

EAST GOSHEN MUNICIPAL AUTHORITY

November 12, 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
 - a. Ridley Creek Operations Review – Interim Report- Scott Towler and Tim Daily will be in attendance
3. APPROVAL OF MINUTES
 - a. October 8, 2012
4. APPROVAL OF INVOICES

a. Pennoni #524282	\$ 10,097.00
b. Pennoni #524283	\$ 1,723.75
c. Pennoni #524284	\$ 2,229.75
d. Pennoni #524285	\$ 3,762.50
e. Pennoni #524287	\$ 519.00
f. William Wood Co. LLC	\$ 1,000.00
g. William Wood Co. LLC	\$ 500.00
5. LIAISON REPORTS
6. FINANCIAL REPORTS
 - a. October 2012 Report
 - b. Consider approval of 2013 budget
7. OLD BUSINESS
8. GOALS
 - a. October Goals
9. NEW BUSINESS
 - a. 2013 Budget
 - b. Consider Proposal – Mallie, Falconiero & Co. LLP
 - c. Consider General Engineering Services - Pennoni
10. CAPACITY REQUESTS
11. SEWER REPORTS
 - a. Director of Public Works Report
 - b. Pennoni Engineer's Report
 - c. Big Fish Environmental Inc Report with DMR's
 - d. East Goshen Township Flows for October 2012

12. ANY OTHER MATTER
13. CORRESPONDENCE AND REPORTS OF INTEREST
14. PUBLIC COMMENT
15. ADJOURNMENT

Reminder – NEWSLETTER ARTICLE SUBMISSION DUE DATES:

Article Due Date

Website Posting Date



**EAST GOSHEN TOWNSHIP
RIDLEY CREEK SEWAGE TREATMENT PLANT (RCSTP)
OPERATIONS REVIEW – INTERIM REPORT
November 9, 2012**

NOV 9 2012

Executive Summary

The purpose of this report is to provide a discussion of the recent phosphorous and total suspended solids exceedances in the Ridley Creek Sewage Treatment Plant (RCSTP) effluent and how these exceedances will be controlled in the future. The review was completed by the plant design engineer, Tim Daily P.E, and the plant operator Scott A. Towler P.E. It involved on-site review of operations at the plant, review of operator reports and data, and meetings with Township staff. A table of exceedances and their likely causes are provided in Section 1.

In an attempt to improve SBR performance, the operator reduced the SBR biomass (aka “mixed liquor”). When the biomass was reduced, enhanced phosphorous (bio-P removal) removal was greatly reduced. The quantity of alum being fed, at that time, was not sufficient to adequately reduce the remaining phosphorous below the discharge limit. Analytical measurements were not available to identify that the effluent phosphorous concentrations were above the discharge limit. Malfunctions within the alum feed system complicated the issue and led to high effluent suspended solids.

The SBR biomass has since been increased and bio-P removal has returned. Daily effluent phosphorous testing has been initiated. The alum chemical feed system has been repaired and is adjusted to maintain the correct feed dosage. The plant effluent is currently within the discharge permit limits.

Additional work going forward includes the installation of an alum backpressure valve to improve chemical feed pump performance and a field trial of substituting polyaluminum chloride for alum with the goal of reducing overall chemical costs.



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Municipal Authority Board



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1 Introduction

This report provides a summary of the design engineer’s visit to RCSTP on October 12, 2012. The purpose of the site visit was to meet with Scott Towler, the plant operator, to discuss the effluent phosphorous and total suspended solids permit limit exceedances. The effluent phosphorous limit is 0.5 mg/l and the TSS limit is 21 mg/l. We also discussed the current sludge digester operations.

A review of the phosphorus effluent data up to October 31, 2012 shows that the plant is meeting the phosphorous limit and the plant effluent is within the discharge limits. The most recent DMR report of October 12, 2012 shows that the effluent phosphorous concentration is below the discharge limit.

Listed in Table 2.1 is the exceedance parameter and date, the permit limits, discharge concentrations, and likely cause.

Table 2.1 RCSTP Effluent Discharge Monitoring Report (DMR) Exceedances

Parameter	Month	Permit Limit mg/l	Discharge Conc. mg/l	Likely cause
Total Phosphorous, Monthly Average Concentration	April	0.5	0.59	Delay towards adjusting chemical feed system set points due to delay in laboratory analysis report (typical 2 week turnaround time)
Total Suspended Solids, Monthly Average Concentration	April	21	23	Fine inert solids contributed by the aluminum sulfate solution which passed through the disc filters



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Parameter	Month	Permit Limit mg/l	Discharge Conc. mg/l	Likely cause
Total Suspended Solids, Monthly Average Pounds	April	32	40	Fine inert solids contributed by the aluminum sulfate solution which passed through the disc filters
Total Phosphorous, Monthly Average Concentration	June	0.5	1.14	Delay towards adjusting chemical feed system set points due to delay in laboratory analysis report (typical 2 week turnaround time). On site analysis inconsistent with certified laboratory.
Total Phosphorous, Monthly Average Concentration	July	0.5	3.0	Process adjustments to reduce the presence of foam from the SBRs by lowering MLSS, SRTs and increasing the F:M ratios resulting in the loss of biological phosphorus removal.
Total Phosphorous, Monthly Average Pounds	July	3.0	3.2	Process adjustments to reduce the presence of foam from the SBRs by lowering MLSS, SRTs and increasing the F:M ratios resulting in inhibition of biological phosphorus removal.



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Parameter	Month	Permit Limit mg/l	Discharge Conc. mg/l	Likely cause
Total Phosphorous, Monthly Average Concentration	August	0.5	1.57	Continued process adjustments to the activated sludge process to improve biological phosphorus removal. Addition of aluminum sulfate solution prior to filtration was placed in service.
Total Suspended Solids, Monthly Average Concentration	August	21	26	Excessive aluminum sulfate prior filtration from Neptune pump resulting fine solids passing through filters. Pump is oversized for actual hydraulic conditions.
Total Suspended Solids, Monthly Average Pounds	August	21	42	Excessive aluminum sulfate prior filtration from Neptune pump resulting fine solids passing through filters. Pump is oversized for actual hydraulic conditions.
Total Phosphorous, Monthly Average Concentration	September	0.5	1.81	Failure of Neptune pump, inconsistent operation of chemical feed system to SBRs and excessive hydraulic loading resulting in solids loss On September 5 th .

Listed in Table 2.2 below is the sample date, parameter and discharge concentrations used to determine the monthly and weekly discharge concentrations and pounds.



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Table 2.2 RCSTP Effluent Sample Results

Sample Date	Total Phosphorus, mg/L	Total Suspended Solids, mg/L
April 5, 2012	0.66	<5
April 12, 2012	0.22	8
April 20, 2012	0.76	40
April 26, 2012	0.72	43
June 7, 2012	0.29	19
June 14, 2012	0.22	6
June 21, 2012	0.43	8
June 28, 2012	3.60	5
July 5, 2012	1.10	13
July 12, 2012	3.40	5
July 19, 2012	3.70	5
July 26, 2012	4.10	5
August 2, 2012	1.10	20
August 9, 2012	2.30	42
August 16, 2012	2.20	39
August 23, 2012	1.30	11
August 30, 2012	0.92	17
September 6, 2012	0.72	6
September 13, 2012	2.5	5
September 20, 2012	2.2	7
September 27, 2012	1.8	5

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2 Phosphorous Discussion

2.1 Phosphorous Removal Methods

The RCSTP has four ways for phosphorous to be removed from the wastewater. The discharge limit is 0.5 mg/l.

1. The first way is through biological growth in the SBRs. Phosphorous is a macronutrient and for every 100 pounds of BOD removed approximately one pound of phosphorous is also removed. This mechanism alone cannot achieve the discharge limit.
2. Additional enhanced biological phosphorous removal (bio-P removal), or luxury removal, can occur biologically if conditions favorable to growing phosphorous removal bacteria are present. The RCSTP SBRs are designed to promote bio-P phosphorous removal. This method can greatly further reduce the phosphorous concentration, but normally cannot achieve the RCSTP permit limit. Using bio-P removal greatly reduces chemical feed costs.
3. Phosphorous, as a phosphate, can be precipitated and removed in the SBRs with a metal salt additive such as aluminum sulfate (alum) or poly aluminum chloride (PAC). The ratio of aluminum to phosphorous is added at a 2 to 1 ratio to achieve a typical phosphorous concentration of 0.8 mg/l after filtration. Lower concentrations can be achieved.
4. To further reduce the phosphorous concentration to below 0.5 mg/L, a metal salt is added up to a 6 to 1 aluminum to phosphorous feed ratio along with a flocculating polymer and then filtered. The higher ratio of alum is designed to overcome competing species, such as sulfate. The flocculant (polymer) is intended to combine smaller particles into larger particles that can be more readily removed by filtration.

The plant operator indicated that Aqua-Aerobics is hesitant to feed polymers upstream of a filter. There is a potential for clogging from polymer overdose. Pennoni agrees that polymer feeding upstream of the filters should be done with caution. Pennoni confirmed that the Aqua-Aerobic filters are designed to have polymer fed upstream. The polymer addition is designed to reduce the phosphorous levels to below the effluent limits in a well-operated SBR system. The polymer feed levels would be relatively low since the size of the particles only need to be increased to the 10 micron range to allow for filtration, rather than to 3,000 microns as required for settling.

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Polymer would only be feed to the filters only if absolutely necessary to maintain the effluent phosphorous concentration below its discharge limit.

Currently, the RCSTP is using methods 1, 2, and 3 to achieve discharge concentrations of less than 0.5 mg/L. There is equipment and tankage to implement Method 4. Method 4 would only be used if the effluent concentration was consistently above 0.5 mg/l.

2.2 Phosphorous Exceedances

It is believed that the TSS exceedances were caused by a loss of biological phosphorous removal (bio-P removal). The plant operator was able to achieve bio-P removal in the month of May. Prior to that, the former operator, Miller Environmental, had employed a strategy of feeding large quantities of alum into the SBR reactors. Scott Towler, the current operator, achieved bio-P removal by taking time from the idle period and increasing the anoxic fill time in order to create favorable bio-P conditions. He also maintained the mixed liquor levels in the 2,900 mg/l range. The plant was achieving phosphorous removal below discharge limits using bio-P without the use of alum in May and June.

The plant is susceptible to solids washout during high flows from storm events. For example, the plant operator reported a 2.8 peak on the design average flow of 0.75 MGD (2.1 MGD), which at the current flow of 0.33 MGD is a 5.6 peak. To protect the sludge from washout, three out of four SBR basins are on line. The operator believes that the plant could be run on two basins. However, the three basins are required to handle the diurnal hydraulic loadings. Using three basins leads to the difficulty that there is not enough food to effectively sustain the third SBR.

To help during peak events, the operator decided to reduce the mixed liquid levels and increase the Food to Microorganism (F:M) ratio in the SBRs in the month of July. The lower solids levels helps with sludge settling and minimize foaming. During warm months, biological activity is at its highest levels and the potential to maintain nitrification and bio-P removal would have had its best chance to succeed.

When the mixed liquor solids level was reduced, the phosphorous removal microbial population was reduced and bio-P removal greatly slowed down. The amount of alum feed was not sufficiently increased to compensate for the lack of bio-P removal. Complicating this situation was alum feed equipment problems, which hindered the effective feeding of alum. The SBR alum feed valves were stuck open and the Neptune effluent alum metering pump was in disrepair.



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2.3 Steps Taken to Improve Phosphorous Removal

These following steps have been initiated to resolve these problems:

- Biomass levels were and are continuing to be increased to encourage bio-P removal bacteria
- Adjustments have been made to the SBR anoxic fill time were made to enhance biological phosphorus removal under anoxic/anaerobic conditions (nearly 2 hours of anoxic time is provided through a combination of settle, idle and anoxic fill time)
- Phosphorous levels are being measured in the influent, post-equalization tank and plant discharge on a daily basis
- Sludge holding tank and centrifuge centrate phosphorous levels are being monitored
- The centrifuge is being run on a set schedule so that adjustments to the alum feed can be made to compensate for phosphorous recycle from Solids Handling operations.
- Aluminum salt is now being fed to SBRs during the pre-settle during each cycle.
- The Neptune alum feed pump is repaired.
- Utility water flushes were added to the SBR chemical feed lines.
- ICI resolved the SBR alum feed valve issues.

2.4 Recent Phosphorous Results

As of October 31, 2012, the phosphorous effluent concentrations, as determined by grab samples analyzed on site, were below the effluent phosphorous limit for the month of October. The October 12 DMR sample analysis was below the effluent phosphorous limit.

October 4, 2012	Final effluent total phosphorus concentration:	0.61 mg/L
October 11, 2012	Final effluent total phosphorus concentration:	0.29 mg/L
	Month to date average:	0.45 mg/L



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2.5 Polyaluminum Chloride (PACl) Substitution

A chemical trial to test the effectiveness of PACl in place of Alum started on Monday, November 5 and is anticipated to run for one month. Prior to adding PACl, a jar test was conducted to verify its effectiveness. The jar test showed that at low phosphorous concentrations PACl will continue to reduce the phosphorous concentration. The PACl addition trial is being completed to investigate a potential chemical cost savings. The cost benefits of PACl are:

- PACl is slightly more costly, but contains more aluminum, which should reduce the overall chemical consumption.
- PACl does not consume nearly as much alkalinity as alum. As a consequence less sodium bicarbonate will need to be added to the SBR tanks.

Care is being taken during the PACl trial to assure that effluent discharge phosphorous concentrations will be maintained. The pre filter and effluent phosphorous concentrations are being measured once a day. If the PACl proves to be less effective than the alum, the alum inventory is on hand to feed to the SBRs.

2.6 Back Pressure Valve

A back pressure valve should be placed on the Neptune pump discharge. The back pressure valve will allow the pump diaphragm to work against pressure. The backpressure increases the accuracy of the pump, increases diaphragm life, and will prevent siphoning of alum into the effluent. The backpressure valve should allow for a 500 to 1 turndown of the pump, which is equivalent to less than 1 mg/l of alum is a 0.3 MGD flow.

The recommended back pressure valve is the Griffco ½-inch PVC body with Teflon diaphragm 10 to 150 psi set point, USA Blue Book 47776 or Neptune BP-PVC ½-inch.

After the backpressure valve is installed, the pulsation dampener/accumulator is filled with air to approximately 30 psig. The backpressure valve is then set so that the pulsation dampener/accumulator starts to register the pump pulsations.

3 Total Suspended Solids (TSS) Exceedances Discussion

It is believed that the TSS exceedances were caused by excess alum in the discharge. The plant operator reported that on the days when the suspended solids levels were above the discharge limits, the BOD levels were low. This would suggest that the solids were not organic in nature.



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After a sample of the effluent was filtered, a white residue was left on the filter paper. This seems consistent with an Alum overdose. This may have occurred when the Neptune pumps were being used to feed alum rather than the SBR alum pumps. Alum solution siphoning may have occurred through the Neptune pumps. As of October 12, alum was being fed to the SBR directly and the effluent TSS concentration was below permit limits.

4 Future Work

4.1 Smaller Feed pump

If reliable and accurate control cannot be established with the installation of the backpressure valve, then a smaller metering pump should be considered.

4.2 Effluent Phosphorous Polymer Testing

Polymer screening should be completed for the effluent polymer should a polymer be required to be fed to maintain the phosphorous levels.

4.3 Sludge Digester

The plant operator asked if there was a reason to run two digesters. The design engineer indicated that the two digesters need to be run at the plant rated flow of 0.75 MGD. At the current flow rate, one digester is required. The digesters have separate compressed air feeds. By positioning isolation valves, one digester is feed by one blower.

The plant operator believes that with one unit, a thicker sludge can be produced for the centrifuge, which may lead to a drier cake. The plant operator also mentioned that the sludge seems be over-worked or over manipulated, which could lead to a thinner sludge. The design engineer suggested that the sludge digester blowers could be run on timers so as to limit aeration, which would also save energy. The complication for centrifugal blowers is that they need to be started up with a closed suction valve and then the valve opens after the blower is up to speed. To automate the start-up and shutdown of the centrifugal blowers, a timing circuit, automatic valves, and control logic would need to be added to the control the blowers.

5 Influent Loadings Sampling Study

5.1 Current Loadings

Pennoni was asked to review the organic loadings to the plant and determine if they were consistent with the design including any assumptions on the anticipated change in the influent parameters over time. Table 6.1 provides the design basis. Table 6.2 provides the recently



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available influent BOD data. The design maximum concentration is intended to address the morning and evening diurnal flow and loading variation. There was no allowance within the design basis for anticipated changes in the influent parameters over time. The data was taken from previous spreadsheets.

Table 6.1 Influent BOD Design Basis

	Conc, avg. mg/l	Flow MGD	BOD lb/day
Design, avg	270	0.75	1,691
Design, max	355	0.75	2,223

Table 6.2 Influent BOD Loading, 2012

	Influent BOD, avg. mg/l	Flow MGD	BOD Lb/day
March	397	0.35	1,160
April*	1,212	0.35	3,542
May	294	0.34	835
June	311	0.26	675
July	425	0.31	1,100
August*	546	0.31	1,413
September*	545	0.36	1,638

As can be seen from this data, April and September influent BOD concentrations are greater than the design BOD concentrations. However, these BOD concentrations may not be representative of the influent BOD concentration. We recommend against drawing any conclusions based on these data points.

5.2 Sampling Study

We recommend that weekly dry-weather flow-paced influent samples be taken over an 8-week period to determine the influent organic loadings. The samples location and analytical testing is shown in Table 6.3.



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Table 6.3 Influent Loading Study Sampling matrix

	Influent Channel	Influent Wet Well
COD	x	X
BOD	x	X
TSS	x	X
Total P	x	X
TKN	x	X
Ammonia-N	x	X

Samples should be taken from both the influent raw water and the influent wet well so that a comparison can be made to recycle flows. By sampling the influent and influent wet well in conjunction with the influent raw water a comparison of the two can be made and any effect of recycle flows on influent parameter concentrations can be gauged. The sampling days should be arranged so that the influent wet well is being sampled during sludge digester decanting, sludge dewatering, and with no decanting or dewatering operations.



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1.0 Comments from Kevin Cummings

What should the operating conditions be at our current inflow? (design and operational)

The operation parameters (conditions) are included in the attached SBR Operating Procedures. Currently the plant is preparing for winter time operation. During the winter months, the SBR biomass is increased to compensate for decreased biological activity. The buildup of biomass is accomplished over a number of weeks in order to maintain the biomass within in operating parameters. Once winter hits, other day to day adjustments are made to compensate for the colder temperatures. The procedure for seasonal changes is being included in the SBR Operating Procedures.

What should the operating conditions be a 3X current inflow?

The operator changes set points during an anticipated severe rainfall event in order to accommodate peak flow events. Adjustments are focused towards preventing MLSS loss through excessive filled settle and decant phases. These adjustments include:

- Reducing minimum aeration time
- Reducing react aeration time
- Adjust sludge wasting rates
- Adjust SBR blower operational set points
- Adjust chemical feed system set points
- Adjusting post EQ tank pump control set points
- Monitor and adjust disc filter operation to minimize internal recycle flow rates.
- Placing additional SBR basins in service (when available)
- Divert flow to empty sludge holding tank (if available)



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What influent testing do we need to control the plant effectively? (I can't understand how we can control a plant when we don't know the influent loadings)

The operational strategy for the SBRs is centered around monitoring nitrification, MLSS and F:M ratios (using COD), which are directly linked to the design parameters. The influent COD concentration is monitored, however, the composite concentration is not representative of the actual organic loading to the SBRs. Previous data (Paul Christian visit during May of 2011) demonstrated diurnal COD and ammonia as nitrogen loadings during the course of the day.

RCSTP Process Monitoring Sampling Plan							
Test Parameter	Influent	SBR 1	SBR 2	SBR 3	SBR 4	Post EQ	Final Effluent
pH	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Total Alkalinity	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Ortho Phosphorus	na	na	na	na	na	1x week	1x week
Total Phosphorus	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Ammonia as N	3x week	3x week	3x week	3x week	3x week	3x week	3x week
Nitrite as N	na	3x week	3x week	3x week	3x week	3x week	3x week
Nitrate as N	na	3x week	3x week	3x week	3x week	3x week	3x week
COD	3x week	3x week	3x week	3x week	3x week	3x week	3x week
MLSS	na	3x week	3x week	3x week	3x week	3x week	na
5 min SSV	na	3x week	3x week	3x week	3x week	3x week	na
15 min SSV	na	3x week	3x week	3x week	3x week	3x week	na
30 min SSV	na	3x week	3x week	3x week	3x week	3x week	na
SVI	na	3x week	3x week	3x week	3x week	3x week	na
F:M Ratio	na	3x week	3x week	3x week	3x week	3x week	na

Monitoring and managing the MLSS and F:M ratio for each individual SBR assists in the overall treatment performance as well as monitoring for conditions favorable for promoting excessive filamentous bacteria growth.



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What is the real BOD coming into the plant? (we currently are seeing double to quadruple BOD loadings, typical MU see 250 mg/L)

The combination of water conservation devices, kitchen waste grinders and behavior towards cooking grease disposal has contributed to a trend of decreasing hydraulic loads with increasing organic loads for community wastewater treatment systems.

Other than increased organic loadings from the collection system, the excessive BOD, ammonia as nitrogen, TKN and total phosphorus concentrations are attributed to sampling issues such as:

- Occasional inclusion of grit/organic matter, which has accumulated on the influent channel, into the sample.
- The “chapter 94” sampler collects a time based sample not as a flow based sample.

Steps Taken to reduce and increase the representative nature of the influent samples are:

- Increased frequency of manual cleaning of the influent channel, particularly on days of sampling events.
- The influent sampler is planned to be connected to the influent “field” flow meter to provide for flow proportioned samples.
- Alternative influent sample locations are under investigation.

Should we do COD so we can see instant (hours) results vs 5 days?

COD is used on a regular basis to make process control decisions and adjustments.

I will not recommend a chemical addition change to control Phosphorus until we get the current system working for a minimum of 6 months without any exceedances.

The facility continues to utilize an aluminum salt to assist in total phosphorus removal. A solution containing a higher concentration of aluminum with less alkalinity consumption was placed in service on a trial basis. Initial results are favorable.



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I would recommend that we employ automatic sampling for pH and perhaps DO so we can determine plant conditions when no operator is present.

Dissolved oxygen (DO) is currently being monitored continuously in the SBR tanks. DO is used within the SBR control program to achieve nitrification and denitrification. pH and alkalinity are monitored once a day and sodium bicarbonate additions are being made in response to the alkalinity measurements. Because the biological systems are large highly buffered system, alkalinity is a much better process control tool.

The addition of pH probes would require additional capital expense for the pH probes and electrical installation. There would also be ongoing maintenance to keep the probe clean and calibrated

I would not recommend that we feed polymers upstream of the filters to control Phosphorus until we determine we cannot get to our 0.5 limit without doing so. This would be one more operation to control.

All parties are in agreement that polymer addition upstream of the filters only be considered if the effluent phosphorous concentration cannot be maintained below its discharge limit.

We need to get current unit operations understood without adding a new variable.

As mentioned above, care is being taken in the application of PACl. Enhanced biological phosphorous removal has returned to the plant.

We need to see a sound operation plan to be able to hand to the PADEP.

There are SBR Operating Procedures. This document is periodically updated. Seasonal process changes and an influent monitor matrix are slated to be added to the document. The treatment process is adjusted seasonally for summer and winter operation. The SBR SOP includes a general discussion for these modes of operation.



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2.0 Comments from Dana Pizarro

I do not see specific summary of exceedances – dates, circumstances.

A DMR Exceedances Table has added to the document

I believe the intent of the MAB, as discussed in our meeting on October 8, was to analyze the exceedances and provide an operational plan going forward. These analyses would provide the bases for discussions in the likely event that PADEP reviews each of the exceedances as reported in the DMRs. Likely causes were influent loadings, mechanical issues, chem. feed systems, and sludge management. Each exceedance needs to be analyzed separately.

The reason for each of the permit exceedances has been added to the report.

Some of that information is here in general but scattered in the document and needs to be re-organized so we can demonstrate we have a handle on past issues.

The report has been better organized

The proposed solutions need to be shown to be directly linked to specific issues.

The solutions are linked to the specific issues are shown in the DMR Exceedances Table.

Can back pressure be created by partial closing of a valve? I would try before purchasing a valve; what is the flow schematic for this system?

A partially opened valve would provide backpressure, but it would have these disadvantages: there is still the possibility that the siphoning through the valve could occur, the valve would need to be repositioned after each adjustment, and solids will deposit on the valve seat. The backpressure valve is designed to work with the pulsation dampener to produce a steady chemical flow.

What type/model pump is being used? Is it a Series 7000? Micrometer adjustment gives a 10:1 turndown; variable speed gives a greater turndown. Neptune also has standard back pressure valves and calibration columns.



**EAST GOSHEN TOWNSHIP
RIDLEY CREEK SEWAGE TREATMENT PLANT (RCSTP)
OPERATIONS REVIEW – INTERIM REPORT
November 9, 2012**

Municipal Authority Board Comments

The effluent metering pump is the Neptune Series 7000 Mechanical "dia-Pumps". The backpressure valve would be the Neptune BP-PVC – ½ inch. The pump currently has a calibration column.

Not a typical approach for chem. feed; what is the schematic for this pump? Does the pump have a calibration column associated with the discharge piping? Flow meters are not typically used where you have a pulsed flow from a positive displacement pump; hence the calibration comment. Hatelloy is expensive

The calibration column and tank level has been used in the past.

What is the flow schematic for the blowers? Is there one blower for each digester? Or is air flow split? Difficult to balance flows with differing water levels

The digesters have separate compressed air feeds. One digester is feed by one blower. The sludge digester discussion was placed under future work.

Shouldn't all equipment be running flat out with this mass loading? Both August and September?

If the BOD loading was this high then the aeration equipment should be running flat out. The influent Sampling Study will better define the influent parameters.

Provide a process monitoring spreadsheet with specific locations, sampling parameters and frequency

A process monitoring matrix has been included in the SBR operating procedures. An influent sampling matrix has been included in the report.

We may have some of this data already. Particularly since we were only dewatering in limited time windows.

At this time all data is suspect.

Provide mass balance for plant design; recycle flows should have been accounted , We need to dig into this item

A mass balance could be completed after the influent loading sampling study is complete.



**EAST GOSHEN TOWNSHIP
RIDLEY CREEK SEWAGE TREATMENT PLANT (RCSTP)
OPERATIONS REVIEW – INTERIM REPORT
November 9, 2012**

Municipal Authority Board Comments

Have problems occurred during dewatering periods since June?

Elevated phosphorous levels have been seen. An increase in alum dosage was able to overcome this rise in phosphorous. By scheduling the dewatering operation, the adjustment to the alum dosage can be readily made.

BIG FISH ENVIRONMENTAL SERVICES, INC.

Ridley Creek Sewage Treatment Plant

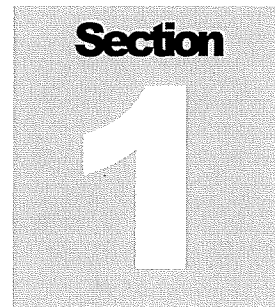
SBR Operating Procedures

Revised: November 9, 2012

RIDLEY CREEK SEWAGE TREATMENT PLANT SBR FACILITY

Standard Operating Procedures Guide

© Big Fish Environmental Services, Inc.
801 General Sterling Drive
West Chester, PA 19382
Phone 484-401-4198 • Fax 484-887-8078



Ridley Creek Sewage Treatment Plant SBR Process Design

RIDLEY CREEK SEWAGE TREATMENT PLANT DESCRIPTION

The Ridley Creek sewage treatment and disposal facility has a permitted average design flow of 750,000 gallons per day. Wastewater is conveyed to the treatment plant by means of sewage pumping stations and gravity sanitary sewers. Influent wastewater enters the Screening Building and passes through an in-line grinder (Muffin Monster) to shred the debris and solids prior to fine screening (JWC Fine Screen). A manual screen and by pass channel are parallel for use during maintenance and/or repair of the fine screen. The bypass screen also serves to convey flow during significant influent flow events to alleviate hydraulic overloading of the fine screen.

The wastewater exits the Screen Building and flows into the influent pump station wet well. Three (3) Flygt submersible series n-impeller pumps capable of passing 3-inch solids convey the influent wastewater to the SBRs. The facility is designed for two (2) pumps and the third pump as a stand by back up. All three (3) pumps alternate daily. All internal recycle process water such as disc filter back wash water, centrifuge centrate, building drains and sludge holding tank supernatant enter the influent wet well.

An Influent wastewater flow meter measures and records flow to the SBRs. This flow meter is located in a flow meter vault in the driveway across from the SBR Treatment Building entrance.

The Ridley Creek STP Siemens Jet Tech SBR system consists of four (4) rectangular shaped post-tensioned concrete tanks. Influent wastewater enters the tank through a slotted pipe that is located on one side, travelling the length of the tank. The pipe is located approximately 12 inches from the bottom of the tank. Directly above the influent distribution pipe is the mixed liquor distribution pipe. This pipe provides for mixing of the SBR contents. Located at the end of each SBR tank, on the side furthest from the SBR Treatment building, are four (4) submersible pumps. These pumps are referred to as motive pumps and provide for mixing of the SBR contents. A third pipe mounted directly above the mixed liquor distribution pipe is the aeration pipe. Each SBR tank has eight (8) venture jet nozzles used to transfer oxygen into the mixed liquor to support aerobic conditions and biological activity. The Ridley Creek STP SBR process is designed as a six (6) hour treatment cycle. Highlighted design calculations for the Ridley Creek STP include the following:

Four (4) Tank SBR		
Parameter	Value	Unit
Influent COD to SBR	691	mg/L total
	492	mg/L soluble
Influent BOD to SBR	335	mg/L
	2,098	lbs/day
Influent TSS to SBR	320	mg/L
	2,001	lbs/day
Influent NH4-N to SBR	32	mg/L
	200	lbs/day
Influent TKN to SBR	48	mg/L
	301	lbs/day
Influent Phosphorus to SBR	9.1	mg/L
	57	lbs/day
Design MLSS	3,574	mg/L at TWL (22.8)
Aerobic Sludge Age	9.2	Days min. SRT oxic
Aerobic or Oxic F:M	0.24	gCOD/gMLSS/d
	0.12	gBOD/gMLSS/d
System F:M	0.06	gBOD/gMLSS/d
Required aerobic mass	17,510	Lbs MLSS
Required aerobic volume	0.59	MG
Aerated portion of cycle	50.0	%
No. of batches/day/SBR	4	per SBR

Maximum Fill Time	1.5	hrs per basin
Complete cycle time	6.0	hrs per basin
Fill time at design flow	1.5	hrs
Aerated Fill	0	hrs
React Time	3.00	hrs
Settle Time	1.00	hrs
Decant Time	0.30	hrs
Idle Time	0.20	hrs

The treated effluent is discharged through a partially submerged floating decanter into two (2) post effluent flow equalization basins. The post flow equalization basins are designed to be operated as parallel tanks, however, bypass piping provides the ability to bypass the post flow equalization tanks and divert flow directly to the floc tank. Treated effluent is pumped from the post flow equalizations tanks into SBR Treatment Building through two (2) static mixers, then into the floc tank. The treated effluent flows from the floc tank into the two (2) Aqua Aerobic cloth media disc filters. The filtered effluent flows by gravity through the Siemens Sunlight ultraviolet radiation disinfection system. Treated and disinfection effluent is collected in the final effluent collection tank prior to discharge over the v-notched weir. Located in the final effluent collection tank are the utility water and Applebrook pumps.

The discharged effluent flows by gravity beneath the driveway to a distribution box, then into one of the four (4) riser discharge pipes located in the wetland area. The effluent distribution box prior to the wet land area allows for excessive flows to spill onto the wetland area surface as the result of hydraulic limitations of the wetland riser pipes.

Sludge produced by the treatment process is stabilized using the two (2) aerated sludge holding tanks. These tanks are equipped with automatic telescopic valves used to decant supernatant from the tanks to assist in thickening the waste activated sludge. Liquid sludge is dewatered using an Alfa Laval centrifuge. Dewatered sludge is removed off site for landfill disposal.

RIDLEY CREEK NPDES PERMIT

The NPDES Permit No. PA0050504 issued on February 24, 2012 became effective March 1, 2012. This permit includes two (2) outfalls. Outfall 001 is the stream discharge to Ridley Creek and outfall 002 is the treated effluent pumped to the Applebrook golf course pond for irrigation. In addition to the discharge monitoring report (DMR), several supplemental forms are required to accompany the DMR. The supplemental forms required include:

- Daily effluent monitoring (3800-FM-WSFR0435)
- Influent & Process Control (3800-FM-WSFR0436)
- Hauled in Municipal Wastes (3800-FM-WSFR0437)
- Non-Compliance Reporting Form (3800-FM-WSFR0440)
- Lab accreditation Form ((3800-FM-WSFR0189)

Outfall 001 – Stream Discharge		
Parameter	Minimum Measurement Frequency	Required Sample Type
Flow	1 per week	Measured
pH (S.U.)	1 per week	Grab
Dissolved Oxygen	1 per week	Grab
CBOD5	1 per week	24 hr Composite
BOD5	1 per week	24 hr Composite
Raw Sewage Influent		
Total Suspended Solids	1 per week	24 hr Composite
Total Suspended Solids Raw Sewage Influent	1 per week	24 hr Composite
Fecal Coliform	1 per week	Grab
Ammonia-Nitrogen	1 per week	24 hr Composite
Total Phosphorus	1 per week	24 hr Composite

Outfall 002 – Applebrook		
Parameter	Minimum Measurement Frequency	Required Sample Type
Flow	1 per week	Measured
pH (S.U.)	1 per week	Grab
Dissolved Oxygen	1 per week	Grab
CBOD5	1 per week	24 hr Composite
BOD5	1 per week	24 hr Composite
Raw Sewage Influent		
Total Suspended Solids	1 per week	24 hr Composite
Total Suspended Solids Raw Sewage Influent	1 per week	24 hr Composite
Fecal Coliform	1 per week	Grab
Ammonia-Nitrogen	1 per week	24 hr Composite
Total Phosphorus	1 per week	24 hr Composite

BFESI WORK PLAN

The Ridley Creek STP (RCSTP) Jet Tech SBR system consists of four (4) reactors comprising the Treatment system of 750,000 gallons of influent wastewater per day. Presently the system is utilizing three (3) of the reactors. During April 2012, the system was temporarily reduced to two (2) reactors with adverse results. Although adjustments to the treatment systems levels could be implemented to allow all four (4) reactors to be in service at the reduced flow rate, conservation of energy, chemicals and equipment operating time were considered in choosing to leave one reactor off line. A work plan developed on actual observation and operation of the RCSTP was prepared. This plan outlines the basic tasks/duties for completion on a daily basis.

DAILY ACTIVITIES

1. Flow Meters
 - a. Influent wastewater (Screen Building)
 - b. Influent wastewater (SBR Treatment Building)
 - c. Intermediate (SBR Treatment Building)
 - d. Final Effluent (Final Effluent Collection Tank)
 - e. Applebrook (SBR Treatment Building)
 - f. Minimum tasks:
 - ✓ record flow meter measurements
 - ✓ calculate daily flows
 - ✓ calculate internal recycle flow rates
 - ✓ daily email the Applebrook flow to Mark Miller (DPW)

2. Daily Equipment Inspection log Sheets
 - a. SBR equipment
 - b. SBR Blowers
 - c. Disc Filters
 - d. UV Disinfection system
 - e. Alum and alkalinity fed system

- f. Influent wet well and Screen Building
 - g. Influent grinder and fine screen system
 - h. Influent pump system
 - i. Disc filter fed pump system
 - j. Blowers for post flow equalization and sludge holding tanks
 - k. Minimum tasks:
 - ✓ Record equipment hour meter measurements
 - ✓ general visual inspection of equipment
 - ✓ calculate operating times
 - ✓ general observations
3. Screen Building and Influent Wet Well
- a. Visual inspection of wet well surface for floatables, scum, grease.
 - ✓ Skim surface as required (minimum twice per week)
 - b. Visual inspection of screenings bag, replace as required
 - ✓ Replace screenings bag as required.
 - c. Visual inspection influent channel for grit.
 - Remove grit as required
4. Visual Inspection of Sludge Holding Tanks and Treated Effluent EQ Tanks
- a. Visual inspection of tank surface, level, and floats
 - b. Visual inspection of treated effluent water quality, turbidity, foam
5. Daily Sequencing Batch Reactor (SBRs) Testing
- a. Calibrate laboratory and portable pH meter.
 - b. Collect a grab sample from each SBR and record the following;
 - ✓ Treatment phase
 - ✓ Time in phase
 - ✓ Level of SBR (water level)
 - ✓ Time of sample collection
 - ✓ Color of mixed liquor
 - ✓ Presence or absence of foam
 - ✓ Color of foam/scum
 - ✓ Thickness of foam/scum
 - c. Measure and record the pH and total alkalinity for each SBR
 - d. Implement corrective actions if the pH is less than 7.0 Std. Units and total alkalinity is less than 200 mg/L.

- e. Enter data on process control spreadsheet.
6. Daily Final Effluent NPDES Compliance Grab Sample Analysis (shift left)
- a. Measure and record pH
 - b. Measure and record dissolved oxygen concentration and temperature
 - c. Measure and record effluent clarity
 - d. Measure and record flow rate at time of sample collection
7. Disc Filters
- a. Inspect surface
 - b. Wash down filter walls and skim surface
 - c. Replace Strike™ midge control as required
8. UV Disinfection Finger Weirs
- a. Remove solids from channel and finger weirs
 - b. Scrub the finger weirs
 - c. Vacuum dead insects on floor beneath insect control lamp
 - d. Replace Strike™ midge control as required
9. Administrative
- a. Complete daily log book entry
 - b. Update spreadsheets, including:
 - ✓ Monthly DMR spreadsheet
 - ✓ Process control spreadsheet
 - ✓ DMR Supplemental spreadsheets
 - ✓ Solids dewatering spreadsheet (as required)
 - ✓ Equipment Maintenance spreadsheet (as required)
 - c. Complete SBR Phase log
 - d. Update chemical and supply inventories (as required)
10. General and Miscellaneous
- a. Address minor maintenance, troubleshooting, alkalinity addition, changing chemical feed totes, and miscellaneous unscheduled events (ie. decanting SHTs)
 - b. Housekeeping, empty trashcans (if required), clean laboratory counter tops, clean laboratory bathroom, etc.
 - c. Start the influent composite sampler on Sunday, Tuesday and Friday for process monitoring.

11. Secure Facility
 - a. Check that auto dialers are in service and are activated
 - b. Turn off all building interior lights
 - c. Turn of lights to SBRs
 - d. Turn off lights to sludge holding tanks
 - e. Lock all building doors
 - f. Secure the entrance gate

DETAILED PROCESS MONITORING AND CONTROL

Successful operation of the RCSTP Jet Tech SBR requires consistent process monitoring to allow for proactive management of the treatment process and ensure the system is performing as intended. This monitoring also assists in setting and adjusting chemical feed rates such as alum for phosphorus removal. Each SBR acts in a similar manner as an independent treatment plant. The plant data and SBR history documents the periods during the day when each SBR is receiving influent wastewater. Historical data for RCSTP indicates that as the daily diurnal flow varies, the organic loading varies as well. Monitoring each SBR for nitrification and denitrification assists in ensuring compliance with the discharge permit. Additionally, when these biological processes are performing well, CBOD5, suspended solids and water clarity are significantly improved. Lastly, at the current hydraulic and organic loading rates, on average, each SBR recognizes 20 to 40 minutes of idle during each 6-hour treatment cycle. Reactor Idle time is monitored very closely because it assists in phosphorus removal by providing anaerobic conditions, however, extended idle times contribute to significant oxygen demands during the aerated fill and react treatment phases.

This monitoring plan developed specific to the RCSTP Jet Tech SBR process is based on observations and actual experience. The RCSTP SBR process utilizes the following treatment steps:

- Static Fill
- Mixed Fill
- Aerated Fill
- React
- Settle
- Decant
- Sludge wasting
- Idle

Each step has a specific role in the treatment process. For example, the static fill phase provides for a carbon source at a time where no free and available oxygen is present. Typically, this phase is preceded by idle time. In the absence of free oxygen and available carbon source, facultative bacteria will consume oxygen bound in an inorganic form such as nitrate. In addition, phosphorus from bacteria is released and can be bound by chemicals such as alum for removal from the system. The phosphorus released also becomes available during the aerated fill and react phases for the respiration cycle. SBRs tend to function favorably utilizing assimilative/adsorption enhanced with the addition of a metal salt such as aluminum. Utilizing an anaerobic/fermentative process referred to as luxury uptake may result in conditions unsuitable for nitrification such lowering of pH, alkalinity and an increased oxygen demand. The SBR operation and process monitoring plan focuses on supporting nitrification while utilizing the assimilative and adsorptive capacities of the mixed liquor suspended solids in conjunction with aluminum compounds to assist with total phosphorus removal.

The detailed process-monitoring plan consists of the following sample analysis and frequency specific to each treatment phase.

Static Fill, Mixed Fill and Aerated Fill Phase

Collect a grab sample a minimum of once per week from each SBR and measure and record the following data:

- pH
- Total Alkalinity
- Ammonia as nitrogen

React Phase

Collect a grab sample a minimum of twice per week from each SBR at 70 minutes or greater within the React Phase and measure and record the following data:

- pH
- Total Alkalinity
- Ammonia as nitrogen
- Nitrite as nitrogen
- Nitrate as nitrogen
- 30 minute settled sludge (SSV) test
- Mixed liquor suspended solids
- COD of 30 min SSV supernatant
- Calculate F:M ratio using COD data
- Calculate sludge volume index (SVI)

Settle, Decant, Idle Phase

Collect a grab sample a minimum of once per week from each SBR

- pH
- Total Alkalinity
- Ammonia as nitrogen
- Nitrite as nitrogen
- Nitrate as nitrogen

Sludge Holding Tanks

Collect a grab sample a minimum of twice per week from each sludge holding tank

- pH
- Total Alkalinity

Perform a total solids test a minimum of once per week.

- Increase test frequency if the sludge tank is decanted.
- Increase pH monitoring if soda ash is added for pH or total alkalinity adjustment.

Disc Filters

- Collect a grab sample a minimum of twice per week of the influent to each disc filter and the final effluent at the UV finger weirs.
- Analysis performed shall be:
 - Total Phosphorus

DETAILED SBR ROCESS MONITORING AND CONTROL STRATEGY

The strategy for operation of the RCSTP SBRs to achieve nitrification and phosphorus removal required for compliance with NPDES effective March 2012 utilizes several key performance indicators based on the water chemistry and biological activity. The key components monitored for process control include:

- pH
- Alkalinity
- Ammonia as nitrogen concentration
- Nitrite as nitrogen concentration
- Nitrate as nitrogen concentration
- MLSS
- SVI
- F:M ratio based on COD of the 30 minute SSV

These parameters are monitored in each SBR during the latter minutes, preferably last 30 minutes or less of a 140 minute react phase or equivalent to 80% of treatment. Organic loadings have been observed to vary with respect to the diurnal flows, therefore monitoring the F:M ratio for individual SBRs can an effective method for managing the treatment effectiveness and conditions which may promote various types of filamentous bacteria. Utilizing the SBR design criteria, site observations and data collected conditions to promoting nitrification and phosphorus removal while minimizing conditions suitable for filamentous bacteria growth are used.

SBR Sampling Plan – React Phase

RCSTP Process Monitoring Sampling Plan							
Test Parameter	Influent	SBR 1	SBR 2	SBR 3	SBR 4	Post EQ	Final Effluent
pH	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Total Alkalinity	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Ortho Phosphorus	na	na	na	na	na	1x week	1x week
Total Phosphorus	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Ammonia as N	3x week	3x week	3x week	3x week	3x week	3x week	5x week
Nitrite as N	na	3x week	3x week	3x week	3x week	3x week	5x week
Nitrate as N	na	3x week	3x week	3x week	3x week	3x week	5x week
COD	3x week	3x week	3x week	3x week	3x week	3x week	5x week
MLSS	na	3x week	3x week	3x week	3x week	3x week	na
5 min SSV	na	3x week	3x week	3x week	3x week	3x week	na
15 min SSV	na	3x week	3x week	3x week	3x week	3x week	na
30 min SSV	na	3x week	3x week	3x week	3x week	3x week	na
SVI	na	3x week	3x week	3x week	3x week	3x week	na
F:M Ratio	na	3x week	3x week	3x week	3x week	3x week	na

Seasonal Set Point Adjustments

Operational set points vary seasonally preceded by a transition period. Set point adjustments are focused towards maintaining conditions favorable for nitrification and denitrification. Typical seasonal set point adjustments include:

- Anoxic fill time
- Minimum aeration time
- Minimum react phase time
- SBR blower on/off set points
- Sludge wasting rates
- Monitoring and managing time of continuous anoxic conditions.

The transition from winter to spring generally requires additional monitoring and adjustment of the process as a result of water and air temperature changes, precipitation, and reduction in the ammonia as nitrogen discharge limitation.

Routine microscopic examinations combined with frequent monitoring of MLSS, SVI, F:M ratio and physical observation of the depth of clear water beneath the SBR water surface during noted times and levels in the settle phase assist in monitoring settleability, presence of excessive filamentous growth and overall quality of the treatment system performance.

Phosphorus Removal Monitoring

The sampling points for monitoring phosphorus loading and removal include the following:

Influent – “Chapter 94”

24 hour Composite sample collected weekly for DMR reporting

Daily grab sample

Influent – SBR Influent

24 hour Composite sample collected weekly for DMR reporting

Daily grab sample

SBR effluent/Post EQ

Grab sample

Final Effluent

24 hour Composite sample collected weekly for DMR reporting

Daily grab sample

Side streams, when in use, include:

Sludge holding Tank decant

Centrifuge centrate

draft
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
October 8, 2012

The East Goshen Township Municipal Authority held their regularly scheduled meeting on Monday, October 8, 2012 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Dana Pizarro, Vice Chairman Fran Beck, Jack Yahraes, and Kevin Cummings. Also in attendance were: Rick Smith (Township Manager), Dan Barbato (Pennoni), Bob Adams, Scott Towler (BFES) and Walter Wujick (Conservancy Board).

COMMON ACRONYMS:

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

Call to Order & Pledge of Allegiance

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

Chairman’s Report

Jack attended the West Goshen meeting and read a statement from that meeting regarding the DEP permit.

Approval of Minutes

The Chairman noted that the minutes of the September 10, 2012 meeting were approved as corrected.

Approval of Invoices

1. Jack moved to approve payment of 6 Pennoni invoices:

#521184	\$6,770.50
#521185	\$1,164.75
#521186	\$ 996.25
#521187	\$1,142.00
#521188	\$ 140.00
#521189	\$1,499.00

Fran seconded the motion. The motion passed unanimously.

Dana commented that the Chapter 94 project Pennoni did was done on time and under budget.

2. Fran moved to approve payment of the Gawthrop Greenwood invoice:

#102526	\$1,273.00
---------	------------

Rick mentioned that this is an updated invoice which includes the September meeting.

Jack seconded the motion. The motion passed unanimously.

1 **Liaison Reports**

2 1. Conservancy Board – Walter reported that the Board received the soil sample
3 report for East Boot Road and will discuss when to fertilize. They are working with Mark Miller
4 on the sign for the Clymer’s Woods project. They are also working with Mark on the ponds.

5 2. Board of Supervisors – Carmen reported that the Police Commission approved an
6 agreement to pass on to Westtown for their meeting tonight and East Goshen’s meeting on
7 Tuesday.
8

9 **Financial Reports**

10 1. Jon Altshul, CFO, provided reports with the following comment: total expenses
11 were \$34,579.06 compared with total revenue of \$5.58 for a net change in fund balance of
12 -\$34,573.48.
13

14 **Old Business**

15 None
16

17 **Goals**

- 18 1. Newsletter – Joe will do an article for the next Newsletter. The topic should be the tour
19 of the plant.
20 2. The RCSTP tour will be held on Saturday, Oct. 20, 2012 from 10:00 am to Noon. Mark
21 reported that PA One Call provided some handouts. Dan will make flow diagrams.
22 Parking will be on the street. Signs will be made.
23 3. Kevin will attend the December West Goshen meeting.
24 4. Rick reported that the permits for Marydell are okay and he is working with the shopping
25 center owner about easements. He is also working on easements for Hershey Mill.
26

27 **New Business**

28 1. Electrical disconnects are 2 years old. Mark provided photos of pump #2. Dan feels the
29 box isn’t sealed properly so condensate is getting in. Carmen wants to have the stops checked.
30 Mark reported that all of the others that are outside are dry. The estimate for replacement is
31 \$6,668.09. Bob’s advice is to find out what is wrong then check the contract and get a letter
32 from Lenni stating what is wrong. Dan will contact Steve to do a test.

33 2. Muffin Monster – A quote was received from Watermark for \$30,769.00 which does not
34 include installation. Mark will do the install. Kevin moved to approve the purchase of the
35 Muffin Monster from Watermark in the amount of \$30,769.00. Jack seconded the motion.
36 There was no further discussion. The motion passed unanimously.
37

38 **Capacity Requests**

39 None
40

41 **Sewer Reports**

- 42 1. **Mark Miller, Director of Public Works**, provided the following report for September:
43 Meters - Have been read on a daily basis. The meter for Westtown Way has been
44 replaced. The Reservoir Road meter is back in service.
45 Pumping Stations: Were visited on a routine basis, no problems to report.

1 CC Collection: Replaced several sewer caps during the month. No problems to report.

2 RC Collection: No problems to report.

3 RC Plant: Routine maintenance was performed during the month. The final paving was
4 completed two weeks ago. See memo re: wet well disconnects.

5 Lockwood Plant: We are still waiting on PECO to turn off power and remove the
6 transformers.

7 Alarms: We responded to 10 alarms during the month ranging from generators running
8 to a high level alarm. All alarms were cleared and all stations put back in service.

9 PA One Calls: We received 109 PA One calls for the month of September.

10
11 2. Dan Barbato, Pennoni, provided the engineer's report:

12 Invoices: Invoices with summaries are provided under separate cover.

13 Ridley Creek Sewage Treatment Plant (RCSTP) – We will continue to assist with
14 operations support and plant troubleshooting, and review operator reports as we receive
15 them.

16 LCSTP Elimination – No further activity. The project has been completed and our
17 understanding is that final payment was made.

18 Hershey's Mill PS Diversion & Reserve PD Elimination

19 DEP issued the GP-5 "General Permit for Utility Line Stream Crossing" for the Hershey
20 Mill PS Diversion on August 31, 2012.

21 DEP has reviewed the GP-5 "General Permit for Utility Line Stream Crossing" permit
22 applications for the Reserve PS Diversion and has verbally informed us that the permit
23 application is acceptable subject to a bog turtle screening by the Army Corps of
24 Engineers (ACOE). We submitted a bog turtle screening request to the ACOE on
25 October 3, 2012. They informed us they will attempt to provide a bog turtle habitat
26 determination within 30 days. If there is no habitat, then DEP can issue the GP-5 permit.
27 If there is habitat, we will have to coordinate impact mitigation strategies with Fish and
28 Wildlife Service.

29 The Chester County Conservation District (CCCD) issued Erosion and Sediment
30 Pollution Control Plan adequacy letters for the Hershey Mill PS and Reserve PS projects
31 on September 4 and September 11 respectively.

32 We revised the four (4) sanitary sewer easement legal descriptions and exhibits for the
33 diversion projects – one (1) for the Hershey Mill PS and three (3) for the Reserve PS- to
34 include construction limits. The revised documents were forwarded to the Township and
35 Authority Solicitor.

36 We expect to submit the Reserve Closure Plan and Hershey Mill PS Water Quality
37 Management Permit Amendment to DEP by October 9, 2012.

38 We also prepared draft bidding documents for each project. The projects will be bid
39 separately, so separate bidding documents have been prepared. The Hershey Mill PS
40 bidding documents and bid plans will be forwarded to the Township for review by the
41 end of October. The Reserve PS bidding document and bid plans will be forwarded to
42 the Township for review once the bog turtle impacts are resolved.

43 Marydell PS Elimination –

44 DEP has verbally informed us that the Pump Station Closure Plan has been approved and
45 that a formal approval letter should be issued by October 5, 2012.

1 We prepared an easement legal description and exhibit for the shopping center. Once the
2 easement is obtained, all third party approvals and permits will be in place and the project
3 can be put out to bid.

4 We are finalizing the bidding document and bid plans. We anticipate forwarding the
5 documents to the Township by October 15 for review, with the intent of having the
6 documents completed and ready for the Authority to provide direction to advertise at
7 their November 12, 2012 meeting.

8 Hershey's Mill Muffin Monster

9 DEP issued an approval letter for the Muffin Monster installation on September 11, 2012.
10 No other third-party approvals are required for this project.

11 We have obtained a formal price quotation from the Muffin Monster supplier, which we
12 have forwarded to the Township for approval. The quotation includes materials and
13 startup. Construction will be performed by Public Works.

14 Semi-Annual Sewer System (Formerly "CO&A") Status Report

15 We analyzed portable and permanent meter data from January-August 2012 and met with
16 Mr. Smith and Mr. Miller to discuss our findings and recommendations for I/I
17 investigations and future metering. We prepared the semi-annual sewer system status
18 report and submitted it to the Township. This is the first internal-only report since the
19 semi-annual CO&A submissions to DEP are no longer required.
20

21 3. Big Fish Environmental Services, Inc., Scott Towler presented the following written
22 report:

23 Treatment Process Operation

24 Sequencing batch reactors (SBRs) numbered 1, 3, & 4 were in service during the month
25 of September. SBR No. 2 remains out of service with approximately a mixture of 1 foot
26 of sludge and rainwater within the tank. Transfer of the contents of SBR2 is planned
27 during October.

28 During August, there were a total of 6 exceedances of the final effluent discharge
29 limitations for total outfalls 001 and 002. Outfall 001 experienced 3 exceedances. The
30 total phosphorus month average was reported as 1.57mg/L as compared to the discharge
31 limitation of 0.5 mg/L. The total suspended solids monthly average and weekly maximum were
32 reported as 26 mg/L and 42 mg/L, respectively. Outfall 002, Applebrook, experienced the same
33 3 exceedances.

34 Total phosphorus removal improved, however, the monthly concentration remains above
35 the permitted monthly average. Daily sample collection and analysis for total phosphorus of the
36 SBR effluent and final effluent discharges were implemented to monitor phosphorus removal.
37 During September, this monitoring was expanded to include the influent, sludge hold tank decant
38 and centrate.

39 Total suspended solids (TSS) exceedances are the result of elevated dosage rates of
40 aluminum sulfate solution passing through the disc filters as a fine solid not visible to the eye.
41 The final effluent was observed to contain no visible solids, however, there was a slight opaque
42 appearance (cloudiness). Samples analyzed on site for TSS produced a residue with a white
43 color on the filter paper. Non-detect values for CBOD5, ammonia as nitrogen and fecal coliform
44 support the assertion that the residue observed on the filter paper was largely inert solids rather
45 than biomass solids.

1 The process adjustments indicate the final effluent total phosphorus concentration is
2 trending downward towards the discharge limitation concentration. Daily total phosphorus
3 monitoring of the final effluent and post EQ (SBR effluent) will continue to monitor
4 improvement towards achieving consistent total phosphorus concentrations compliant with the
5 discharge limitation.

6 During September the Neptune aluminum sulfate pump failed. Replacement parts were
7 ordered and repair of the pump is scheduled for October 5th.

8 During September the centrifuge dewatering system was placed in service.

9 During September sludge wasting and decanting of the sludge holding tanks was
10 ongoing. A total volume of 197,225 gallons of supernatant was decanted from the sludge
11 holding tanks. pH and alkalinity were monitored on average twice per week and total solids
12 once per week.

13 Sludge holding tank #1 began the month as 0.66% total solids and was removed from
14 service on September 9th. Tank level at the beginning of the month was 4.40 ft and at the end of
15 the month was 1.37 ft.

16 Sludge holding tank #2 began the month as 0.89% total solids and ended the month at
17 1.09% total solids. Tank level at the beginning of the month was 11.90 ft and at the end of the
18 month was 12.07 ft.

19 Listed below are the remaining warranty issues for RCSTP:

20 1. Alfa Laval Spare parts: Warranty call during March. Alfa Laval technician used parts
21 from the Township's spare parts inventory to replace the rear bearing, seals, etc.

22 Action Required: Worth & Co (Alfa Laval) are in the process of replacing the spare parts
23 (Updated 10/01/12).

24 2. Siemens MCC Analog Hour Meters – The analog hour meters for SBR2 blower,
25 SBR3 motive pump (recent), and SBR4 motive pump have failed.

26 Action Required: Worth & Co are scheduling the replacement of the defective hour
27 meters (updated 10/01/12).

28 3. Alfa Laval MMC Hour Meter – The analog hour meter for Alfa Laval centrifuge hour
29 meter has failed.

30 Action Required: Worth & Co are scheduling the replacement of the defective hour
31 meters (updated 10/01/12).

32 4. Influent Composite Sampler Pump – The influent sampler pump failed. A warranty
33 claim was filed with Hach Co during July. On Sept. 24, Hach confirmed that the sampler was
34 purchased during August 2009 and has a one year warranty.

35 Action Required: Worth & Co are scheduling the replacement of the defective hour
36 meters (updated 10/01/12).

37 5. The alum valves(new), used to provide alum to the SBRs, remain open at all times.
38 Using the Siemens control panel to program operation of the alum addition to the SBRs (phase
39 and run time of pump), all alum valves open and remain open regardless of phase. The valves
40 open and close in manual mode. There appears to be a programming issue. An email was sent
41 to Siemens on Sept. 22, 2012

42 Action Required: Worth & Co is working with Gary Roberts from ICI (Siemens) to
43 correct the problem.

44 6. SBR 4 Blower Operation During Aeratd Fill (new)

45 SBR4 blower was observed on 9/22/12 and 9/23/12 to not operate during React Phase.
46 This malfunction is the most likely contributing factor for the undesirable DO trend as well as

1 contributes to excessive anoxic/anaerobic conditions and potential for undesirable filamentous
2 growth (SVIs are increasing).

3 Action Required: Worth & Co is working with Gary Roberts from ICI (Siemens) to
4 correct the problem.

5 7. Floc tank Mixer Hour Meter on ACS Panel (New) - The Floc tank mixer is
6 operational; however, the hour meter reading on the ACS panel does not register hours.

7 Action Required: None. Issue is resolved.

8 Discussion: Scott and Dana feel not processing solids often enough causes a load the plant
9 wasn't designed for. Kevin questioned the spikes. Scott said the total phosphorous to SBRs is
10 being checked. The streams are being checked as the plant operates. Dana noted that the plant is
11 at 30% of design. Scott feels that knowing where the phosphorous is coming from will make it
12 possible to manage.

13
14 The letter to Dave Wolfinger, DEP, from Scott Towler, BFES, and the Executive
15 Summary Report were reviewed by the Authority. Dana pointed out that there was a big spike
16 on August 2nd. When there are low flow conditions, it tends to put off phosphorous.

17 Mark asked if manholes should be sampled, in particular at Bellingham where there is a
18 laundry and at the shopping center. Scott can get a mobile sampler. Rick would like to collect
19 samples for several days.

20 Scott wants to switch to poly aluminum chloride to add to the SBRs and disk filters. You
21 get more aluminum which cuts the phosphorous. He thinks it will cut costs because there should
22 be a reduction in sodash. Dan will review the information in the reports. Dana asked them to
23 check for any incompatibilities.

24 Kevin is concerned about where the plant is after only 2 years. Dana asked if there were
25 two designs – 1 for start-up and the other for full operation. He feels they should look at the
26 engineering.

27 Scott feels the plant is working very well and he listed several areas where it is working
28 well. Applebrook use increased and everything is okay. They are maintaining a nice even flow
29 through the plant. There are no odors and the clarity is good.

30 Rick asked if it was worthwhile testing samples from different SBRs and does the cold
31 weather affect it? Scott commented that it takes 2-3 weeks to get the sample results. He listed
32 all the tests that are done on the samples. The next sample will be on Thursday.

33 Kevin suggested that the Authority set up a task force to find out what needs to be done
34 to make things operate more easily. Carmen agreed and requested that Dana prepare a report for
35 the BOS.

36 37 **Adjournment**

38 There being no further business, Kevin moved to adjourn the meeting. Jack seconded the
39 motion. The motion passed unanimously. The meeting was adjourned at 8:45pm.

40
41 Respectfully submitted,

42
43
44 Ruth Kiefer
45 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 # : 524282
Invoice Date : 10/24/2012
Project : EGMA1107
Project Name : HersheyMill & Reserve PS Div Des
Per

For Services Rendered through: 10/14/2012

Prepared separate draft specifications and bid documents for Reserve PS and Hershey Mill PS Diversions. Field meeting with M. Miller to walk proposed Hershey Mill force main route. Revised Hershey Mill PS plans based upon field meeting. Revised and resubmitted easement exhibits for both projects to include construction limits. Field stakeout of proposed Reserve PS sewer diversion alignment. Prepared PADEP submissions for Reserve PS Closure Plan and Hershey Mill PS WQM Permit Amendment application.

Phase : 1 -- Design

Total Phase : 1 -- Design

Labor : 4,692.50
Expense : 0.00
Phase Total : 4,692.50

Phase : 2 -- Sewer Stakeout and Easements

Total Phase : 2 -- Sewer Stakeout and Easements

Labor : 2,644.25
Expense : 0.00
Phase Total : 2,644.25

Phase : 5 -- Water Quality Mgmt Part 2 Permit

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

Labor : 2,760.25
Expense : 0.00
Phase Total : 2,760.25

Amount Due This Invoice

\$10,097.00

Fee : 60,200.00
Prior Billings : 30,146.50
Current Billings : 10,097.00
Total Billings : 40,243.50

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OK TRS 10-25-12

Continued on next page...

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

...Continued from previous page

Phase : 1 -- Design

Labor Class	<i>Hours/Units</i>	<i>Rate</i>	<i>Amount</i>
Project Engineer	12.75	93.00	1,185.75
Associate Engineer	42.25	83.00	3,506.75
Labor Total:	55.00		4,692.50

Total Phase : 1 -- Design	Labor :	\$4,692.50
	Expense :	\$0.00

Phase : 2 -- Sewer Stakeout and Easements

Labor Class	<i>Hours/Units</i>	<i>Rate</i>	<i>Amount</i>
2-Person Survey Crew	5.00	160.00	800.00
Project Engineer	4.00	93.00	372.00
Senior Surveyor	5.50	87.00	478.50
Survey Technician	18.75	53.00	993.75
Labor Total:	33.25		2,644.25

Total Phase : 2 -- Sewer Stakeout and Easements	Labor :	\$2,644.25
	Expense :	\$0.00

Phase : 5 -- Water Quality Mgmt Part 2 Permit

Labor Class	<i>Hours/Units</i>	<i>Rate</i>	<i>Amount</i>
Authority Engineer	2.25	110.00	247.50
Project Engineer	8.50	93.00	790.50
Associate Engineer	20.75	83.00	1,722.25
Labor Total:	31.50		2,760.25

Total Phase : 5 -- Water Quality Mgmt Part 2 Permit	Labor :	\$2,760.25
	Expense :	\$0.00

Total Project : EGMA1107 -- HersheyMill & Reserve PS Div Des Per	Labor :	\$10,097.00
	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
 EGMA1107 Invoice Summary
 Invoice Date 10/24/2012

Project: EGMA1107
Pennoni Job No.: Hershey Mill & Reserve PS Div Des Per
Invoice No: 524282
Invoice Period: 9/17/2012 to 10/14/2012
Initial Authorization: \$ 60,200.00 **Date:** 7/7/2011
Contract Amount: \$ 60,200.00
Previously Invoiced: \$ 30,146.50
Current Invoice: \$ 10,097.00
Invoiced to Date (\$): \$ 40,243.50
Invoiced to Date (%): 67%
Remaining Budget (\$): \$ 19,956.50
Remaining Budget (%): 33%

Budget by Phase:

Phase No. ****
Phase Name: Hershey Mill & Reserve
Phase Budget: \$ 60,200.00
Previously Invoiced: \$ 30,146.50
Current Invoice: \$ 10,097.00
Invoiced to Date (\$): \$ 40,243.50
Invoiced to Date (%): 67%
Remaining Budget (\$): \$ 19,956.50
Remaining Budget (%): 33%

Comments: Prepared separate draft specifications and bid documents for Reserve PS and Hershey Mill PS Diversions. Field meeting with M. Miller to walk proposed Hershey Mill force main route. Revised Hershey Mill PS plans based upon field meeting. Revised and resubmitted easement exhibits for both projects to include construction limits. Field stakeout of proposed Reserve PS sewer diversion alignment. Prepared PADEP submissions for Reserve PS Closure Plan and Hershey Mill PS WQM Permit Amendment application.



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 #: 524283
Invoice Date: 10/24/2012
Project: EGMA1109
Project Name: Marydell Pump Station Diversion

For Services Rendered through: 10/14/2012

Prepared draft specifications, bid document, and easement exhibit and legal description. Developed jack-and-bore design, details, and specifications.

Phase : 1 -- Design

Total Phase : 1 -- Design

Labor :	1,358.00
Expense :	0.00
Phase Total :	1,358.00

Phase : 2 -- Sewer Stakeout and Easements

Total Phase : 2 -- Sewer Stakeout and Easements

Labor :	365.75
Expense :	0.00
Phase Total :	365.75

Amount Due This Invoice

\$1,723.75

Fee :	45,100.00
Prior Billings :	17,555.75
Current Billings :	1,723.75
Total Billings :	19,279.50

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7425-1000
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INVOICES DUE ON RECEIPT. Invoices outstanding over 30 days will have a Service Charge of 1 1/2% per month.

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Phase : 1 -- Design

Labor Class	<i>Hours/Units</i>	<i>Rate</i>	<i>Amount</i>
Project Engineer	3.00	93.00	279.00
Associate Engineer	13.00	83.00	1,079.00
Labor Total:	16.00		1,358.00

Total Phase : 1 -- Design	Labor :	\$1,358.00
	Expense :	\$0.00

Phase : 2 -- Sewer Stakeout and Easements

Labor Class	<i>Hours/Units</i>	<i>Rate</i>	<i>Amount</i>
Project Engineer	0.25	93.00	23.25
Senior Surveyor	1.50	87.00	130.50
Survey Technician	4.00	53.00	212.00
Labor Total:	5.75		365.75

Total Phase : 2 -- Sewer Stakeout and Easements	Labor :	\$365.75
	Expense :	\$0.00

Total Project : EGMA1109 -- Marydell Pump Station Diversion	Labor :	\$1,723.75
	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
EGMA 1109 Invoice Summary
Invoice Date 10/24/2012

Project: EGMA1109
Pennoni Job No.: Marydell Pump Station Diversion
Invoice No: 524283
Invoice Period: 9/17/2012 to 10/14/2012
Initial Authorization: \$ 45,100.00 **Date:** 2/22/2012
Contract Amount: \$ 45,100.00
Previously Invoiced: \$ 17,555.75
Current Invoice: \$ 1,723.75
Invoiced to Date (\$): \$ 19,279.50
Invoiced to Date (%): 43%
Remaining Budget (\$): \$ 25,820.50
Remaining Budget (%): 57%

Budget by Phase:

Phase No. ****
Phase Name: Marydell Pump
Station Diversion
Phase Budget: \$ 45,100.00
Previously Invoiced: \$ 17,555.75
Current Invoice: \$ 1,723.75
Invoiced to Date (\$): \$ 19,279.50
Invoiced to Date (%): 43%
Remaining Budget (\$): \$ 25,820.50
Remaining Budget (%): 57%

Comments: Prepared draft specifications, bid document, and easement exhibit and legal description.
Developed jack-and-bore design, details, and specifications.



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 # : 524284
Invoice Date : 10/24/2012
Project : EGMA1201
Project Name : 2012 General Services

For Services Rendered through: 10/14/2012

October engineer's report and attendance at October MA meeting. Investigation of electrical box moisture issue and field visit by Barbato and McAloon. RCSTP operations review by Barbato and Daily and review of operator reports. Project budget estimates for upcoming MA projects.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor : 2,229.75
Expense : 0.00
Phase Total : 2,229.75

Amount Due This Invoice

\$2,229.75

Fee : 10,000.00
Prior Billings : 4,841.50
Current Billings : 2,229.75
Total Billings : 7,071.25

Phase : **** -- Professional Services

Labor Class	Hours/Units	Rate	Amount
Authority Engineer	13.50	110.00	1,485.00
Senior Engineer	5.00	105.00	525.00
Project Engineer	0.75	93.00	69.75
Technical Specialist	2.00	75.00	150.00
Labor Total:	21.25		2,229.75

Total Phase : **** -- Professional Services

Labor : \$2,229.75
Expense : \$0.00

Total Project : EGMA1201 -- 2012 General Services

Labor : \$2,229.75
Expense : \$0.00

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7424-3130

East Goshen Municipal Authority
EGMA1201 Invoice Summary
Invoice Date 10/24/2012

Project: EGMA1201
Pennoni Job No.: 2012 General Services
Invoice No: 524284
Invoice Period: 9/17/2012 to 10/14/2011
Initial Authorization: \$ 10,000.00 **Date:** 2/22/2012
Contract Amount: \$ 10,000.00
Previously Invoiced: \$ 4,841.50
Current Invoice: \$ 2,229.75
Invoiced to Date (\$): \$ 7,071.25
Invoiced to Date (%): 71%
Remaining Budget (\$): \$ 2,928.75
Remaining Budget (%): 29%

Budget by Phase:

Phase No. ****
Phase Name: 2012 General Services
Phase Budget: \$ 10,000.00
Previously Invoiced: \$ 4,841.50
Current Invoice: \$ 2,229.75
Invoiced to Date (\$): \$ 7,071.25
Invoiced to Date (%): 71%
Remaining Budget (\$): \$ 2,928.75
Remaining Budget (%): 29%

Comments: October engineer's report and attendance at October MA meeting. Investigation of electrical box moisture issue and field visit by Barbato and McAloon. RCSTP operations review by Barbato and Daily and review of operator reports.
Project budget estimates for upcoming MA projects.



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

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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 # : 524285
Invoice Date : 10/24/2012
Project : EGMA1202
Project Name : 2012 COA and I&I Reports

For Services Rendered through: 10/14/2012

Analysis of permanent and temporary (portable) meter data. Meeting with R. Smith and M. Miller about meter analyses and recommendations. Finalized and submitted September Semi-Annual Sewer System Status Report #08.

Phase : ** -- Professional Services**

Total Phase : ** -- Professional Services**

Labor : 3,762.50
Expense : 0.00
Phase Total : 3,762.50

Amount Due This Invoice

\$3,762.50

Fee : 13,000.00
Prior Billings : 5,737.00
Current Billings : 3,762.50
Total Billings : 9,499.50

Phase : ** -- Professional Services**

Labor Class	Hours/Units	Rate	Amount
Authority Engineer	1.00	110.00	110.00
Project Engineer	15.00	93.00	1,395.00
Graduate Engineer	32.25	70.00	2,257.50
Labor Total:	48.25		3,762.50

Total Phase : ** -- Professional Services**

Labor : \$3,762.50
Expense : \$0.00

Total Project : EGMA1202 -- 2012 COA and I&I Reports

Labor : \$3,762.50
Expense : \$0.00

o/c TRS 10-25-12
7424 - 3130

East Goshen Municipal Authority
EGMA1202 Invoice Summary
Invoice Date 10/24/2012

Project: EGMA1202
Pennoni Job No.: 2012 COA and I&I Reports
Invoice No: 524285
Invoice Period: 8/17/2012 to 10/14/2012
Initial Authorization: \$ 13,000.00 **Date:** 2/22/2012
Contract Amount: \$ 13,000.00
Previously Invoiced: \$ 5,737.00
Current Invoice: \$ 3,762.50
Invoiced to Date (\$): \$ 9,499.50
Invoiced to Date (%): 73%
Remaining Budget (\$): \$ 3,500.50
Remaining Budget (%): 27%

Budget by Phase:

Phase No.	****
	2012 COA and I&I
Phase Name:	Reports
Phase Budget:	\$ 13,000.00
Previously Invoiced:	\$ 5,737.00
Current Invoice:	\$ 3,762.50
Invoiced to Date (\$):	\$ 9,499.50
Invoiced to Date (%):	73%
Remaining Budget (\$):	\$ 3,500.50
Remaining Budget (%):	27%

Comments: Analysis of permanent and temporary (portable) meter data. Meeting with R. Smith and M. Miller about meter analyses and recommendations. Finalized and submitted September Semi-Annual Sewer System Status Report #08.



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 # : 524287
Invoice Date : 10/24/2012
Project : EGMA1206
Project Name : Hershey Mill PS Muffin Monster
Desi

For Services Rendered through: 10/14/2012

Coordinate pricing and scope of work with vendor. Obtain formal cost quotation from vendor and forward to Township. On-site measurements for equipment hose lengths to confirm vendor's quoted scope.

Phase : ** -- Professional Services**

Total Phase : ** -- Professional Services**

Labor : 519.00
Expense : 0.00
Phase Total : 519.00

Amount Due This Invoice

\$519.00

Fee : 12,000.00
Prior Billings : 6,926.30
Current Billings : 519.00
Total Billings : 7,445.30

Phase : ** -- Professional Services**

Labor Class	Hours/Units	Rate	Amount
Project Engineer	4.00	93.00	372.00
Technical Specialist	1.00	75.00	75.00
Engineering Technician II	1.00	72.00	72.00
Labor Total:	6.00		519.00

Total Phase : ** -- Professional Services**

Labor : \$519.00
Expense : \$0.00

Total Project : EGMA1206 -- Hershey Mill PS Muffin Monster Desi

Labor : \$519.00
Expense : \$0.00

olc TRS 10-25-12

7424-7475

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 10/24/2012

Project: EGMA1206
Pennoni Job No.: Hershey Mill PS Muffin Monster Design
Invoice No: 524287
Invoice Period: 9/17/2012 to 10/14/2012
Initial Authorization: \$ 12,000.00 **Date:** 5/15/2012
Contract Amount: \$ 12,000.00
Previously Invoiced: \$ 6,926.30
Current Invoice: \$ 519.00
Invoiced to Date (\$): \$ 7,445.30
Invoiced to Date (%): 62%
Remaining Budget (\$): \$ 4,554.70
Remaining Budget (%): 38%

Budget by Phase:

Phase No. ****
-
Phase Name: Muffin Monster Design
Phase Budget: \$ 12,000.00
Previously Invoiced: \$ 6,926.30
Current Invoice: \$ 519.00
Invoiced to Date (\$): \$ 7,445.30
Invoiced to Date (%): 62%
Remaining Budget (\$): \$ 4,554.70
Remaining Budget (%): 38%

Comments: Coordinate pricing and scope of work with vendor. Obtain formal cost quotation from vendor and forward to Township. On-site measurements for equipment hose lengths to confirm vendor's quoted scope.

WILLIAM WOOD COMPANY, LLC

120 West Market Street
West Chester, Pennsylvania 19382
610-692-3966
Fax 610-692-8325

William S. Wood II, IFAS
PA Certified General Appraiser

John Strickland II
PA/DE Certified General Appraiser

Joseph F. Summers
PA Certified Residential Appraiser

Mary Kay Davis
Office Manager

David E. Adams
Heidi S. Phillips
Jeffrey H. Hellen
William S. Wood III
Timothy J. Mingey
Kimberlee A. Baker
Timothy C. Graham
Thomas P. Mohr, Esq.

INVOICE

OCTOBER 16, 2012

Louis F. Smith, Jr., Township Manager
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380

File: 12-0987

REAL ESTATE APPRAISAL of

Part of Parcel #53-2-20.39 (Proposed Sewer Easement Area)

\$ 1,000.00

RESERVE PS

OK TO PAY

RS 10/22/12

7427-1006

WILLIAM WOOD COMPANY, LLC

120 West Market Street
West Chester, Pennsylvania 19382
610-692-3966
Fax 610-692-8325

William S. Wood II, IFAS
PA Certified General Appraiser

John Strickland II
PA/DE Certified General Appraiser

Joseph F. Summers
PA Certified Residential Appraiser

Mary Kay Davis
Office Manager

David E. Adams
Heidi S. Phillips
Jeffrey H. Hellen
William S. Wood III
Timothy J. Mingey
Kimberlee A. Baker
Timothy C. Graham
Thomas P. Mohr, Esq.

INVOICE

NOVEMBER 7, 2012

Louis F. Smith, Jr., Township Manager
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380

RECEIVED
BY _____

NOV 8 2012

File: 12-1119

Owner: Willow Pond Homeowners Association

REAL ESTATE APPRAISAL of

Part of Parcel #53-2F-76.1 (Proposed Sewer Easement Area)

\$ 500.00

OK RS 11/8/12

7427-1000

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA October Financial Report
Date: November 8, 2012

The Municipal Authority recorded \$14,085.50 in expenses and \$3.33 in revenues for the month of October, a difference of \$14,082.17. The fund balance is now \$37,050.81

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

Account Title	Acct #	Annual Budget	Month To Date		Year To Date	
			Actual		Actual	
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE						
			51,132.98			
RCSTP BUDGET						
REVENUE						
INTEREST EARNED - RCSTP EXPANSION	07341 1020	0.00	3.03		70.05	
GRANT REVENUE	07392 0800	0.00	0.00		0.00	
TOTAL REVENUE		0.00	3.03		70.05	
EXPENSES						
R.C.-CAP. PROJ.-ENGINEER	07424 7451	0.00	0.00		0.00	
R.C. CAP EXPANSION GEN'L CONTRACTOR	07424 7452	0.00	0.00		0.00	
R.C. CAP EXPANSION - ELECTRICAL	07424 7453	0.00	0.00		1,228.08	
R.C. CAP EXP CONTINGENCY CAPITAL	07424 7454	0.00	0.00		0.00	
R.C. CAP EXP CONTINGENCY ONGOING	07424 7455	0.00	0.00		0.00	
R.C. CAP EXP ADDITIONAL CONTINGENCY	07424 7456	0.00	0.00		0.00	
TRANSFER TO AUTHORITY CAP FUND	07492 0990	0.00	0.00		0.00	
TOTAL EXPENSES		0.00	0.00		1,228.08	
RCSTP NET RESULT		0.00	3.03		(1,158.03)	

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

Account Title	Acct #	Annual Budget	Month To Date		Year To Date	
			Actual		Actual	
OPERATING BUDGET						
REVENUE						
INTEREST EARNINGS	07341 1000	0.00	0.30		32.87	
C.C. TAPPING FEES	07364 1100	2,000.00	0.00		0.00	
R.C.TAPPING FEES	07364 1110	2,000.00	0.00		4,000.00	
CONNECTION FEES - SEWER	07364 1130	0.00	0.00		845.64	
MISCELLANEOUS REVENUE	07380 1000	1,000.00	0.00		423.36	
TRANSFER FROM SEWER OPERATING	07392 0500	125,000.00	0.00		30,700.00	
TOTAL REVENUE		130,000.00	0.30		36,001.87	
EXPENSES						
ADMINISTRATIVE WAGES	07424 1400	37,669.00	0.00		25,175.82	
MISCELLANEOUS EXPENSE	07424 3000	4,162.00	0.00		950.00	
MUNIC.AUTH.-AUDITING	07424 3110	8,843.00	0.00		7,900.00	
ENGINEERING SERVICES	07424 3130	37,066.00	2,278.25		25,704.25	
LEGAL SERVICES	07424 3140	12,485.00	1,273.00		6,043.68	
M.C.-DVRFA-DEBT SERVICE	07471 1000	19,600.00	0.00		0.00	
M.C.-DVRFA-INTEREST PAYMN	07472 1000	6,981.00	0.00		0.00	
TOTAL EXPENSES		126,806.00	3,551.25		65,773.75	
OPERATING NET RESULT		3,194.00	(3,550.95)		(29,771.88)	

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

Account Title	Acct #	Annual Budget	Month To Date		Year To Date	
			Actual		Actual	
CAPITAL BUDGET						
REVENUE						
LOAN PROCEEDS-SEWER PROJECT	07392 0804	0.00	0.00	0.00	0.00	0.00
TRANSFER FROM SEWER CAP RESERVE	07392 0900	828,000.00	0.00	0.00	400,000.00	400,000.00
TOTAL REVENUE		828,000.00	0.00	0.00	400,000.00	400,000.00
EXPENSES						
MARYDELL PUMP STATION - ENGINEER	07425 1000	51,764.00	1,264.75	15,491.50	15,491.50	15,491.50
MARYDELL PUMP STATION -CONSTRUCTION	07425 2000	170,000.00	0.00	0.00	0.00	0.00
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	37,553.00	1,499.00	43,592.30	43,592.30	43,592.30
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	411,000.00	0.00	177,281.48	177,281.48	177,281.48
LOCHWOOD ELIMINATION PHASE 2	07424 7477	0.00	0.00	104,504.99	104,504.99	104,504.99
HERSHEY MILL STATION - ENGINEER	07426 1000	29,069.00	3,385.25	16,425.00	16,425.00	16,425.00
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	46,000.00	0.00	0.00	0.00	0.00
RESERVE PUMP STATION - ENGINEER	07427 1000	29,069.00	4,385.25	12,975.25	12,975.25	12,975.25
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	93,000.00	0.00	0.00	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	0.00	0.00	358.25	358.25	358.25
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENSES		867,455.00	10,534.25	370,628.77	370,628.77	370,628.77
CAPITAL NET RESULT		(39,455.00)	(10,534.25)	29,371.23	29,371.23	29,371.23
MUNICIPAL AUTHORITY ENDING FUND BALANCE			37,050.81			

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1000					0.00				
		INTEREST EARNINGS							
	1201	JE 31221		0.62		02/07/12	INTEREST		INTEREST EARNED JAN. 2012 7100.1000
			0.00	0.62	-0.62				
	1202	31655		0.25		03/14/12	INTEREST		INTEREST EARNED FEB. 2012 7100.1000
			0.00	0.25	-0.87				
	1203	31930		0.56		04/04/12	INTEREST		INTEREST EARNED MARCH 2012 7100.1000
			0.00	0.56	-1.43				
	1204	32293		4.97		05/02/12	INTEREST		INTEREST EARNED APRIL 2012 7100.1000
			0.00	4.97	-6.40				
	1205	32709		6.93		06/05/12	INTEREST		INTEREST EARNED MAY 2012 7100.1000
			0.00	6.93	-13.33				
	1206	33106		7.04		07/03/12	INTEREST		INTEREST EARNED JUNE 2012 7100.1000
			0.00	7.04	-20.37				
	1207	33554		5.80		08/06/12	INTEREST		INTEREST EARNED JULY 2012 7100.1000
			0.00	5.80	-26.17				
	1208	33969		4.04		09/04/12	INTEREST		INTEREST EARNED AUGUST 2012 7100.1000
		34004		4.04		09/06/12	INTEREST		INTEREST EARNED AUGUST 2012 07 FUND
		34114	4.04			09/14/12	REVERSE		REVERSE TRX. 33969 - DUPLICATE ENTRY
			4.04	8.08	-30.21				
	1209	34398		2.36		10/02/12	INTEREST		INTEREST EARNED SEPTEMBER 2012 7100.1000
			0.00	2.36	-32.57				
	1210	34816		0.30		11/05/12	INTEREST		INTEREST EARNED OCTOBER 2012 07 FUND
			0.00	0.30	-32.87				
			4.04	36.91	-32.87				
07341-1020					0.00				
		INTEREST EARNED - RCSTP EXPANSION							
	1201	31222		0.40		02/07/12	INTEREST		INTEREST EARNED JAN. 2012 7105.1000

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1020	1201	JE	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
				0.00	8.25	-8.25				
1202			31656		0.30		03/14/12	INTEREST		INTEREST EARNED FEB. 2012 7105.1000
			31657		7.30		03/14/12	INTEREST		INTEREST EARNED FEB. 2012 7109.2000
				0.00	7.60	-15.85				
1203			31931		0.15		04/04/12	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				
1204			32294		0.14		05/02/12	INTEREST		INTEREST EARNED APRIL 2012 7105.1000
			32295		9.52		05/02/12	INTEREST		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	9.69	-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	9.67	-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 - CONSTRUCTION ACCTS.
			34115	0.15			09/14/12	REVERSE		REVERSE TRX.33970 DUPLICATE ENTRY
				0.15	2.91	-63.80				

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1020	1209	JE	34399		0.14		10/02/12	INTEREST		INTEREST EARNED SEPTEMBER 2012 7105.1000
			34400		3.08		10/02/12	INTEREST		INTEREST EARNED SEPTEMBER 2012 7109.2000
				0.00	3.22	-67.02				
1210			34817		3.03		11/05/12	INTEREST		INTEREST EARNED OCTOBER 2012 07 CONSTRUCTION FUND
				0.00	3.03	-70.05				
				0.15	70.20	-70.05				
07364-1110						0.00				
	1205	RE	32596		2,000.00		05/25/12	32596 1		TAP IN FEE FOR 1636 MANLEY RD
				0.00	2,000.00	-2,000.00				
	1206		32779		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				
				0.00	4,000.00	-4,000.00				
07364-1130						0.00				
	1202	CR	31243		423.00		02/08/12	197	6576	1 JACOBS, ROBERT & CHERYL
			31437		423.00		02/27/12	2103	6575	1 STOFFLET, MICHAEL
		JE	31244	141.12			02/08/12	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			31438	141.12			02/27/12	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				282.24	846.00	-563.76				
	1203	CR	31489		423.00		03/01/12	730	6574	1 GEORGE SMITH & CHRISTINA CONLE
		JE	31490	141.12			03/01/12	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				141.12	423.00	-845.64				
				423.36	1,269.00	-845.64				
07380-1000						0.00				
	1202		31244		141.12		02/08/12	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			31438		141.12		02/27/12	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				0.00	282.24	-282.24				
	1203		31490		141.12		03/01/12	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				0.00	141.12	-423.36				
				0.00	423.36	-423.36				
07392-0500						0.00				
						0.00				TRANSFER FROM SEWER OPERATING

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
	1202	JE 31428		15,000.00		02/24/12	XFER		XFER FROM 5100.1000 TO 7100.1000
			0.00	15,000.00	-15,000.00				
	1203	31612		15,700.00		03/13/12	XFER		XFER FROM 5100.1000 TO 7100.1000 TO COVER MA EXP.
			0.00	15,700.00	-30,700.00				
			0.00	30,700.00	-30,700.00				
07392-0900					0.00				TRANSFER FROM SEWER CAP RESERVE
	1204	32045		100,000.00		04/12/12	XFER		XFER \$ FROM SEWER CAP.RESERVE TO MUN.AUTHORITY GEN.ACCT.
			0.00	100,000.00	-100,000.00				
	1206	32839		100,000.00		06/15/12	XFER		XFER FUNDS TO MA FROM SEWER CAPITAL RES. 5/14/12
			0.00	100,000.00	-200,000.00				
	1207	33176		100,000.00		07/11/12	XFER		XFER \$ FROM SEWER CAPITAL RESERVE TO MA OPERATING
			0.00	100,000.00	-300,000.00				
	1208	33682		100,000.00		08/14/12	XFER		XFER \$ TO MA FROM SEWER CAP. RESERVE
			0.00	100,000.00	-400,000.00				
			0.00	400,000.00	-400,000.00				
07424-1400					0.00				ADMINISTRATIVE WAGES
	1203	CD 31601	8,391.94			03/13/12	2085	425	EAST GOSHEN TOWNSHIP 1ST QTR.2012 MUNICIPAL AUTHORITY EXPENSES
			8,391.94	0.00	8,391.94				
	1206	32849	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				
	1209	34047	8,391.94			09/10/12	2135	425	EAST GOSHEN TOWNSHIP 3RD QTR.2012 MUNICIPAL AUTHORITY EXPENSES
			8,391.94	0.00	25,175.82				
			25,175.82	0.00	25,175.82				

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-3000					0.00				
			MISCELLANEOUS EXPENSE						
	1201	30772	950.00			01/06/12	2081	2132	PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOC 2012 ACTIVE MEMBERSHIP DUES
			950.00	0.00	950.00				
			950.00	0.00	950.00				
07424-3110					0.00				
			MUNIC.AUTH.-AUDITING						
	1207	33171	7,900.00			07/11/12	2103	808	MAILLIE FALCONIERO & CO. EXAMINATION OF FINANCIAL STATEME DECEMBER 31, 2011
			7,900.00	0.00	7,900.00				
			7,900.00	0.00	7,900.00				
07424-3130					0.00				
			ENGINEERING SERVICES						
	1202	31393	220.00			02/22/12	2084	1052	PENNONI ASSOCIATES INC. SERV.THRU 1/15/12 2011 ANNUAL SE
			220.00	0.00	220.00				
	1203	31608	1,182.50			03/13/12	2086	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 2011 ANN SERVICES
			1,182.50	0.00	1,402.50				
	1204	32043	4,971.75			04/12/12	2088	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 2012 GEN.S
			4,971.75	0.00	6,374.25				
	1205	32450	14,501.00			05/15/12	2090	1052	PENNONI ASSOCIATES INC. SERVICE THRU 4/15/12 2011 CHAP.9
			14,501.00	0.00	20,875.25				
	1206	32809	289.75			06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/13/12 GENERAL SE
			289.75	0.00	21,165.00				
	1207	33171	1,142.00			07/11/12	2104	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 -GENERAL SE
			1,142.00	0.00	22,307.00				
	1208	33676	670.50			08/14/12	2131	1052	PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 -2012 GENE SERVICES
			670.50	0.00	22,977.50				
	1209	34048	448.50			09/11/12	2136	1052	PENNONI ASSOCIATES INC. SERVICES THRU 8/12/12 -2011 CHAP

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
				448.50	0.00	23,426.00				
1210		34509		2,278.25			10/11/12	2141		1052 PENNONI ASSOCIATES INC. SERV.RENDERED THRU 9/16/12- 2011 CHAPTER 94
				2,278.25	0.00	25,704.25				
				25,704.25	0.00	25,704.25				
07424-3140						0.00				
1202		31393		1,825.68			02/22/12	2083		528 GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 12/12/11 - GEN.AUTH.
				1,825.68	0.00	1,825.68				
1204		32043		1,083.00			04/12/12	2087		528 GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE 2/7-2/29/12 GEN.AU
				1,083.00	0.00	2,908.68				
1205		32450		703.00			05/15/12	2089		528 GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 3/12-3/21/12 GEN.AUT
				703.00	0.00	3,611.68				
1207		33171		684.00			07/11/12	2102		528 GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 5/14/12 - GENERAL AU
				684.00	0.00	4,295.68				
1208		33676		475.00			08/14/12	2130		528 GAWTHROP GREENWOOD & HALSTED LEGAL SERV. 7/9/12 - GEN.AUTHORI
				475.00	0.00	4,770.68				
1210		34509		1,273.00			10/11/12	2140		528 GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE 9/7-9/24/12 GEN.AU
				1,273.00	0.00	6,043.68				
				6,043.68	0.00	6,043.68				
07424-7453						0.00				
1206		32809		1,228.08			06/14/12	2091		2696 CLINGER CORP., WM. H. REPAIR TANK MIXER CONTROL CIRCUI FAULT
				1,228.08	0.00	1,228.08				
				1,228.08	0.00	1,228.08				
07424-7475						0.00				
1202		31393		2,600.00			02/22/12	2082		2911 EARTHCORE SERVICES LLC MOBILIZATION, ATV RIG, AUGER PRO LOCKWOOD ENGINEERING

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-7475	1202	CD	31393	4,315.00			02/22/12	2084	1052	PENNONI ASSOCIATES INC. SERV.THRU 1/15/12 LCSTP FINAL D
			***	6,915.00	0.00	***				
				6,915.00	0.00	6,915.00				
1203			31608	7,440.50			03/13/12	2086	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 LCSTP FI DESIGN
				7,440.50	0.00	14,355.50				
1204			32043	1,366.00			04/12/12	2088	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 LOCHWOOD
				1,366.00	0.00	15,721.50				
1205			32450	4,124.25			05/15/12	2090	1052	PENNONI ASSOCIATES INC. SERVICES THRU 4/15/12 LCSTP
				4,124.25	0.00	19,845.75				
1206			32809	7,527.25			06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/31/12 TO ACCOMADATE INCREASE IN FLOW TO P
				7,527.25	0.00	27,373.00				
1207			33171	7,009.25			07/11/12	2104	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - LOCHWOOD CHASE PHASE S
				7,009.25	0.00	34,382.25				
1208			33676	3,725.25			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				
1209			34048	3,985.80			09/11/12	2136	1052	PENNONI ASSOCIATES INC. SERVICES THRU 8/12/12 - HERSH.MI PUMP STATION MUFFIN MONSTER
				3,985.80	0.00	42,093.30				
1210			34509	1,499.00			10/11/12	2141	1052	PENNONI ASSOCIATES INC. SERV.RENDERED THRU 9/16/12 -HM P STATION
				1,499.00	0.00	43,592.30				
				43,592.30	0.00	43,592.30				
07424-7476			LOCHWOOD ABANDONMENT CONSTRUCTION			0.00				
1206			32809	105,473.97			06/14/12	2093	2947	SJM CONSTRUCTION CO. INC. APPLICATION 1 OF CONTRACT
				105,473.97	0.00	105,473.97				

East Goshen Township General Ledger

Report Date 11/06/12

GL Transaction Details

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MGRP18 run by BRIAN 12 : 45 PM

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			07/11/12	2105	2947	SJM CONSTRUCTION CO. INC. APPLICATION #2 - LOCHWOOD CONTRA
		***	45,912.98	0.00	***				
		33173	3,954.36			07/11/12	2106	425	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		RECLASS CR.#'S 2101 & 2106 TO LOCHWOOD ELIMINATION PHASE 2
				3,954.36		08/13/12	RECLASS		RECLASS CR.#'S 2101 & 2106 TO LOCHWOOD ELIMINATION PHASE 2
		***	0.00	7,780.40	***				
			65,542.34	7,780.40	163,235.91				
1209	CD	34048	13,632.57			09/11/12	2137	2947	SJM CONSTRUCTION CO. INC. APPLICATION #3 - LOCHWOOD CHASE
		34234	413.00			09/24/12	2139	1876	RANSOME RENTAL COMPANY LP EQUIP.RENTAL 9/5-9/7/12 STANDARD TRACK
			14,045.57	0.00	177,281.48				
			185,061.88	7,780.40	177,281.48				
07424-7477		LOCHWOOD ELIMINATION PHASE 2			0.00				
	1206	33040	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 LOCHWOOD ELIMINATION

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-7477	1207	CD	33209	123.87			07/13/12	2107	2936	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
				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	***				

MGRP18 run by BRIAN

12 : 45 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-7477	1208	CD 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 8/12/12
		33827	381.82			08/22/12	2132	598	HANSON AGGREGATES PENNSYLVANIA LLC 34.87 TONS STONE
			123.50			08/22/12	2133	765	LENNI ELECTRIC CORPORATION DISCONNECT FRO STATION SHUTDOWN
		***	505.32	0.00	***				
		33946	1,148.00			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				
1209		34095	100.00			09/13/12	2138	739	KNOX EQUIPMENT COMPANY STRAW MULCHER RENTAL 9/6/12
			100.00	0.00	104,504.99				
			104,504.99	0.00	104,504.99				
07425-1000		MARYDELL PUMP STATION - ENGINEER			0.00				
1203		31608	810.00			03/13/12	2086	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 MARYDELL
			810.00	0.00	810.00				
1204		32043	1,422.00			04/12/12	2088	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 MARYDELL P
			1,422.00	0.00	2,232.00				
1206		32809	320.50			06/14/12	2092	1052	PENNONI ASSOCIATES INC. SERVICES THRU 5/13/12 MARYDELL
			320.50	0.00	2,552.50				
1207		33171	707.25			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				
1209		34048	6,890.75			09/11/12	2136	1052	PENNONI ASSOCIATES INC. SERVICES THRU 8/12/12 - MARYDELL
			6,890.75	0.00	14,226.75				
1210		34509	1,164.75			10/11/12	2141	1052	PENNONI ASSOCIATES INC. SERV.RENDERED THRU 9/16/12 MARYD PUMP STATION

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07425-1000	1210	CD	34540	100.00			10/15/12	2142	2960	COMMONWEALTH OF PENNSYLVANIA PERMIT FEE
				1,264.75	0.00	15,491.50				
				15,491.50	0.00	15,491.50				
07426-1000						0.00				
	1203		31608	2,336.75			03/13/12	2086	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 HERSHEY
				2,336.75	0.00	2,336.75				
	1205		32450	2,917.50			05/15/12	2090	1052	PENNONI ASSOCIATES INC. SERVICE THRU 4/15/12 HERSHEY MIL
				2,917.50	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	263	CHESTER COUNTY CONSERVATION DISTRICT PERMIT FEE HM PS PROJECT
				748.50	0.00	6,002.75				
	1207		33171	4,112.75			07/11/12	2104	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - HERSHEY M
				4,112.75	0.00	10,115.50				
	1208		33676	2,924.25			08/14/12	2131	1052	PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 - H.MILL
				2,924.25	0.00	13,039.75				
	1210		34509	3,385.25			10/11/12	2141	1052	PENNONI ASSOCIATES INC. SERV.RENDERED THRU 9/16/12 HER.M
				3,385.25	0.00	16,425.00				
				16,425.00	0.00	16,425.00				
07427-1000						0.00				
	1203		31608	605.00			03/13/12	2086	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/11/12 RESERVE
				605.00	0.00	605.00				
	1204		32043	472.50			04/12/12	2088	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/18/12 RESERVE PU
				472.50	0.00	1,077.50				
	1205		32450	2,917.50			05/15/12	2090	1052	PENNONI ASSOCIATES INC. SERVICE THRU 4/15/12 RESERVE PS
				2,917.50	0.00	3,995.00				

MGRP18 run by BRIAN 12 : 45 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07427-1000	1206	CD 33047	250.00			06/29/12	2098	263	CHESTER COUNTY CONSERVATION DISTRICT PERMIT FEE RESERVE PS PROJECT
			250.00	0.00	4,245.00				
1207		33171	1,062.50			07/11/12	2104	1052	PENNONI ASSOCIATES INC. SERVICE THRU 6/17/12 - RESERVE P STATION
			1,062.50	0.00	5,307.50				
1208		33676	2,924.25			08/14/12	2131	1052	PENNONI ASSOCIATES INC. SERVICES THRU 7/15/12 - RESERVE
			2,924.25	0.00	8,231.75				
1209		34048	358.25			09/11/12	2136	1052	PENNONI ASSOCIATES INC. SERVICES THRU 8/12/12 - HERS.MIL RESERVE PUMP PS
			358.25	0.00	8,590.00				
1210		34509	3,385.25			10/11/12	2141	1052	PENNONI ASSOCIATES INC. SERV.RENDERED THRU 9/16/12 RESER
		34706	1,000.00			10/26/12	2143	1496	WILLIAM WOOD CO. REAL ESTATE APPRAISAL - PART OF PARCEL #53-2-20.39
			4,385.25	0.00	12,975.25				
			12,975.25	0.00	12,975.25				
07428-1000		RESERVOIR PUMP STATION - ENGINEER			0.00				
1209		34048	358.25			09/11/12	2136	1052	PENNONI ASSOCIATES INC. SERVICES THRU 8/12/12 - HERS.MIL RESERVE PUMP PS
			358.25	0.00	358.25				
			358.25	0.00	358.25				
Beg Bal		0.00	445,838.55	444,279.87	1,558.68				

NOVEMBER 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 - Joe
 - e. February 2013
2. Attend West Goshen Meetings quarterly – more often if needed.
 - a. 1st Quarter (March) – Jack - **Completed**
 - b. 2nd Quarter (June) – Joe – Not completed
 - c. 3rd Quarter (September) – **Dana Completed- Went to August Mtg**
 - d. 4th 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 - Completed**

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. All permits received. Waiting on easement from shopping center**
 - 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. Working on easements**
 - b. Bid
 - c. Pipe Installation
5. Reserve Pump Station - In Progress
 - a. Design/Permit **working on easements**
 - b. Bid
 - c. Pipe Installation
 - d. Abandon Pump Station

Memo

To: Municipal Authority
From: Jon Altshul
Re: 2013 MA Budget
Date: November 8, 2012

Attached please find a proposed 2013 line-item budget for the Municipal Authority.

In short, the budget reflects the following expenses and revenues:

- \$128,000 in tapping fee revenue from 64 planned units in the Goshen Meadows development
- Transfers of \$121,917 and \$556,769 from the sewer operating and capital reserve funds, respectively, reflecting proposed operating and capital expenditures
- \$100,000 for a 2,500 foot slip line in Grand Oak
- \$55,769 in additional costs for the Lochwood elimination project, which includes \$30,769 for the Muffin Monster.
- \$195,000 for Marydell Pumping Station Engineering and Construction
- \$71,000 for Hershey's Mill Pumping Station Engineering and Construction
- \$118,000 for the Reserve Pumping Station Engineering and Construction
- \$5,583 for three months of interest payments on new \$992,470 bonds to reimburse the Sewer Capital Fund for the cost of the four MA projects. The amount presumes the bonds will be issued in September 2013 for 10 years and at a 3% interest rate. The schedule below lays out an estimated amortization schedule.

Debt Service Schedule--10 year note @ 3%, issued in September 2013			
Year	Principal	Interest	Total Debt Service
2013	\$0	\$5,583	\$5,583
2014	\$89,608	\$21,827	\$111,434
2015	\$91,624	\$19,799	\$111,423
2016	\$93,686	\$17,726	\$111,411
2017	\$95,793	\$15,606	\$111,400
2018	\$97,949	\$13,439	\$111,387
2019	\$100,153	\$11,222	\$111,375
2020	\$102,406	\$8,956	\$111,362
2021	\$104,710	\$6,639	\$111,349
2022	\$107,066	\$4,270	\$111,336
2023	\$109,475	\$1,847	\$111,323
Totals	\$992,470	\$126,914	\$1,119,384

- Offsetting revenues and expenditures of \$992,470 reflecting the proceeds of the bonds and the resulting transfer to the Sewer Capital Reserve

I would recommend that the Municipal Authority approve the budget as proposed.

Account Title	Acct #	2012 Budget	2012 Year-End Projection (Oct)	2013 Proposed
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2013 PROPOSED MUNICIPAL AUTHORITY BUDGET

Starting Fund Balance	38,610	1,408
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Revenue

INTEREST EARNINGS	07341 1000	-	50
INTEREST EARNED - RCSTP EXPANSION	07341 1020	-	50
C.C. TAPPING FEES	07364 1100	2,000	128,000
R.C.TAPPING FEES	07364 1110	2,000	2,000
CONNECTION FEES - SEWER	07364 1130	-	
MISCELLANEOUS REVENUE	07380 1000	1,000	1,000
TRANSFER FROM SEWER OPERATING	07392 0500	125,000	121,917
GRANT REVENUE	07392 0800	-	
LOAN PROCEEDS-SEWER PROJECT	07392 0804	-	992,470
TRANSFER FROM SEWER CAP RESERVE	07392 0900	828,000	556,769

Total Revenue	958,000	1,802,256
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Expenses

ADMINISTRATIVE WAGES	07424 1400	37,669	33,547
MISCELLANEOUS EXPENSE	07424 3000	4,162	5,000
MUNIC.AUTH.-AUDITING	07424 3110	8,843	9,064
ENGINEERING SERVICES	07424 3130	37,066	35,000
LEGAL SERVICES	07424 3140	12,485	7,000
MANHOLE COVER REPLACEMENT	TBD		17,000
C.C. CAPITAL- COLLECTION	07424 7420	-	100,000
CAPITAL PROJ.-ENGINEERING	07424 7431	-	-
R.C. CAPITAL-STP	07424 7440	-	-
R.C. CAPITAL - COLLECTION	07424 7450	-	-
R.C.-CAP. PROJ.-ENGINEER	07424 7451	-	-
R.C. CAP EXPANSION GEN'L CONTRACTOR	07424 7452	-	-
R.C. CAP EXPANSION - ELECTRICAL	07424 7453	-	-
R.C. CAP EXP CONTINGENCY CAPITAL	07424 7454	-	-
R.C. CAP EXP CONTINGENCY ONGOING	07424 7455	-	-
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	37,553	-
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	411,000	55,769
LOCHWOOD ELIMINATION PHASE 2	07424 7477	-	-
MARYDELL PUMP STATION - ENGINEER	07425 1000	51,764	25,000
MARYDELL PUMP STATION -CONSTRUCTION	07425 2000	170,000	170,000
HERSHEY MILL STATION - ENGINEER	07426 1000	29,069	25,000
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	46,000	46,000
RESERVE PUMP STATION - ENGINEER	07427 1000	29,069	25,000
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	93,000	93,000
RESERVOIR PUMP STATION - ENGINEER	07428 1000	-	
M.C.-DVRFA-DEBT SERVICE	07471 1000	19,600	20,720

Account Title	Acct #	2012 Budget	2012 Year-End Projection (Oct)	2013 Proposed
DVRFA PUMPING STATIONS-PRINCIPAL	07471 2000			-
M.C.-DVRFA-INTEREST PAYMN	07472 1000	6,981		6,003
DVRFA PUMPING STATIONS-INTEREST	07472 2000			5,583
TRANSFER TO GENERAL FUND	07492 0100	-		
TRF TO SEWER CAPITAL RESERVE FUND	07492 0550	-		992,470
Expenses		994,261		1,671,156
Net result from Operations		(36,261)		131,100
Ending Fund Balance		1,408		132,508



MAILLIE, FALCONIERO & COMPANY, LLP

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November 5, 2012

D. Scott Detar
John J. Crenny, Jr.
James M. Powers
Glenn B. Bachman
Raymond T. Mock
Robert L. Caruso
Edward J. Furman
Robert L. Boland
Robert M. Manero
Donald J. Pierce
Richard A. Flanagan IV
Craig S. Springer
Robert C. Hershey, Jr.
Gregory J. Shank

To the Members of the Board
c/o Mr. Louis F. Smith, Jr., Township Manager
East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380-6107

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MAILLIE, FALCONIERO & COMPANY, LLP
CERTIFIED PUBLIC ACCOUNTANTS

We are pleased to confirm our understanding of the services we are to provide for the East Goshen Municipal Authority for the year ended December 31, 2012. We will audit the basic financial statements of the East Goshen Municipal Authority as of December 31, 2012, and for the year then ended.

Accounting principles generally accepted in the United States of America require that certain required supplementary information (RSI) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist primarily of inquiries of management regarding their methods of measurement and presentation and comparing the information for consistency with management's responses to our inquiries. We will not express an opinion or provide any form of assurance on the RSI. The following RSI is required by accounting principles generally accepted in the United States of America. This RSI will be subjected to certain limited procedures but will not be audited:

- Management's Discussion and Analysis

Objective

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America and will include tests of the accounting records of the East Goshen Municipal Authority and other procedures we consider necessary to enable us to express an unqualified opinion that the basic financial statements are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America. If our opinion is other than unqualified, we will fully discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit, we will not issue a report as a result of this engagement.



To the Members of the Board
c/o Mr. Louis F. Smith, Jr.
Township Manager
East Goshen Municipal Authority

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November 5, 2012

Audit Procedures

Our procedures will include tests of documentary evidence that support the transactions recorded in the accounts, tests of the physical existence of inventories and direct confirmation of cash, investments and certain other assets and liabilities by correspondence with customers, creditors and financial institutions. Also, we will request written representations from your attorneys as part of the engagement, and they may bill you for responding to that inquiry. At the conclusion of our audit, we will also request certain written representations from you about the financial statements and related matters.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. Our audit is designed to provide reasonable, but not absolute, assurance about whether the financial statements are free of material misstatement, whether due to error, fraudulent financial reporting, misappropriation of assets, or violations of laws, governmental regulations, grant agreements, or contractual agreements. Because of this concept of reasonable assurance and because we will not examine all transactions, there is a risk that material misstatements may exist and not be detected by us. Also, an audit is not designed to detect error or fraud that is immaterial to the financial statements. The entity's management is responsible for establishing and maintaining a sound system of internal control, which is the best means of preventing or detecting errors, fraudulent financial reporting, misappropriation of assets, or violations of laws, governmental regulations, grant agreements, or contractual agreements. Our responsibility as auditors is limited to the period covered by our audit and does not extend to matters that might arise during any later periods for which we are not engaged as auditors.

An audit includes obtaining an understanding of the entity and its environment, including its internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing and extent of further audit procedures. An audit is not designed to provide assurance on internal control or to identify material weaknesses or significant deficiencies. However, we will communicate to you and those charged with governance any material weaknesses or significant deficiencies that come to our attention.

Management Responsibilities

We understand that you are responsible for the financial statements and for making all financial records and related information required for our audit available to us on a timely basis and that you are responsible for the accuracy and completeness of that information. This management responsibility includes (a) establishing and maintaining adequate records and related internal control policies and procedures, (b) selecting and applying accounting principles, (c) safeguarding assets and (d) identifying and ensuring that the entity complies with laws, regulations, grants and contracts applicable to its activities.



To the Members of the Board
c/o Mr. Louis F. Smith, Jr.
Township Manager
East Goshen Municipal Authority

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November 5, 2012

We may advise you about appropriate accounting principles and their application and may assist in the preparation of your financial statements, but the responsibility for the financial statements remains with you. Management is also responsible for adjusting the financial statements to correct material misstatements and for affirming to us in the management representation letter that the effects of any uncorrected misstatements, resulting from errors or fraud, aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You agree that management is responsible for (a) the design and implementation of programs and controls to prevent and detect fraud, (b) informing us about any fraud or suspected fraud affecting the entity involving management, employees who have significant roles in internal control, or others where the fraud could have a material effect on the financial statements and (c) informing us about any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, analysts, regulators, short sellers, or others. You agree that you will confirm your understanding of your responsibilities, as defined in this letter, to us in your management representation letter.

Other

We understand that your employees will prepare all confirmations we request and will locate any documents or invoices selected by us for testing.

If you intend to publish or otherwise reproduce the financial statements and make reference to our firm, you agree to provide us with printers' proofs or masters for our review and approval before printing. You also agree to provide us with a copy of the final reproduced material for our approval before it is distributed.

During the course of the engagement, we may communicate with you or your personnel via fax or e-mail, and you should be aware that communication in those mediums contains a risk of misdirected or intercepted communications.

During the course of our professional practice, with the prior written consent of our clients, we provide our clients' confidential accounting and/or financial data, without the clients being specifically identified, to a third party, Sageworks, Inc., for statistical and/or industry research and/or benchmarking purposes only. In the course of this engagement, or thereafter, as long as you are a client of Maillie, Falconiero & Company, LLP, we may wish to provide your confidential data to that third party in such a format. You will not be identified in any way. By your signature on this letter, you expressly authorize us to make such disclosure of your confidential accounting and/or financial data, as we may elect within our discretion, with the understanding that, in doing so, you will not be specifically identified.



To the Members of the Board
c/o Mr. Louis F. Smith, Jr.
Township Manager
East Goshen Municipal Authority

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November 5, 2012

James E. Yiaski, CPA, is the engagement partner for the audit services specified in this letter. His responsibilities include supervising Maillie, Falconiero & Company, LLP's services performed as part of this engagement and signing or authorizing another qualified firm representative to sign the audit report.

As part of our engagement, we will also prepare DCED-CLGS-04, *Annual Report of Municipal Authorities*, required by the Pennsylvania Department of Community and Economic Development.

Our fees are based on the amount of time required at various levels of responsibility, plus actual out-of-pocket expenses. Invoices will be rendered as work progresses and are payable upon presentation. We estimate that our fee for the audit will be \$8,100. We will notify you immediately of any circumstances we encounter that could significantly affect this initial fee estimate. Whenever possible, we will attempt to use the East Goshen Municipal Authority's personnel to assist in the preparation of schedules and analyses of accounts. This effort could substantially reduce our time requirements and facilitate the timely conclusion of the audit. In accordance with our firm policies, work may be suspended if your account becomes 30 days or more overdue and will not be resumed until your account is paid in full. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed upon written notification of termination, even if we have not completed our report. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination.

Further, we will be available during the year to consult with you on financial management and accounting matters of a routine nature.

With respect to any nonattest services we perform, the East Goshen Municipal Authority's management is responsible for (a) making all management decisions and performing all management functions; (b) assigning a competent individual to oversee the services; (c) evaluating the adequacy of the services performed; (d) evaluating and accepting responsibility for the results of the services performed; and (e) establishing and maintaining internal controls, including monitoring ongoing activities.

During the course of the audit, we may observe opportunities for economy in, or improved controls over, your operations. We will bring such matters to the attention of the appropriate level of management, either orally or in writing.

It is our policy to keep records related to this engagement for seven years. However, Maillie, Falconiero & Company, LLP does not keep any original client records, so we will return those to you at the completion of the services rendered under this engagement. When records are returned to you, it is your responsibility to retain and protect your records for possible future use, including potential examination by government or regulatory agencies.



To the Members of the Board
c/o Mr. Louis F. Smith, Jr.
Township Manager
East Goshen Municipal Authority

- 5 -

November 5, 2012

By your signature below, you acknowledge and agree that upon the expiration of the seven-year period, Maillie, Falconiero & Company, LLP shall be free to destroy its records related to this engagement.

At the conclusion of our audit engagement, we will communicate to those charged with governance the following significant findings from the audit:

- Our view about the qualitative aspects of the entity's significant accounting practices;
- Significant difficulties, if any, encountered during the audit;
- Uncorrected misstatements, other than those we believe are trivial, if any;
- Disagreements with management, if any;
- Other findings or issues, if any, arising from the audit that are, in our professional judgment, significant and relevant to those charged with governance regarding their oversight of the financial reporting process;
- Material, corrected misstatements that were brought to the attention of management as a result of our audit procedures;
- Representations we requested from management;
- Management's consultations with other accountants, if any; and
- Significant issues, if any, arising from the audit that were discussed, or the subject of correspondence, with management.

The audit documentation for this engagement is the property of Maillie, Falconiero & Company, LLP and constitutes confidential information. However, we may be requested to make certain audit documentation available to various regulators pursuant to authority given to it by law or regulation, or to peer reviewers. If requested, access to such audit documentation will be provided under the supervision of Maillie, Falconiero & Company, LLP's personnel. Furthermore, upon request, we may provide copies of selected audit documentation to various regulators. The various regulators may intend, or decide, to distribute the copies of information contained therein to others, including other governmental agencies.



MAILLIE, FALCONIERO & COMPANY, LLP

Certified Public Accountants and Business Counselors

To the Members of the Board
c/o Mr. Louis F. Smith, Jr.
Township Manager
East Goshen Municipal Authority

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November 5, 2012

If the foregoing is in accordance with your understanding, please indicate your agreement by signing the duplicate copy of this letter and returning it to us. If you have any questions, please let us know.

We appreciate the opportunity to be your financial statement auditors and look forward to working with you and your staff.

Very truly yours,

MAILLIE, FALCONIERO & COMPANY, LLP

James E. Yiaski, CPA

RESPONSE:

This letter correctly sets forth our understanding.

EAST GOSHEN MUNICIPAL AUTHORITY

Approved by: _____

Title: _____

Date: _____



PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

November 8, 2012

EGMA 1200

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

Re: General Engineering Services for Year 2012
Contract Supplement
East Goshen Township Municipal Authority
Chester County, Pennsylvania

Dear Rick:

Pennoni Associates Inc. was approved in early 2012 for a budget of \$10,000 for Annual Services. This project budget typically covers the cost of the monthly Authority Engineer's report, attendance at Municipal Authority meetings, and occasional general engineering review for capacity requests and miscellaneous tasks.

In October, the Township requested our involvement in troubleshooting and analyzing operational issues with the Ridley Creek Sewage Treatment Plant (RCSTP). This task involved our attendance several meetings at the plant and with the Township, the generation of reports, and coordination with the plant operator. This work was not accounted for in the project budget, and we are continuing with this requested support.

As of November 4, we have nearly expended the project budget, and we request a contract supplement to cover anticipated work for the remainder of the year. In order to cover remaining Authority meetings, monthly reports, and additional operations support including attendance at the November Municipal Authority meeting by Pennoni's plant design engineer, we request a contract supplement of \$5,000, bringing the budget to \$15,000. All work will be performed on a time and materials basis at the approved 2012 rate schedule and the budget will not be exceeded without your permission.

Sincerely,

PENNONI ASSOCIATES INC.

Daniel P. Barbato, P.E.
Authority Engineer

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

November 9, 2012

To: Municipal Authority
From: Mark Miller
Re: October 2012 Monthly Report

Meters: Have been read on a daily basis with no problems to report.

C.C. Collection: During the height of the hurricane, number #2 pump went out at the Hershey Mill Pump Station. Crews replaced the pump as soon as we realized the pump could not be put back on line. The wet well was one foot from the top; if we did not replace the pump, sewage would have overflowed. Lenni Electric sent out an electrician to assist the crew. Once the pump was up and running it took approximately 3 hours to catch up with the flow. The station that overflowed during the storm was the Ashbridge Pumping Station. DEP was notified of the overflow. Routine maintenance was performed during the month at each station. We received a dozen requests for laterals during the month.

R.C. Collection: We had no problems to report for the month. The Hunt Country pump stations control center is in need to be replaced. In order to reduce costs we will be taking the controls from the Reserve pump station and install them at the station. We are checking to see if we can use the pumps as well.

R.C. Plant: The new flow meter has been installed. Lenni has ordered the electrical cutoffs for the wet well. In order to reduce costs the repair work will be done at night. We also will be installing an 8" spool and valve so bypass pumping can be done in the event of a pump failure. We did experience power outage at the plant which lasted 4 days due to the hurricane.

Lockwood Plant: We are still waiting on PECO to shut down the power.

Alarms: We responded to multiple 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 112 PA One calls for the month of October.

Total Rainfall at the plant 5.97" during Hurricane Sandy 24 hour influent flow 10/29-10/30 was 1.113MGD



MEMORANDUM

TO: East Goshen Municipal Authority Board
Rick Smith, Township Manager

FROM: Daniel Barbato, P.E.
Authority Engineer

DATE: November 8, 2012

SUBJECT: Engineer's Report

Invoices

- Invoices with summaries are provided under separate cover.

Ridley Creek Sewage Treatment Plant (RCSTP)

- Pennoni is working closely with the Plant Operator to prepare a report on issues with phosphorous in the RCSTP plant effluent. The report is provided under separate cover.
- Pennoni assisted with the RCSTP open house and attended the event.

MS4 Submission

- DEP requested accurate mapping showing streams and outfalls.
- We obtained GIS map layers from Chester County and created a new working map showing roads, streams, and parcels.
- We will respond to DEP comments by the end of November.

Hershey's Mill PS Diversion and Reserve PS Elimination

- We finalized and submitted the Hershey's Mill PS Water Quality Management Permit Amendment application to DEP on October 23, 2012.
- We finalized and submitted the Reserve PS Closure Plan to DEP on October 17, 2012.
- We met with the Army Corps of Engineers (ACOE) at the Reserve PS Diversion site on October 18, 2012 for a bog turtle habitat screening. ACOE determined the site is not considered a bog turtle habitat, and they issued a clearance letter. DEP subsequently issued the GP-5 "Utility Line Stream Crossing" permit for the project; however, the permit does not allow any construction between March 1 and June 15 because the Ridley Creek tributary is a protected water use for trout stocking. Since we are planning for construction to fall within this timeframe, we will coordinate with PA Fish and Boat Commission to obtain a waiver from this requirement.
- We performed a field stake-out of the proposed Reserve PS sewer alignment for the adjacent homeowner to visualize the sewer locations on his property. Due to concerns

EGMA 1200

from the homeowner, we revised the plans to re-align a portion of the gravity sewer. We also observed exploratory excavations by the Public Works Dept around the existing pump station building to identify the exact location of the existing force main and its impact on our revised sewer alignment.

- The Reserve PS easement documents will be revised once the re-aligned sewer locations have been agreed upon with the homeowner.

Marydell PS Elimination

- DEP approved the Pump Station Closure Plan on October 2, 2012.
- Once the easement from the shopping center is obtained, all third party approvals and permits will be in place, and the project can be put out to bid.

Hershey's Mill Muffin Monster

- We received shop drawings from the Muffin Monster supplier, which we are currently reviewing.



Monthly Operations Report: October 2012

Treatment Process Operation

During September, there was one (1) exceedances of the final effluent discharge limitations for outfall 001 and one for outfall 002. The total phosphorus concentration for both outfalls 001 and 002 was reported as 1.81 mg/L as compared to the discharge limitation of 0.5 mg/L.

Sequencing batch reactors (SBRs) numbered 1, 3 and 4 were in service during the month of September. SBR No. 2 remains out of service. During the first week of September, there was considerable rainfall that resulted in an increase in the influent hydraulic loadings rates. Twenty-four hour composite flows for Sunday, September 2nd and Saturday September 3rd were recorded as 621,280 gallons and 675,728 gallons, respectively. These flows were nearly double of the monthly average of 340,586 gallons recorded during the month of August. Several filled settle and filled decant events occurred because of the excessive instantaneous flow rates.

The main contributing factor for the elevated total phosphorus concentration was the result of insufficient aluminum sulfate solution. Aluminum sulfate solution dosages to the flocculation tank mixer were inconsistent and ceased with the failure of the Neptune diaphragm chemical feed pump. Upon determination of the failed pump, addition aluminum sulfate solution to the SBRs commenced. Shortly thereafter, operation of the automatic valves for the chemical feed system to the SBRs were found to be not be functioning as designed. Gary Roberts from ICI, Siemens Jet Tech SBR process logic controller, was contact to resolve the issue. Table 1 illustrates the downward trend of the final effluent total phosphorus concentration until the chemical feed pump failed, resulting in elevated concentrations. Addition of aluminum sulfate solution to the SBRs during week 3 indicates improvement in lowering the total phosphorus concentration, which continues through mid October.

Table 1	
Final Effluent: Outfall 001	
Sample Date	Total Phosphorus, mg/L
August 16, 2012	2.20
August 23, 2012	1.30
August 30, 2012	0.92
September 6, 2012	0.72
September 13, 2012	2.5



September 20, 2012	2.2
September 27, 2012	1.8
October 4, 2012	0.61
October 11, 2012	0.29
October 18, 2012	0.54

As requested by the Authority during the October East Goshen Township Municipal Authority Board meeting, representatives from Pennoni Associates, east Goshen Township and Big Fish met to review current treatment plant operations, prepare an interim report for achieving total phosphorus removal and update the current standard operating procedures and sample analysis protocol. The report and information will be provided to the Authority Board members in preparation of the November 12, 2012 meeting for discussion.

On Saturday, October 20, 2012, an open house was held at RCSTP for the Township residents.

Daily monitoring of the influent, post equalization (SBR effluent) and final effluent grab samples for pH, alkalinity and total phosphorus is ongoing. When in use, sludge-holding tank decant and centrate grab samples are collected and analyzed for total phosphorus. This data assist in determining influent loadings and removal efficiencies for adjusting aluminum sulfate dosages.

During October, the Neptune diaphragm pump used to add aluminum sulfate to the floc tank mixer was rebuilt, tested and determined to be oversized for the current final effluent flow rates.

The Township Staff installed the influent flow meter upstream of the Screening Building. Recording of the flow velocity, rate, level and total volume was initiated in October 28th. This flow data can be used for the PA DEP Chapter 94 reporting as well as assist with measuring and trending the volume of internal recycle wastewater. Presented below is a summary of the flow data for October 2012:

Flow data:

October 2012		
Flow Meter Location	Total Volume for Month, MGD	Average Daily Flow, gpd
Influent Wastewater to Screening Building	na	Na
Influent Wastewater to SBRs	10.895	351,457
Treated Effluent to Disc Filters	10.912	351,991



Final Effluent Discharge	7.526	242,774
Applebrook Golf Course	0	0

Applebrook pump is off line

On October 29, 2012, Hurricane Sandy arrived in the area. Approximately 5.97 inches of rainfall was measured at the facility during a 24-hour period. Excessive volumes of water were measured at the influent wastewater SBR meter. The 24-hour flow volumes from October 28th through Oct 31st are listed below:

October 28, 2012: 298,464 gallons
 October 29, 2012: 1,423,760 gallons
 October 30, 2012: 497,408 gallons
 October 31, 2012: 376,932 gallons

Because of instantaneous excessive flow volumes, filled settle events were incurred which contributed to periods of solids carryover through the treatment processes. All SBR basins were on service. Twenty four hour compliance samples were collected on October 31st and November 1st. SBR 2 was removed from service early November 2nd.

Chemical Usage:

October 2012		
Chemical	Daily Average	Total Monthly
Soda Ash	155 lbs./day	4,650 pounds
Magnesium Hydroxide	10 gpd	300 gallons
Alum	66.8 gpd	2,070 gallons
Polymer (centrifuge)	4.5*	32 gallons

**Seven (7) days of centrifuge operation*

Solids Dewatering and Disposal: October 2012

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

October Sludge Dewatering Summary	
Gallons of sludge dewatered	119,428 gallons
Average Dewatered Total Solids, %	17.5
Wet Tons	20.19
Dry Tons	3.533
Number of dumpsters	2



During the month, sludge wasting and decanting of the sludge holding tanks was ongoing. No supernatant was decanted from the sludge holding tanks... pH and alkalinity were monitored five times per week and total solids once per week.

Sludge holding tank No. 1 was off line and empty during the month.

Sludge holding tank No. 2 began the month as 1.04% total solids and ended the month at 0.94% total solids. Tank level at the beginning of the month was 12.07 ft and at the end of the month was 15.08 ft.

Minor Repairs and Preventative Maintenance

- Utility water was connected to the SBR chemical piping to provide for the ability to routinely flush the lines and reduce build up in the piping.
- PVC water line to the fine screen was repaired.
- Technicians Flygt Corporation was on site to provide preventative maintenance for the influent pumps.
- SBR 1 waste pump was found to be off the guide rails. Pump was lifted and resealed into position.

Warranty

Listed below are the remaining warranty issues for RCSTP and status:

1. Alfa Laval spare parts:

Resolved: Parts received

2. Siemens MCC Analog Hour Meters

The analog hour meters for SBR 2 blower, SBR 3 motive pump (recent), and SBR 4 motive pump have failed.

Action Required: Worth and Company are scheduling the replacement of the defective hour meters (updated 10/1/2012).



3. Alfa Laval MCC Hour Meter

The analog hour meter for Alfa Laval centrifuge hour meter has failed.

Action Required: Worth and Company are scheduling the replacement of the defective hour meters (updated 10/1/2012).

4. Influent Composite Sampler Pump

Resolved: Pump ordered 11/8/2012

5. SBR Alum valves

Resolved: valves are functioning as intended

6. SBR 4 Blower operation during Aeratd Fill

Resolved: valves functioning as intended

7. Floc tank Mixer Hour Meter on ACS Panel

Resolved:

FINAL REPORT

Ridley Creek Sewage Treatment Plant Monthly Operations Report

Influent Wastewater

Design Basis	Flow MGD Average	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
Sample Date											
September 6, 2012	0.3460	323	932	293	845	36.2	104	51.1	147	6.8	20
September 13, 2012	0.3211	855	2,290	193	517	57.3	153	80.7	216	29.2	78
September 20, 2012	0.3636	745	2,259	626	1,899	58.7	178	82.7	251	24.5	74
September 27, 2012	0.3116	258	670	428	1,112	36.3	94	53.6	139	11	29
Average	0.3356	545	1538	385	1093	47	133	67	188	18	50
Minimum	0.3116	258	670	193	517	36	94	51	139	7	20
Maximum	0.3636	855	2290	626	1899	59	178	83	251	29	78

Final Effluent - Out Fall 001

NPDES Permit Discharge Limitations	Flow MGD Average 0.75 Instantaneous Maximum	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total, mg/L		Fecal Coliform	
		mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	Geo Mean	Geo Mean
Sample Date											
September 6, 2012	0.139	2.0	2.3	6	7	0.10	0.12	0.72	0.83	1	0.0000
September 13, 2012	0.131	2.0	2.2	5	5	0.10	0.11	2.50	2.73	1	0.0000
September 20, 2012	0.138	2.0	2.3	7	8	0.25	0.28	2.20	2.53	1	0.0000
September 27, 2012	0.285	2.0	4.8	5	12	0.10	0.24	1.80	4.28	1	0.0000
Average	0.1733	2.0	3	6	8	0.136	0.19	1.81	2.59	1	0.0000
Minimum	0.1310	2.0	2	5	5	0.100	0.11	0.72	0.83	1	0.0000
Maximum	0.2850	2.0	5	7	12	0.245	0.28	2.50	4.28	1	0.0000

DRAFT REPORT

Ridley Creek Sewage Treatment Plant Monthly Operations Report

Influent Wastewater

Design Basis	Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
MGD Average		335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
October 4, 2012	0.3271	341	930	82	224	39.7	108	41.9	114	6.8	19
October 11, 2012	0.2836	1140	2,696	900	2,129	62.7	148				
October 18, 2012	0.2848	516	1,226	306	727	31.8	76	68.4	162		
October 25, 2012	0.2748		64	147							
October 31, 2012	0.3769										
Average	0.3094	666	1617	338	806	45	111	55	138	7	19
Minimum	0.2748	341	930	64	147	32	76	42	114	7	19
Maximum	0.3769	1140	2696	900	2129	63	148	68	162	7	19

Final Effluent - Out Fall 001

NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total, mg/L		Fecal Coliform	
		mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	Geo Mean	Geo Mean
MGD Average		20	125	21	131	7	44	0.5	3	200	1,000
Instantaneous Maximum											
Sample Date											
October 4, 2012	0.211	2.0	3.5	11	19	0.23	0.41	0.61	1.07	1	0.0000
October 11, 2012	0.206	2.0	3.4	5	9	0.10	0.17	0.29	0.50	1	0.0000
October 18, 2012	0.187	2.0	3.1	5	8	0.10	0.16	0.54	0.84	1	0.0000
October 25, 2012	0.202									1	0.0000
October 31, 2012	0.3080										
Average	0.2228	2.0	3	7	12	0.144	0.24	0.48	0.80	1	0.0000
Minimum	0.1870	2.0	3	5	8	0.100	0.16	0.29	0.50	1	0.0000
Maximum	0.3080	2.0	4	11	19	0.231	0.41	0.61	1.07	1	0.0000

2008 FLOWMETERS

2012 OCTOBER 4TH QUARTER- METERS FROM WEST GOSHEN - CC COLLECTION

Precip	DATE	WESTTOWN WAY			ELLIS LANE			PAOLI PIKE			WILSON DRIVE			SUMMIT			NET FLOWS	DATE
		READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING		
	10/01/12	5,350		26,270.310	142,265	13,091,765	63,515	14,994,588	71,995	20,400	87,815,569	10/01/12						
0.00	10/02/12	6,423	77,537.794	26,280.665	103,550	13,095,896	41,310	15,001,419	68,310	20,400	859,830	10/02/12						
0.50	10/03/12	7,593	1,170,000	26,294.115	134,500	13,101,029	51,330	15,009,874	84,550	20,400	899,620	10/03/12						
0.50	10/04/12	8,726	1,133,000	26,306.519	124,040	13,105,561	45,320	15,019,400	95,260	20,400	868,380	10/04/12						
0.00	10/05/12	9,812	1,086,000	26,319.145	126,260	13,109,846	42,850	15,027,363	79,630	20,400	837,260	10/05/12						
0.27	10/07/12									20,400	0	10/06/12						
0.00	10/08/12	12,973	1,076,000	26,352.880	117,530	13,123,226	44,394	15,043,225	66,702	20,400	847,374	10/08/12						
0.12	10/09/12	14,068	1,066,400	26,362.087	111,096	13,128,225	45,328	15,050,152	61,504	20,400	850,472	10/09/12						
0.00	10/10/12	15,135	1,067,000	26,370.973	103,656	13,134,225	48,758	15,057,908	61,090	20,400	853,496	10/10/12						
0.00	10/11/12	16,204	1,069,000	26,379.812	88,390	13,140,223	59,980	15,065,614	77,060	20,400	843,570	10/11/12						
0.00	10/12/12	17,287	1,083,000	26,388.299	84,870	13,146,280	60,570	15,072,828	72,140	20,400	865,420	10/12/12						
0.00	10/13/12									20,400	0	10/13/12						
0.00	10/14/12	20,447	1,053,333	26,414.498	87,297	13,163,805	58,417	15,087,490	48,873	20,400	858,747	10/14/12						
0.00	10/15/12	21,699	1,252,000	26,426.267	117,790	13,170,409	66,040	15,095,445	79,550	20,400	988,620	10/15/12						
0.00	10/16/12	22,826	1,127,000	26,435.383	91,160	13,176,506	60,970	15,103,277	78,320	20,400	896,550	10/16/12						
0.22	10/18/12	23,909	1,083,000	26,444.903	95,200	13,182,477	59,710	15,110,282	70,050	20,400	858,040	10/18/12						
0.58	10/19/12	25,041	1,132,000	26,455.064	101,610	13,188,549	60,720	15,118,878	85,960	20,400	883,710	10/19/12						
0.00	10/20/12									20,400	0	10/20/12						
0.00	10/21/12	28,505	1,154,667	26,488.665	112,003	13,207,619	63,567	15,136,917	60,130	20,400	918,967	10/21/12						
0.00	10/23/12	29,607	1,102,000	26,498.253	95,880	13,213,657	60,380	15,143,781	68,640	20,400	877,100	10/23/12						
0.00	10/24/12	30,692	1,085,000	26,507.919	96,660	13,219,500	58,430	15,150,447	66,660	20,400	863,250	10/24/12						
0.00	10/25/12	31,764	1,072,000	26,517.271	93,520	13,225,106	56,060	15,157,589	71,420	20,400	851,000	10/25/12						
0.00	10/26/12	32,890	1,126,000	26,526.947	96,760	13,229,312	42,060	15,165,253	76,640	20,400	910,540	10/26/12						
0.82	10/27/12	33,937	1,047,000	26,536.043	90,960	13,233,476	41,640	15,172,205	69,520	20,400	844,880	10/27/12						
2.00	10/28/12	34,977	1,040,000	26,545.614	97,710	13,237,764	42,880	15,176,103	38,980	20,400	862,430	10/28/12						
2.00	10/29/12	36,156	1,179,000	26,556.860	112,460	13,242,498	47,340	15,181,218	51,150	20,400	968,050	10/29/12						
0.80	10/30/12	39,052	2,896,000	26,583.219	263,590	13,254,880	123,820	15,190,443	92,250	20,400	2,416,340	10/30/12						
0.00	10/31/12	41,098	2,046,000	26,608.393	251,740	13,263,796	89,160	15,196,862	64,190	20,400	1,640,910	10/31/12						
10.06			-1,858,361		113,019		55,175		67,714		-2,094,270							
					EG TWP													
	MONTH TO DATE																	
	NORMAL MONTH TO DATE				10.06													
	YEAR TO DATE																	
	NORMAL YEAR TO DATE				44.98													

2008 FLOWMETERS

2012 OCTOBER 4TH QUARTER- METERS FROM WEST GOSHEN - CC COLLECTION

HERSHEY'S MILL		ASHBRIDGE		HICKS METER		RESERVOIR		SHERMAN		BARKWAY	
READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD
24,370,696	82,103	1,512,377	62,440	685,044	1,197,060	760,378	753,340	896,592	6,124	2,546,079	9,860
				844,680	843,020	926,821	821,410				
				1,005,760	789,390						
24,401,444	51,247	1,513,673	21,600	1,222,127	721,223	1,299,280	771,530	897,868	2,127	2,547,980	3,188
24,417,790	163,460	1,516,890	321,700	1,374,853	755,730	1,452,091	772,380	901,435	35,670	2,552,988	50,080
24,430,875	43,617	1,518,109	40,633	1,527,878	757,870			902,850	4,717	2,554,898	6,367
				1,740,774	709,653	1,826,483	857,090				
				1,905,628	791,430	1,981,576	759,500	907,936	7,266	2,561,946	10,089
24,476,632	65,367	1,522,747	66,257	2,063,529	819,530						
				2,303,412	799,610	2,382,246	788,340				
				2,458,909	766,630						
24,525,490	69,797	1,527,074	61,814	2,533,174	742,650	2,533,174	742,650	912,876	7,057	2,569,306	10,514
24,532,126	66,360	1,527,700	62,600	2,610,388	772,140	2,683,771	733,830	914,309	6,830	2,570,246	9,400
24,538,329	62,030	1,528,267	56,700	2,753,829	700,580	2,832,916	790,870	915,046	7,370	2,571,140	8,940
24,545,435	71,060	1,528,925	65,800	2,972,126	302,300	3,108,591	1,364,650	915,797	7,510	2,573,462	11,370
24,553,499	80,640	1,529,634	70,900	3,108,591	1,364,650			916,888	10,910	2,575,358	19,060
24,567,757	142,560	1,532,657	302,300					917,663	7,750	2,577,073	17,150
24,580,928	131,710	1,533,813	115,600								
	85,831		104,029		0		806,598		9,236		13,977

2012 SUMMARY OF METER READINGS

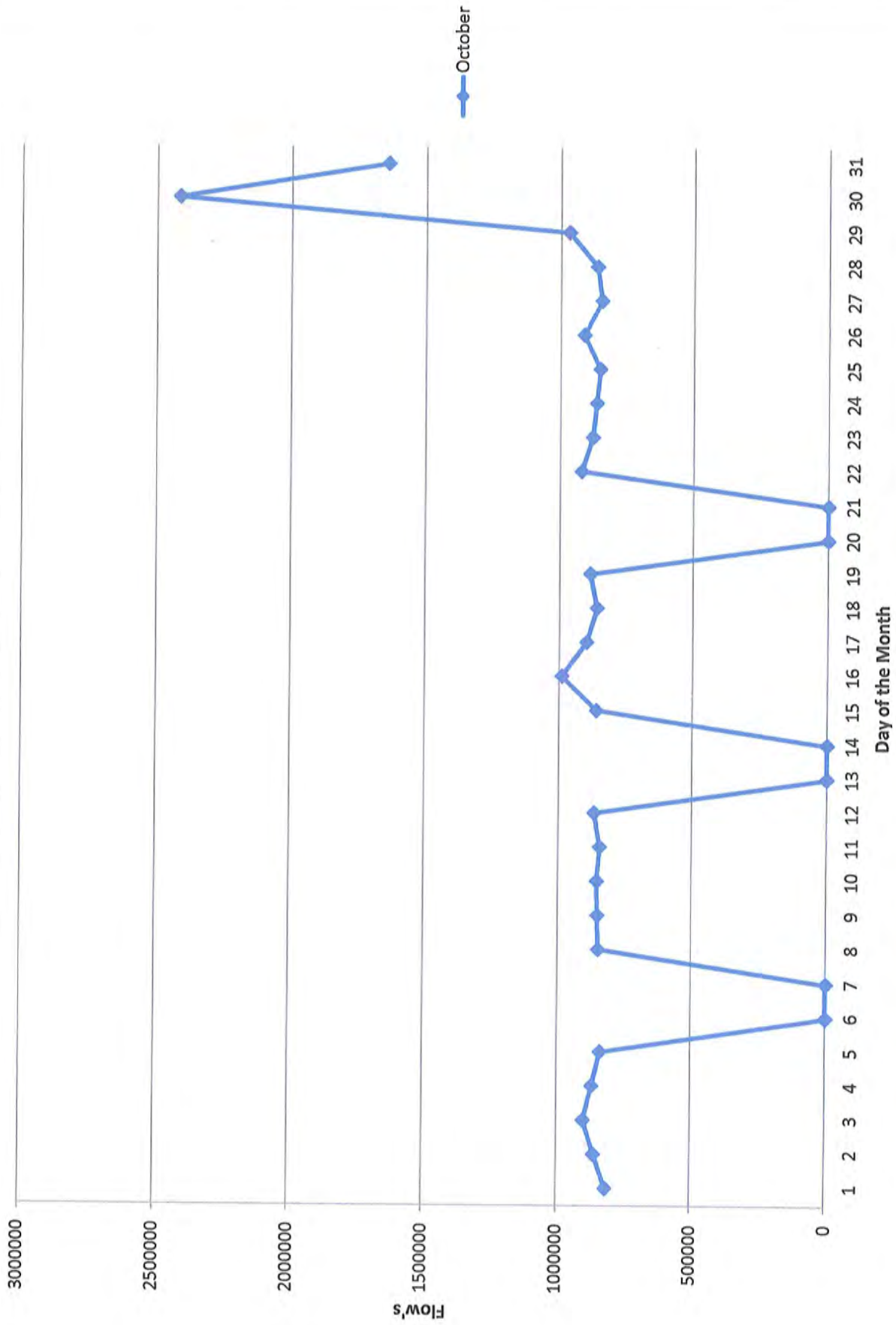
	WESTTOWN WAY	ELLIS LANE	PAOLI PIKE	WILSON DRIVE	SUMMIT	HERSHEY MILL	ASHBRIDGE	HICKS	RESERVOIR	SHERMAN	BARKWAY
JANUARY	1,296,433	152,585	69,729	69,440	20,400	73,086	90,225	67,846	909,322	6,922	12,327
FEBRUARY	1,172,663	140,579	61,074	65,911	20,400	63,555	73,939	295,466	1,019,637	6,561	11,350
MARCH	1,157,405	222,657	61,103	71,039	20,400	60,276	70,943	300,484	0	6,707	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	60,690	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	58,577	0	909,131	6,450	9,654
SEPTEMBER	0	117,229	51,630	78,510	20,400	66,058	60,098	0	760,473	6,647	9,596
OCTOBER	1,858,361	113,019	55,175	67,714	20,400	85,831	104,029	0	806,598	9,236	13,977
NOVEMBER											
DECEMBER											
Total Flows											
Monthly Ave	1,064,345	141,927	58,878	74,296	20,400	65,743	70,225	250,676	763,265	6,712	10,672

To
West Goshen 789,245

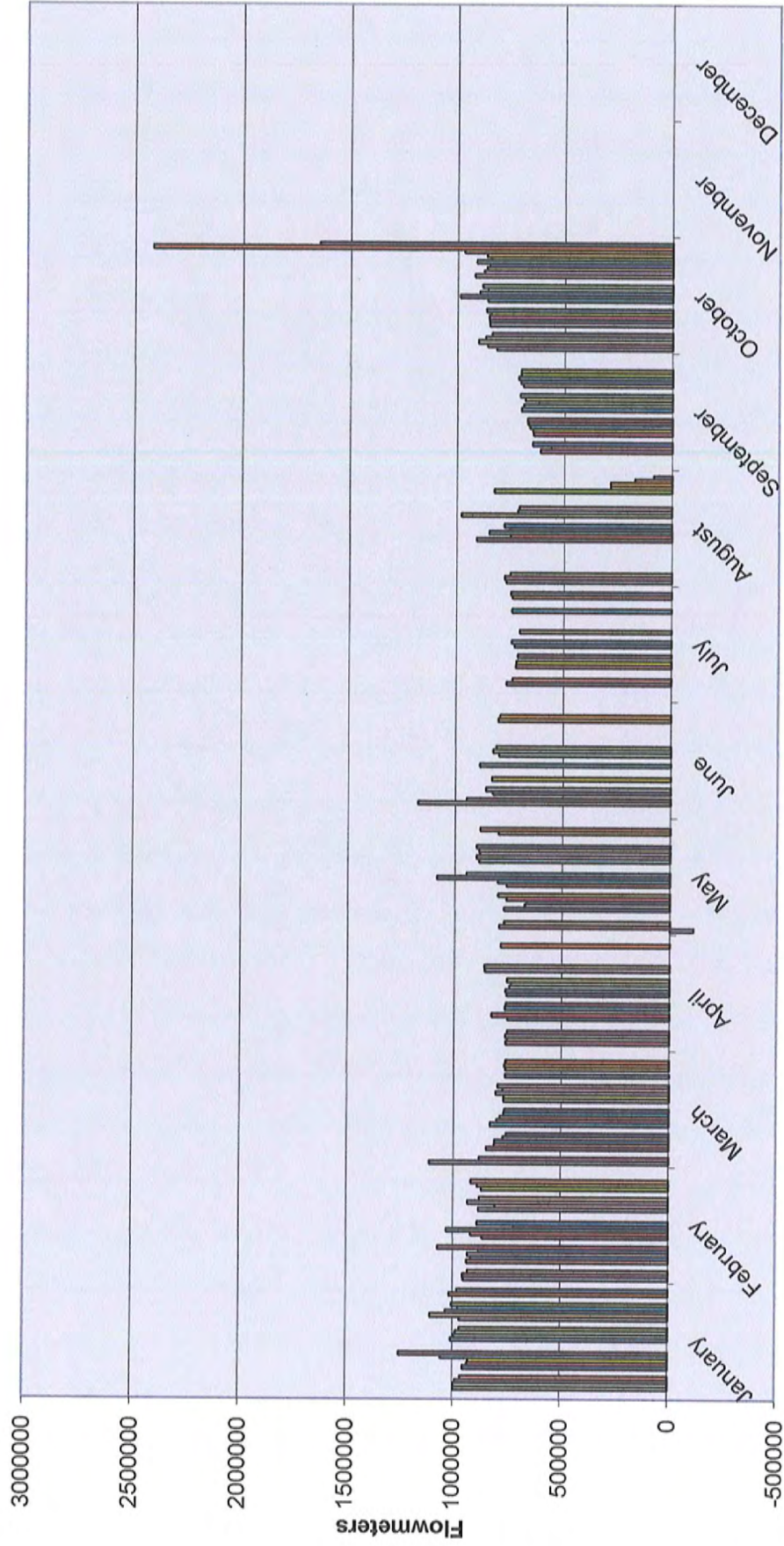
2012 SUMMARY OF METER READINGS

	WESTTOWN WAY	ELLIS LANE	PAOLI PIKE	WILSON DRIVE	SUMMIT
JANUARY	1,296,433	152,585	69,729	69,440	20,400
FEBRUARY	1,172,663	140,579	61,074	65,911	20,400
MARCH	1,157,405	222,657	61,103	71,039	20,400
APRIL	1,069,776	186,208	53,353	57,578	20,400
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AUGUST	835,178	91,496	51,644	79,506	20,400
SEPTEMBER	0	117,229	51,630	78,510	20,400
OCTOBER	1,858,361	113,019	55,175	67,714	20,400
NOVEMBER					
DECEMBER					
Total Flows					
Monthly Ave	1,065,406	141,927	58,878	74,296	20,400

Flowmeters October 2012



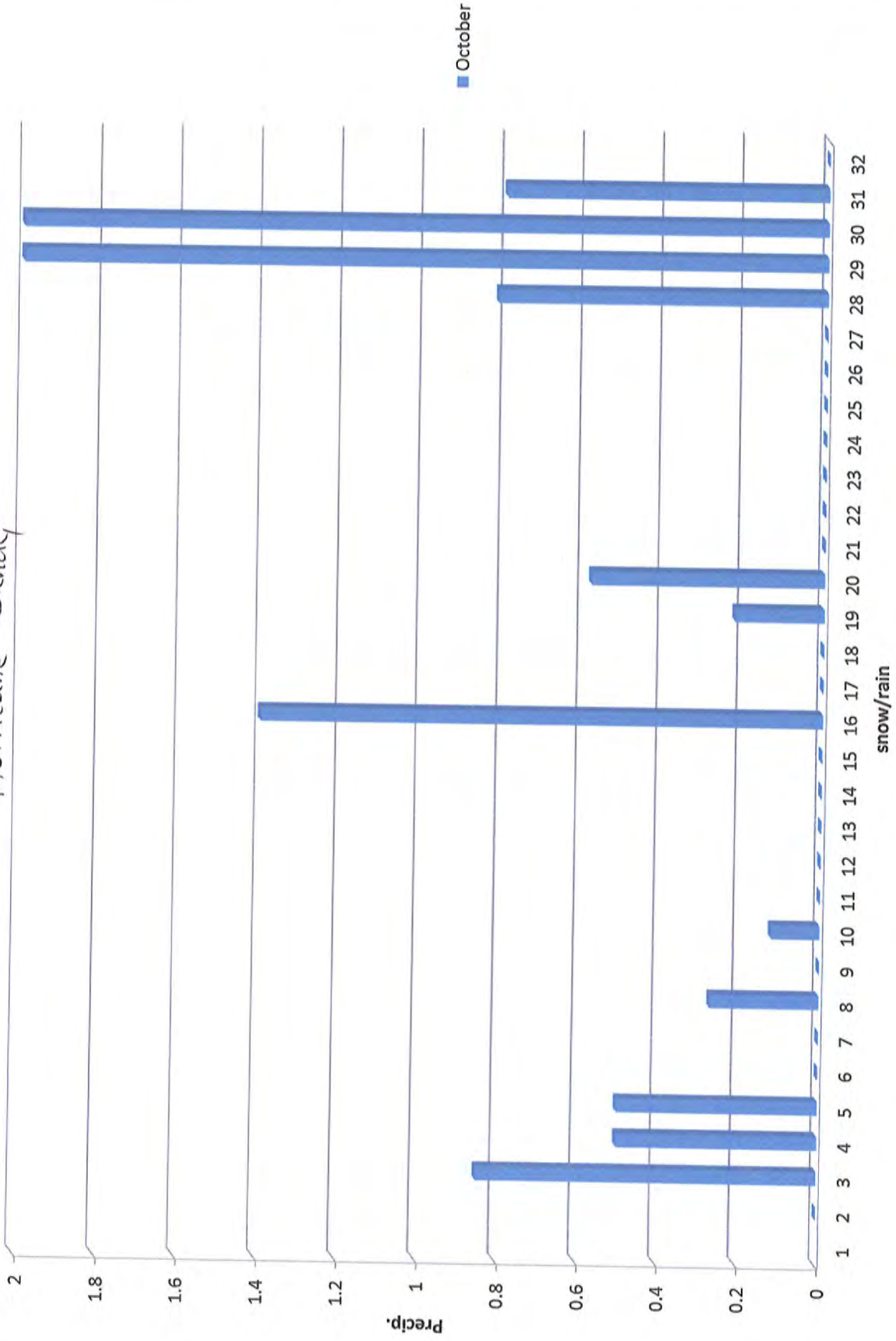
Monthly Totals 2012 Jan-Dec



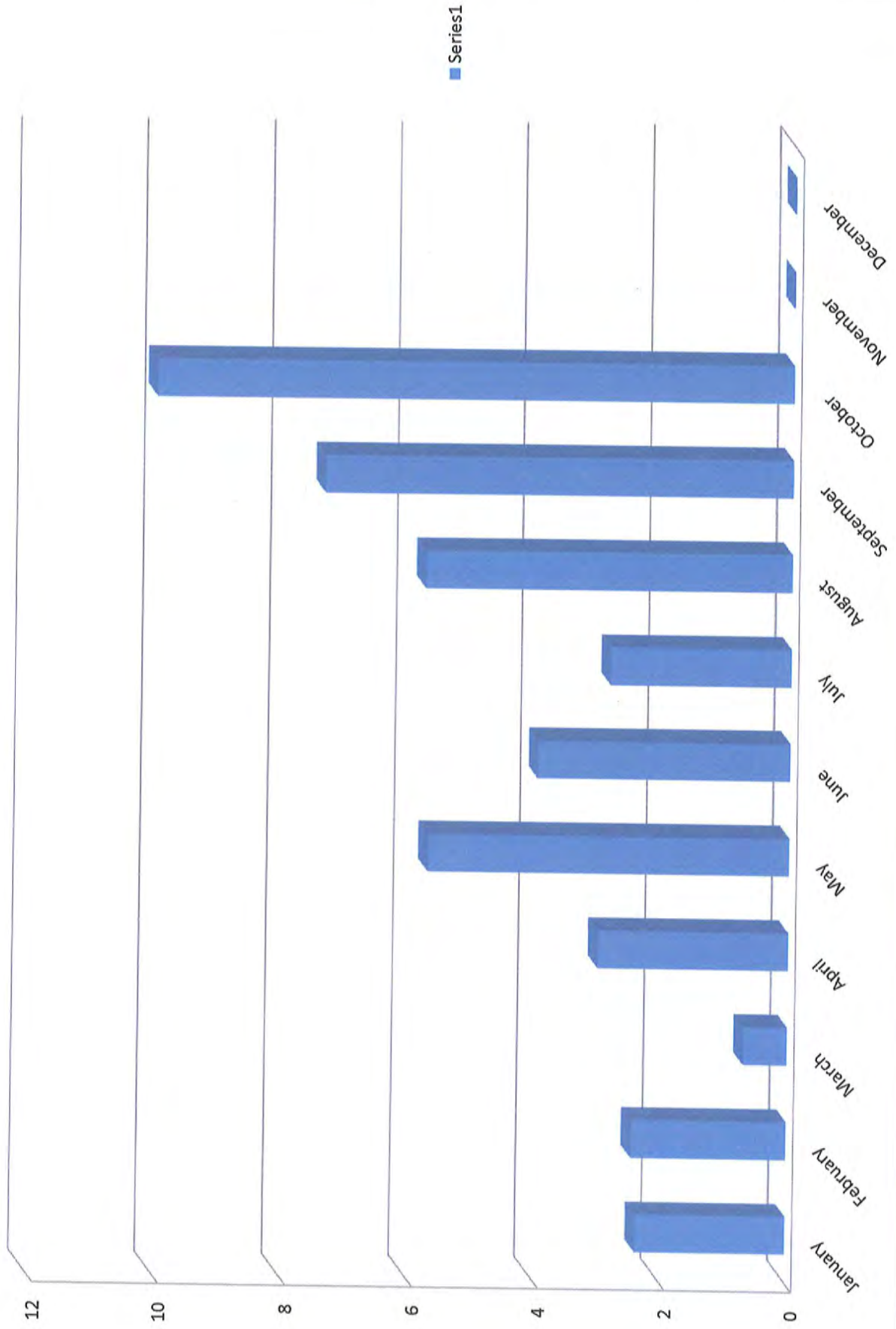
Month

October Precip. 10.06 - 2012

Hurricane Sandy



2012 Monthly Precipitation





pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHEAST REGIONAL OFFICE

FYI

October 26, 2012

Mr. Dennis O'Neill, P.E.
Herbert E. MacCombie, Jr. & Associates
P.O. Box 118
Broomall, PA 19008

Re: Application for Exemption
Goshen Meadows Apartments Project
DEP Code 1-15919-229-E
East Goshen Township
Chester County

RECEIVED
BY: _____
NOV 2 2012

Dear Mr. O'Neill:

On October 16, 2012, we received your request for an exemption from planning requirements under the Pennsylvania Sewage Facilities Act concerning the above-referenced project. The request meets the requirements of Section 7(b)(5) of the Act.

An exemption from Sewage Facilities Planning is hereby granted by the Department of Environmental Protection (Department) for the development of 64 apartment units on 5.12 acres. This project is located on West Chester Pike at Mary Fran Drive in East Goshen Township, Chester County.

The project will be connected to the East Goshen Township Municipal Authority collection system and will generate 12,800 gallons of sewage per day to be treated at the West Goshen Township Sewer Authority Wastewater Treatment Facility.

This exemption only applies to planning requirements under the Sewage Facilities Act and the Clean Streams Law. Other Department permits may be required prior to any construction, which will encroach on streams or wetlands.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The

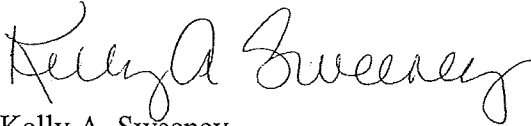
appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

If you have any questions, please call me at 484.250.5182.

Sincerely,



Kelly A. Sweeney
Sewage Planning Specialist 2
Clean Water

cc: Chester County Health Department
Chester County Planning Commission
Mr. Smith, Jr. - East Goshen Township
West Goshen Township Sewer Authority
East Goshen Township Municipal Authority
Mr. Fagan
Planning Section
Re 30 (ekh12clw)300-3



Gawthrop Greenwood, PC
Attorneys at Law

17 East Gay Street, Suite 100, P.O. Box 562 p. 610.696.8225
West Chester, PA 19381- 0562 www.gawthrop.com

FYI

Robert F. Adams
610.696.8225 x 125
610.344.0922 fax
rfadams@gawthrop.com

October 9, 2012

Louis F. Smith, Jr., Manager
East Goshen Township
1580 Paoli Pike
West Chester, PA 19380-6199

Re: **2013 Fees for Legal Services**

Dear Rick:

Effective in January 2013, Gawthrop Greenwood plans to adjust the lawyer hourly rate for our work in East Goshen Township. We have been charging the Municipal Authority at the rate of \$190 per hour since January 2009. We have held that rate for four years in recognition of financial stress that has been experienced by all municipalities over the last few years. The new lawyer rate will be \$200 per hour.

Our hourly rates for municipal clients have been substantially below our rates for non-municipal clients, and they will continue to be. We will, of course, continue to draw on our experience and skills to keep your legal services bill as low as possible, consistent with proper representation of the Municipal Authority. We look forward to having the continuing opportunity to be of service to East Goshen Township Municipal Authority.

Very truly yours,

Robert F. Adams

RFA/cb

RECEIVED
BY: _____
OCT 10 2012

BOARD OF SUPERVISORS
EAST GOSHEN TOWNSHIP
CHESTER COUNTY
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

FYI

October 24, 2012

Dear Property Owner:

The purpose of this letter is to inform you that Hankin Family Limited Partnership has submitted a Land Development application for the New Kent Apartment Community, located on Boot Road in West Chester, PA 19380. The applicant proposes to construct an additional apartment building containing 12 units, pursuant to §240-29 and §205 of the Township Code.

Pursuant to Township policy, property owners and residents within 1000 feet of the subject property are notified of Land Development Applications.

The meeting dates and times scheduled for the review and discussion of this application are outlined below, and are subject to change.

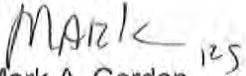
November 7, 2012 - Planning Commission meeting (workshop at 7:00 pm, formal meeting @ 7:30 pm) **(Presentation of Application)**

December 5, 2012 - Planning Commission meeting (workshop at 7:00 pm, formal meeting @ 7:30 pm)

December 18, 2012 - Board of Supervisors meeting (7:00 pm)

All meetings are held at the Township Building and are open to the public. The application and plans are available for review during normal business hours. Please give me a call at 610-692-7171 or email me at mgordon@eastgoshen.org if you have any questions or need additional information.

Sincerely,


Mark A. Gordon
Township Zoning Officer

Cc: All Township Authorities, Boards and Commissions