

EAST GOSHEN MUNICIPAL AUTHORITY

May 14, 2012

Monday 6:00 PM

The Meeting will start at 6:00 at the Ridley Creek Plant

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE
 - a. Ask if anyone will be taping the meeting?
2. CHAIRMAN'S REPORT/OTHER MEMBERS REPORTS
3. APPROVAL OF MINUTES
 - a. April 9, 2012
4. APPROVAL OF INVOICES

a. Pennoni #504741	\$	1,089.00
b. Pennoni #504742	\$	5,835.00
c. Pennoni #504744	\$	10,348.75
d. Pennoni #504746	\$	3,035.25
e. Gawthrop Greenwood #98012	\$	152.00
f. Gawthrop Greenwood #98989	\$	703.00
5. LIAISON REPORTS
6. FINANCIAL REPORTS
 - a. Memo from Jon Altshul
 - b. RCSTP Budget
7. OLD BUSINESS
 - a. Clinger invoice response
8. GOALS
 - a. April Goals
9. NEW BUSINESS
10. CAPACITY REQUESTS - none
11. SEWER REPORTS
 - a. Director of Public Works Report
 - b. Pennoni Report – Inspection Report
 - c. Pennoni Engineer's Report
 - d. Big Fish Environmental Inc Report with DMR's
 - e. East Goshen Township Flows for April 2012
12. ANY OTHER MATTER
13. CORRESPONDENCE AND REPORTS OF INTEREST
14. PUBLIC COMMENT
15. ADJOURNMENT

Meetings & Dates of Importance

May 3, 2012	Farmers Market	3-7 PM
May 9, 2012	Conservancy Board	7:00 PM
May 10, 2012	Historical Commission	7:00 PM
May 14, 2012	Municipal Auth. At the Plant	6:00PM
May 15, 2012	BOS	7:00 PM
May 21, 2012	Commerce Dev. Comm.	7:00 PM
May 23, 2012	Friends of EGT	7:00 PM
May 23, 2012	Zoning Hearing Board	7:30 PM
May 28, 2012	Offices Closed (Memorial Day)	
June 2, 2012	Historical Comm. Civil War Event	

Reminder – NEWSLETTER ARTICLE SUBMISSION DUE DATES:

Article Due Date

Website Posting Date

July 1, 2012 - Summer

1 draft
2 EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
3 MEETING MINUTES
4 April 9, 2012
5

6 The East Goshen Township Municipal Authority held their regularly scheduled meeting on
7 Monday, April 9, 2012 at 7:00pm at the East Goshen Township building. Members in
8 attendance were: Chairman Dana Pizarro, Joe McCawley, Jack Yahraes, and Fran Beck. Also in
9 attendance were: Rick Smith (Township Manager), Bob Adams, and Scott Towler.
10

11 **Call to Order & Pledge of Allegiance**

12 Dana called the meeting to order at 7:00pm and led those present in the Pledge of Allegiance.
13 There was a moment of silence to remember the troops. Dana asked if anyone would be
14 recording the meeting and there was no response.
15

16 **Chairman's Report/Other Members' Reports**

17 Jack attended the West Goshen Municipal Authority meeting and provided copies of the minutes.
18

19 **Approval of Minutes**

20 The Chairman noted that the minutes of the March 12, 2012 meeting were approved.
21

22 **Approval of Invoices**

23 Joe moved to approve payment of the following invoices:

- | | | | |
|----|----|------------------|------------|
| 24 | a. | Pennoni #501139, | \$1,366.00 |
| 25 | b. | Pennoni #501140, | \$ 472.50 |
| 26 | c. | Pennoni #501141, | \$1,422.00 |
| 27 | d. | Pennoni #501142 | \$1,210.00 |
| 28 | e. | Pennoni #501143 | \$ 442.75 |
| 29 | f. | Pennoni #501144 | \$3,319.00 |
| 30 | g. | Gawthrop #97574 | \$1,083.00 |
- 31

32 Fran seconded the motion. There was no further discussion. The motion passed unanimously.
33

34 **Liaison Reports – None**

35
36 **Financial Reports –** The financial reports were reviewed. Fran voiced his concern about the
37 current format of the report and his hope that the new CFO will provide monthly reports every
38 month. He received a questionnaire from the auditors and hesitant to respond. Fran feels he
39 does not have enough knowledge of the Authority's finances to answer. Rick explained how the
40 accounting system works (cash vs accrual). Dana asked Rick to invite the new CFO to the next
41 meeting.
42

43 **Old Business - None**

44
45 **Goals**

- 46 1. Newsletter – Jack will prepare the article for the summer newsletter.

- 1 2. Joe will attend the June 6th West Goshen meeting and Dana will attend the
2 September meeting.
3

4 **New Business**

5 None
6

7 **Capacity Requests**

8 None.
9

10 **Sewer Reports**

- 11 a. Mark Miller, Director of Public Works Report:

12 During the month of March, they were busy with lateral repairs and working with
13 Scott Towler performing maintenance at the plant. Scott has done an excellent job
14 turning the plant around.

15 They met with Dan Ellis to discuss the final Chapter 94 report. They decided to
16 continue with the metering of the sewer system. They are going to begin monitoring
17 the Chester Creek system. During the meeting they discussed metering at the plant as
18 they currently have a portable meter out in the wet lands. The reason for this meter is
19 to get actual plant flow since the current meter is on the pump discharge side of the
20 plant. Currently they are reading the backwash from the filters and centraite from the
21 centrifuge.

22 Mark recommends purchasing a permanent meter. He asked Allied Control to take a
23 look at the manhole where we would like to install the meter and submit a quote.

24 Aqua Waste Water had to be utilized to clean SBR#1 as there was over a foot of grit
25 throughout the tank. Worth has been notified of some problems with the decanter in
26 the SBR, plus they need to install some additional brackets on the pump glide system.

27 Meters – Were read on a daily basis, no problems to report. In the next two weeks
28 they will be relocating the portable meters.

29 C.C. Collection – They had to excavate two sewer laterals due to root penetration.
30 Once the laterals were excavated, a new trap and cleanout were installed. The
31 pumping stations were visited on a daily basis where routine maintenance was
32 performed.

33 R.C. Collection – The Hunt Country pumping station was visited on a routine basis
34 for basic maintenance. They are going to continue to use augmentation to break
35 down the grease.

36 Alarms – They received 18 alarms for the month; several were due to a tree that came
37 down on Morstein Road causing a power outage at the Barkway Pumping Station.

38 PA One Call – There were 35 PA One calls for the month of March.

39 The Public Works Department was notified of 7 sewer lateral blockages for the
40 month of March, all were cleared with the exception of the two that had to be dug.
41

- 42 b. **Pennoni** inspection report was reviewed. This report of the Ridley Creek Sewage
43 Treatment Plant was done in order to document existing conditions under Miller
44 Environmental's operation of the plant.

- 45 c. Dan Barbato provided the following report:

46 Invoices - with summaries were provided under separate cover.

1 Ridley Creek Sewage Treatment Plant –

- 2 • Pennoni design engineer Tim Daily met with Scott Towler at the plant on March 23
3 to review current operations and clarify the intent of the design. Dan Barbato has
4 been in contact with Scott Towler for coordination. The new NPDES permit went
5 into effect on March 1. Phosphorous effluent limits are currently being met without
6 the use of alum, and nitrogen effluents limits are being met. The centrifuge was
7 under near-continuous operation and the solids inventory being reduced to acceptable
8 levels and age. The interior of the SBR Unit #1 will be inspected by Matt McAloon
9 on Aril 6, pending confirmation of available access by the operator. The plant is
10 currently operating as intended by the design. Will inspect the plant again when the
11 plant returns to a “normal” condition and make a comparison of current conditions to
12 the conditions encountered under the previous operator.

13 I/I Metering Project

- 14 • We analyzed flow data from the 11 permanent meters throughout the Chester Creek
15 Service Area for the entirety of 2011. Instantaneous and hourly flows are not recorded on
16 these meters, so we were only able to analyze the daily meter totalizer records. Only a
17 rough flow analysis was performed since inflow peaks and continuous base flows are
18 unknown. It appears the following two areas may have I/I problems based upon apparent
19 excessive daily flows per tributary land area: 1) the southwest corner of East Goshen
20 Township which is generally bounded by East Strasburg Road to the north, the reservoir
21 to the east, and township borders to the south and west; (2) an area bounded by Paoli Pike
22 to the north, North Chester Road to the east, East Strasburg Road to the south, and Ellis
23 Lane to the west. We recommend the Township install four temporary meters in strategic
24 locations within these subareas over the next six month to identify potential I/I sources.
25

26 Dana will email Dan with his questions about the flows and the meters.
27

28 Ridley Creek Consent Order

- 29 • The final report was submitted to DEP on March 29, 2012. Reports after this date
30 will continue to be prepared semi-annually but they will not be submitted to DEP
31 semi-annually. They will be used for internal Authority use and Chapter 94 Annual
32 Reporting only.
33

34 LCSTP Elimination

- 35 • A pre-construction meeting was held with the Township, Pennoni, the contractor,
36 SJM Construction Co, Inc, and the Chester County Conservation District (CCCD) on
37 March 28, 2012. The contractor tentatively intends to start construction in mid-April
38 and anticipates 30-60 days to complete the work. The required contract completion
39 date is July 2, 2012
- 40 • The contractor has provided construction submittals. We have reviewed the
41 submittals, and we provided comments to the contractor. The contractor has also
42 filled out the NPDES Co-Permittee Application and has forwarded it to the Township
43 for signature and eventual submission to the CCCD.
- 44 • We prepared a Construction Issue set of plans and specifications to incorporate the
45 various addenda into one set of plans and specifications. We also prepared a CAD

1 file and survey control data and coordinates, which we forwarded to the contractor for
2 his use in construction stakeout.

3 Hershey Mill PS Diversion, Reserve PS Elimination Planning

- 4 • We have prepared draft plans and draft applications for DEP General Permits (GP)
5 for stream crossings. We are coordinating with DEP regarding permit requirements
6 for PNDI, bog turtle screenings, and wetland delineations since all utility stream
7 crossings are proposed via trenchless technologies (directional drilling for the
8 Hershey Mill PS Diversion and jack & bore for the Reserve PS Diversion). Once
9 direction is received from DEP (and possibly the Army Corps of Engineers), we will
10 finalize and submit the GP applications.

11 Marydell PS Elimination Planning

- 12 • We have prepared draft plans and a draft Penn DOT Highway Occupancy Permit
13 (HOP) application. We are coordinating with PECO regarding mitigation of impacts
14 to overhead utility poles given the proximity of the proposed sewer to the poles. The
15 PECO coordination may impact the HOP application, such as modifications to the
16 exact sewer location. Upon resolution of any such PECO issues, we will finalize and
17 submit the HOP application.

18 Annual Chapter 94 Reports

- 19 • The Chapter 94 reports for the Westtown Service Area and Lockwood Chase STP
20 were prepared and submitted to DEP on March 30, 2012. DEP received them on
21 April 2, 2012. Following receipt of all required information from the Township and
22 operator, the Chapter 94 Reports for the Ridley Creek STP and the West Goshen
23 Service Area were prepared and delivered to DEP on April 4, 2012.
- 24 • A new influent metering and organic sampling location is needed at the Ridley Creek
25 STP in order to satisfy DEP's new Chapter 94 requirements. We have discussed the
26 best location with Public Works, and we will forward a recommendation letter to the
27 Authority prior to the April 9, 2012 meeting.

28
29 **c. Big Fish Environmental Services, Inc.** Scott Towler gave the following report on
30 plant operations for March 2012:

31 Operations and Solids Dewatering/Disposal – Sequencing batch reactors (SBRs)
32 numbered 2, 3 and 4 were in service treating wastewater. SBR #1 was off line and
33 serving as a sludge storage tank. During the month, process control testing continued to
34 monitor the (MLSS) concentrations, pH, total alkalinity, chemical oxygen demand
35 (COD), settleability, ammonia as nitrogen, nitrite as nitrogen, nitrate as nitrogen, sludge
36 volume index (SVI), F:M ratio, depth of clear water as measured from the water.
37 The influent and effluent composite samples were regularly monitored for pH, total
38 alkalinity, ammonia as nitrogen, COD and total Phosphorus. Additional analysis of the
39 effluent was consistently very good during the month. During the month, one key
40 operational set point was established. This operational set point is maintain the pH and
41 total alkalinity concentrations in the SBRs at no less than 7.0 S.U. and 300 mg/L as
42 CaCO₃. Maintaining these parameters within the minimum range contributed to
43 improving the nitrification process, settleability and phosphorus removal. Effluent
44 sample data for total phosphorus is reported as 0.28 mg/L without the addition of
45 aluminum sulfate. The monthly average will be finalized upon receipt of the sample
46 collected on March 29 and is anticipated to be close to the effluent limitation of 0.5 mg/L.

1 The effluent discharge will achieve compliance with the CBOD5, TSS, ammonia as
2 nitrogen, fecal coliform, pH, dissolved oxygen for the month of March 2012. A draft
3 summary is attached for review.

4 A summary of the influent and effluent sample data for the month of February 2012 is
5 attached for review. The eDMR and supplemental reports for February 2012 have been
6 prepared and submitted by representatives from MEI.

7 Solids Dewatering – During the period for February 22 through March 31, a total of
8 947,644 gallons of sludge were metered to have been processed through the centrifuge
9 sludge dewatering unit. A total of 34 dumpsters of dewatered sludge at approximately
10 437 tons were land filled. Three hundred and eighty-two (382) man hours were expended
11 towards dewatering the sludge in SBR1, sludge holding tanks 1 & 2.

12 Maintenance, Repairs & Warranty –

13 SBR1 requires one replacement decanter valve assembly – Worth & Co. informed
14 Centrifuge replacement parts – Worth & Co. to replace parts used for warranty repair
15 JWC fine screen has a failed UPS – Worth & Co. informed
16 JWC fine screen upstream transducer – replacement connection on order
17 SBR and Centrifuge MCC panel hours meters – Worth & Co. informed
18

19 Discussion: Scott reported that both sludge tanks are empty and will be cleaned to get
20 ideal conditions. Dana asked Scott to add a line item in the spreadsheet for design basis
21 vs permit basis. Scott will get 94 readings. Scott reported that Worth has a list of
22 warranty issues. Scott recommends getting a permanent influent inflow meter which
23 would cost about \$5,000. Mark or Rick will get a proposal for the next meeting.
24

25 Any Other Matter - None

26
27 **Correspondence and Reports of Interest**

- 28 1. Letter to residents about a Zoning Hearing Board application
29 2. Consent Order & Agreement Semi-Annual Corrective Action Status Report #07
30

31 Public Comment – None
32

33 **Adjournment**

34 **The May 14th meeting will start at 6:00 p.m. at the Ridley Creek Sewer Plant.**

35 There being no further business, Joe moved to adjourn the meeting. Jack seconded the motion.
36 The motion passed unanimously. The meeting was adjourned at 8:15pm.
37

38 Respectfully submitted,
39

40
41 Ruth Kiefer
42 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 #: 504741
Invoice Date: 04/26/2012
Project: EGMA1105
Project Name: LCSTP Final Design & Permitting

For Services Rendered through: 04/15/2012

Prepared Construction Issue plans and specifications.

Phase : 2 -- Sewer Stakeout and Easements

Total Phase : 2 -- Sewer Stakeout and Easements

Labor : 1,089.00
Expense : 0.00
Phase Total : 1,089.00

Amount Due This Invoice

\$1,089.00

Fee : 77,800.00
Prior Billings : 59,048.88
Current Billings : 1,089.00
Total Billings : 60,137.88

Phase : 2 -- Sewer Stakeout and Easements

Labor Class	Hours/Units	Rate	Amount
Project Engineer	1.00	93.00	93.00
Associate Engineer	12.00	83.00	996.00
Labor Total:	13.00		1,089.00

Total Phase : 2 -- Sewer Stakeout and Easements

Labor : \$1,089.00
Expense : \$0.00

Total Project : EGMA1105 -- LCSTP Final Design & Permitting

Labor : \$1,089.00
Expense : \$0.00

OK RS 5-11-12

7424-7475

East Goshen Municipal Authority
EGMA1105 Invoice Summary
Invoice Date 04/26/12

Project : LCSTP Final Design & Permitting
Pennoni Job No. : EGMA1105
Invoice No. : 504741
Invoice Period : 3/18/2012 to 4/15/2012
Initial Authorization : \$ 77,800.00 Date : 5/5/2011
Changes : \$ - Date :
Contract Amount : \$ 77,800.00
Previously Invoiced : \$ 59,048.88
Current Invoice : \$ 1,089.00
Invoiced to Date (\$) : \$ 60,137.88
Invoiced to Date (%) : 77%
Remaining Budget (\$) : \$ 17,662.12
Remaining Budget (%) : 23%

Budget by Phase :

Phase No. *****
Phase Name : LCSTP Final Design &
Phase Budget : \$ 77,800.00
Previously Invoiced : \$ 59,048.88
Current Invoice : \$ 1,089.00
Invoiced to Date (\$) : \$ 60,137.88
Invoiced to Date (%) : 77%
Remaining Budget (\$) : \$ 17,662.12
Remaining Budget (%) : 23%

Comments : Prepared Construction Issue plans and specifications.



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

Invoice #: 504742
Invoice Date: 04/26/2012
Project: EGMA1107
Project Name: HersheyMill & Reserve PS Div Des Per

For Services Rendered through: 04/15/2012

Phase : 1 -- Design

Prepared draft permit/construction plan sets for Reserve PS Diversion and Hershey Mill PS Diversion; performed PA One Call and initiated existing utility for both projects; prepared draft DEP General Permit GP-5 "Utility Line Stream Crossings" applications for both projects and DEP General Permit GP-8 "Temporary Road Crossings" application for Hershey Mill PS Diversion including PNDI searches and PNDI-required potential impact submission to PA Dept. of Conservation and Natural Resources (DCNR).

Total Phase : 1 -- Design

Labor :	4,382.50
Expense :	0.00
Phase Total :	4,382.50

Phase : 4 -- E&SPC Permitting

Total Phase : 4 -- E&SPC Permitting

Labor :	207.50
Expense :	0.00
Phase Total :	207.50

Phase : 6 -- PADEP General Permits

Total Phase : 6 -- PADEP General Permits

Labor :	1,245.00
Expense :	0.00
Phase Total :	1,245.00

Amount Due This Invoice

\$5,835.00

Fee :	60,200.00
Prior Billings :	8,352.50
Current Billings :	5,835.00
Total Billings :	14,187.50

OK RS 5-11-12

SPLIT 7427-1000 \$ 2917.50

7426-1000 \$ 2917.50

Continued on next page...

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

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Phase : 1 -- Design

Labor Class	Hours/Units	Rate	Amount
Project Engineer	2.50	93.00	232.50
Associate Engineer	50.00	83.00	4,150.00
Labor Total:	52.50		4,382.50

Total Phase : 1 -- Design	Labor :	\$4,382.50
	Expense :	\$0.00

Phase : 4 -- E&SPC Permitting

Labor Class	Hours/Units	Rate	Amount
Associate Engineer	2.50	83.00	207.50
Labor Total:	2.50		207.50

Total Phase : 4 -- E&SPC Permitting	Labor :	\$207.50
	Expense :	\$0.00

Phase : 6 -- PADEP General Permits

Labor Class	Hours/Units	Rate	Amount
Associate Engineer	15.00	83.00	1,245.00
Labor Total:	15.00		1,245.00

Total Phase : 6 -- PADEP General Permits	Labor :	\$1,245.00
	Expense :	\$0.00

Total Project : EGMA1107 -- HersheyMill & Reserve PS Div Des Per	Labor :	\$5,835.00
	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 04/26/12

Project : Hershey Mill & Reserve PS Diverse Design & Permitting
 Pennoni Job No. : EGMA1107
 Invoice No. : 504742
 Invoice Period : 3/18/2012 to 4/15/2012

Initial Authorization :	\$ 60,200.00	Date :	7/7/2012
Changes :	\$ -	Date :	
Contract Amount :	\$ 60,200.00		
Previously Invoiced :	\$ 8,352.50		
Current Invoice :	\$ 5,835.00		
Invoiced to Date (\$) :	\$ 14,187.50		
Invoiced to Date (%) :	24%		
Remaining Budget (\$) :	\$ 46,012.50		
Remaining Budget (%) :	76%		

Budget by Phase :

Phase No.	01
Phase Name :	Hershey Mill & Reserve PS
Phase Budget :	\$ 60,200.00
Previously Invoiced :	\$ 8,352.50
Current Invoice :	\$ 5,835.00
Invoiced to Date (\$) :	\$ 14,187.50
Invoiced to Date (%) :	24%
Remaining Budget (\$) :	\$ 46,012.50
Remaining Budget (%) :	76%

Comments : Prepared draft permit/construction plan sets for Reserve PS Diversion and Hershey Mill PS Diversion; performed PA One Call and initiated existing utility for both projects and DEP General Permit GP-8 "Temporary Road Crossings" application for Hershey Mill PS Diversion including PNDI searches and PNDI-required potential



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

Invoice #: 504744
Invoice Date: 04/26/2012
Project: EGMA1202
Project Name: 2012 COA and I&I Reports

For Services Rendered through: 04/15/2012

Analyze portable flow meter data and permanent flow meter data; attend CO&A status review meeting with M. Miller and R. Smith; prepare and submit CO&A Status Report #07 (Final) to DEP.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	4,152.25
Expense :	0.00
Phase Total :	4,152.25

Amount Due This Invoice

\$4,152.25

Fee :	13,000.00
Prior Billings :	442.75
Current Billings :	4,152.25
Total Billings :	4,595.00

Phase : **** -- Professional Services

Labor Class	Hours/Units	Rate	Amount
Authority Engineer	2.00	110.00	220.00
Project Engineer	38.25	93.00	3,557.25
Technical Specialist	5.00	75.00	375.00
Labor Total:	45.25		4,152.25

Total Phase : **** -- Professional Services

Labor :	\$4,152.25
Expense :	\$0.00

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

Labor :	\$4,152.25
Expense :	\$0.00

OK RS 5-11-12
0724-3130

East Goshen Municipal Authority
 EGMA1202 Invoice Summary
 Invoice Date 04/26/12

Project : 2012 COA and I&I Reports
Pennoni Job No. : EGMA1202
Invoice No. : 504744
Invoice Period : 3/18/2012 to 4/15/2012
Initial Authorization : \$ 13,000.00 **Date :** 1/5/2012
Changes : \$ - **Date :**
Contract Amount : \$ 13,000.00
Previously Invoiced : \$ 442.75
Current Invoice : \$ 4,152.25
Invoiced to Date (\$) : \$ 4,595.00
Invoiced to Date (%) : 35%
Remaining Budget (\$) : \$ 8,405.00
Remaining Budget (%) : 65%

Budget by Phase :
Phase No. *****
Phase Name : 2012 COA and I&I Reports
Phase Budget : \$ 13,000.00
Previously Invoiced : \$ 442.75
Current Invoice : \$ 4,152.25
Invoiced to Date (\$) : \$ 4,595.00
Invoiced to Date (%) : 35%
Remaining Budget (\$) : \$ 8,405.00
Remaining Budget (%) : 65%

Comments : Analyze portable flow meter date and permanent flow meter data; attend CO&A status review meeting with M. Miller and R. Smith; prepare and submit CO& A Status Report #07 (Final) to DEP.



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

Invoice #: 504745
Invoice Date: 04/26/2012
Project: EGMA1203
Project Name: 2011 Chapter 94

For Services Rendered through: 04/15/2012

Prepared and submitted 2011 Chapter 94 Annual Reports for Ridley Creek STP, Lockwood Chase STP, West Goshen Service Area, and Westtown Service Area (four separate reports) in DEP's required new format; coordinated with Township, contract operator, lab, and DEP to identify and obtain required information for reporting; analyzed existing hydraulic and organic loadings and projected future loadings.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	10,348.75
Expense :	0.00
Phase Total :	10,348.75

Amount Due This Invoice

\$10,348.75

Fee :	14,000.00
Prior Billings :	3,319.00
Current Billings :	10,348.75
Total Billings :	13,667.75

Phase : **** -- Professional Services

Labor

Class	Hours/ Units	Rate	Amount
Authority Engineer	0.50	110.00	55.00
Project Engineer	43.75	93.00	4,068.75
Technical Specialist	83.00	75.00	6,225.00
Labor Total:	127.25		10,348.75

Total Phase : **** -- Professional Services

Labor :	\$10,348.75
Expense :	\$0.00

Total Project : EGMA1203 -- 2011 Chapter 94

Labor :	\$10,348.75
Expense :	\$0.00

RS 5-11-12

7424-3130

East Goshen Municipal Authority
 EGMA1203 Invoice Summary
 Invoice Date 04/26/12

Project :	2011 Chapter 94		
Pennoni Job No. :	EGMA1203		
Invoice No. :	504745		
Invoice Period :	3/18/2012	to	4/15/2012
Initial Authorization :	\$ 14,000.00	Date :	1/5/2012
Changes :	\$ -	Date :	
Contract Amount :	\$ 14,000.00		
Previously Invoiced :	\$ 3,319.00		
Current Invoice :	\$ 10,348.75		
Invoiced to Date (\$) :	\$ 13,667.75		
Invoiced to Date (%) :	98%		
Remaining Budget (\$) :	\$ 332.25		
Remaining Budget (%) :	2%		

Budget by Phase :

Phase No.	****
Phase Name :	2011 Chapter 94
Phase Budget :	\$ 14,000.00
Previousy Invoiced :	\$ 3,319.00
Current Invoice :	\$ 10,348.75
Invoiced to Date (\$) :	\$ 13,667.75
Invoiced to Date (%) :	98%
Remaining Budget (\$) :	\$ 332.25
Remaining Budget (%) :	2%

Comments : Prepared and submitted 2011 Chapter 94 Annual Reports for Ridley Creek STP, Lockwood Chase STP, West Goshen Service Area, and Westtown Service Area (four separate reports) in DEP's required new format; coordinated with Township, contract operator, lab, and DEP to identify and obtain required information for reporting; analyzed existing hydraulic and organic loadings and projected future loadings.



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

Invoice #: 504746
Invoice Date: 04/26/2012
Project: EGMA1204
Project Name: Lockwood Chase Construction
Phase S

For Services Rendered through: 04/15/2012

Issued Notice to Proceed; prepared listing of required construction submittals for contractor; reviewed construction submittals and shop drawings; prepared NPDES Co-Permittee application paperwork; prepared for and attended pre-construction meeting on-site; follow-up to pre-construction meeting including review of proposed manhole elevation near detention basin, advise PW Dept. on maximizing LCSTP spray rate to dewater lagoon and pond, NPDES plan reproduction, etc.; prepared project CAD file for contractor's surveyor.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	3,035.25
Expense :	0.00
Phase Total :	3,035.25

Amount Due This Invoice

\$3,035.25

Fee :	16,000.00
Prior Billings :	920.25
Current Billings :	3,035.25
Total Billings :	3,955.50

Phase : **** -- Professional Services

Labor

Class	Hours/ Units	Rate	Amount
Project Engineer	23.50	93.00	2,185.50
Associate Engineer	0.75	83.00	62.25
Technical Specialist	10.50	75.00	787.50
Labor Total:	34.75		3,035.25

Total Phase : **** -- Professional Services

Labor :	\$3,035.25
Expense :	\$0.00

Total Project : EGMA1204 -- Lockwood Chase Construction Phase S

Labor :	\$3,035.25
Expense :	\$0.00

o/c R S 5-11-12
7424 - 7475

East Goshen Municipal Authority
 EGMA1204 Invoice Summary
 Invoice Date 04/26/12

Project : Lockwood Chase Construction Phase S
Pennoni Job No. : EGMA1204
Invoice No. : 504746
Invoice Period : 3/18/2012 to 4/15/2012
Initial Authorization : \$ 16,000.00 **Date :** 2/15/2012
Changes : \$ - **Date :**
Contract Amount : \$ 16,000.00
Previously Invoiced : \$ 920.25
Current Invoice : \$ 3,035.25
Invoiced to Date (\$) : \$ 3,955.50
Invoiced to Date (%) : 25%
Remaining Budget (\$) : \$ 12,044.50
Remaining Budget (%) : 75%

Budget by Phase :
Phase No. : ****
 Lockwood
Phase Name : Chase

Phase Budget : \$ 16,000.00
Previously Invoiced : \$ 920.25
Current Invoice : \$ 3,035.25
Invoiced to Date (\$) : \$ 3,955.50
Invoiced to Date (%) : 25%
Remaining Budget (\$) : \$ 12,044.50
Remaining Budget (%) : 75%

Comments : Issued Notice to Proceed; prepared listing of required construction submittals for contractor; reviewed construction submittals and shop drawings; prepared NPDES Co-Permittee application paperwork; prepared for and attended pre-construction meeting on-site; follow-up to pre-construction meeting including review of proposed manhole elevation near detention basin, advise PW Dept. on maximizing LCSTP spray rate to dewater lagoon and pond, NPDES plan reproduction, etc.; prepared project CAD field for contractor's surveyor.



Gawthrop Greenwood, PC
Attorneys at Law

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

East Goshen Municipal Authority
1580 Paoli Pike
West Chester PA 19380

Page: 1
03/31/2012
Client No: 6604-01M
Invoice No. 98012

General Authority Services

Fees

		Hours	
03/12/2012	RFA Review packet for Authority meeting of 3/12/12.	0.50	
03/21/2012	RFA Review letter from M. Ellis.	0.30	
	For Current Services Rendered	0.80	<u>152.00</u>

Recapitulation

Timekeeper	Hours	Hourly Rate	Total
Robert F. Adams	0.80	\$190.00	\$152.00
Previous Balance			\$1,083.00
Total Current Charges			152.00
Balance Due			<u>\$1,235.00</u>

PAID IN APRIL

OK TO PAY \$ 152.00

RS

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



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East Goshen Municipal Authority
1580 Paoli Pike
West Chester PA 19380

Page: 1
04/30/2012
Client No: 6604-01M
Invoice No. 98989

General Authority Services

Fees

		Hours	
04/02/2012		0.30	
RFA	Review letter from M. Ellis of 3/29 to DEP.		
04/09/2012		2.60	
RFA	Review packet for Authority meeting of 4/9; attend regular meeting of Authority.	2.90	551.00
	For Current Services Rendered		

Recapitulation

<u>Timekeeper</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
Robert F. Adams	2.90	\$190.00	\$551.00

Previous Balance	\$1,235.00
Total Current Charges	551.00

04/16/2012	Fee Payment	-1,083.00
	Balance Due	<u>\$703.00</u>

OK FS
5/10/12

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

Memo

To: ABCs
From: Jon Altshul, CFO
Re: Financial reports
Date: April 17, 2012

I would like to attend the May meeting of each ABC to introduce myself to all of you as the new township CFO and gather feedback and suggestions about both the content and format of your financial reports.

EAST GOSHEN TOWNSHIP
 1580 PAOLI PIKE
 WEST CHESTER, PA
 Municipal Authority
 April 2012
 RCSTP BUDGET

Account Title	Acct #	Annual Budget	M-T-D	Y-T-D
REVENUE				
INTEREST EARNED - RCSTP EXPANSION	07341 1020		10	35
GRANT REVENUE	07392 0800			
TOTAL REVENUE			10	35
EXPENSES				
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			
R.C. CAP EXP ADDITIONAL CONTINGENCY	07424 7456			
TRANSFER TO AUTHORITY CAP FUND	07492 0990			
TOTAL EXPENSES				0
NET RESULT			10	35

EAST GOSHEN TOWNSHIP
Municipal Authority
April 2012
OPERATING BUDGET

Account Title	Acct #	Annual Budget	M-T-D	Y-T-D
REVENUE				
INTEREST EARNINGS	07341 1000		5	6
C.C. TAPPING FEES	07364 1100	2,000		
R.C.TAPPING FEES	07364 1110	2,000		
CONNECTION FEES - SEWER	07364 1130			846
MISCELLANEOUS REVENUE	07380 1000	1,000		423
TRANSFER FROM SEWER OPERATING	07392 0500	125,000		30,700
TOTAL REVENUE		130,000	5	31,975
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	37,669		8,392
MISCELLANEOUS EXPENSE	07424 3000	4,162		950
MUNIC.AUTH.-AUDITING	07424 3110	8,843		
ENGINEERING SERVICES	07424 3130	37,066	4,972	6,374
LEGAL SERVICES	07424 3140	12,485	1,083	2,909
M.C.-DVRFA-DEBT SERVICE	07471 1000	19,600		
M.C.-DVRFA-INTEREST PAYMN	07472 1000	6,981		
TOTAL EXPENSES		126,806	6,055	18,625
NET RESULT		3,194	(6,050)	13,351

EAST GOSHEN TOWNSHIP
Municipal Authority
April 2012
CAPITAL BUDGET

Account Title	Acct #	Annual Budget	M-T-D	Y-T-D
REVENUE				
LOAN PROCEEDS-SEWER PROJECT	07392 0804			
TOTAL REVENUE				0
EXPENSES				
MARYDELL PUMP STATION - ENGINEER	07425 1000	51,764	1,422	2,232
MARYDELL PUMP STATION -CONSTRUCTION	07425 2000	170,000		
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	37,553	1,366	15,722
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	411,000		
HERSHEY MILL STATION - ENGINEER	07426 1000	29,069		2,337
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	46,000		
RESERVE PUMP STATION - ENGINEER	07427 1000	29,069	473	1,078
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	93,000		
RESERVOIR PUMP STATION - ENGINEER	07428 1000			
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000			
TOTAL EXPENSES		867,455	3,261	21,368
NET RESULT		(867,455)	(3,261)	(21,368)

East Goshen Township General Ledger

Report Date 05/11/12

GL Transaction Details

PAGE 2

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				
				15,721.50	0.00	15,721.50				
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				
				2,232.00	0.00	2,232.00				
07426-1000			HERSHEY MILL STATION - ENGINEER			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				
				2,336.75	0.00	2,336.75				
07427-1000			RESERVE PUMP STATION - ENGINEER			0.00				
				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				
				1,077.50	0.00	1,077.50				
Beg Bal			0.00	39,992.62	0.00	39,992.62				

Rick Smith

From: Rick Smith <rsmith@eastgoshen.org>
Sent: Monday, April 16, 2012 2:27 PM
To: 'Robert Dina'
Subject: RE: Safety Issue

Bob

Thanks

I will put this on the Authority's agenda. There next meeting is on May 14th.

Rick

From: Robert Dina [<mailto:rdina@clingerelectric.com>]
Sent: Monday, April 16, 2012 11:23 AM
To: rsmith@eastgoshen.org
Cc: Joe Natale
Subject: Safety Issue

Rick,

I wanted to send you a copy of the pages of the Collective Bargaining Agreement that we must follow as a Union Contractor. The front cover provides the date of the agreement to show it is current and the rule is found on page 23 of that agreement Section 4.19, which I have clouded, that clearly indicates that "On all energized circuits or equipment carrying 440 volts or over, as a safety measure, two or more journeyman must work together". I can bring you a full booklet if you deem it necessary.

I hope this can settle this issue and we can get paid in full for our invoice. I appreciate your patience in this matter and will continue to work with you on this.

Thank you,

Robert F. Dina, Sr.

Cell: (484) 325-1126 | Email: rdina@clingerelectric.com



736 Baltimore Pike, P.O. Box 158, Concordville, PA 19331

Office: (610) 459-1234 | Fax: (610) 459-8823 | www.ClingerElectric.com

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**COMMERCIAL
MAINTENANCE &
INDUSTRIAL
AGREEMENT**

Between the

**Chester Division
Penn-Del Jersey Chapter
NECA**

and



**Local Union No. 654
IBEW**

Effective

1/1/92 to 12/31/2012

Section 4.11 - During periods where less than 50% of Journeymen normally employed are employed, the Labor-Management Committee shall have the right to limit the maximum number of hours a month per man, in order to increase the number of men employed.

Section 4.12 - Journeymen and Apprentices shall provide themselves with a standard conventional kit of tools necessary to perform their classification of work.
3/2008

Section 4.13 - Workmen shall be held responsible for the Employer's tools and equipment, providing the employer furnishes a tool box with proper lock or other safe place for the storing of such tools or equipment and allows reasonable time for such care.

(a) The Employer shall provide a safe place for workmen's tools and clothing; in the event of loss by fire, he shall be held responsible for replacement thereof.

Section 4.14 - Workmen shall install all electrical work in a safe and workmanlike manner and in accordance with applicable code and contract specifications.

(a) All electrical work including temporary light and power shall be done by men employed under the terms of this agreement.

(b) On jobs whenever temporary lighting, power and/or equipment is required for productive construction in other than regular working hours by workmen other than electricians, at least one (1) Journeyman electrician shall be employed on the site. This journeyman shall do productive work when not engaged in temporary work.

(c) On renovation, repair, or maintenance temporary light, power, and equipment shall be installed and maintained by electrical workers covered under this agreement. No work shall be performed outside of the regular working hours to maintain or repair this temporary light, power, or equipment unless it is specifically at the employer's request.

(d) Under all project circumstances, temporary electric shall be left energized and in working condition past the normal working hours for lighting, heating/air conditioning, job trailers and shanties, receptacles used for equipment charging, ingress/egress and security without the requirement for a Journeyman electrician to be employed past the normal working hours.
3/2008

Section 4.15 - A Journeyman shall be required to make corrections on improper workmanship for which he is responsible on his own time and during regular working hours, unless errors were made on orders of the employer or the employer's representative. Employers shall notify the Union of workmen who fail to adjust improper workmanship and the Union assumes responsibility for the enforcement of this provision.

Section 4.16 - The representative of the Union shall be allowed access to any shop or job at any reasonable time workmen are employed under the terms of this agreement.

Section 4.17 - The Employer shall pay for traveling time and furnish transportation from shop to job, job to job, and job to shop, within the jurisdiction of the Union, except when an Employee uses his own transportation, he shall be compensated by his Employer, at no less than twenty-two cents (\$.22) per mile, from shop to job, job to job, and job to shop, within the jurisdiction of the Union. On work outside the jurisdiction of the Union, the Employer shall furnish transportation, board and all other necessary expenses.

Section 4.18 - No traveling time shall be paid before or after working hours to workmen for traveling to and from any job in the jurisdiction of the Union when workmen are ordered to report on the job.

Section 4.19 - On all energized circuits or equipment carrying 440 volts or over, as a safety measure, two or more journeymen must work together.

Section 4.20 - The policy of the Members of the Local Union is to promote the use of materials and equipment manufactured, processed or repaired under economically sound wage, hour and working conditions by qualified electrical workers.

Section 4.21 - On jobs having a Foreman, workmen are not to take directions or orders, or accept the layout of any job from anyone except the Foreman.

On jobs having a General Foreman, all directions or orders shall be processed through the General Foreman.

Section 4.22 - No workman shall act as a Foreman on more than one job at a time.

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

FILE

February 22, 2012

Mr. Robert Dina
Wm. H. Clinger Corporation
P.O. Box 158
Concordville, PA 19331

Re: Ridley Creek Sewage Treatment Plant
Invoice M 11143

Dear Bob:

The Municipal Authority discussed the above referenced invoice at their meeting on February 20, 2012. They did not believe it would be appropriate to pay to have two people respond to what was essentially a service call to determine if a repair was a warranty item.

In their experience the mechanic or electrician would respond, make an assessment of the situation and communicate the required information to his office. Based on the information the electrician would then advise us if the repair was covered under warranty or not.

They did note that they would consider payment of an invoice that reflected the labor cost for the electrician only. Accordingly if you can send a corrected invoice in the amount of \$614.04 they would consider it at their meeting on March 12, 2012.

Please give me a call at 610-692-7171 or e-mail me at rsmith@eastgoshen.org if you have any questions or need additional information.

Sincerely,



Louis F. Smith, Jr.
Township Manager



Over a half-century of excellence

736 Baltimore Pike
P.O. Box 158
Concordville, PA 19331

Phone: (610) 459-1234
Fax: (610) 459-8823
Website: clingerelectric.com

Invoice

EAST GOSHEN MUNICIPAL AUTHORITY
ATTN: ACCTS. PAYABLE
1580 PAOLI PIKE
WEST CHESTER, PA 19380-6199

Invoice #: M11143
Invoice Date: 12/23/11
Due Date: 01/22/12
PO #: VERBAL
Customer ID: 204
Contact: RICK SMITH
Contact: MARK MILLER

Job: CEG800

Work Performed: Electrical - Miscellaneous

Description:	Labor Thru Week Ending 12-25-11	Price	Total
Work Order#:			
Amount			
PLEASE SEE ATTACHED			
WO#: 08690,08725		\$ 1,484.04	
Subtotal		\$ 1,484.04	
Previously Paid		\$0.00	
NET PAYMENT CURRENT DUE			\$1,484.04

Please make checks payable to: Wm. H. Clinger Corp.

APRIL 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
 - d. Need by 11/7/12
 - e. February 2013
2. Attend West Goshen Meetings quarterly – more often if needed.
 - a. 1st Quarter (March) – Jack - **Completed**
 - b. 2nd Quarter (June) - Joe
 - c. 3rd Quarter (September) - Dana
 - d. 4th Quarter (December) - Kevin
3. Respond to capacity requests in 45 days or less.
4. Implement I & I Plan
5. Conduct a sewer facilities tour after RCSTP construction is complete – Have tour in September

PROJECTS

1. Lockwood
 - a. Bid – Bid awarded 2/20 – Contract executed 3/12
 - b. Pipe Installation - Notice to proceed issued 3/20, Work in progress
 - c. Abandon Plant
2. Marydell Pump Station
 - a. Design/Permit
 - b. Bid
 - c. Pipe Installation
 - d. Abandon Pump Station
3. Hershey Mill Pump station
 - a. Design/Permit
 - b. Bid
 - c. Pipe Installation
4. Reserve Pump station
 - a. Design/Permit
 - b. Bid
 - c. Pipe Installation
 - d. Abandon Pump Station

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

May 11, 2012

To: Municipal Authority
From: Mark Miller
Re: April Monthly Report

C.C. Collection: We received a call from a resident on Heather Lane stating that there lateral needed repairs. We looked at the lateral and found that the stack had pulled out of the tee. I stood on the stack and pushed the pipe back into the tee. While visiting the Hershey Mill Pump Station the crew found a sewer manhole overflowing. We entered the downstream manhole and removed several 5 gallon buckets of grit; we then jetted the line to clear the clog. We received 12 calls for lateral cap replacement during the month.

ACTION ITEM: I would like your approval to have Pennoni investigate the cost to install a Muffin Monster at the Hershey Mill Pump Station. With additional flow I believe we are going to have a problem with debris.

R.C. Collection: The pumping station was visited on a daily basis, the basket was cleaned. We are still adding chemicals to fight the grease. There were no problems during the month of April. We did receive calls for 7 laterals during the month.

Lochwood Plant: As you know the contractor has started the sewer work, they started at the swim club on Tanglewood Drive, the road crossing took them 3 days due to utility conflicts. Once they crossed the road they hit rock which took 3.5 days to get thru. They are currently in good dirt and working their way thru the open space. Matt and I are taking turns inspecting.

Dusty Kilgore and Kevin Miller have completed the sewer maintenance courses at Delaware Community College; they have expressed interest in attending other courses when they come up.

Alarms: We received 22 alarms for the month.

PA One Call: We had 87 PA One calls for the Month of April.

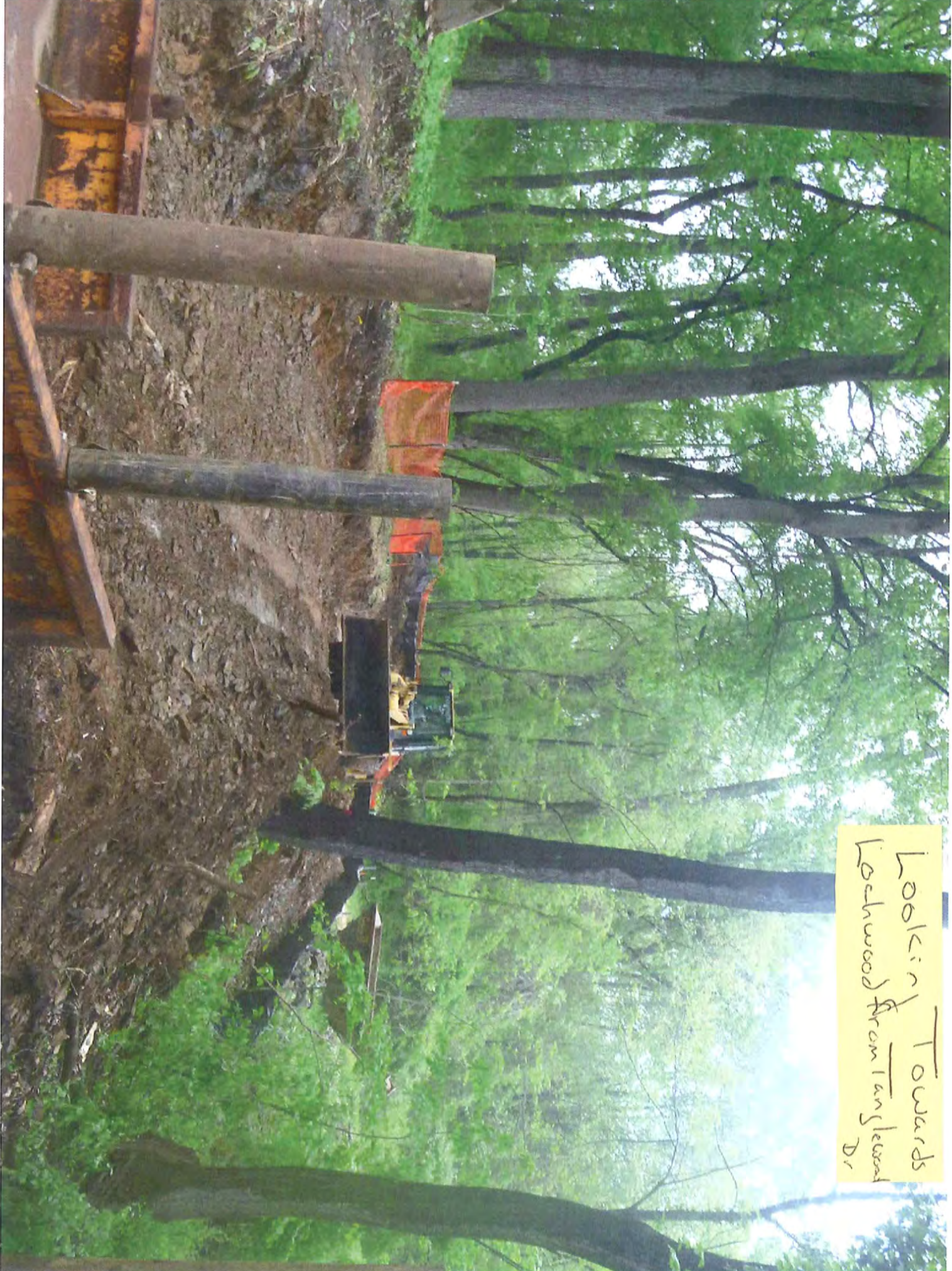


Trench behind curb

Rock



Looking Towards
Lockwood from Tanglewood
Dr



East Goshen Township

Ridley Creek Sewage Treatment Plant

Plant Inspection - April 11 & 13, 2012

Inspection and Notes completed by Matt McAloon

On site as requested by the Township to document the condition, housekeeping, overall operations and maintenance of the plant and process testing done at the WWTP by the plant operator.

Screen Building

- The exhaust fan adjusted and is now controlled by thermostat
- Building is clean and well organized
- The seal tight flexible conduit to both the upstream and downstream level transducers is not connected and secured to the level transducer unit
- The level transducers for the screen unit is not working, screen unit is running constantly
- The JWC screening unit is running without any excess noise or evidence of excess wear
- AQUA Environmental onsite to clean and vacuum grit and solids out of the screen building flow and bypass channels.
- An additional sampler line was routed to the screen building influent channel, up stream of the grinder and screen, to fulfill Chapter 94 sampling requirements.

Influent Pump Station

- AQUA Environmental onsite to wash the walls of the wet well, vacuum grease floating on top of the wet well, and vacuumed solids from the collection box sump
- Sampler line was rerouted and secured away from the pumps
- Strain reliever / Kellum grip for influent pump P-13 connected

Meter Pit

- East Goshen Public Works reported that the meter was recently replaced under warranty by Worth & Co.
- Influent meter appears to be accurately working and was recently calibrated.

Treatment Building

1. Alum Tank & Chemical Feed Systems

- The Alum system is currently shut off and Alum is not being used in the treatment process.
- Alum tank currently reading 5.93'
- Worth & Co has been notified of the evidence of leaking Alum and excessive corrosion on the mounting bracket for SBR # 2 Alum Feed MOV (CV-32) and directed to repair the item under warranty
- ME-34 (Polymer Injection System) is off, operator verified the system was filled with mineral oil and taken off line
- Both Watson Marlow pump are energized and set to 64.5 RPMs and in auto but not running at the time of inspection. A tote of Magnesium Hydroxide is connected to the suction side of chemical feed pump MP-32

- The addition of sodium bisulfate (dechlorinating agent), previously tapped into the injection port of the Polymer Static mixer (ME-41), has been disconnected and the of sodium bisulfate barrels removed.
 - High pressure Alum Feed Pump (MP-33) and VFD (MP-33VFD) are energized, but not in operation.
2. UV System / structure
- The missing rack of UV lights in Bank # 1 has not been returned or reinstalled by Siemens.
 - 1 bank of UV lights are on (Bank # 2)
 - Flow reading at UV control panel: 0.34 MGD
 - No solids or floc is visible in the UV channel and weir, the water is clear with low turbidity.
 - The Plant operator washed and scrubbed UV discharge weir while during the April 13, 2012 inspection.
3. Disk Filters
- Drain valves to both disk filters are closed.
 - Disk filters are clean, walls and weirs were recently scrubbed by the operator
 - Insecticide in floating dispensers utilized in the influent weir of both filters
 - Plant operator has agreed to investigate tension in disk filter drive chains and adjust according to Aqua Aerobics O & M manuals.
 - Filters are backwashing and sludge wasting on cycle, at time of inspection both filters were online and a backwash cycle was manual triggered:
 - Disk filter #1: 113 minutes since last sludge wasting, 50.8 minutes since last back wash & pulled 17 in Hg suction in backwash
 - Disk filter # 2: 21 minutes since last sludge wasting, 160.1 minutes since last back wash & pulled 5.9 in Hg suction in backwash
 - Filter 1: total time in backwash 95105.6 min & total sludge wasting 6363.5 min
 - Filter 2: could not read total time in backwash (exceeded hour meter limit) & total sludge wasting 6118.4.9 min
 - As visible from the top of the filter platform when the filter feed pumps are on, flow to the filters appeared to be clear with minimal solids, only isolated foam and flecks of grease
 - There is a leak in the vacuum pump piping 90 degree bend in filter # 1.
 - Operator reported that both filters were drained a number of times and heavy sludge build ups and deposits removed
 - Composite sampler set up to sample the influent flow to filter # 1.
 - Constant flow to filters from the filter feed pumps and post EQ tanks.
4. Blower Room / Utility Water System
- Cannot verify the oil was checked or changed in any of the blowers
 - The noise canceling panels were removed from blower # 3
 - The blower room exhaust fan & louver working and controlled by thermostat
 - Utility water system online and operating between 45 and 50 psi, both bladder tanks online.
5. Control / Electrical Room
- Control room is neat and well organized
 - None of the MCC are tripped or locked out, and not of the VFDs are showing unusual faults
 - 46 gallons per minute flow to Applebrook, flow charts indicate an almost constant flow through the Applebrook flow meter
 - 482 gallons per minute effluent discharge flow (not including Applebrook)
 - Limit switch to SBR # 3 Alum feed MOV (C-34) failed.



PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

6. SBR Tanks

- At the time of the April 13, 2012 inspection the plant operator was running the plant on two SBRs: SBR # 3 & # 4 online and running, #2 SBR off and decanting / draining in prep to be taken off line, SBR # 1 draining to sludge digester.
- Plant operator onsite washing down the walls to the SBR tank # 2 as it was drained
- MLSS in tanks # 3 & # 4 (active SBRs) is low and within the acceptable design range
- One of the plunger valves on the decanter is broken; Worth & Co notified and will repair under contract warranty

7. General

- All of the SBR Decant knife gate valves are open
- The large piles of dead bugs have been removed from under bug zapper
- The exhaust fan above the UV and the associated louver are operational and controlled by the thermostat
- The Apple Brook meter is operating and reading 45 gpm

Centrifuge / Sludge Handing & EQ Tanks

- The centrifuge still has 99.9 hours on the hour meter and the Moyno Grinder pump control panel has 714 hours on the control panel. The flow meter in the centrifuge pump room reads 1,498,769 gallons. Worth and Co. have been notified about the detective hour meter on the centrifuge control panel.
- During the April 11, 2012 site visit, both digesters were at less than 2', all onsite sludge was dewatered in the centrifuge and hauled off site. Operator reports a total of 38 dumpsters of sludge were hauled offsite.
- After pressing was complete the centrifuge was shut down, Cleaned in Place (CIP), the bowl fully cleaned, and polymer system charged with mineral oil.
- Early in the new operator's tenure the damaged bearings in were removed and replaced by the township and plant staff.

Existing Control Building

- No change
- No faults or alarms visible in the new or existing MCCs
- 93 spikes recorded on the control building TVSS

Sludge Digesters / Post EQ tanks

- Post EQ Tanks were drained and cleaned April 11, 2012. Heavy layer of sludge six plus inches thick was washed off the walls collected and removed from the site by AQUA Environmental with the assistance of the plant operator.
- As viewed during the April 13, 2012 site inspection the Post EQ tanks clear and with good clarity and no sludge deposits on the tank walls
- The blowers to the Post EQ Tanks are on and operational with consistent air bubble patterns
- Post EQ tanks and filter feed pumps set to provide a constant forward flow to the disk filters
- Per the plant operator the sludge digester telescoping valves are operating properly and as designed
- Sludge Digester # 1 is empty and Sludge Digester # 2 is being used as a holding tank for MLSS pumped out of SBR # 1 and SBR # 2.

- The sludge in the digester is a light chocolate milk color with moderate foaming
- All of the air drops to the sludge digester / holding tanks appear to be working (one or two of the couplers for the air drops are leaking air)

Discharge of Ridley Creek

- V notch weir for the effluent meter was cleaned and appears to be providing more accurate flow readings
- Constant flow from the Post EQ tanks, through the disk filters and UV, allows the utility water pumps and Applebrook discharge pump to draw effluent as required without frequently shutting down due to low flows.
- At the time of inspection, Ridley Creek Sewage Treatment Plant is in compliance with the new discharge permits and operations appear to be organized and efficient.



MEMORANDUM

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

FROM: Daniel Barbato, P.E.
Authority Engineer

DATE: May 1, 2012

SUBJECT: Engineer's Report

Invoices

- Invoices with summaries are provided under separate cover.

Ridley Creek Sewage Treatment Plant (RCSTP)

- The plant was inspected in detail on April 11 and 13. The purpose of the inspection was to compare the current operation and plant condition to the conditions documented in the March 5, 2012 report, which was immediately following the departure of Miller Environmental. The majority of the deficient conditions appear to have been corrected. The buildings were clean and well organized, the alum feed system is not currently required, the disk filters were clean and appeared to be operating properly, sludge levels in the digesters was acceptable, and effluent appeared clear at the time of the inspections. A detailed inspection report is attached. In summary, several conclusions and observations can be made:
 1. Miller Environmental was not properly operating the plant.
 2. Housekeeping and process data collection was poor.
 3. The plant is capable of meeting the new discharge limitations.
 4. Miller's claim that design shortcomings in the plant inhibited their ability to operate the plant is unfounded, particularly in light of the demonstration of the plant performance over the past two months.
 5. The centrifuge is capable of processing solids.
 6. Miller Environmental did not properly manage and remove solids at the facility.
 7. Miller Environmental relied too heavily on chemical treatment, particularly alum.
 8. The plant is currently being operated properly, with good data management, housekeeping, and maintenance practices.

LCSTP Elimination

- The contractor, SJM Construction Company, began construction on May 1 installing E&S controls and performing site clearing. Sewer construction began on May 3, and they are tentatively projecting approximately 60 days to complete the work. The required contract completion date is July 2, 2012.
- We have been performing close to full-time construction inspection services from the start of construction on May 3 through the time of this report. Full-time inspection is planned to continue at least until the contractor is no longer excavating rock. We expect to be out of rock by May 11.
- As of this report, the contractor is encountering rock at shallower depths (higher elevations) than indicated in the Township's pre-construction borings. The rock removal contract quantity is 75 c.y. We are currently estimating the actual rock removal quantity will be a little over 100 c.y., resulting in an increased cost of approximately \$3,000 due to the increased quantity.
- The existing drop connection at Existing Manhole EXMH-8 along Tanglewood Drive was not damaged during construction of the new sewer, so the Bid Add Item for that item of work will not need to be exercised. That Add Item was bid at \$5,300.00
- We have provided in-office construction support on scheduling, Tanglewood Drive closure, detour/closure signage, marking and extent of tree clearing, rock quantification, and verification that the existing lateral from 924 Dolphin Dr. will not conflict with the proposed sewer based upon the measured lateral depth leaving the house.
- We reviewed additional construction submittals including the contractor's pre-construction video. All submittals have been "Approved" or "Approved as Noted".
- We issued a Construction Issue set of plans and specifications to the contractor and Township to incorporate the various addenda into one set of plans and specifications.

Hershey Mill PS Diversion and Reserve PS Elimination

- We previously prepared draft plans and draft applications for DEP General Permits (GP) for Stream Crossings. The PNDI Receipt for the Hershey Mill PS Diversion identified potential threats to two plant species. We prepared and submitted the required documents to DCNR for their comments/approval regarding the potential threats, and we are awaiting feedback. It also appears that additional construction easements will be required to install a temporary construction bridge stream crossing for the Hershey Mill PS Diversion, and we are coordinating with the Township to determine if the General Permit for a temporary crossing should be pursued as a result.

Marydell PS Elimination

- We have prepared draft plans and a draft PennDOT Highway Occupancy Permit (HOP) application. We are continuing attempts to coordinate with PECO regarding mitigation of impacts to overhead utility poles given the proximity of the proposed sewer to the poles. The PECO coordination may impact the HOP application, such as modifications to the

exact sewer location. Upon resolution of any such PECO issues, we will finalize and submit the HOP application.

Annual Chapter 94 Reports

- A new influent metering and organic sampling location is needed at the Ridley Creek STP in order to satisfy DEP's new Chapter 94 requirements. We have discussed the best location with Public Works, and we forwarded a recommendation letter to the Authority prior to the April 9, 2012 meeting.

BIG FISH ENVIRONMENTAL SERVICES, INC.

April 2012 - Ridley Creek and Lochwood Sewage Treatment Plant Operations Report

Executive Summary

Treatment Process Operation

Sequencing batch reactors (SBRs) numbered 2, 3 and 4 were in service until April 11th. SBR No. 2 was removed from service on April 11, 2012 to evaluate the treatment performance through utilizing two (2) SBRs Nos. 3 and 4. The following observations were recorded with only two (2) SBRs in service;

- Occasional filled decants attributed to diurnal flow loadings.
- Nitrification and denitrification was achieved.
- Nitrate concentrations became elevated contributing to denitrification within the SBRs during settle phase.
- Phosphorus removal within the effluent limitation was achieved without alum.
- DO trends during peak flow periods indicated significant oxygen demand (minimum to no desired "DO peaks").
- SBR surface developed a layer of foam. Microscopic examinations did not identify *Nocardia* sp. as the main contributing factor for development of foam.
- The F:M ratio increased (160 minutes fill cycles)
- Effluent clarity remained good; however, the final effluent exhibited a slight color (similar to the discharge from a trickling filter treatment process). The final effluent achieved permit compliance with the discharge limitations.

On April 7, 2012, transfer of treated effluent to the Applebrook golf course lagoon commenced.

On April 22, 2012, the chemical feed system to provide alum to the flocc tank mixer and influent to the disc filters was placed in service. It should be noted that the use of alum to assist in phosphorus removal was driven by the uncertainty of compliance with the NPDES permit. Typical laboratory turnaround for analytical reports is two weeks, with the April 5th sample report received on April 27th. Split sample analysis between on-site testing and the laboratory indicates elevated sample results obtained on site as compared to ALS. Evaluation of selected laboratory accreditation is warranted.

On May 2, 2012, SBR No. 1 was placed in service, in addition to SBR Nos. 3 and 4.

A summary of the influent and effluent sample data for the month of March 2012 is attached for review. The eDMR and supplemental reports for March 2012 have been prepared and hand delivered to PA DEP by BFESI on April 27, 2012. As required by the NPDES permit effective March 1, 2012, the following supplemental reports accompanied the DMR;

- Daily Effluent Monitoring Report
- Chemical Additives Report
- Sewage Sludge/Biosolids Production and Disposal Report 1 of 3
- Sewage Sludge/Biosolids Production and Disposal Report 2 of 3
- Sewage Sludge/Biosolids Production and Disposal Report 3 of 3
- Hauled in Municipal Waste Report
- Influent & Process Control Form
- Laboratory Accreditation Report

BIG FISH ENVIRONMENTAL SERVICES, INC.

April 2012 - Ridley Creek and Lochwood Sewage Treatment Plant Operations Report

Flow data:

March 2012		
Flow Meter Location	Total Volume for Month, MGD	Average Daily Flow, gpd
Influent Wastewater	9.996	322,443
Treated Effluent to Disc Filters	9.349	322,388
Final Effluent Discharge	7.486	241,484
Applebrook Golf Course	0	0

April 2012		
Flow Meter Location	Total Volume for Month, MGD	Average Daily Flow, gpd
Influent Wastewater	10.393	346,428
Treated Effluent to Disc Filters	8.901	296,713
Final Effluent Discharge	5.291	176,367
Applebrook Golf Course	1.150	50,013

Chemical Usage:

Chemical	Daily Average	Total Monthly
Soda Ash	175 lbs./day	5,450 pounds
Magnesium Hydroxide	25 gpd	780 gallons
Alum	0 gpd	0 gallons

Solids Dewatering and Disposal

The centrifuge was operated from April 1st through April 5th. Two dumpsters were removed.

In preparation for a long term shut down, the clean in place procedure (CIP) was performed and the machine was cleaned. The polymer system was purged with mineral oil to prevent polymer building within the system

Maintenance, Repairs and Warranty

Completed: SBR No. 1 Decanter - repaired

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

Outstanding: JWC fine screen has a failed UPS – Worth & Co. informed

Outstanding: JWC fine screen upstream transducer – replacement connection scheduled for installation

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

Outstanding: Leaking PVC valves for alum piping to SBRs

Outstanding: Sludge holding tank aeration piping paint is failing

FINAL REPORT

Ridley Creek Sewage Treatment Plant Monthly Operations Report

Design Basis	Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
MGD Average		335	2,098	320	2,001	32	200	48	301	9.1	57
Sample date											
March 1, 2012	0.2680	398	890	396	885	25.8	58	36.9	82	4.3	10
March 8, 2012	0.3229	210	469	425	950	32	72	49	110	5.5	12
March 15, 2012	0.3214	193	431	255	570	31.3	70	44.9	100	5.6	13
March 22, 2012	0.3250	488	1,091	208	465	29.4	66	40	89	4.7	11
March 29, 2012	0.3087	598	1,337	2350	5,252	25.5	57	38.7	86	6.0	13
Average	0.3092	377	843	727	1624	29	64	42	94	5	12
Minimum	0.2680	193	431	208	465	26	57	37	82	4	10
Maximum	0.3250	598	1337	2350	5252	32	72	49	110	6	13

Final Effluent - Out-Fall 001												
NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total, mg/L		Fecal Coliform		
		MGD Average	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	Geo Mean	Geo Mean
		0.75	20	125	21	131	7	44	0.5	3	200	1,000
Instantaneous Maximum		40		42								
Sample date												
March 1, 2012	0.2420	3.2	6	5	10	0.100	0.20	0.10	0.20	1	0.0000	
March 8, 2012	0.2240	3.1	6	6	12	0.100	0.20	0.14	0.28	1	0.0000	
March 15, 2012	0.2200	2.8	6	5	10	0.209	0.42	0.28	0.57	1	0.0000	
March 22, 2012	0.2240	2.0	4	5	10	0.114	0.23	0.54	1.09	1	0.0000	
March 29, 2012	0.2210	3.1	6	10	20	0.355	0.72	1.20	2.42	64	1.8062	
Average	0.2262	2.8	6	6	13	0.176	0.35	0.45	0.91	14	0.3612	
Minimum	0.2200	2.0	4	5	10	0.100	0.20	0.10	0.20	1	0.0000	
Maximum	0.2420	3.2	6	10	20	0.355	0.72	1.20	2.42	64	1.8062	

April 2012

DRAFT

East Goshen Township Municipal Authority

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											
April 5, 2012	0.2522	3960	8,329	950	1,998	57.7	121	437	919	97.4	205
April 12, 2012	0.9611	263	553	88	185	24.2	51	33.9	71	3.9	8
April 20, 2012	0.3600										
April 26, 2012	0.2833										
Average	0.4642	2112	4441	519	1092	41	57	235	330	51	71
Minimum	0.2522	263	553	88	185	24	0	34	0	4	0
Maximum	0.9611	3960	8329	950	1998	58	121	437	919	97	205

April 5 sample collected from influent channel prior to fine screen is not representative as a result of excessive grit/sediment resulant in channel.

SBR Effluent Discharge to Disc Filters																
Design Basis	Flow	CBOD ₅		TSS		Phosphorus, Total		NH ₄ -N		Nitrate/Nitrite		TKN		Total Nitrogen		
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	
April 12, 2012	0.2921	15.8	33	64	135	0.83	No test	1.0	1.0	ND	4.7	ND	3.80	ND	10	8.5
Average	0.2921	16	33	64	135	1		1		5	5	5	3.80	5	3.80	9
Minimum	0.2921	16	33	64	135	1		1		5	5	5	3.80	5	3.80	9
Maximum	0.2921	16	33	64	135	1		1		5	5	5	3.80	5	3.80	9

Final Effluent - Out Fall 001												
NPDES Permit Discharge Limitations	Flow	CBOD ₅		TSS		NH ₄ -N		Phosphorus, Total, mg/L		Fecal Coliform		
		MGD Average	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	mg/L	lbs/month	Geo Mean	Geo Mean
	Instantaneous Maximum	0.75	20	125	21	131	7	44	0.5	3	200	1,000
Sample date					42							
April 5, 2012	0.1880	5.6	9	<5	8	0.200	0.2	0.66	0.2	1	0.0	0.0
April 12, 2012	0.2060	2.8	4	<5	8	0.195	0.3	0.22	0.3	1	0.0	0.0
April 20, 2012	0.1080											
April 26, 2012	0.1490											
Average	0.1628	4	7	#DIV/0!	8	0.198	0	0	0	0	1	0
Minimum	0.1080	3	4	0	8	0.195	0	0	0	0	1	0
Maximum	0.2060	6	9	0	8	0.200	0	0.200	1	0	1	0

East Goshen Township Flows

March
2012

APR 12 2012
BY:

Date	West Goshen Plant Flow mgd	West. Way Pump Station mgd	Ellis Lane Meter Pit mgd	Paoli Pike Meter Pit mgd	Wilson Drive Meter Pit mgd	West. Way Meter Pit mgd	Total East Goshen Flow mgd
1	6.353	1.840	0.274	0.055	0.069	1.162	0.764
2	5.069	1.711	0.302	0.058	0.057	1.275	0.858
3	5.880	1.791	0.303	0.059	0.057	1.275	0.856
4	5.547	1.763	0.302	0.058	0.057	1.275	0.858
5	5.474	1.660	0.226	0.061	0.065	1.095	0.743
6	5.703	1.556	0.231	0.058	0.068	1.116	0.759
7	5.024	1.602	0.234	0.057	0.066	1.162	0.805
8	5.212	1.621	0.243	0.027	0.069	1.092	0.753
9	5.127	2.092	0.236	0.063	0.049	1.183	0.835
10	4.962	1.569	0.237	0.064	0.050	1.184	0.833
11	5.306	1.646	0.236	0.063	0.049	1.183	0.835
12	4.866	1.561	0.213	0.045	0.075	1.116	0.783
13	5.426	1.590	0.228	0.065	0.085	1.176	0.798
14	5.232	1.580	0.213	0.065	0.086	1.132	0.768
15	4.707	1.576	0.254	0.063	0.081	1.106	0.708
16	4.732	1.322	0.195	0.061	0.062	1.098	0.780
17	4.814	1.534	0.196	0.062	0.062	1.099	0.779
18	5.347	1.609	0.195	0.061	0.062	1.098	0.780
19	5.090	1.555	0.209	0.071	0.088	1.156	0.788
20	4.894	1.531	0.199	0.064	0.077	1.114	0.774
21	4.892	1.535	0.202	0.069	0.079	1.134	0.784
22	4.995	1.582	0.194	0.067	0.080	1.091	0.750
23	4.596	1.356	0.201	0.068	0.051	1.089	0.769
24	4.852	1.524	0.202	0.068	0.052	1.090	0.768
25	5.053	1.588	0.201	0.068	0.051	1.089	0.769
26	4.978	1.459	0.196	0.070	0.064	1.090	0.760
27	5.055	1.517	0.201	0.057	0.064	1.128	0.806
28	4.764	1.465	0.184	0.060	0.060	1.032	0.728
29	4.552	1.484	0.179	0.055	0.061	1.042	0.747
30	4.572	1.473	0.206	0.050	0.049	1.083	0.778
31	4.671	1.483	0.207	0.051	0.050	1.084	0.776
1							

Total	157.75	49.18	6.90	1.86	2.00	35.05	24.29
Avg.	5.089	1.586	0.223	0.060	0.064	1.131	0.784

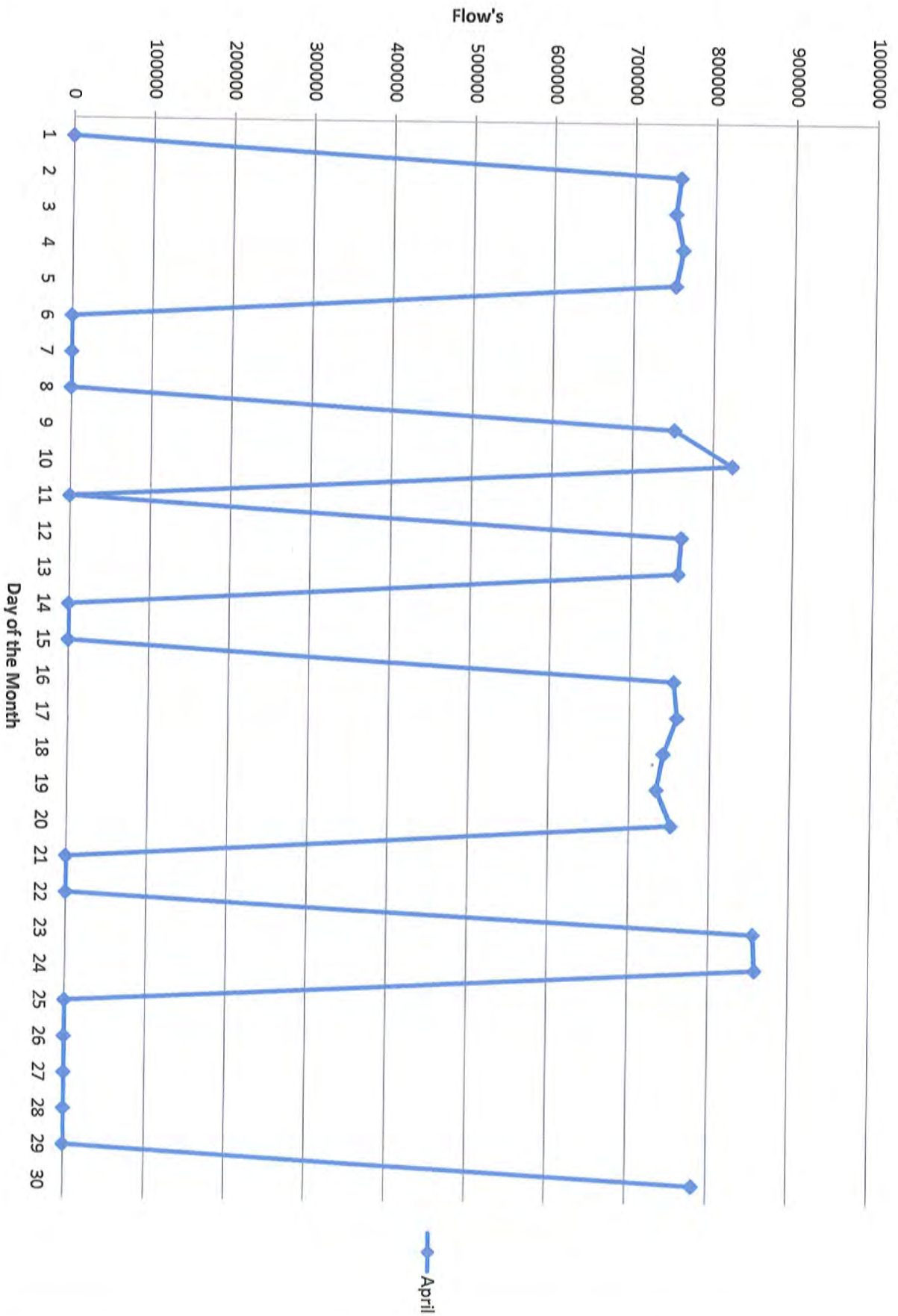
NOTES:

2008 FLOWMETERS

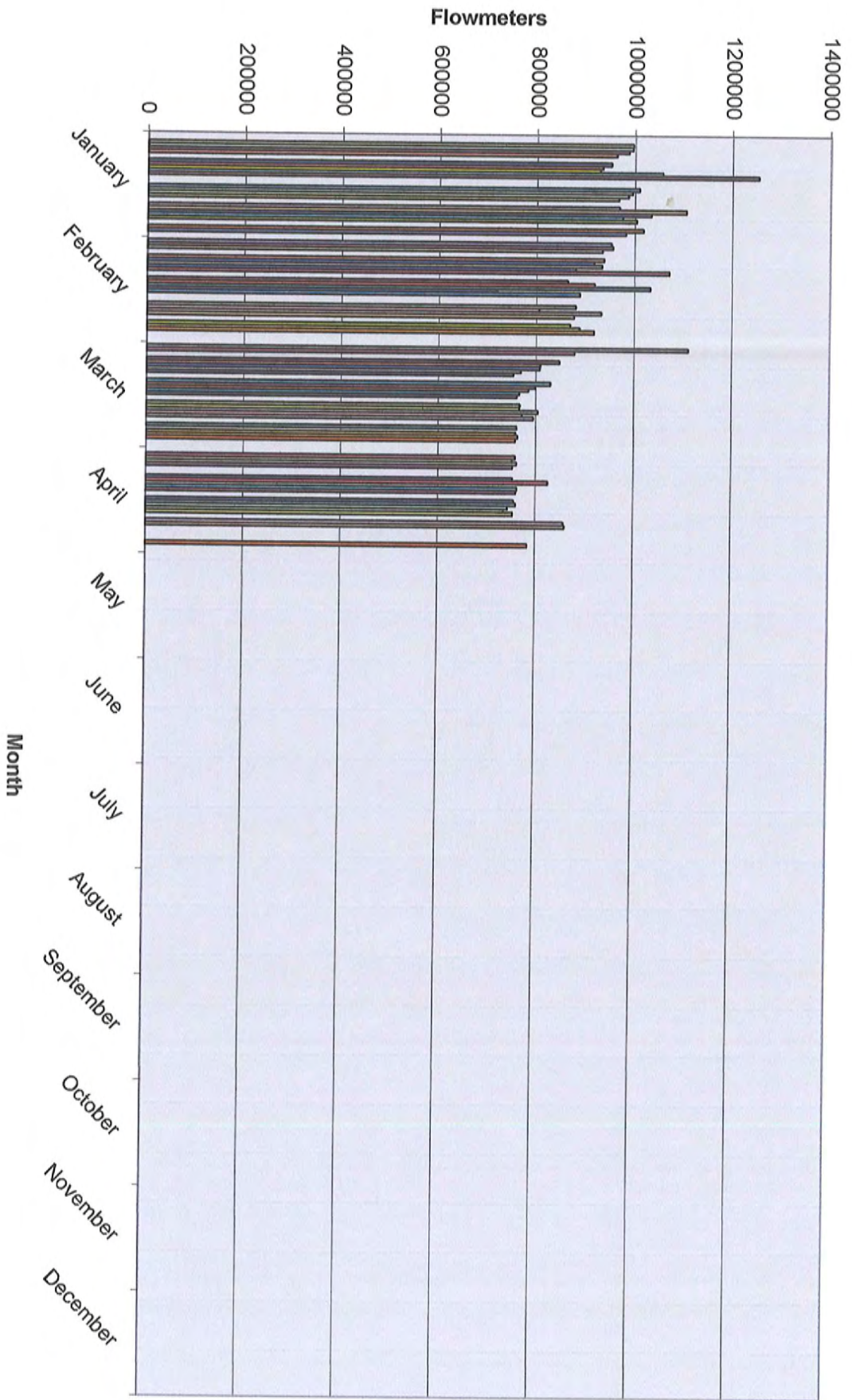
2012 APRIL 2ND QUARTER- METERS FROM WEST GOSHEN - CC COLLECTION

DATE	HERSHEY'S MILL		ASHERIDGE		HICKS METER		RESERVOIR		SHERMAN		BARKWAY	
	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD
04/01/12												
04/02/12					4,824,716	273,407						
04/03/12	23,223,511	57,112	1,399,826	63,940	4,854,370	298,540			780,858	5,670	2,361,445	9,848
04/04/12					4,882,923	285,530						
04/05/12	23,238,478	74,835	1,401,004	58,900	4,910,838	279,150			781,727	5,345	2,363,243	8,990
04/06/12												
04/07/12												
04/08/12												
04/09/12					5,001,713	227,188						
04/10/12	23,263,303	49,650	1,404,183	63,580	5,033,933	322,200			785,394	7,314	2,368,691	10,896
04/11/12												
04/12/12	23,274,610	56,535	1,405,425	62,100	5,091,157	288,120			786,760	6,880	2,370,844	10,765
04/13/12					5,120,632	294,750						
04/14/12												
04/15/12												
04/16/12					5,196,067	251,450						
04/17/12					5,226,582	305,150						
04/18/12					5,255,766	291,840						
04/19/12	23,313,783	55,961	1,409,738	61,614	5,284,830	290,640			791,246	6,409	2,378,240	10,566
04/20/12					5,314,247	294,170						
04/21/12												
04/22/12												
04/23/12					5,398,177	279,767						
04/24/12					5,430,052	318,750						
04/25/12												
04/26/12	23,355,662	59,827	1,414,639	70,014					796,022	6,823	2,386,775	10,764
04/27/12												
04/28/12												
04/29/12												
04/30/12					5,592,938	271,477	155,449,245	4,865,425				
		58,987		63,358		285,508		285,613		6,407		10,305

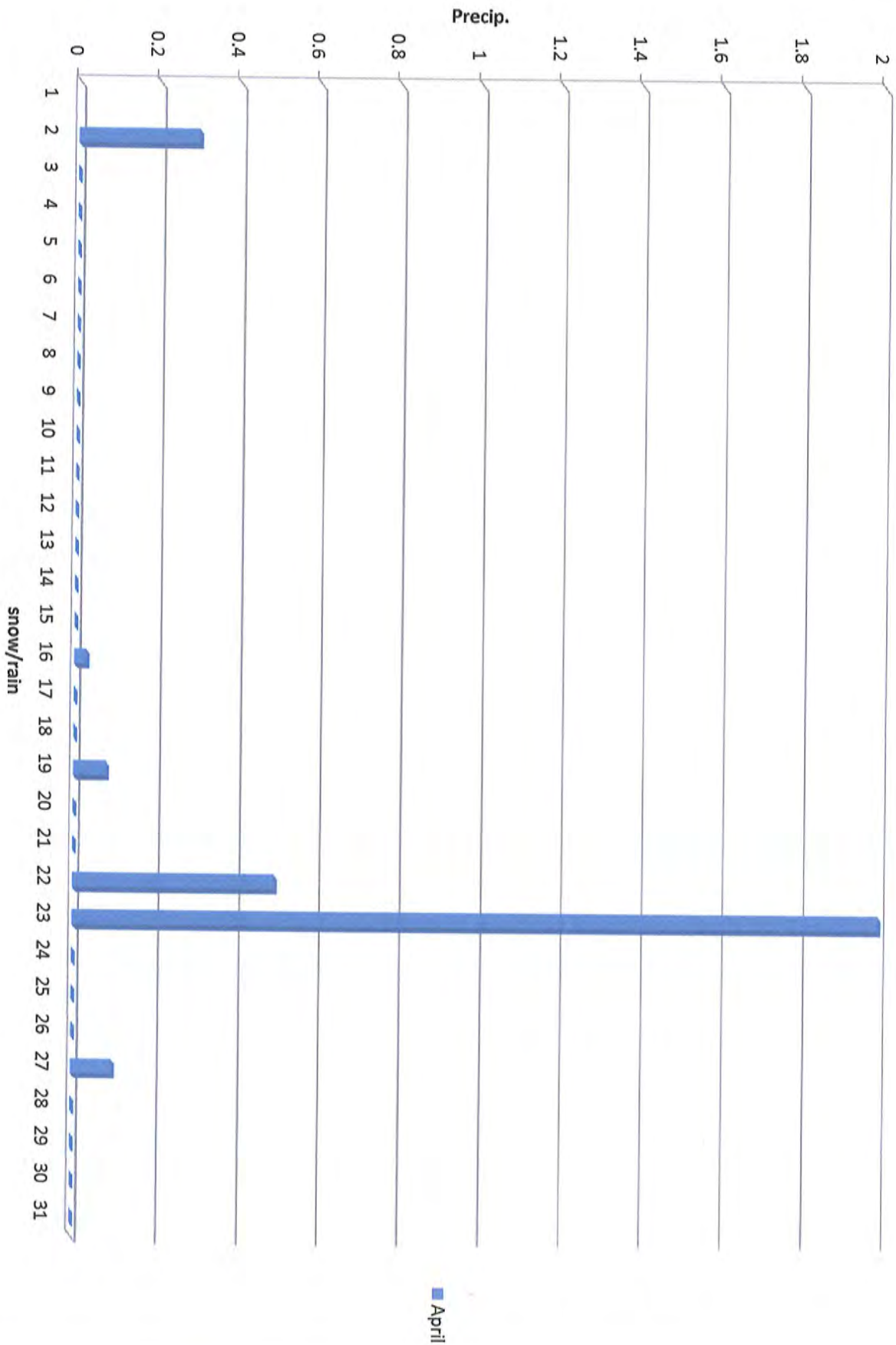
Flowmeters April 2012



Monthly Totals 2012 Jan-Dec



April Precip. 3.01 - 2012



2012 Monthly Precipitation

