12 7/1/12 7/2/12 7/3/12 7/7/12 7/B/12 7/20/12 7/23/12 Avg Monthly (Done.): Geometric Mean (Conc.): Daily Minimum (Conc.): Daily Maximum (Conc): Max Avg Weekly (Conc.): Max Avg Weekly (Load): Avg Monthly (Load): Total Monthly (Load): Daily Maximum (Load): Daily Minimum (Load): Facility Name: Municipality: Watershed: Laboratories; Day Sun Mon Tue Wed Fri Wed Mon Tue Sun Thu Wed Sat Sat Wed 正 Sat Sun Mon The Sat Mon Tue Œ

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information and persons who manage the system or those persons directly responsible for gathering the information, the minimated is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4004 (telating to unsworm falsification).

Scott A. Towler Plant Operator Prepared By: Title:

License No.: T0390 Date: 20-Aug-12

FINAL REPORT

Ridley Creek Sewage Treatment Plant Monthly Operations Report

ſ											
	Flow	BODs	ءَ	F	TSS	Ĭ	N+2-N	TKN. me/l	1/2	Phoenhorise Total	Total mg/l
		mg/L	lbs/day	mg/L	lbs/dav	me/L	lbs/day	1/000	lbc/day	'chichen'	10.cal, 111g/ L
_	MGD Average	335	2.098	320	2 001	33	300	1,8/1	lus/day	1)g/L	ios/day
					-32/2	70	7007	\$	301	9.1	57
	0.3355	162	453	84	235	3 25 6	100				
ı	0.24	100				50.0	ZOT	51.9	145	4.7	13
	0.3159	727	624	328	864	28.4	75	35.6	76	7.1	1.2
	0.3105	715	1,852	992	2.569	36	93	55.2	1.43	, ;	12
	0.2926	587	1 /122	CNO	4 222		3	0.00	7+7	TO'8	87
ı		SS	1,732	245	1,523	3.92	10	62.9	153	8.2	20
ı											
	0.3136	425	1090	487	1248	26	۶	F-1	134		
	0.2926	162	453	84	735		2 2	7	+CT	,	18
ı	1775					+	777	35	94	5	12
- 1	0.3355	715	1852	992	2569	37	102	63	153	11	36
									-	:	3

					Final Effluen	Final Effluent - Out Fall 001					
	Flow	č	c S	F	766			-			
NPDES Permit		5	25-		20	E	NH4-N	Phosphorus, Total, mg/L	otal, mg/L	Fecal Coliform	iform
Discharge Limitations	MGD Average	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	1/am	lbs/month	Moon Moon	11000
	0.75	20	125	21	131	7	44	5.0	2	200	300 Mean
	Instantaneous								,	200	T,000
	Maximum	40		42							
Sample date											
July 5, 2012	0.145	2.0	2.4	13	9	0.23	0.12	7 7	100	7	
July 12, 2012	0.108	2.0	1.8	5	r	010	0.00	2.40	0.12	T	0.000
July 19, 2012	0.125	2.0	2.1		)	0.50	0,03	5.40	60:0	1	0.0000
11dy 25 2012	0120		11,	֓֟֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓֓֓֓֓֓֓֓֓֟֓֓֓֓֓֓	0	0.10	0.10	3.70	0.10	1	0.000
July 20, 2012	0.128	7:0	2.1	2	2	0.10	0.11	4.10	0.11	Ţ	0.000
Average	0.1265	2.0	2	7	ī,	0.133	0.11	3.08	0.11	-	0000
Minimum	0.1080	2.0	2	5	5	0,100	0.09	1.10	60 0	+	00000
Maximum	0.1450	2.0	2	13	9	0.230	0.12	4 10	0.13	,	0.0000
							21.0	4.10	0.12	7	0.0000

## 3800-FM-WSFR0435 7/2009

## DAILY EFFLUENT MONITORING SUPPLEMENTAL REPORT

Facility Name: Municipality: Watershed: Laboratories:

Ridley Creek Sewage Treatment Plant East Goshen Municipal Authority 3-G ALS Environmental

Chester County:

Month: 7 (select number) Year: 2012
Permit No.: PA0050504 Outfall: 001
Renewal application due 180 days prior to expiration.
This permit will expire on: February 28, 2017

Total Phosphorus		Q mg/L						1 10	2						3.40							3.70						4.10								1.1	4.1	4.1	3,1		4 6	3,2	TODECT THE	
N-83-N	+	mg/L						0.231	1070						0.100							0.100						0.100								0.1	0.231	0.2	0.133	0	2 6	٠.٠	ū	
Fecal Coliform		CFU/100 ml a						-			1				1 .							v						,								1   <	1		v	-		, ,	## FFF	Ī
TSS	22	0	V			Ī		84 <	T						328 <							992 <		Ī				542 <	T							٧	>			v	1	İ	#REF!	
F		a	-		+																		-		+	-	-					-	-	-	ļ	鞋	#		-	+	+	-	-	
TSS	1	a mg/L						13							5							v						2								5 >	13		4	100		< 239	-46	
8005	显	mg/L						162							237							(15		Ì	Ī			587			1	Ī				7	715		425	745		13806	T	
8		mg/L a						2.0							2.0							7.0						2.0		1		I				-	2	7	-	2		20	# 15	
n CBODS	1	a		-				< 2		0.0					< 2						1	7						< 2				-			I				v	v	1	v 65	華	
Dissolved Oxygen	-	mg/L		7.96	7.71	7.94	7.91	8.43	8.18	8.18	8.28	8.34	8,65	8.40	7.89	6.55	8.77	8.41	8.29	7.66	16.7	7.07	8.78	8 48	8.09	8.27	8.49	7.86	7.03	8.24	0.70	8.04				7.03	8.77	28.42	8.14	50	60		-tr	
та.		s.U.		7.71	8.11	7.83	7.66	7.24	7.34	7.50	7.69	7.84	7.99	0.03	8,10	0.01	00.7	6.98	1.84	7.00	1.80	78.7	7.90	8 15	8.03	8.01	8.12	8.06	7.87	6.88	700	7.08				5,83	8,15	-					#REF! ##	
Flow	7	WGD O		0.124	0.118	0,095	0.135	0.145	0.09	860'0	0.105	0.146	0.107	LLL	0.108	2400	0.198	0.12	0.104	0.106	0.178	0.125	0.147	6800	0.131	0.104	0.107	0,128	0.166	0.152	0.141	0.1				+	-	-	+	0.131	0.125	3.867	68000	
Parameter		Date		7/1/12	-		7/4/12	Ц			-	4	7/10/12	4	7/12/12	-	1	4	-	7/1/1/2	1	1	_	1	L			4	4	7/28/12	1	L				Daily Minimum (Conc.):	Daily Maximum (Conc):	centry (come.)	Geometric Mean (Corrc.):	_	L	11	1	
		week nay		1 Sun	Mon	Tue	Wed	J.	Œ	-	2 Sun	Mon	Tue	DAVA	IN S	2	+	uno :	Mon	ine ine	nan n	in in	Sat	4 Sun	Mon	Tue	Wed	Thu	E .	Te o	+	Tue			Stabstics for DMR	Carly Name	May Ave We	And Mary Mary	Geometric M	Wax Avg W	Avg Mo	Total Mc	Daily Minis	

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evident in those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate and complete, I am aware that there are significant penalties for submitting false information, including the possibility of fine and impronent for knowing violations. See 18 Pa. C.S. § 4804 (relating to unsworn falsification).

Scott A. Towler Plant Operator Prepared By: Title:

License No.: T0390 Date: 20-Aug-12



August 22, 2012

Dave Wolfinger Water Quality Specialist Pennsylvania Department of Environmental Protection 2 East Main Street Norristown, PA 19401

Re: East Goshen Township Municipal Authority NPDES Permit No. PA – July 2012 DMR

Dear Mr. Wolfinger:

The Ridley Creek sewage treatment plant sequencing batch reactor activated sludge process is currently utilizing 3 of the 4 SBR basins. A medium brown colored foam has accumulated on the surface of the SBRs. Although the foam is present, no adverse impacts to mixed liquor suspend solids (MLSS) settleability or solids loss through the effluent is present. The foam contains the filamentous bacteria *Microthrix parvicella*. This filamentous bacterium thrives within activated sludge environments possessing a long sludge age and low food to mass ratio.

Utilizing ideal conditions of the SBR performance, operational adjustment were implemented to decrease the presence of the foam. During the last week of June and the month of July, the MLSS concentrations were lowered to reduce the sludge age and increase the food to mass ratio (F:M ratio). These adjustments eliminated favorable conditions for *Microthrix parvicella*. There was a noticeable reduction in foam; however, these adjustments inhibited biological phosphorus removal. On site process control, testing determined the SBR effluent total phosphorus concentration to be greater than the design of 2.0 mg/L. Table 1 illustrates the final effluent concentrations and mass loadings during July.

Sample Date	1 £1 4 F-1	1001) Total Phosphorus	
Sample Date	Influent Flow, gallons	Phosphorus, Total, mg/L	Phosphorus, Total
July 5, 2012	145,000	1.1	1.33
July 12, 2012	108,000	3.4	3.06
July 19, 2012	125,000	3.7	3.86
July 26, 2012	128,000	4.1	4.38



As a comparison to the final effluent, the influent concentrations were observed to fluctuate during June and July, however, the influent mass loadings remained within the facility's design loadings. Table 2 illustrates the influent wastewater concentrations and mass loadings during July.

Ta	able 2 – Influent Tota	al Phosphorus Load	ing
Sample Date	Influent Flow, gallons	Phosphorus, Total, mg/L	Phosphorus, Total, Ibs/day
June 7, 2012	273,888	4.4	10
June 14, 2012	264,320	4.2	9.3
June 21, 2012	260,304	4.4	9.6
June 28, 2012	240,080	18.4	37
July 5, 2012	335,472	4.7	13
July 12, 2012	315,920	4.7	12
July 19, 2012	310,472	10.8	28
July 26, 2012	292,556	8.2	20

Final effluent 24-hour composite and grab samples are collected by a certified laboratory for analysis. Typically, sample results are available 14 days from the date of sample collection. This delay in receiving laboratory data contributed to the delay in response actions to the activated sludge process and aluminum sulfate chemical feed system.

During August, grab samples of the final effluent (Outfall 001) and the final effluent post flow equalization tanks are collected and analyzed on site for total phosphorus using an USEPA acceptable test method. Frequency of analysis ranges from three to five days per week. In addition, spilt samples with the certified laboratory are analyzed on site to assist in developing a correlation between the onsite and certified laboratories.

Initial laboratory reports for the month of August indicate improvement towards reducing the final effluent total phosphorus concentrations; however, there is uncertainty towards achieving the required total phosphorus concentrations for the month of August. The process will be continued to be adjusted and monitored to achieve complete compliance with all discharge parameters.

Should you have any questions, request additional information or clarification, please do not hesitate to contact me. You may contact me through email at <a href="mailto:scott towler@comcast.net">scott towler@comcast.net</a> or by mobile phone at 484-401-4198.



Sincerely,

Scott A. Towler, P.E., SEO, LO

Big Fish Environmental services, Inc.

Cc: Rick Smith, East Goshen Township Manager

Mark Miller, East Goshen Township Director of Public Works

Daniel P. Barbato, P.E., Pennoni Associates, Inc.

## 2008 FLOWMETERS

>	NET	FLOWS	769,500	775,800	749,160	0	Ī	0	0	0	0	0	0	0	905,900	750,073	848,240	750,720	777,490			977,087	715,517	708,760	i i				824,860	-284,122	-283,040	-171,760	-83,220	582,064					
LECTION	SUMMIT	GPD	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400	20,400				1		
700 00		GPD	84,710	81,560	85,260										90,500	83,600	97,110	068'66	92,780			79,247	91,750	88,170					90,540	114,770	95,750		83,220	79,506					
OSHEN - (	WILSON DRIVE	READING	14,497,191	14,505,347	14,513,873										14,604,373	14,612,733	14,622,444	58,100 14,632,433	14,641,711			14,665,485	14,674,660	14,683,477					14,728,747	14,740,224	14,749,799		14,766,443						
WEST G	IKE	GPD	61,080	61,640	29,050										63,658	59,850	60,130	58,100	58,020			63,640	58,080	58,150					56,602	63,660	58,520		57,200	51,644					
2 AUGUST 3RD QUARTER- METERS FROM WEST GOSHEN - CC COLLECTION	PAOLI PIKE	READING	12,748,026	12,754,190	12,760,095										12,823,753	12,829,738	12,835,751	78,630 12,841,561	12,847,363			12,866,455	12,872,263	12,878,078					12,906,379	12,912,745	12,918,597		12,930,037						
- METER	ANE	GPD	84,710	81,000	89,530										78,669	79,800		78,630	76,150			129,093		134,910					112,750	123,630	113,240	1	118,785	91,496	EG TWP	5.80		27.07	
UARTER	ELLIS LANE	READING	25,596,736	25,604,836	#######################################					1					25,692,458	25,700,438	25,710,464	25,718,327	25,725,942			25,764,670	25,778,369	25,791,860					25,848,235	25,860,598	25,871,922		25,895,679						
ST 3RD G	IN WAY	GPD	10000000	1000000	000086										996400	000926	1085000	1011000	1007000			1056333	10000001	992000					915400					835,178		ΙE	TH TO DATE		TODALE
2012 AUGU	WESTTOWN WAY	READING	2,615,871	2,616,871	2,617,854										2,627,818	2,628,794	2,629,879	2,630,890	2,631,897			2,635,066	2,636,066	2,637,058					2,641,635							MONTH TO DATE	NORMAL MONTH TO DATE	YEAR TO DATE	NORMAL YEAR TO DATE
21		DATE	0.00 08/01/12	08/02/12	08/03/12	0.00 08/04/12	08/05/12	08/06/12	0.00 08/07/12	08/08/12	0.00 08/09/12	0.00 08/10/12	08/11/12	0.00 08/12/12	1.02 08/13/12	1.20 08/14/12	0.00 08/15/12	0.00 08/16/12	1.65 08/17/12	08/18/12	08/19/12	08/20/12	08/21/12	08/22/12	08/23/12	08/24/12	08/25/12	08/26/12	08/27/12	0.15 08/28/12	0.00 08/29/12	08/30/12	0.00 08/31/12			2	Z	λ.	N
	Precip	Inches	00.00	00.00	00.00	00.0	0.52	0.00	0.00	0.00	0.00	00.00	00.0	0.00	1.02	1.20	0.00	0.00	1.65	0.00	00.00	0.05	-	00.00	00.00	00.0	00.00	0.11	1.10	0.15	0.00	00.00	00.0	5.80		1			

# 2008 FLOWMETERS

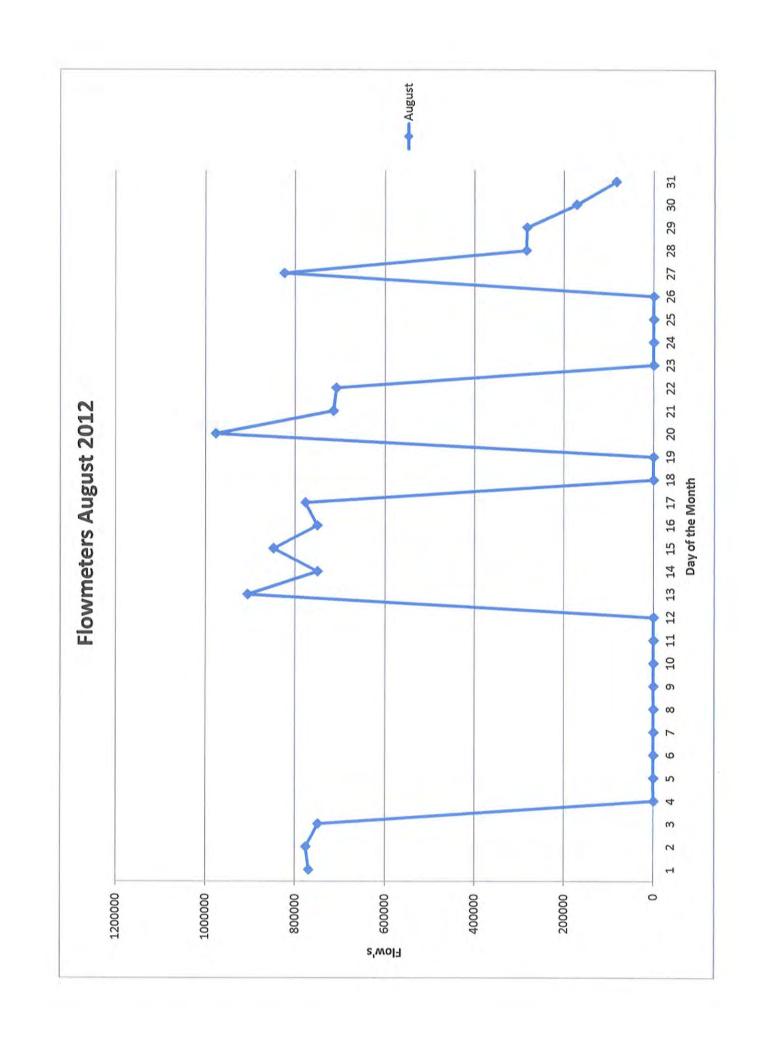
	NAY	GPD														9,533									9,774								9,654			
	BARKWAY	READING														2,498,301									2,507,098						1					
NOI	AN	GPD																							6,450								6,450			
COLLECT	SHERMAN	READING																							870,025											
EN-CC	VOIR	GPD																	909,131														909,131			
QUARTER- METERS FROM WEST GOSHEN - CC COLLECTION	RESERVOIR	READING																	164,522,061					7												
ROM WE	IETER	GPD																	-														0			
ETERS FI	HICKS METER	READING																																		
RTER- M	IDGE	GPD				7	Ť				8					57,242									59,911								58,577			
RD QUAI	ASHBRIDGE	READING														1,482,213									1,487,605			T								
GUST 3	SMILL	GPD														60,727							I		60,422								60,575			
2012 AUGUST 3RD	HERSHEY'S MILL	READING														24,050,079									24,104,459											
		DATE	08/01/12	08/02/12	08/03/12	08/04/12	08/05/12	08/06/12	08/07/12	08/08/12	08/09/12	08/10/12	08/11/12	08/12/12	08/13/12	08/14/12	08/15/12	08/16/12	08/17/12	08/18/12	08/19/12	08/20/12	08/21/12	08/22/12	08/23/12	08/24/12	08/25/12	08/26/12	08/27/12	08/28/12	08/29/12	08/30/12				

# 2012 SUMMARY OF METER READINGS

	WESTTOWN	ELLIS	PAOLI	WILSON	SUMMIT	HERSHEY	ASHBRIDGE	HICKS	RESERVOIR	SHERMAN	BARKWAY
JANUARY	1,296,433	152,585	69,729	69,440	20,400	73,086	90,225	67,846	909,322	6,922	12,327
FEBRUARY	1,172,663	140,579	61,074	65,911	20,400	63,555	73,939	295,466	1,019,637	6,561	11,350
MARCH	1,157,405	222,657	61,103	71,039	20,400	60,276	70,943	300,484	0	202'9	8,575
APRIL	1,059,167	186,208	53,353	57,578	20,400	58,987	63,358	285,508	285,613	6,407	10,305
MAY	1,144,546	167,830	63,648	81,622	20,400	55,378	069'09	304,075	652,083	6,354	10,862
JUNE	1,125,246	105,303	62,210	90,570	20,400	70,259	61,597			6,517	10,177
JULY	994,447	122,359	59,212	81,067	20,400	63,421	58,789	0	0	5,317	9,892
AUGUST	835,178	91,496	51,644	79,506	20,400	60,575	28,577	0	909,131	6,450	9,654
SEPTEMBER							1				
OCTOBER											
NOVEMBER											
DECEMBER											
Total Flows											
Monthly Ave	1,098,136	1,098,136 148,627	60,247	74,592	20,400	63,192		67,265 250,676	755,157	6,404	10,393

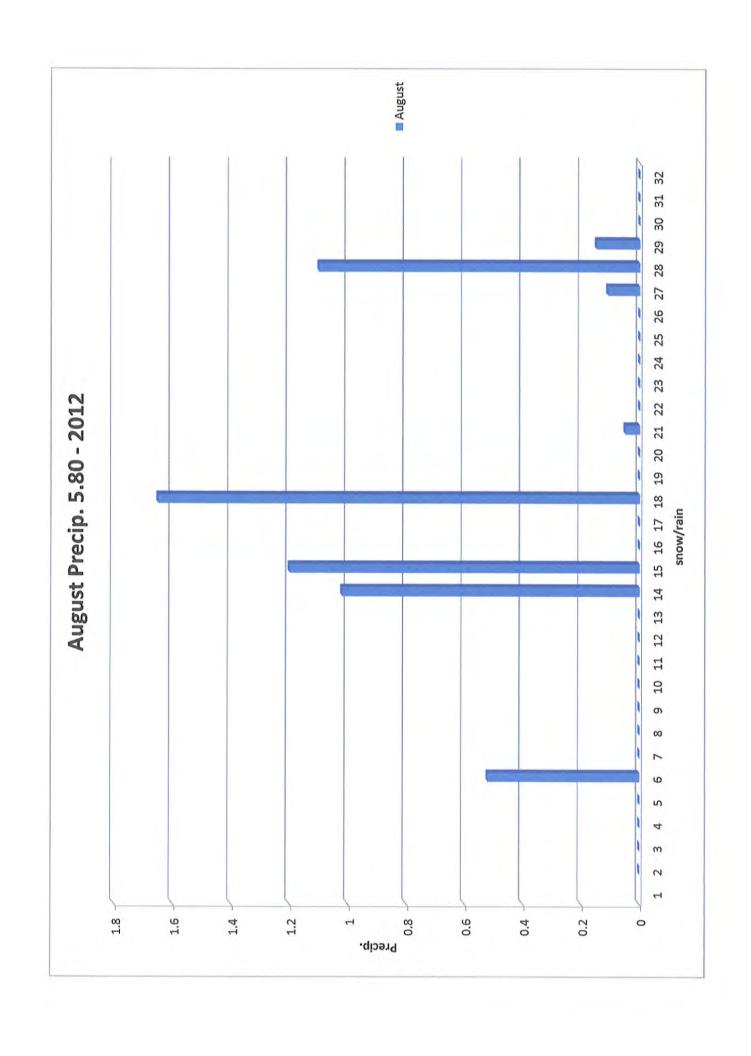
To West Goshen

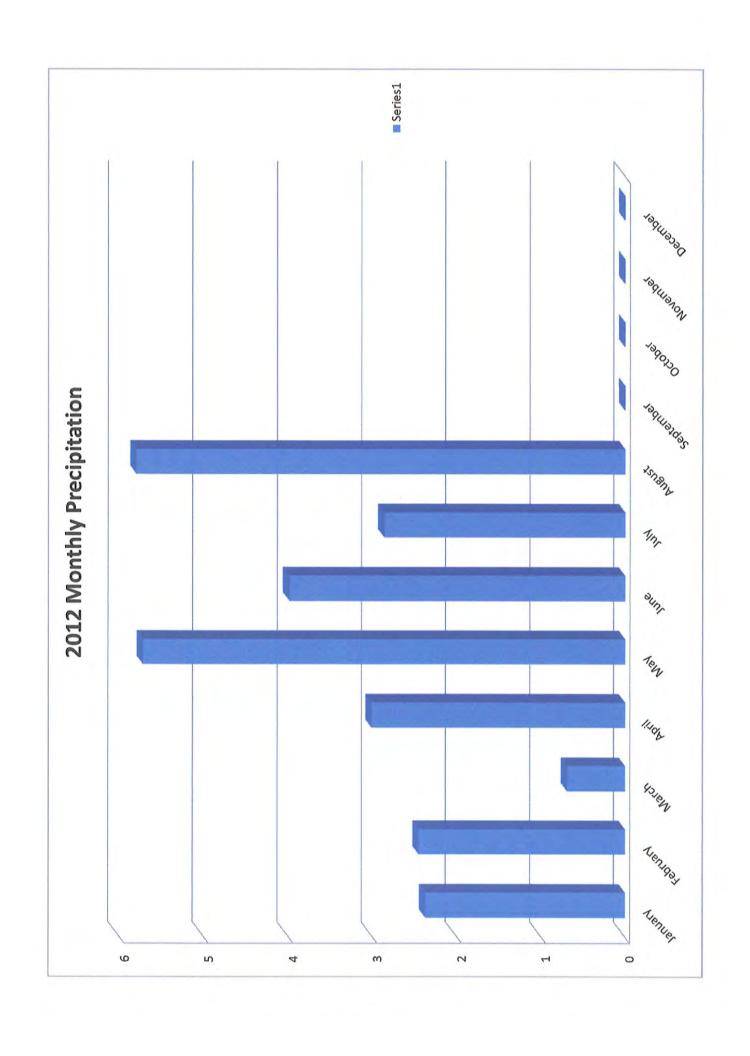
814,670



Monthly Totals 2012 Jan-Dec

Month





## East Goshen Township Flows July 2012

														コンド	The second secon																	
Total East Goshen Flow mgd	0.888	0.783	0.743	0.743	0.747	0.676	0.675	0.676	0.733	0.796	0.671	0.684	0.728	0.726~	0.728		0.735	0.667	0.713	0.727	0.725	0.727	0.769	0.746	0.756	0.762	0.727	0.726	0.727	0.779		
West. Way Meter Pit mgd	1.100	1.003	0.954	0.953	0.990	0.974	0.975	0.974	1.025	1.105	0.933	0.951	1.024	1.025	1.024	1.071	1.022	0.970	0.993	0.973	0.974	0.973	1.001	1.001	0.958	1.011	0.957	0.958	0.957	1.023	1.017	
Wilson Drive Meter Pit mgd	0.062	0.079	0.068	0.068	0.096	0.074	0.074	0.074	0.091	0.097	0.078	0.079	0.071	0.072	0.071	0.097	0.104	0.087	0.078	0.057	0.058	0.057	0.087	0.117	0.058	0.093	0.069	0.070	0.069	0.083	0.086	
Paoli Pike Meter Pit mgd	0.058	0.054	0.055	0.054	0.054	0.089	0.090	0.089	0.061	0.064	0.058	0.058	0.069	0.070	0.069	0.067	0.055	0.054	0.055	0.057	0.058	0.057	0.057	0.059	0.055	0.065	0.060	090.0	090.0		0.062	
Ellis Lane Meter Pit mgd	0.092	0.087	0.088	0.088	0.093	0.135	0.136	0.135	0.140	0.148	0.126	0.130	0.156	0.157	0.156	0.158	0.128	0.162	0.147	0.132	0.133	0.132	0.088	0.079	0.089	0.091	0.101	0.102	0.101	0.100	0.086	
West. Way Pump Station mgd	1.350	1.351	1.253	1.260	1.289	1.264	1.274	1.334	1.319	1.302	1.306	1.302	1.261	1.404	1.465	1.331	1.354	1.322	1.320	1.341	1.272	1.346	1.296	1.317	1.268	1.329	1.260	1.255	1.300	1.280	1.306	
West Goshen Plant Flow mgd	4.034	3.951	3.826	4.065	3.770	2.397	3.897	4,994	3.942	3.680	3.850	3.690	3.946	4.459	4.530	3.955	4.160	4.270	3.730	4.019	3.796	3.905	3.921	4.403	3.855	3.891	3.506	3.831	3.857	3.464	3.980	
Date	τ-	2	ო	4	S	9	7	œ	თ	9	7	12	5	4	5	16	17	9	<u>0</u>	20	7	22	23	24	22	56	27	28	29	99	ર્સ્ટ પ	

22.03

30.87

2.42 0.078

1.93 0.062

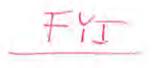
3.70

40.63 1.311

121.57 3.922 NOTES:

Total Avg.

## WEST GOSHEN SEWER AUTHORITY REGULAR MEETING September 5, 2012



The regular meeting of the West Goshen Sewer Authority was held on Wednesday, September 5, 2012 at the STP Administration Building. Those present were:

Authority Supervisor Unruh, Turner

Mike Arnold Ross Unruh

Dave Johnson Ron Rothrock

John Windle Administration Glace Associates, Inc.

Philip Corvo John Scott Max Stoner

Frank Biasi was absent. Dana Pizarro from East Goshen Township were in attendance.

The regular meeting of the Authority was called to order at 7:34 P.M. by Chairman, Mike Arnold.

Dave Johnson motioned to approve the August 1, 2012 meeting minutes, seconded by Philip Corvo, motion approved.

Ross Unruh presented the Solicitor's Report for the month. The Federal Court filings are being prepared and should be filed before the end of September. There is a meeting scheduled with DEP for September 25, 2012. The DEP is currently working on the 2012 303 (d) stream impairment list. Ross Unruh is waiting for the paperwork from Greystone South with the changes that needed to be made. Steve Miano will be the primary counsel with John Hall being co-councel. The comment letter in response to the draft permit was submitted to the PADEP. If the year 9 TMDL remains in the final permit, an EHB appeal will be necessary.

Dave Johnson made a motion a motion to authorize Steve Miano (Hangley Aronchick Segal Pudlin & Schiller) to sign and file the federal suit against EPA on behalf of the West Goshen Sewer Authority, seconded by John Windle, motion passed unanimously.

Max Stoner gave the Engineers report dated September 5, 2012: (See report for details)

## 1. Current Items

a) Goose Creek Stream Study/TMDL Permit Issues

The TMDL issues are continuing on. Review comments were sent on August 24<sup>th</sup>, with regard to the NPDES draft permit. A meeting is scheduled with DEP on September 25<sup>th</sup>, Ross, John Scott, Mike Moffa, Max will be attending.

## 2. The Arbours at West Goshen -

They are continuing to build a few more homes. There are some changes proposed in the

mixture of types of homes to be constructed due to a changing market.

## 3. Goshen Leisure Development

Nothing New This Month

## 4. West Goshen Business Park

The developer has submitted plans for a 114 one-bedroom age restricted apartment complex to be constructed on Lot 8, there are no major concerns with the sanitary sewer system.

## 5. Zarelli Subdivision 825 Goshen Road

Nothing new this month.

## 6. Margarita's Site Development

Waiting for as-built plans. Nothing new this month.

## 7. Wexford Mews

Waiting for as-built plans. Nothing new this month.

## 8. <u>Jerrehian Esta</u>te

## Large Tract

Glace has finished the initial review the sanitary sewer plans for the proposed 598 unit development. They are still proposing two (2) pumping stations. They have provided preliminary plans. The review has been completed with no major issues on the proposed design. Plans for 14 lot development were reviewed and that the temporary pumping station should be eliminated and individual grinder pumps be installed. Also we required changes to the rights of way and the connection to the existing force main. Samples of what type of pumping stations the Authority desired were sent to Horizon Engineers. Max received a call from Horizon Engineers the last week of August and they were sending revised plans for review.

The proposed three (3) lot subdivision which was an existing home and two (2) new lots, there were a few minor comments. Horizon Engineers called and discussed both reviews and agreed to make the requested changes. The WCASD has signed an agreement to dedicate the gravity lines and right of way to the existing small pumping station at the athletic fields to the Authority. Ross is handling the paperwork.

## **Graystone South**

The sewer work is substantially complete. They submitted a video of the pipe installation. They have provided as built plans and dedication documents as well as a sanitary sewer easement to Max and Ross for review. The easement was approved and sent by our office to Ross. Ross is still waiting for the signoff from the Jerrehians.

## 9. Greenhill Corporate Park – Lot 11

Drury Development Company is proposing a 2 ½ story 34,480 s.f. office building at 1171 McDermott Drive. There are no major issues with the sewer for this proposed project. this was approved at the planning commission in July, 2009.

## 10. Village of Shannon – Shadeland Woods

They are continuing to construct units in this development.

## 11. Lincoln Independence Park

Nothing New This Month

## 12. DLH Development – Reservoir Property

Waiting for as-built drawings and dedication documents

## 13. Domestic Violence Center

Need record drawings of the tie-in to the system. Nothing new this month.

## 14. Gavin Property – 415 Goshen Road

Nothing New This Month

## 15. <u>Liberty Tools</u>

This property will be served by a grinder pump. They have proposed to tie a few other lots into the low pressure system. John Scott has agreed with this concept which was done on Delaware Avenue and Wexford Mews. Ross has been discussing individual grinder pump agreements for each property that will connect to the system with the attorney for Liberty Tools. Nothing new this month.

## 16. Kirkland Woods

This is a new 7 lot sub-division on 4.3 acres, located at Kirkland Avenue and Ashbridge Road. The sanitary sewer main needs extended but no rights of ways are involved. A developer's agreement will need to be entered into between the Authority and the developer. The plan received approval from the Township and they have contacted Ross and our office to establish a construction escrow account. They reviewed and approved the construction escrow account.

## 17. QVC Warehouse

QVC is planning an approximately 60,000 s.f. addition to its warehouse. There appear to be no significant issues with the sanitary sewer system for the proposed addition.

## 18. Chester County Hospital

The plans were revised to address all the review comments. They will need to dedicate a small portion of the sewer line in Goshen Road to the Authority. There were some questions on the EDU's and the sewer permit applications. We have not seen the easement plans or the road occupancy permit application for the township. There have been some questions on deduct meters for the chillers and condensers.

## 19. Fame Fire Company Expansion

Proposed 4,000 s.f. addition located at S. Matlack & Rosedale Ave. This does not significantly affect the Authority's system. An approval letter was sent out. Nothing new this month.

## 20. Deco Sales Company

3,000 s.f. addition to office and warehouse on Carter Drive. Review was done and submitted to the township and the developer's engineers.

The following invoices were moved for approval by John Windle, seconded by Dave Johnson and unanimously approved:

**ADMINISTRATIVE EXPENSES:** 

PAYEE	PURPOSE	AMOUNT
Unruh	General Representation	\$ 409.78
John Windle	Treasurer	\$ 250.00
Tina Charron	Recording Secretary	\$ 270.00
Hartford Insurance	Treasurer Bond	\$ 251.00
West Goshen Township	Usage Fees – Lukoil	\$ 461.71

**DEVELOPER ACCOUNTS:** 

PAYEE	DEVELOPER	AMOUNT
Unruh	Greystone South	\$ 166.50
Unruh	Glen White Builders – Quaker Ridge	\$ 92.50

On a motion by John Windle and seconded by Dave Johnson, the following requisitions were approved for payment.

**TAPPING FEE FUND:** 

REQUISITION #	PAYEE	PURPOSE	AMOUNT
1503	Glace & Associates	TMDL	\$ 2,410.50
1502	Unruh, Turner, Burke & Frees	Appeal to EHB	\$ 6,005.81
1501	Hall & Assoc.	TMDL	\$ 6,933.06
1500	Hangley Aronchick Segal Pudlin & Schiller	TMDL	\$ 8,077.93
1499	Gannett Fleming	Stream Sampling	\$ 249.30

## FULTON FINANCIAL BALANCES (as of July 31, 2012)

Total all accounts - \$ 6,226,118.89

Philip Corvo – Township budget process has started

Traffic issue on Roslyn & Spruce has been being discussed to determine a solution.

John Scott – Went to the DEP meeting about Boyertown Landfill, they are basically looking for potential parties to pay for testing and clean up of the site.

There being no further business, on a motion by Ron Rothrock seconded by John Windle, the meeting was adjourned at 8:28 p.m.

Respectfully submitted,

Tina Charron, Recording Secretary