

EAST GOSHEN MUNICIPAL AUTHORITY

May 12, 2014

Monday 7:00 PM

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE
 - a. Ask if anyone will be taping the meeting?

2. CHAIRMAN'S REPORT/OTHER MEMBERS REPORTS

3. 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 April 2014

3. APPROVAL OF MINUTES
 - a. April 21, 2014

4. APPROVAL OF INVOICES

a. Pennoni	Invoice #587993	\$ 197.25
b. Pennoni	Invoice #587994	\$4,724.50
c. Pennoni	Invoice #587995	\$ 992.00
d. Pennoni	Invoice #587996	\$4,562.25
e. Pennoni	Invoice #587997	\$ 644.25

5. LIAISON REPORTS
6. FINANCIAL REPORTS
 - a. April 2014 Report

7. OLD BUSINESS
 - a.

8. GOALS
 - a. Review current mission statement and provide the Board of Supervisors with changes, if needed – June 1, 2014 **May 8 – The MA does not have a current mission statement. A first draft is included in the packet.**

 - b. Submit an article for each newsletter – Due date for newsletter
Need by 1/31/14 – Dana **Completed**
Need by 4/30/14 – Jack **Completed**
Need by 7/1/14
Need by 10/31/14

- c. Obtain PA DEP approval for the Act 537 Plan revision for the Reservoir Road Pump Station – December 31, 2014 **May 8 - Revisions submitted to EGMA, EGPC, WGSTP, WGPC, CCHD, and CCPC**
 - d. Develop a recommendation on covers for the SBRs – August 1, 2014
 - e. Attend West Goshen Meetings quarterly – more often if needed.
 - 1st Quarter (March) - **Jack**
 - 2nd Quarter (June) - Ed
 - 3rd Quarter (September)
 - 4th Quarter (December)
 - f. Respond to capacity requests in 45 days or less.
211 Ellis Lane – 1 EDU existing house, 195 Wylpen Place – 1 EDU existing house
 - g. Continue to implement I & I Plan **April 14 – Status Report received**
 - h. Operate RCSTP in compliance with NPDES Permit
January, February, March,
9. NEW BUSINESS
- a. Authorize Chairman to execute Reservoir Road PS Act 537 Revision
10. CAPACITY REQUESTS
- a. None
11. ANY OTHER MATTER
12. CORRESPONDENCE AND REPORTS OF INTEREST
- a.
13. PUBLIC COMMENT
14. ADJOURNMENT

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

May 9, 2014

To: Municipal Authority
From: Mark Miller
Re: April 2014 Monthly Report

Meters: All meters were read on a daily basis. After the heavy rain last week we walked the interceptor line and pulled manholes to do a visual inspection. The new portable meters have been ordered and the others were sent for calibration.

C.C. Collection: All pumping stations were visited on a daily basis. We did not incur any problems during the month. We assisted West Goshen last Wednesday night into Thursday morning; they had to shut down the Westtown Way Pump Station for repairs. We had to plug the interceptor line thru out the night to regulate the flow.

R.C. Collection: The pumping stations were visited on a routine basis with no problems to report.

We have been repairing laterals on both systems from missing caps to broken stack pipes.

R.C. Plant: All the wet well pumps have been pulled out for routine maintenance; we will now begin to pull the SBR pumps for maintenance.

Alarms: We responded to 73 alarms for the month of April.

PA One Calls: We received 123 PA One calls in April.



MEMORANDUM

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

FROM: Michael Ellis, P.E.
Authority Engineer

DATE: May 8, 2014

SUBJECT: Engineer's Report

Invoices

- Invoices with summaries are provided under separate cover.

Ridley Creek Sewage Treatment Plant (RCSTP)

- Pennoni continues to provide operations assistance as needed. No operational issues were brought to our attention in April.

Reserve Pump Station Elimination

- The contractor has provided all of the required contract closeout documents; however, we have not yet reviewed the as-built plans as of the date of this memo. We intend to review the plans prior to the May 12 Municipal Authority meeting. There are two outstanding punchlist items that still need to be addressed: removal of the filter sock along the creek and re-seeding/re-topsoiling the lawn area at the old pump station driveway and building. We have reviewed the other submitted closeout documents and final payment request. We have certified the final payment request and forwarded it to the Township with a recommendation that payment be approved but the check not be issued until the as-built plans have been reviewed and the punchlist work has been completed to the Township's satisfaction.

Reservoir Road Pump Station Act 537 Plan

- Conestoga-Rovers & Associates (CRA) finalized the Phase 1 bog turtle habitat assessment report and submitted it to the U.S. Fish & Wildlife Service (USFWS) in late April.
- We finalized the Act 537 Plan report and plot plans. The Act 537 Plan was submitted the East Goshen Township Planning Commission, West Goshen Township Planning Commission, Chester County Planning Commission, Chester County Health Department, and West Goshen Sewage Treatment Plant operator on May 8, 2014. The agencies are allotted 60 days to review and provide comments per PADEP Act 537 guidelines. A copy was also submitted to the Municipal Authority to sign Section K of Component 3m.

EGMA 1401

- As previously reported, the PA Department of Conservation and Natural Resources (DCNR) is requiring a field botanical survey of potential threats to four special concern plant species. We have discussed whether the survey is still required with DCNR given the revised force main routing and revised PNDI search that returned no DCNR conflicts. We have submitted documentation of the revised force main routing to DCNR, and we expect to receive feedback from them by May 12.
- Tentative Act 537 Planning schedule (assuming no botanical survey or Phase 2 bog turtle screening):

Estimated Date

- Submit to County and Township Agencies May 8, 2014
- USFWS Bog Turtle Habitat Coordination June 22, 2014
- 60-day County and Township Review Period July 8, 2014
- Revisions per Agency Comments July 11, 2014
- 30-Day Public Comment Period August 11, 2014
- East Goshen and West Goshen Township Adoption August 19, 2014
- PADEP Review and Approval (120 days) December 20, 2014

New Sewer Connections

- We reviewed a design plan and report submission for a new private wastewater pump station for Acero Precision at 1340 Enterprise Drive, discussed comments and questions with the PW Director, and forwarded comments to the design consultant.

Fairway Village Manhole Lining

- We coordinated scheduling of the SprayWall monolithic polyurethane interior manhole lining system with the contractor including attending a pre-construction field meeting. They tentatively plan to perform the work the week of June 10, 2014.

RCSTP Tank Covers

- We continued the evaluation of flexible tank cover alternatives and forwarded a DRAFT updated summary memo to the Township. We are still awaiting feedback and pricing from a couple of vendors before finalizing the memo. The memo will be finalized by the June Municipal Authority meeting.



Monthly Operations Report: April 2014

Treatment Process Operation

During March 2014, there were no exceedances of the final effluent discharge limitations for outfall 001 and no discharge from Outfall 002. Table 1 illustrates the final effluent composite sample data reported for the March 2014 eDMR.

Table 1

March 2014 - 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 4, 2014	0.454	2.1	8.0	3	11	3.08	11.66	0.25	0.95	1	0.0000
April 11, 2014	0.528	7.5	33.0	7	31	3.88	17.09	0.63	2.77	1	0.0000
March 18, 2014	0.424	2.2	7.78	2	7	5.59	19.77	0.24	0.85	1	0.0000
March 25, 2014	0.473	4.4	17.4	3	12	1.51	5.96	0.41	1.62	1	0.0000
Average	0.4698	4.1	16.5	4	15	3.515	13.62	0.38	1.55	1	0.0000
Minimum	0.4240	2.1	7.8	2	7	1.510	5.96	0.24	0.85	1	0.0000
Maximum	0.5280	7.5	33.0	7	31	5.590	19.77	0.63	2.77	1	0.0000

The monthly average total phosphorus concentration was 0.38 mg/L as compared to the discharge limitation of 0.5 mg/L. During the month, the final effluent total phosphorus concentration discharged ranged from 0.24 mg/L to 0.63 mg/L with an average of 44.4 gallons per day of aluminum sulfate solution.

There was no discharge to Applebrook, Outfall 002, during March 2014.

Table 2 illustrates the influent wastewater pollutant loadings for March 2013. The influent loadings remained within the treatment facility design loadings.



Table 2

March 2014 - 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											
March 4, 2014	0.464	160	619	136	526	25.9	100	36.1	140	4.8	19
April 11, 2014	0.562	177	685	224	867	25.3	98	39.6	153	4.0	15
March 18, 2014	0.446	124	480	44	170	22.4	87	35.7	138	4.3	17
March 25, 2014	0.592	184	712	132	511	27.4	106	39.0	151	4.5	17
Average	0.5160	161	624	134	519	25.3	98	37.6	146	4.4	17
Minimum	0.4460	124	480	44	170	22.4	87	35.7	138	4.0	15
Maximum	0.5920	184	712	224	867	27.4	106	39.6	153	4.8	19

During the month of April 2014, the total phosphorus concentrations at the final effluent outfall 001 were slightly elevated at or above the permitted discharge limitation of 0.5 mg/L. Aluminum sulfate feed rates were increased as the month progressed to assist with total phosphorus removal. During April, especially during 3 of the 4 scheduled sampling events, the influent wastewater flow to the SBRs ranged from 12% to 43% above the March monthly average. Periodically, the influent flow rate and volume to the SBRs resulted in "Filled Decants." The Filled Decant condition results in diverting a mixture of influent wastewater and treated effluent directly to the post flow equalization basins, disc filters and disinfection prior to discharge through outfall 001. The preliminary data indicates that the final effluent total phosphorus concentration is likely to slightly exceed the permitted concentration of 0.50 mg/L. The mass loading permit limitation is anticipated to remain below the monthly average of 3.0 lbs per day.

Table 5 presents a summary of the final effluent flow total and number of filled decant conditions observed during the April 2014 compliance sampling events.



Table 5

Final Effluent Outfall 001 24 Hr Composite Sample Collection		Flow recorded on Sample Collection End Date	Number of Filled Decants Recorded During Sample Collection Period
Start Date	End Date	MGD	each
3/31/14	4/1/14	0.512	1
4/7/14	4/8/14	0.508	2
4/14/14	4/15/14	0.692	7
4/21/14	4/22/14	0.458	0
4/28/14	4/29/14	0.549	0

Improvement management for total phosphorus during periods of elevated flow rates to the SBRs resulting in Filled Decant conditions include the following actions:

- Utilize the polymer feed system which provided polymer prior to filtration to assist with coagulation/flocculation of solids and total phosphorus.
 - Coordination with Aqua Aerobics for a compatible product for the filter media is strongly recommended.
- Provide for the capability of addition of aluminum sulfate to the influent wastewater during a Filled Decant condition.
- Evaluate utilizing poly aluminum chloride (PAC) solution prior to filtration in place of aluminum sulfate solution. Higher dosages of aluminum sulfate solution contribute to elevated TSS concentrations and turbidity whereas PAC has negligible impacts.
- Re-evaluate the use of real time control loop system for integrating aluminum sulfate feed rates with disc filter and/or SBR influent flow rates.

Table 3 presents the final effluent data for the month of April 2014.



Table 3

April 2014 - 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											
April 1, 2014	0.512	4.2	17.9	8	34	1.39	5.94	0.49	2.09	1	0.0000
April 8, 2014	0.508	4.9	20.8	10	42	0.12	0.53	0.68	2.88	1	0.0000
April 15, 2014	0.692	3.5	20.20	8	46	0.25	1.45	0.50	2.89	1	0.0000
April 22, 2014	0.458	4.3	16.42	7	27	0.55	2.10	0.39	1.49	1	0.0000
April 29, 2014	0.549										
Average	0.544	4.2	18.8	8	37	0.579	2.50	0.52	2.34	1	0.0000
Minimum	0.458	3.5	16.4	7	27	0.124	0.53	0.39	1.49	1	0.0000
Maximum	0.692	4.9	20.8	10	46	1.390	5.94	0.68	2.89	1	0.0000

During March 2014, there was no discharge to Applebrook.

The influent wastewater pollutant concentrations and loading entering the wastewater treatment facility remained within the design concentrations and loadings. Composite samples are collected at the influent doghouse manhole and influent wet well. The influent flow meter reading is collected from the influent flow meter located prior to the Screening Building, excluding the internal recycle flows.

Table 4 presents the available pollutant data for the influent wastewater collected at the doghouse manhole.



Table 4

April 2014 - Influent Wastewater												
Design Basis	Influent Flow	SBR Flow	BOD ₅		TSS		NH ₄ -N		TKN, mg/L		Phosphorus, Total, mg/L	
	MGD	MGD	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
			335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date												
April 1, 2014	0.517	0.581	89.3	346	64	248	20.8	80	25	97	3.2	12
April 8, 2014	0.553	0.600	125	484	120	464	17.4	67	25.7	99	3.5	14
April 15, 2014	0.737	0.739	140	542	128	495	28.0	108	63.6	246	4.8	19
April 22, 2014	0.462	0.481	156	604	132	511	24.4	94	40.1	155	4.9	19
April 29, 2014	0.558	0.625										
Average	0.565	0.605	128	494	111	430	22.7	88	38.6	149	4.1	16
Minimum	0.4620	0.4810	89	346	64	248	17.4	67	25.0	97	3.2	12
Maximum	0.7370	0.7390	156	604	132	511	28.0	108	63.6	246	4.9	19

Sequencing batch reactors (SBRs) numbered 1, 3 and 4 were in service during the month of April.

Process monitoring of each SBR included ammonia as N, nitrite as N, Nitrate as N, COD, SSV, MLSS and total phosphorus. Foam concentrations remain reduced during the month of April. Increased sludge wasting was continued to maintain lower the MLSS concentrations. SBRs numbered 3 and 4 were observed to have a maximum of approximately 5% of the surface area covered with a medium brown colored foam. Adjustments to the treatment process to lower the MLSS concentrations and raise the F:M ratio within the target range of 0.045 to 0.06 were ongoing during the month.

Daily monitoring of the influent and final effluent 24-hour composites samples for total phosphorus is ongoing. Daily analysis of the final effluent flow equalization grab sample is total phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at the influent pump station wet well is ongoing.

Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued. The volume of aluminum sulfate solution to the SBRs was increased from 45 gpd to as high as 90 gpd during April to assist with total phosphorus removal. Increased aluminum sulfate dosages prior to filtration were



increased during the month. Soda ash addition to the SBRs to assist with maintain desired pH concentrations above 7.0 standard units continued during the month. Soda ash addition to the SBRs during April averaged 308 pounds per day.

SBR No. 2 remains out of service as a treatment unit, however, partially filled with MLSS which continuously mixed and aerated. The majority of the contents were transferred to the sludge holding tanks. This SBR was periodically placed in service to assist with managing peak flows to reduce the impact of Filled Decant conditions.

The decanter for SBR 3 continued to be periodically observed as being slightly tilted within the water level. The effluent knife valve was routinely closed and the decanter filled with water to assist with lowering the decanter within the water level. The frequency of occurrence ranged from one to several occurrences during the month. The SBR is planned for removal from service during late May or early June for inspection.

Flow data:

April 2014			
Flow Meter Location	Total Volume for Month, MGD	Average Daily Flow, gpd	Daily Maximum Flow, gpd
Influent Wastewater to Screening Building	14.467	466,898	937,340
Influent Wastewater to SBRs	16.000	516,147	1,367,000
Internal Recycle	1.623	49,248	429,230
Treated Effluent to Disc Filters	15.488	516,258	1,334,206
Final Effluent Discharge	14.705	495,774	1,325,000
Applebrook Golf Course	0	0	

Chemical Usage:

April 2014		
Chemical	Daily Average	Total Monthly
Soda Ash	308	9,250
Magnesium Hydroxide	0	0
Aluminum Sulfate solution	54.3	1,630
Polymer (centrifuge)	0.86*	14 gallons

*Sixteen (16) days of centrifuge operation



Solids Dewatering and Disposal: April 2014

Sludge Dewatering Summary	
Gallons of sludge dewatered	241,796 gallons
Average Dewatered Total Solids, %	18.95%
Wet Tons	41.96
Dry Tons	7.965
Number of dumpsters	4

**A total of four (4) dumpsters were filled and five (5) dumpsters were removed during April.*

During the month, sludge wasting to the sludge holding tanks and decanting of the sludge holding tanks was ongoing. Process monitoring included pH, total alkalinity and total solids.

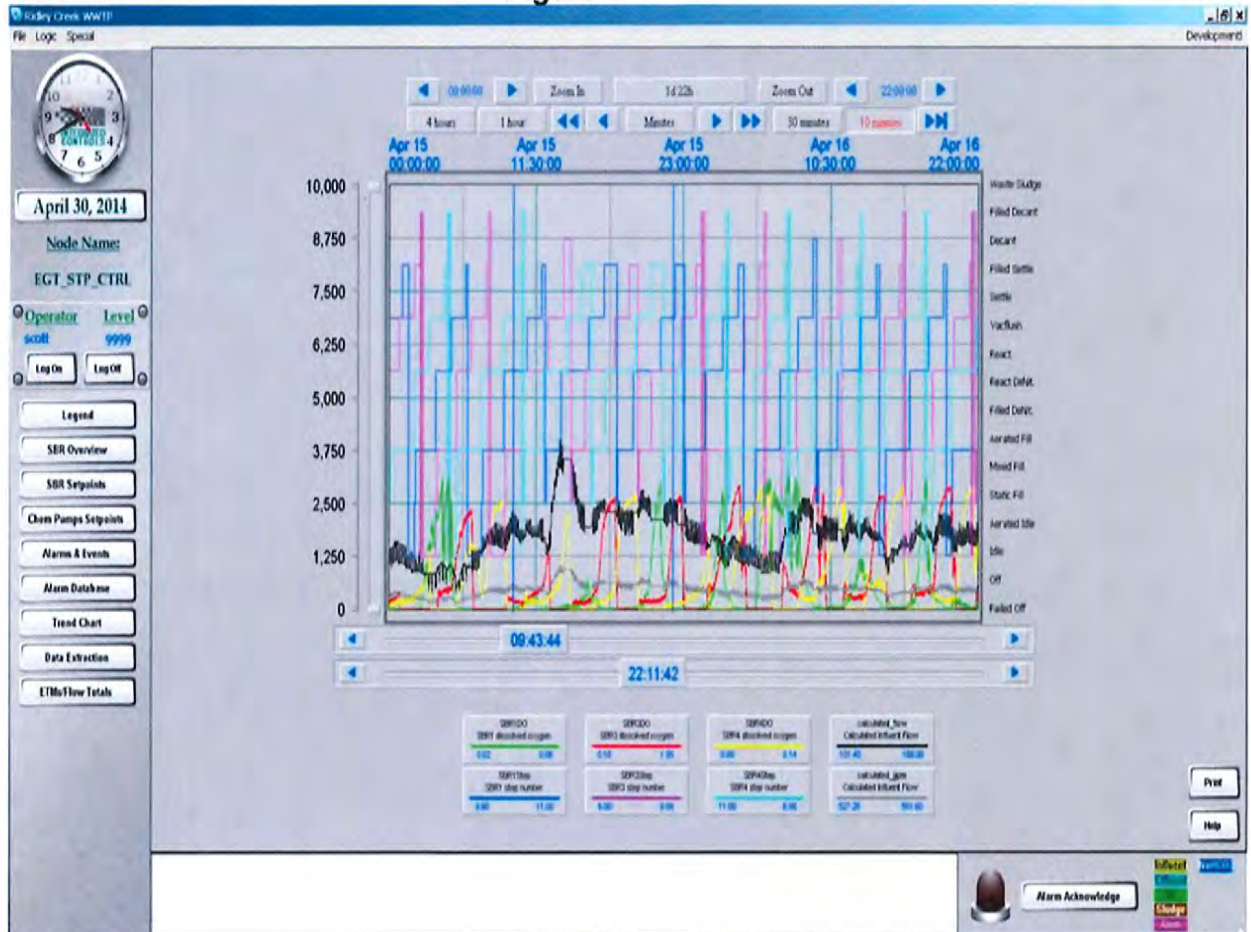
Sludge holding tank No. 1 was in service. The level at the beginning of the month was 12.55 feet and the level at the end of the month was 7.11 feet. The initial total solids concentration was 1.21% and ended the month as 0.625% total solids. The average pH concentration was 6.98 S.U. and total alkalinity of 325 mg/L. No supernatant was decanted during the month. A total of 650 pounds of soda ash were added during the month for pH adjustment.

Sludge holding tank No. 2 was in service. The level at the beginning of the month was 5.81 feet and the level at the end of the month was 13.78 feet. The initial total solids concentration were 0.69% and ended the month as 0.85% total solids. The average pH concentration was 7.05 S.U. and total alkalinity of 319 mg/L. 207,013 gallons of supernatant were decanted during the month. A total of 400 pounds of soda ash were added during the month for pH adjustment.

Significant Storm/Hydraulic Loading Events

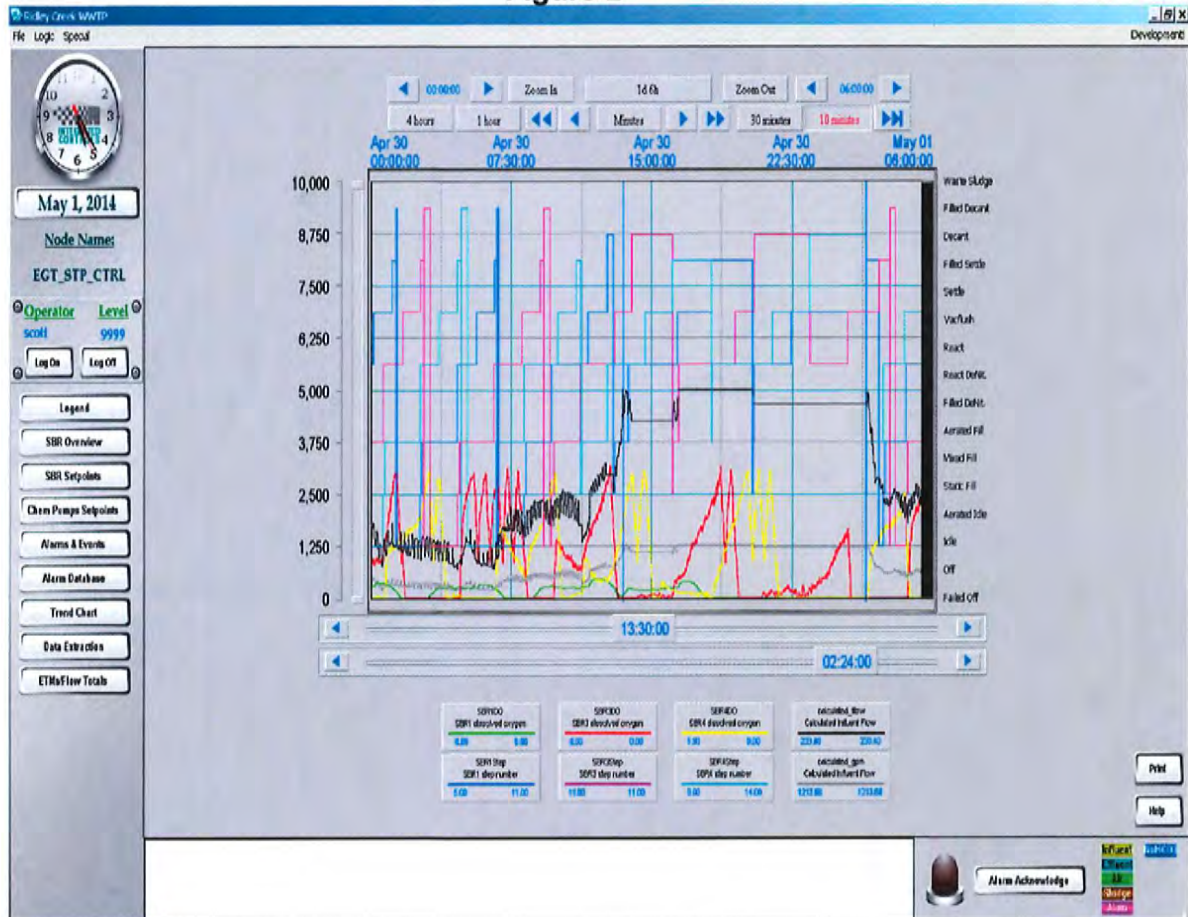
On April 15, 2014, the influent flows arte to the SBRs continuously exceed 100% of the hydraulic design rate from 9:43 through 22:11 (approximately 13 hours). A total 7 Filled Decant and 1 Filled settle condition were observed for a total of 302 minutes (5.03 hours). The effluent clarity remained good with no bulking or excessive solids present within the discharge at outfall 001. Figure 1 presents the influent flow rate to the SBRs as indicated by the black colored line on the graph.

Figure 1



On April 30th through May 1st, the influent flows arte to the SBRs continuously exceed 233% of the hydraulic design rate from 13:30 through 2:24 (approximately 12 hours). A total of 11 Filled Decant and Filled settle conditions were observed for a total of 805 minutes (13.4 hours). The effluent clarity remained good with no bulking or excessive solids present within the discharge at outfall 001. Figure 2 presents the influent flow rate to the SBRs as indicated by the black colored line on the graph.

Figure 2



Minor Repairs and Preventative Maintenance

- Replaced a ballast in UV bank Number 2.

2014 APRIL 2ND QUARTER- METERS FROM WEST GOSHEN - CC COLLECTION

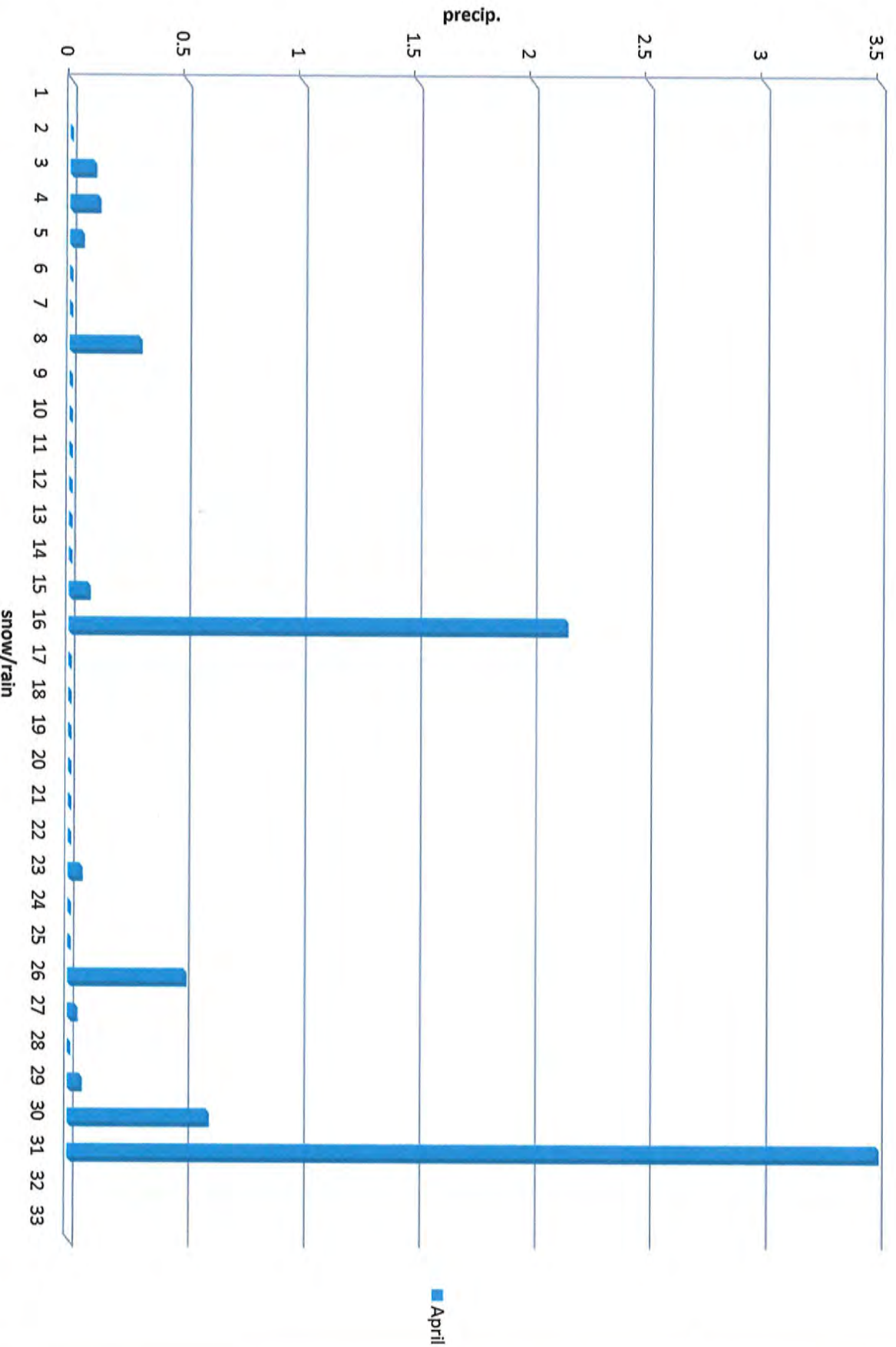
DATE	HERSHEY'S MILL		ASHBRIDGE		HICKS METER		RESERVOIR		BARWYVA	
	READING	GPD	READING	GPD	READING	GPD	READING	GPD	READING	GPD
04/01/14	6,742,390	1,134,795	1,854,511	105,850	10,605,847	304,850	44,364,379	980,653	3,139,636	14,543
04/02/14	6,865,955	1,235,750	1,855,305	79,400	10,635,942	300,950	44,451,951	875,720	3,140,851	12,150
04/03/14	6,981,165	1,152,100	1,855,994	68,900	10,668,519	305,770	44,533,930	819,790	3,141,957	11,060
04/04/14	7,106,420	1,252,550	1,856,822	82,800	10,699,020	325,010	44,620,807	868,770	3,143,117	11,600
04/05/14										
04/06/14										
04/07/14	7,460,620	1,180,667	1,859,209	79,567	10,775,626	255,353	44,840,592	732,617	3,147,047	13,100
04/08/14	7,565,144	1,045,240	1,859,983	77,400	10,807,391	317,650	44,922,399	818,070	3,148,113	10,660
04/09/14	7,671,448	1,063,040	1,860,739	75,600	10,838,840	314,490	45,002,222	798,230	3,149,316	12,030
04/10/14	7,766,569	951,210	1,861,399	66,000	10,868,543	297,030	45,074,239	720,170	3,150,429	11,190
04/11/14	7,867,470	1,009,010	1,862,161	78,200	10,899,290	307,470	45,152,953	787,140	3,151,662	12,530
04/12/14										
04/13/14										
04/14/14	8,156,596	963,753	1,864,337	71,867	10,974,752	251,540	45,355,138	673,950	3,155,433	12,503
04/15/14	8,245,758	891,620	1,865,024	68,700	11,004,253	295,010	45,427,557	724,190	3,156,498	10,650
04/16/14	8,359,781	1,140,230	1,866,318	128,400	11,045,424	411,710	45,550,670	1,231,130	3,158,249	17,510
04/17/14	8,461,721	1,019,400	1,867,095	77,700	11,077,015	315,910	45,638,671	880,010	3,159,470	12,210
04/18/14										
04/19/14										
04/20/14										
04/21/14	8,968,060	1,315,898	1,871,205	102,750	11,211,895	337,200	46,013,605	937,335	3,166,075	16,513
04/22/14										
04/23/14										
04/24/14	9,174,590	621,700	1,872,558	45,100	11,269,498	192,010	46,154,303	488,993	3,168,236	7,203
04/25/14	9,269,475	948,850	1,873,296	73,800	11,300,079	305,810	46,228,064	737,610	3,169,499	12,630
04/26/14										
04/27/14										
04/28/14	9,542,023	908,493	1,875,435	71,300	11,374,095	246,720	46,432,133	690,230	3,173,056	11,857
04/29/14	9,625,044	830,210	1,876,105	67,000	11,403,684	295,890	46,505,954	738,210	3,174,230	11,740
04/30/14	9,714,127	890,830	1,876,928	82,300	11,436,134	324,500	46,590,553	845,990	3,175,498	12,680
		1,029,229		79,139		300,266		806,253		12,331
		19,555,346		1,503,633		5,704,873		15,318,806		234,298
		19		19		19		19		19

2014 SUMMARY OF METER READINGS

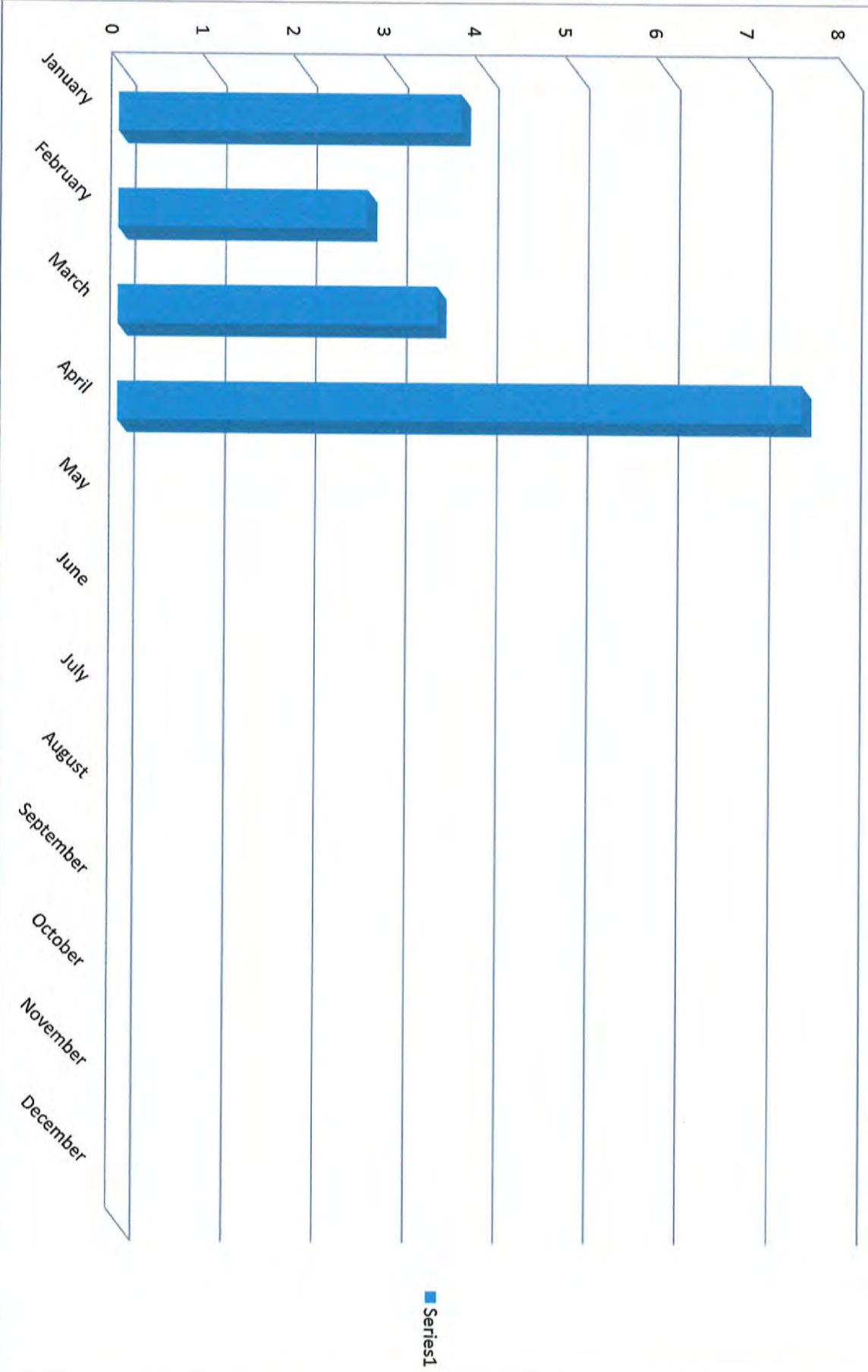
	WESTTOWN WAY	ELLIS LANE	PAOLI PIKE	WILSON DRIVE	SUMMIT	HERSHEY MILL	ASHBRIDGE	HICKS	RESERVOIR	BARKWAY
JANUARY	1,120,955	112,631	63,436	80,890	24,000			256,116	795,376	
FEBRUARY	1,249,173	138,449	68,472	88,803	24,000			287,831	881,433	
MARCH	1,182,533	126,933	67,479	84,197	24,000	860,074	75,186	291,520	827,109	28,696
APRIL	1,242,798	143,329	76,736	88,674	24,000	1,029,229	79,139	300,256	806,253	12,331
MAY										
JUNE										
JULY										
AUGUST										
SEPTEMBER										
OCTOBER										
NOVEMBER										
DECEMBER										
Total Flows										
Monthly Ave	1,198,865	130,336	69,031	85,641	24,000	944,652	77,163	283,681	827,543	20,514

To
West Goshen 913,858

April Precip. 7.53-2014

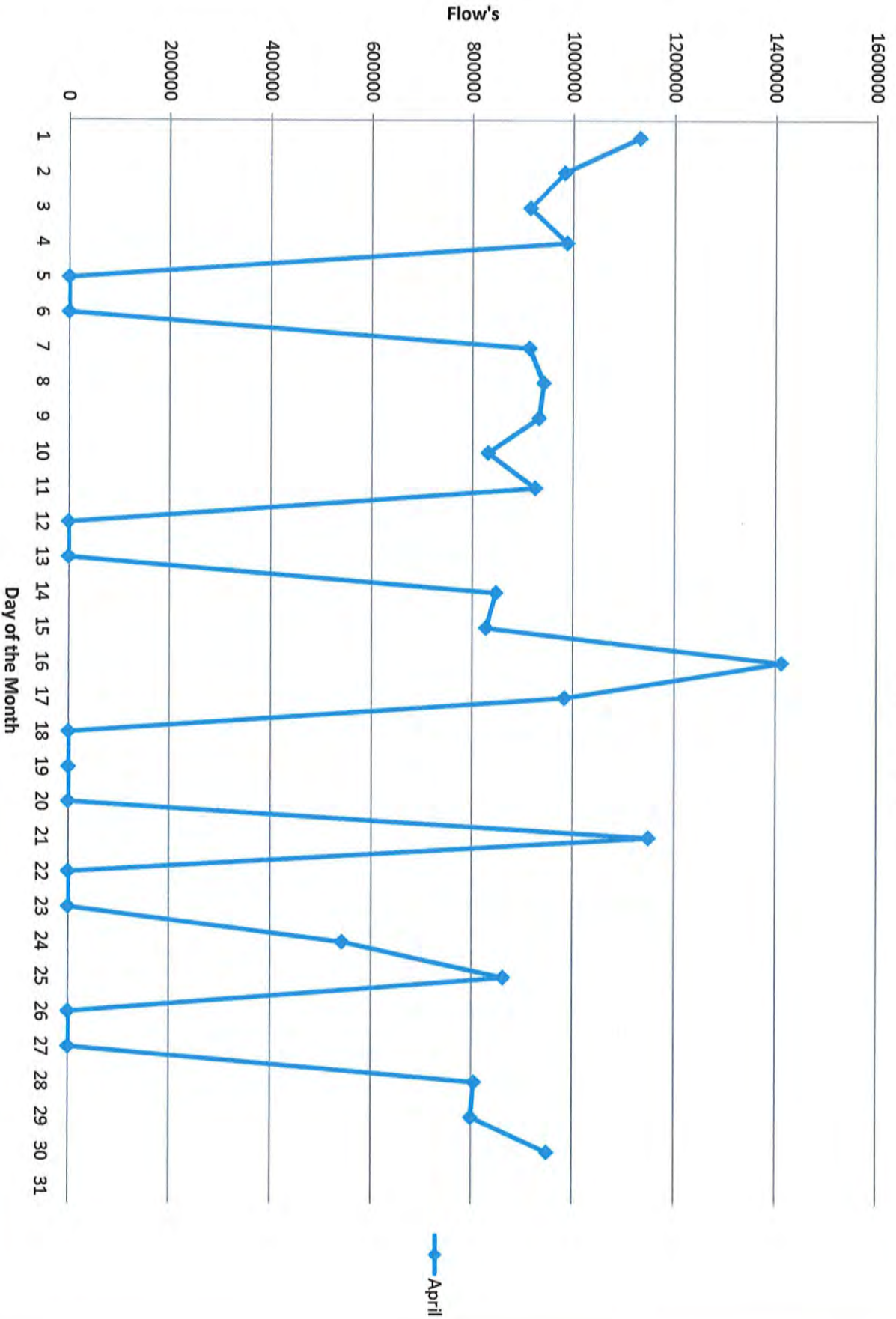


2013 Monthly Precipitation

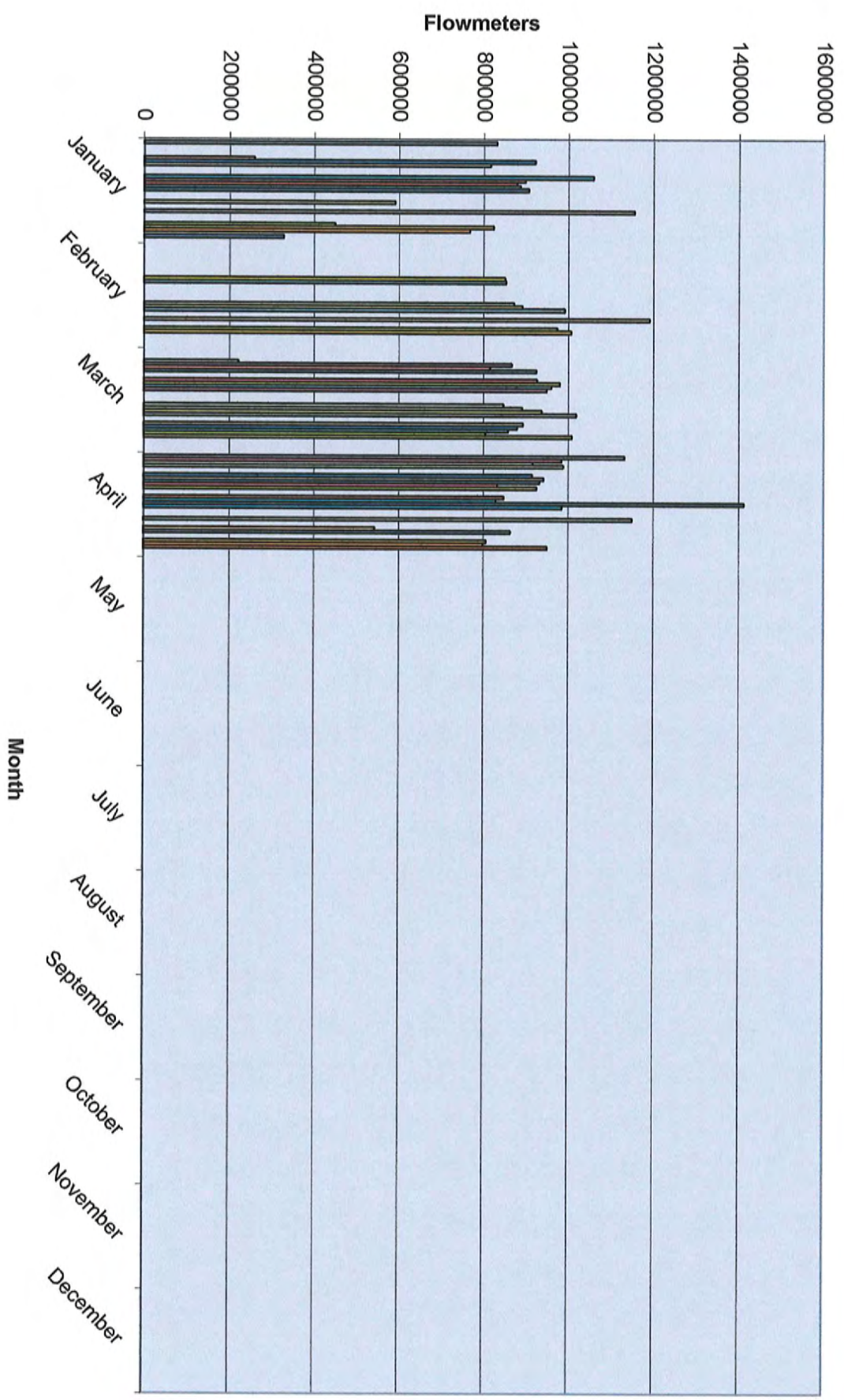


■ Series1

Flowmeters April 2014



Monthly Totals 2012 Jan-Dec



draft
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY
MEETING MINUTES
April 21, 2014

The East Goshen Township Municipal Authority held their regular public meeting on Monday, April 21, 2014 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Jack Yahraes, Fran Beck, Dana Pizarro, Kevin Cummings and Ed McAssey. Also in attendance were: Rick Smith (Township Manager), Bob Adams (Attorney), Mark Miller (Director of Public Works), Scott Towler (BFES), Mike Ellis (Pennoni), and Walter Wujcik, 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>SBR – Sequencing Batch Reactor</i>
<i>I&I – Inflow & Infiltration</i>	<i>SSO – Sanitary System Overflow</i>
<i>LCSTP – Lockwood Chase Sewer Treatment Plant</i>	<i>WAS – Waste Activated Sludge</i>

Call to Order & Pledge of Allegiance

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

Chairman’s Report/Other Members’ Reports

None

Approval of Minutes

Fran moved to accept the minutes of March 10, 2014 as corrected. Dana seconded the motion. The motion passed unanimously.

Approval of Invoices

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

- a. Pennoni #584215 \$ 5,909.00
- b. Pennoni #584216 \$ 1,610.25
- c. Pennoni #584218 \$ 7,198.00

Fran seconded the motion. The motion passed unanimously.

2. Kevin moved to approve payment of the following Gawthrop invoices:

- a. Gawthrop #118753 \$ 960.00
- b. Gawthrop #117715 \$ 700.00

Fran seconded the motion. The motion passed unanimously.

1 **Liaison Reports**

2 Conservancy Board – Walter reported that the CB is having their spring planting on Saturday,
3 June 14, 2014 at East Boot Road. They will fill in some more trees. Keep East Goshen
4 Beautiful Day was not as well attended because of the trip to Washington DC and the Electronics
5 Recycling event at East Goshen Park. He mentioned that the CB still has 2 vacancies.

6
7 **Financial Reports**

8 1. Jon Altshul’s April 3, 2014 Financial Report for March 2014:

9 The Municipal Authority recorded \$4,561 in revenues and \$20,062 in expenses in March, a
10 difference of -\$15,501. Engineering expenses and the quarterly administrative overhead
11 chargeback represented the bulk of expenses, while revenues came primarily from Tapping Fees
12 for two lots in Sorrell Hill. The fund balance is now \$1,613.549.

13 2. 1st Quarter Municipal Authority chargeback expenses:

14 a. ABC services (preparing & distributing packets)	\$1,771.38
15 b. Secretarial services (taking & preparing minutes)	\$ 210.00
16 c. Director of Finance/Treasurer	\$1,166.62
17 d. Staff Accountant	\$ 886.34
18 e. Director of Public Works	\$1,873.56
19 f. Manager	<u>\$2,135.12</u>
20 Total	\$8,043.02

21 Ed made a motion to approve payment of the chargeback expenses. Dana seconded the motion.
22 The motion passed unanimously.

23
24 **Old Business**

25 None

26
27 **Goals**

- 28 1. Rick provided copies of the By-Laws but was unable to find a Mission Statement. Jack will
29 check his files.
- 30 2. Jack will submit an article for the next newsletter which is due 4/30/14.
- 31 3. BOS Goal - Obtain PA DEP approval for the Act 537 Plan revision for the Reservoir Road
32 Pump Station by Dec. 31. 2014. Ready to submit to the County. See Pennoni’s report for details.
- 33 4. BOS Goal -Develop a recommendation on covers for the SBRs – August 1. 2014. A brief
34 study will be ready for review at the May meeting.
- 35 5. Respond to capacity request in 45 days or less:
- 36 a. 211 Ellis Lane – 1 EDU existing house
- 37 b. 195 Wylpen Place – 1 EDU existing house.
- 38 6. Continue to implement I&I - Mark Miller has started the smoke testing.
- 39 7. RCSTP was in compliance with NPDES permit January, February and March
- 40

41 **New Business**

42 1. Bog Turtle Habitat Assessment was done by Conestoga-Rovers at the negotiated price of
43 \$3,150. Mike walked the area with them. Several wetlands near the plant contain habitat
44 suitable to support bog turtles. An alternate access route will be to build a temporary bridge over
45 the creek from Bow Tree. If we avoid these wetlands, then Phase 2 survey/Phase 3 trapping will
46 likely not be required.

1 2. Portable Meters – Mark Miller requested approval to replace two of the portable flow meters.
2 They have been used for 7 years and parts are no longer available. The quote from North East
3 Technical Sales is \$5,941 for two portable meters, which includes software and USB cables. Ed
4 made a motion to approve the purchase of 2 portable meters for \$5,941. Fran seconded the
5 motion. The motion passed unanimously.

6
7 **Capacity Requests**

8 None

9
10 **Sewer Reports**

11 **1. Mark Miller, Director of Public Works** - March 2014 monthly report.

12 **Meters:** All meters were read on a daily basis. We pulled the portable meters. They were sent
13 out for calibration.

14 **C.C. Collection:** We televised 2000 feet of pipe in Supplee Valley along the creek. We also
15 repaired a dozen cleanout pipes that were damaged over the winter.

16 We visited all pump stations on a daily basis. We experienced a problem at the Hershey Mill
17 Pump Station when the main controller malfunctioned. In order to keep the station operational,
18 we had to operate the VFD's in the bypass mode.

19 **R.C. Collection:** The Hunt Country pump station was visited on a routine basis with no
20 problems to report.

21 **R.C. Plant:** We started pulling the wet well pumps out for routine maintenance. Two are
22 completed and the final one will be pulled this week. Once they are done, we will begin to pull
23 the SBR pumps.

24 **Alarms:** We responded to 27 alarms for the month of March.

25 **PA One Calls:** We received 78 PA One calls in March.

26 **Ashbridge Force Main** – Mark reported that on 3/16/14 the Police Department called to report
27 water coming up thru Manley Road. When he arrived at the intersection of Manley Road and
28 Pheasant Run Road, it was apparent that the 6” force main was broken. They called in a PA One
29 call and began to saw cut the roadway. The roadway was 12” thick. They dug most of the day
30 but were unable to locate the problem. They barricaded the area and came back on Monday.
31 Pump trucks were brought in to pump and haul through the night. On Monday, they located the
32 break and made repairs. The Force Main was put back in service at 2:30 pm.

33
34 **2. Pennoni** – Mike Ellis gave the following report for March:

35 **RCSTP** – Pennoni continues to provide operations assistance as needed. No operational issues
36 were brought to our attention in March.

37 **Reserve PS Elimination** – The contractor has provided two of the required contract closeout
38 documents including a letter from the geotechnical engineer confirming adequate backfill
39 compaction within the detention basin berm and a final payment request. We have notified the
40 contractor that they still need to provide as-built plans, written notification that they will return in
41 the spring to remove the filter sock along the creek (or removal of the filter sock now that it is
42 spring), contractor's release, statement of surety, and maintenance bond confirmation before
43 final payment can be made.

1 **Chapter 94 Annual Reports** – We completed the reports for the Ridley Creek STP, West
2 Goshen Service Area, and Westtown Service Area and submitted them to PADEP on March 26,
3 2014.

4 **Reservoir Road Pump Station Act 537 Plan** – We coordinated with Conestoga-Rovers &
5 Associates (CRA) to perform the Phase 1 bog turtle habitat assessment, and we were on-site
6 during the field assessment. CRA submitted a summary memo to the Township on March 20,
7 2014. CRA will also submit a report to the U.S. Fish & Wildlife Service (USFWS) and
8 coordinate project requirements with them due to presence of bog turtle habitat in certain isolated
9 areas within the project limits. We do not expect that a Phase 2 or Phase 3 bog turtle study will
10 be needed.

11 Following the bog turtle habitat assessment, we revised the force main routing and construction
12 access route to avoid bog turtle habitat and wetlands. The force main is now proposed to run
13 around the perimeter of the pond in Bow Tree instead of through an existing sewer easement
14 behind Achom Way. The construction access route to the connection point at the Ridley Creek
15 Interceptor is now proposed to be around the Bow Tree pond and across the Ridley Creek with a
16 temporary bridge (instead of accessing the site from the RCSTP). We anticipate one new sewer
17 easement will be needed for this revised routing through a residential property on the north side
18 of the Bow Tree pond.

19 We prepared plot plans for the revised routing including existing conditions from available
20 topographic and parcel GIS data, Bow Tree Land Development Plans, and in-field wetlands and
21 treeline observations (no field survey was performed). We completed the proposed plot plans for
22 the currently proposed project extents.

23 We are completing the Act 537 Plan report, and we anticipate making submissions to the East
24 Goshen Township Planning Commission, West Goshen Township Planning Commission,
25 Chester County Planning Commission, Chester County Health Department, and West Goshen
26 Sewage Treatment Plant operator by April 18, 2014.

27 As previously reported, the PA Department of Conservation and Natural Resources (DCNR) is
28 requiring a field botanical survey of potential threats to four special concern plant species. We
29 have prepared photo documentation of the revised force main routing, and we will be
30 coordinating with the DCNR in an effort to eliminate this requirement. If a field botanical
31 survey still ends up being required, it will likely need to be performed in May, during the spring
32 growing season.

33 Tentative Act 537 planning schedule (assuming no botanical survey of Phase 2 bog turtle
34 screening):

	<u>Estimated date</u>
• Submit to County & Township Agencies	April 18, 2014
• USFWS Bog Turtle Habitat Coordination	June 18, 2014
• 60-day County and Township Review period	June 18, 2014
• Revisions per Agency Comments	June 25, 2014
• 30-day Public Comment Period	July 28, 2014
• East Goshen & West Goshen Twp. Adoption	August 8, 2014
• PADEP Review & Approval (120 days)	December 15, 2014

42 **Semi-Annual I/I Report** – We analyzed portable and permanent meter data for the past six-
43 month period, and we met with Rick Smith and Mark Miller to discuss the findings and
44 recommendations for investigations and metering in the next six months. We also updated our
45 Township-wide sewer mapping based upon the Township’s GPS-surveyed manhole locations.
46 We completed and submitted the semi-annual report.

1 **New Sewer Connections** – We reviewed additional sketch plan information for a new grinder
2 pump and low pressure sewer lateral at 211 Ellis Lane, and we discussed the project scope and
3 comments with the contractor. We also forwarded comments to the Township.

4 We received a design plan and report submission for a new private wastewater pump station for
5 Acero Precision at 1340 Enterprise Drive, and the documents are currently under review.

6 **Fairway Village Manhole Lining** – We coordinated with a contractor to obtain a cost proposal
7 and schedule for a demonstration installation of the SprayWall monolithic polyurethane interior
8 manhole lining system to remedy deterioration within the former Reserve Pump Station force
9 main discharge manhole. We forwarded a summary memo to the Municipal Authority for
10 consideration.

11 **RCSTP Tank Covers** – The evaluation of flexible tank cover alternatives and preparation of a
12 brief study report will be completed and submitted prior to the May Municipal Authority
13 meeting.

14
15 **3. Big Fish Environmental Services** – The following is a summary of Scott’s report for
16 March 2014:

17 **Treatment Process Operation-** During February 2014, there were no exceedances of the final
18 effluent discharge limitations for Outfall 001 and Outfall 002.

19 The monthly average total phosphorus concentration was 0.31 mg/L as compared to the
20 discharge limitation of 0.5 mg/L. During the month, the final effluent total phosphorus
21 concentration discharged ranged from 0.11 mg/L to 0.50 mg/L.

22 There was no discharge to Applebrook, Outfall 002, during February or March 2014.

23 The influent wastewater pollutant concentrations and loading entering the wastewater treatment
24 facility remained within the design concentrations and loadings. Composite samples are
25 collected at the influent doghouse manhole and influent wet well. The influent flow meter
26 reading is collected from the influent flow meter located prior to the Screening Building,
27 excluding the internal recycle flows.

28 SBRs #1, 3 and 4 were in service during the month of February.

29 Process monitoring of each SBR included ammonia as N, Nitrite as N, Nitrate as N, COD, SSV,
30 MLSS and total phosphorus. Foam concentrations remain reduced during the month of March.

31 Increased sludge wasting was continued to maintain lower the MLSS concentrations. The slight
32 increase in wastewater SBR temperatures has contributed to lowering the final effluent ammonia
33 as nitrogen concentration during the last week of March. The effluent remains in compliance
34 with the NPDES Permit discharge parameters.

35 Daily monitoring of the influent and final effluent 24-hour composites samples for total
36 phosphorus is ongoing. Daily analysis of the final effluent flow equalization grab sample total
37 phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at
38 the influent pump station wet well is ongoing.

39 Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued.
40 The volume of aluminum sulfate solution to the SBRs has remained consistent during March.

41 The addition of soda ash to the SBRs to assist with maintaining desired pH concentrations above
42 7.0 standard units continued during the month. Soda ash addition to the SBRs during March
43 remained consistent around 273 pounds per day.

44 SBR #2 remains out of service as a treatment unit, however, partially filled with MLSS which is
45 continuously mixed and aerated. The majority of the contents were transferred to the sludge
46 holding tanks.

1 The decanter for SBR 3 continued to be periodically observed as being slightly tilted within the
2 water level. The effluent knife valve was routinely closed and the decanter filled with water to
3 assist with lowering the decanter within the water level. The frequency of occurrence ranged
4 from one to several occurrences during the month. The SBR is planned for removal from service
5 during May for inspection.

6 **Solids Dewatering and Disposal:** March 2014

7 During the month, sludge wasting to the sludge holding tanks and decanting of the sludge
8 holding tanks was ongoing. Process monitoring included pH, total alkalinity and total solids.
9 Sludge holding tank #1 was in service. The level at the beginning of the month was 12.17 feet
10 and the level at the end of the month was 12.91 feet. The initial total solids concentration was
11 0.81% and ended the month as 1.20% total solids. 340,465 gallons of supernatant were decanted
12 during the month. A total of 350 pounds of soda ash were added during the month for pH
13 adjustment.

14 Sludge holding tank #2 was in service. The level at the beginning of the month was 12.40 feet
15 and the level at the end of the month was 5.37 feet. The initial total solids concentration was
16 0.98% and ended the month as 0.67% total solids. No supernatant was decanted during the
17 month. A total of 1,200 pounds of soda ash were added during the month for pH adjustment.

18 **Significant storm/hydraulic Loading Events** – On Saturday and Sunday, March 29th and 30th,
19 the area experienced continuous rainfall. The facility exceeded the average daily design flow of
20 0.750 MGD on Sunday, March 30th through recording an effluent flow of 0.795 MGD through
21 outfall 001. The Effluent clarity remained good and compliance samples collected on April 1,
22 2013 are within permit discharge limitations.

23
24 **Minor Repairs and Preventive Maintenance**

- 25 1. Replaced a ballast in UV bank #2
- 26 2. Replaced the spider gear coupling for disc filter #1
- 27 3. Removed containment tank wall from the soda ash feed tank area within the
28 blower/laboratory building.
- 29 4. Township staff installed influent pump #1. Pump was returned to service.
- 30 5. Township staff removed influent pump #3 for inspection and seal replacement.

31
32 **Any Other Matter**

33 1. In a letter dated April 16, 2014, Mike explained that the effort to prepare the Act 537 Plan
34 Update report and plot plans has exceeded the budget of Phase 3 “Act 537 Plan Update” of the
35 approved Act 537 Plan proposal due to the extra routing of the force main to the interceptor and
36 unexpected regulatory agency coordination. The additional effort is expected to be
37 approximately \$7,500 to complete this phase of the project. They are requesting extra funding.
38 Fran moved to increase the Phase 3 budget by \$7,500. Dana seconded the motion. The motion
39 passed unanimously.

40 2. In a memo dated April 17, 2014 regarding SprayWall® Mike explained that the former
41 discharge manhole of the Reserve Pump Station force main was found to have interior
42 deterioration during the pump station diversion project. The manhole is located at the entrance
43 to Fairway Village. They have coordinated with a contractor, Abel Recon, to obtain discounted
44 pricing to rehabilitate the manhole interior with the proprietary SprayWall® a spray-on manhole
45 coating system. Abel Recon is the only local contractor approved by the manufacturer to install
46 this product. Abel Recon has proposed to perform the lining as a product demonstration for

1 \$2,500. This pricing is based upon the Township providing any required traffic control. Mike
2 provided a sample of the lining. Ed moved to approve purchase of the StrayWall® product for
3 \$2,500. Dana seconded the motion. The motion passed unanimously.
4

5 **Adjournment**

6 There being no further business, Fran moved to adjourn the meeting. Kevin seconded the
7 motion. The motion passed unanimously. The meeting was adjourned at 8:15 pm.
8

9 Respectfully submitted,
10

11
12 Ruth Kiefer
13 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 #: 587993
 Invoice Date: 04/23/2014
 Project: EGMA1306
 Project Name: Reserve PS Diversion Construction
 P

For Services Rendered through: 4/13/2014

Coordinated with contractor to obtain required contract closeout documents and reviewed remaining certified payrolls and geotechnical consultant's report of detention basin berm compaction acceptability.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	197.25
Expense :	0.00
Phase Total :	197.25

Amount Due This Invoice

\$197.25

Fee :	20,000.00
Prior Billings :	14,240.50
Current Billings :	197.25
Total Billings :	14,437.75

Phase : **** -- Professional Services

Labor

Class	Hours/ Units	Rate	Amount
Senior Engineer	0.75	113.00	84.75
Graduate Engineer	1.50	75.00	112.50
Labor Total:	2.25		197.25

Total Phase : **** -- Professional Services

Labor :	\$197.25
Expense :	\$0.00

Total Project : EGMA1306 -- Reserve PS Diversion Construction P

Labor :	\$197.25
Expense :	\$0.00

OK RS 5/8/14

East Goshen Municipal Authority
EGMA1307 Invoice Summary
Invoice Date 04/23/2014

Project: EGMA1306
Pennoni Job No.: Reserve PS Diversion Construction P
Invoice No: **587993**
Invoice Period: 1/13/2014 to 4/13/2014
Initial Authorization: \$ 20,000.00 **Date:** 4/23/2014
Contract Amount: \$ 20,000.00
Previously Invoiced: \$ 14,240.50
Current Invoice: \$ 197.25
Invoiced to Date (\$): \$ 14,437.75
Invoiced to Date (%): 72%
Remaining Budget (\$): \$ 5,562.25
Remaining Budget (%): 28%

Budget by Phase:

Phase Name:	Reserve PS Diversion Construction Phase
Phase Budget:	\$ 20,000.00
Previously Invoiced:	\$ 14,240.50
Current Invoice:	\$ 197.25
Invoiced to Date (\$):	\$ 14,437.75
Invoiced to Date (%):	72%
Remaining Budget (\$):	\$ 5,562.25
Remaining Budget (%):	28%

Comments: Coordinated with contractor to obtain required contract closeout documents and reviewed remaining certified payrolls and geotechnical consultant's report of detention basin berm compaction acceptability.



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 Philadelphia, PA 19182-7328

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

Invoice # : 587994
 Invoice Date : 04/23/2014
 Project : EGMA1307
 Project Name : Reservoir Rd PS Act 537 Planning

For Services Rendered through: 4/13/2014

Coordinated revised fee with Conestoga-Rovers & Associates (CRA), the bog turtle consultant per Municipal Authority's recommendation; assisted and guided CRA on-site during in-field Phase 1 bog turtle habitat assessment; revised proposed force main routing and construction access to run to north side of Bow Tree pond and through cleared access path per bog turtle assessment including preparation of additional existing and proposed conditions plans from County and State GIS data, aerial images, subdivision plans, and observed (not surveyed) conditions; and continued preparation of Act 537 Plan narrative report.

Phase : 03 -- Act 537 Plan Update

Total Phase : 03 -- Act 537 Plan Update

Labor : 4,724.50
 Expense : 0.00
 Phase Total : 4,724.50

Amount Due This Invoice

\$4,724.50

Phase : 03 -- Act 537 Plan Update

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	15.25	110.00	1,677.50
Project Engineer	1.00	95.00	95.00
Engineering Technician II	41.00	72.00	2,952.00
Labor Total:	57.25		4,724.50

Total Phase : 03 -- Act 537 Plan Update

Labor : \$4,724.50
 Expense : \$0.00

Total Project : EGMA1307 -- Reservoir Rd PS Act 537 Planning

Labor : \$4,724.50
 Expense : \$0.00

ok IRS 5/8/14

East Goshen Municipal Authority
EGMA1307 Invoice Summary
Invoice Date 04/23/2014

Project: EGMA1307
Pennoni Job No.: Reservoir Rd PS Act 537 Planning
Invoice No: **587994**
Invoice Period: 3/17/2014 to 4/13/2014
Initial Authorization: \$ 77,400.00 **Date:** 4/23/2014
Contract Amount: \$ 84,900.00
Previously Invoiced: \$ 59,369.75
Current Invoice: \$ 4,724.50
Invoiced to Date (\$): \$ 64,094.25
Invoiced to Date (%): 75%
Remaining Budget (\$): \$ 20,805.75
Remaining Budget (%): 25%

Budget by Phase:

	Reservoir Rd PS Act 537 Planning
Phase Name:	
Phase Budget:	\$ 84,900.00
Previously Invoiced:	\$ 59,369.75
Current Invoice:	\$ 4,724.50
Invoiced to Date (\$):	\$ 64,094.25
Invoiced to Date (%):	75%
Remaining Budget (\$):	\$ 20,805.75
Remaining Budget (%):	25%

Comments: Coordinated revised fee with Conestoga-Rovers & Associates (CRA), the bog turtle consultant per Municipal Authority's recommendation; assisted and guided CRA on-site during in-field Phase 1 bog turtle habitat assessment; revised proposed force main routing and construction access to run to north side of Bow Tree pond and through cleared access path per bog turtle assessment including preparation of additional existing and proposed conditions plans from County and State GIS data, aerial images, subdivision plans, and observed (not surveyed) conditions; and continued preparation of Act 537 Plan narrative report.



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Philadelphia, PA 19182-7328

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

Invoice # : 587995
Invoice Date : 04/23/2014
Project : EGMA1401
Project Name : 2014 General Services

For Services Rendered through: 4/13/2014

Researched alternatives for RCSTP flexible tank covers and discussed specifics of tank cover study deliverable memo with Twp Manager; coordinated with Abel Recon to obtain discounted pricing for SprayWall manhole lining demonstration for Fairway Village manhole; consulted with PW Director during Ashbridge force main leak detection and repair including field visit by M. McAloon; responded to inquiry from a consultant about industrial waste discharge requirements; coordinated with Township and consultant regarding process for Goshen Meadows manhole connection PADOT HOP application; and initiated update of Pennoni's Township-wide sewer mapping to use new GPS-located manhole locations.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	992.00
Expense :	0.00
Phase Total :	992.00

Amount Due This Invoice

\$992.00

Fee :	10,300.00
Prior Billings :	2,821.25
Current Billings :	992.00
Total Billings :	3,813.25

Phase : **** -- Professional Services

Labor

<u>Class</u>	<u>Hours/ Units</u>	<u>Rate</u>	<u>Amount</u>
Authority Engineer	3.50	113.00	395.50
Project Engineer	0.50	95.00	47.50
Senior Engineering Technician	3.00	83.00	249.00
Engineering Technician II	4.00	75.00	300.00
Labor Total:	11.00		992.00

Total Phase : **** -- Professional Services

Labor :	\$992.00
Expense :	\$0.00

Total Project : EGMA1401 -- 2014 General Services

Labor :	\$992.00
Expense :	\$0.00

ok RS 5/8/14

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

East Goshen Municipal Authority
EGMA1401 Invoice Summary
Invoice Date 04/23/2014

Project:	EGMA1401		
Pennoni Job No.:	2014 General Services		
Invoice No:	587995		
Invoice Period:	3/17/2014	to	4/13/2014
Initial Authorization:	\$ 10,300.00	Date:	4/23/2014
Contract Amount:	\$ 10,300.00		
Previously Invoiced:	\$ 2,821.25		
Current Invoice:	\$ 992.00		
Invoiced to Date (\$):	\$ 3,813.25		
Invoiced to Date (%):	37%		
Remaining Budget (\$):	\$ 6,486.75		
Remaining Budget (%):	63%		

Budget by Phase:

Phase Name:	2014 General Services		
Phase Budget:	\$ 10,300.00		
Previously Invoiced:	\$ 2,821.25		
Current Invoice:	\$ 992.00		
Invoiced to Date (\$):	\$ 3,813.25		
Invoiced to Date (%):	37%		
Remaining Budget (\$):	\$ 6,486.75		
Remaining Budget (%):	63%		

Comments: Researched alternatives for RCSTP flexible tank covers and discussed specifics of tank cover study deliverable memo with Twp Manager; coordinated with Abel Recon to obtain discounted pricing for SprayWall manhole lining demonstration for Fairway Village manhole; consulted with PW Director during Ashbridge force main leak detection and repair including field visit by M. McAloon; responded to inquiry from a consultant about industrial waste discharge requirements; coordinated with Township and consultant regarding process for Goshen Meadows manhole connection PADOT HOP application; and initiated update of Pennoni's Township-wide sewer mapping to use new GPS-located manhole locations.



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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 #: 587996
Invoice Date: 04/23/2014
Project: EGMA1402
Project Name: 2014 Semi-Annual I&I Reports

For Services Rendered through: 4/13/2014

Analyzed temporary and permanent meter data, prepared draft Semi-Annual I/I Report #11, and met with Twp Manager and PW Director to discuss findings and recommendations.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	4,562.25
Expense :	0.00
Phase Total :	4,562.25

Amount Due This Invoice

Fee :	10,300.00
Prior Billings :	0.00
Current Billings :	4,562.25
Total Billings :	4,562.25

\$4,562.25

Phase : **** -- Professional Services

Labor

<u>Class</u>	<u>Hours/ Units</u>	<u>Rate</u>	<u>Amount</u>
Authority Engineer	12.00	113.00	1,356.00
Graduate Engineer	42.75	75.00	3,206.25
Labor Total:	54.75		4,562.25

Total Phase : **** -- Professional Services

Labor :	\$4,562.25
Expense :	\$0.00

Total Project : EGMA1402 -- 2014 Semi-Annual I&I Reports

Labor :	\$4,562.25
Expense :	\$0.00

ok RS 5/8/14

East Goshen Municipal Authority
EGMA1401 Invoice Summary
Invoice Date 04/23/2014

Project: EGMA1402
Pennoni Job No.: 2014 Semi-Annual I&I Reports
Invoice No: **587996**
Invoice Period: 3/3/2014 to 4/13/2014
Initial Authorization: \$ 10,300.00 **Date:** 4/23/2014
Contract Amount: \$ 10,300.00
Previously Invoiced: \$ -
Current Invoice: \$ 4,562.25
Invoiced to Date (\$): \$ 4,562.25
Invoiced to Date (%): 44%
Remaining Budget (\$): \$ 5,737.75
Remaining Budget (%): 56%

Budget by Phase:

	2014 Semi-Annual I&I Reports
Phase Name:	
Phase Budget:	\$ 10,300.00
Previously Invoiced:	\$ -
Current Invoice:	\$ 4,562.25
Invoiced to Date (\$):	\$ 4,562.25
Invoiced to Date (%):	44%
Remaining Budget (\$):	\$ 5,737.75
Remaining Budget (%):	56%

Comments: Analyzed temporary and permanent meter data, prepared draft Semi-Annual I/I Report #11, and met with Twp Manager and PW Director to discuss findings and recommendations.



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 # : 587997
Invoice Date : 04/23/2014
Project : EGMA1403
Project Name : 2013 Chapter 94 Reports

For Services Rendered through: 4/13/2014

FINAL INVOICE

Finalized and submitted Chapter 94 Reports to PADEP for Ridley Creek STP, West Goshen Service Area, and Westtown Service Area.

Phase : **** -- Professional Services

Total Phase : **** -- Professional Services

Labor :	671.50
Expense :	0.00
Phase Total :	671.50

Amount Due This Invoice

\$644.25

Fee :	14,400.00
Prior Billings :	13,755.75
Current Billings :	644.25
Total Billings :	14,400.00

Phase : **** -- Professional Services

(Note: Contract Amt. is NTE)

Labor Class	Hours/ Units	Rate	Amount
Authority Engineer	2.00	113.00	226.00
Senior Engineer	1.00	108.00	108.00
Graduate Engineer	4.50	75.00	337.50
Labor Total:	7.50		671.50

Total Phase : **** -- Professional Services

Total Amount Billable This Invoice: \$644.25

ok RS 5/8/14

East Goshen Municipal Authority
EGMA1403 Invoice Summary
Invoice Date 04/23/2014

Project: EGMA1403
Pennoni Job No.: 2013 Chapter 94 Reports
Invoice No: **587997**
Invoice Period: 3/17/2014 to 4/13/2014
Initial Authorization: \$ 14,400.00 **Date:** 4/23/2014
Contract Amount: \$ 14,400.00
Previously Invoiced: \$ 13,755.75
Current Invoice: \$ 644.25
Invoiced to Date (\$): \$ 14,400.00
Invoiced to Date (%): 100%
Remaining Budget (\$): \$ -
Remaining Budget (%): 0%

Budget by Phase:

Phase Name: 2013 Chapter 94 Reports
Phase Budget: \$ 14,400.00
Previously Invoiced: \$ 13,755.75
Current Invoice: \$ 644.25
Invoiced to Date (\$): \$ 14,400.00
Invoiced to Date (%): 100%
Remaining Budget (\$): \$ -
Remaining Budget (%): 0%

Comments: FINAL INVOICE

Finalized and submitted Chapter 94 Reports to PADEP for Ridley Creek STP, West Goshen Service Area, and Westtown Service Area.

Memo

To: Municipal Authority
From: Jon Altshul
Re: MA April Financial Reports
Date: May 5, 2014

The Municipal Authority recorded \$133 in revenues and \$15,677 in expenses in March, a difference of - \$15,545. The expenses were from payments to Pennoni and Gawthrop Greenwood. The fund balance is now \$1,598,005.

A complete list of all monthly expenses is provided.

EAST GOSHEN TOWNSHIP
 1580 PAOLI PIKE
 WEST CHESTER, PA
 Municipal Authority
 April 2014

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
MUNICIPAL AUTHORITY BEGINNING FUND BALANCE				
			1,613,549.48	

RCSTP BUDGET

REVENUE				
INTEREST EARNED - RCSTP EXPANSION	07341 1020	2,000.00	131.45	528.41
GRANT REVENUE	07392 0800	0.00	0.00	0.00
TOTAL REVENUE		2,000.00	131.45	528.41

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	0.00
R.C. CAP EXP CONTINGENCY CAPITAL	07424 7454	0.00	0.00	0.00
R.C. CAP EXP CONTINGENCY ONGOING	07424 7455	0.00	0.00	0.00
R.C. CAP EXP ADDITIONAL CONTINGENCY	07424 7456	0.00	0.00	0.00
TRANSFER TO SEWER SINKING FUND	07492 0550	0.00	0.00	0.00
TRANSFER TO AUTHORITY CAP FUND	07492 0990	0.00	0.00	0.00

TOTAL EXPENSES		0.00	0.00	0.00
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RCSTP NET RESULT		2,000.00	131.45	528.41
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EAST GOSHEN TOWNSHIP
 1580 PAOLI PIKE
 WEST CHESTER, PA
 Municipal Authority
 April 2014

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
OPERATING BUDGET				
REVENUE				
INTEREST EARNINGS	07341 1000	27.00	1.21	4.83
C.C. TAPPING FEES	07364 1100	124,000.00	0.00	20,000.00
R.C.TAPPING FEES	07364 1110	21,444.00	0.00	6,000.00
CONNECTION FEES - SEWER	07364 1130	0.00	0.00	845.64
MISCELLANEOUS REVENUE	07380 1000	0.00	0.00	423.36
TRANSFER FROM SEWER OPERATING	07392 0500	0.00	0.00	21,000.00
TOTAL REVENUE		145,471.00	1.21	48,273.83
EXPENSES				
ADMINISTRATIVE WAGES	07424 1400	32,768.00	0.00	8,043.02
MISCELLANEOUS EXPENSE	07424 3000	4,000.00	0.00	1,450.00
MUNIC.AUTH.-AUDITING	07424 3110	10,800.00	0.00	0.00
ENGINEERING SERVICES	07424 3130	35,525.00	8,808.25	16,087.00
LEGAL SERVICES	07424 3140	7,000.00	960.00	2,460.00
M.C.-DVRFA-DEBT SERVICE	07471 1000	22,120.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1000	5,115.00	0.00	0.00
M.C.-DVRFA-INTEREST PAYMN	07472 1010	0.00	0.00	0.00
TOTAL EXPENSES		117,328.00	9,768.25	28,040.02
OPERATING NET RESULT		28,143.00	(9,767.04)	20,233.81

EAST GOSHEN TOWNSHIP
1580 PAOLI PIKE
WEST CHESTER, PA
Municipal Authority
April 2014

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
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CAPITAL BUDGET

REVENUE

LOAN PROCEEDS-SEWER PROJECT	07393 1001	0.00	0.00	0.00
TRANSFER FROM SEWER CAP RESERVE	07392 0900	0.00	0.00	0.00

TOTAL REVENUE

0.00 0.00 0.00

EXPENSES

MARYDELL PUMP STATION - ENGINEER	07425 1000	0.00	0.00	0.00
MARYDELL PUMP STATION - CONSTRUCTION	07425 2000	0.00	0.00	0.00
MANHOLE COVER REPLACEMENTS	07424.7405	0.00	0.00	0.00
C.C. CAPITAL - COLLECTION	07424.7420	0.00	0.00	0.00
LOCHWOOD ABANDONMENT ENGINEER	07424 7475	0.00	0.00	0.00
LOCHWOOD ABANDONMENT CONSTRUCTION	07424 7476	0.00	0.00	0.00
LOCHWOOD ELIMINATION PHASE 2	07424 7477	0.00	0.00	0.00
HERSHEY MILL STATION - ENGINEER	07426 1000	0.00	0.00	0.00
HERSHEY MILL STATION - CONSTRUCTION	07426 2000	0.00	0.00	0.00
RESERVE PUMP STATION - ENGINEER	07427 1000	0.00	0.00	0.00
RESERVE PUMP STATION - CONSTRUCTION	07427 2000	0.00	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	75,000.00	5,909.00	21,027.75
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0.00	0.00	0.00

TOTAL EXPENSES

75,000.00 5,909.00 21,027.75

CAPITAL NET RESULT

(75,000.00) (5,909.00) (21,027.75)

MUNICIPAL AUTHORITY ENDING FUND BALANCE

1,598,004.89

MGRP18 run by BRIAN 12 : 52 PM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07364-1110			R.C.TAPPING FEES			0.00				
			41280		2,000.00		02/25/14	41280 1		TAP IN FEE-903 SORELL HILL LT2
				0.00	2,000.00	-2,000.00				
	1403		41553		2,000.00		03/13/14	41553 1		TAP IN FEE FOR 909 SORRELL LT4
			41608		2,000.00		03/17/14	41608 1		TAP IN FEE-905 SORRELL LOT 3
				0.00	4,000.00	-6,000.00				
				0.00	6,000.00	-6,000.00				
07364-1130			CONNECTION FEES - SEWER			0.00				
	1402	CR	41044		423.00		02/04/14	350	8035	1 JACOBS, ROBERT & CHERYL
			41124		423.00		02/14/14	774	8033	1 GEORGE SMITH & CHRISTINA CONLE
		JE	41045	141.12			02/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			41125	141.12			02/14/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				282.24	846.00	-563.76				
	1403	CR	41402		423.00		03/04/14	2307	8034	1 STOFFLET, MICHAEL
		JE	41407	141.12			03/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				141.12	423.00	-845.64				
				423.36	1,269.00	-845.64				
07380-1000			MISCELLANEOUS REVENUE			0.00				
	1402		41045		141.12		02/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
			41125		141.12		02/14/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				0.00	282.24	-282.24				
	1403		41407		141.12		03/04/14	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
				0.00	141.12	-423.36				
				0.00	423.36	-423.36				
07392-0500			TRANSFER FROM SEWER OPERATING			0.00				
	1401		40674		1,000.00		01/08/14	DEPOSIT		DEPOSIT \$ INTO MA GENERAL
			40747		20,000.00		01/14/14	XFER		FROM 05 FUND
										XFER \$ FROM SEWER TO MA TO
										COVER EXPENSES
				0.00	21,000.00	-21,000.00				
				0.00	21,000.00	-21,000.00				
07424-1400			ADMINISTRATIVE WAGES			0.00				
	1403	CD	41815	8,043.02			03/31/14	2237	425	EAST GOSHEN TOWNSHIP - GENERAL
										1ST QTR.2014 MUN.AUTH. REIMBURSM
				8,043.02	0.00	8,043.02				

MGRP18 run by BRIAN 12 : 52 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
			8,043.02	0.00	8,043.02				
07424-3000					0.00				
	1401	40597	500.00			01/06/14	2228	2737	DEP - COMMONWEALTH OF PA NPDES PERMITS - CHAPTER 92A 2014
			950.00			01/06/14	2229	2132	PENNSYLVANIA MUNICIPAL AUTHORITIES ASSOC 2014 ACTIVE MEMBERSHIP DUES
	***		1,450.00	0.00	***				
			1,450.00	0.00	1,450.00				
			1,450.00	0.00	1,450.00				
07424-3130					0.00				
		40653	-663.75			01/06/14	2224	1052	PENNONI ASSOCIATES INC. VOID CK. DUE TO PRINTER PROBLEM
		40743	663.75			01/14/14	2230	1052	PENNONI ASSOCIATES INC. SERVICES THRU 12/8/13 GENERAL S
	JE	40746		1,845.00		01/14/14	REFUND		PENNONI REFUND DUE TO DUPLICATE PAYMENT
			0.00	1,845.00	-1,845.00				
1402	CD	41103	2,236.50			02/11/14	2233	1052	PENNONI ASSOCIATES INC. SERVICES THROUGH 1/12/14 GEN.SER
			2,236.50	0.00	391.50				
1403		41540	6,887.25			03/12/14	2236	1052	PENNONI ASSOCIATES INC. SERVICES THRU 2/9/14 2013 CHAP.
			6,887.25	0.00	7,278.75				
1404		42153	8,808.25			04/23/14	2239	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/16/14 CHAP.94 RE
			8,808.25	0.00	16,087.00				
			17,932.00	1,845.00	16,087.00				
07424-3140					0.00				
	1402	41310	800.00			02/27/14	2234	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICES - NOV.2013 GEN.AU
			800.00	0.00	800.00				
1403		41540	700.00			03/12/14	2235	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - FEB.2014 GEN.AUT
			700.00	0.00	1,500.00				
1404		42074	960.00			04/16/14	2238	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - MARCH 2014 GEN.A
			960.00	0.00	2,460.00				

MGRP18 run by BRIAN 12 : 52 PM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
			2,460.00	0.00	2,460.00				
07424-7460					0.00				
	1401	40739	1,290.00			01/14/14	10012	2695	BRICKHOUSE ENVIRONMENTAL LOCHWOOD CHASE PROJECT - DEC.201
		40744	-1,290.00			01/14/14	10012	2695	BRICKHOUSE ENVIRONMENTAL VOID CK. - INCORRECT CASH ACCT.U
		40745	1,290.00			01/14/14	2231	2695	BRICKHOUSE ENVIRONMENTAL LOCHWOOD CHASE PROJECT - DEC. 20
	JE	40820		1,290.00		01/22/14	DEPOSIT		DEPOSIT TO REIMBURSE 07 MA FOR 05 EXPENSE
			1,290.00	1,290.00	0.00				
			1,290.00	1,290.00	0.00				
07428-1000					0.00				
	1402	CD 41107	10,687.50			02/11/14	10013	1052	PENNONI ASSOCIATES INC. SERV.THROUGH 1/12/14 RESERVE PS
			10,687.50	0.00	10,687.50				
	1403	41541	4,431.25			03/12/14	10014	1052	PENNONI ASSOCIATES INC. SERV.THRU 2/9/14 RESERV.RD. PS
			4,431.25	0.00	15,118.75				
	1404	42154	5,909.00			04/23/14	10015	1052	PENNONI ASSOCIATES INC. SERVICES THRU 3/16/14 RESERV.RD
			5,909.00	0.00	21,027.75				
			21,027.75	0.00	21,027.75				
Beg Bal		0.00	52,626.13	52,360.60	265.529999971				

MUNICIPAL AUTHORITY MISSION STATEMENT:
DRAFT 5/8/14

The East Goshen Municipal Authority will acquire, hold, construct, improve, maintain, operate, own and lease, either in the capacity of lessor or lease, sewers, sewer systems or parts thereof, sewage treatment works, including works for treating and disposing of industrial waste, for the Township of East Goshen and other such territory as it may be authorized to serve in a fiscally responsible and environmentally safe manner.



MEMORANDUM

TO: Rick Smith
 Mark Miller
 East Goshen Municipal Authority

FROM: Michael J. Ellis, P.E.

DATE: May 9, 2014

SUBJECT: **ODOR CONTROL ALTERNATIVES – COVERS AND MISTERS
 UPDATE #1
 RIDLEY CREEK SEWAGE TREATMENT PLANT**

An evaluation of odor control alternatives and tank covers was briefly discussed at the January 13th Municipal Authority meeting. It is our understanding that there have been no odor complaints, but the Authority is interested in proactively evaluating the feasibility and cost of odor control alternatives for planning purposes.

We researched multiple alternatives and prepared a rough cost analysis for a few common odor control solutions.

The two most common methods of odor control are tank covers and chemical misters.

1. Covers – There are several different types of covers:

- Solid, fixed cover
 - Fiberglass reinforced plastic (FRP) covers were included as an alternative bid item in the RCSTP Upgrade and Expansion in 2008. Covers were included for the SBR tanks, post equalization tanks, and sludge digestion tanks. The bids ranged from \$750,000 to \$810,000 for the covers.
 - The expected cost for a new bid project would likely be over \$1,000,000 due to price increases and bidding expenses, since it would be a stand-alone project (no cost savings as would be expected by including it in the overall plant expansion contract).
 - Additional considerations that would need to be evaluated during the design of tank covers that could add cost include:
 - New structural support members on the walkways
 - Addition of carbon columns and fans to the interior to control a resultant musty odor.
- Flexible cover, such as fabric, geo-membrane, or tarps – The cover would need to be able to handle/shed a rain and snow load so some additional supports are needed. Carbon columns and fans may be needed. Flexible covers generally are inflatable, arch/frame supported, or floating (see below). Flexible covers are expected to be less expensive than solid, fixed covers. Specific alternatives include but are not limited to:

- SBR tank covers by Geomembrane Technologies Inc. (GTI)
 - GTI's structurally supported cover system consists of a retractable fabric cover tensioned over a series of low profile aluminum arches. The covers are typically used at wastewater treatment plants to capture odorous off gas for removal and treatment. Water treatment plants use the covers for blocking sunlight to control algae growth and chlorine usage/disinfection byproduct formation. The cover fabric is strong and durable, and can be quickly disconnected and easily retracted to access tank internals for maintenance or inspection. Rainwater can drain off the cover. Estimated costs for acquisition and installation would be about \$350,000 to cover the SBR tanks only. GTI's cover system cannot be used on the circular post equalization and sludge digestion tanks due the arch design. A separate cover would therefore need to be used on those tanks if the GTI cover was used on the SBR tanks.
 - Environetics, Inc. offers the custom manufactured Defender Tank Cover. The cover is composed of heavy duty reinforced geomembrane materials combined with clear span structural aluminum frames, and stainless steel hardware that provide a durable, maintenance free service life. Its opaque, light blocking, characteristics virtually eliminate UV light from the tanks for effective algae control. Access hatch and atmospheric vent options are available. It is our understanding that the covers can be provided on all tanks at the plant since they are custom-made. *We are awaiting confirmation and pricing from the vendor.*
 - *Other alternatives to be added.*
 - Floating cover – Cover can be solid, flexible, or balls. Although floating covers are the least expensive alternative, they are not recommended because they can potentially cause a conflict with the decanter and backwash valves, may require additional baffles be added to prevent conflicts with existing equipment, and restrict visibility of the water surface.
 - The Armor Ball cover could be acquired and installed in a quantity to cover all the tanks for approximately \$30,000. The balls float on the water surface covering approximately 91% of the surface area.
 - Environetics, Inc. also offers a floating style cover comprised of buoyant modules filled with thermal insulation to cover the entire tank surface. *We are awaiting further information and pricing from the vendor.*
2. Misters – There are two general types of misters: odor neutralizing (removes odor) and odor masking (masks odor like a scented air freshener).
- Specific locations, typically around the site perimeter, would need to be determined.
 - The lower initial capital cost compared to covers is offset by the continuous chemical supply costs required for normal operation.
 - Misters may not be as effective at odor control as covers.

END OF MEMO



PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

May 8, 2014

EGMA1307

Jack Yahraes, Chairman
East Goshen Municipal Authority
1580 Paoli Pike
West Chester, PA 19380

**Re: Minor Act 537 Plan Update Revision
Reservoir Road Pump Station
East Goshen Township, Chester County, PA**

Dear Mr. Yahraes:

On behalf of the East Goshen Municipal Authority, we have prepared the attached Update Revision to East Goshen Township's Act 537 Sewage Facilities Management Plan for the Reservoir Road Pump Station. The Municipal Authority is required to sign Section K of the Update Revision to certify that the proposed diversion will not cause any system overloads. We have attached the two (2) respective pages from the Update Revision for your signature. Please sign and return the pages to me by July 9, 2014.

Executive Summary

The Act 537 Plan Update Revision proposes the construction of the Reservoir Road Pump Station to divert approximately 300,000 gallons per day (gpd) of existing residential and commercial wastewater flow from East Goshen's existing Chester Creek Collection System (CCCS) to East Goshen's existing Ridley Creek Sewage Treatment Plant (RCSTP). Wastewater in the CCCS is currently conveyed to the West Goshen Sewage Treatment Plant (WGSTP). The current intermunicipal agreement between East Goshen and West Goshen limits East Goshen's capacity to 1,000,000 gpd. East Goshen's 2007 *Township Wastewater Needs Evaluation* projected that potential future development would increase the flow through the CCCS to almost 1,300,000 gpd. The projected flow increase exceeds both the intermunicipal agreement flow limitation and the available treatment capacity of the WGSTP. The *Township Wastewater Needs Evaluation* considered several alternatives to meet East Goshen's future wastewater needs, and the recommended alternative was to expand and upgrade the RCSTP from 400,000 gpd to 750,000 gpd and maintain 1,000,000 gpd capacity at West Goshen by constructing several sewer diversions. As of fall 2013, the RCSTP had been expanded and four of five sewer diversions had been constructed. The proposed Reservoir Road Pump Station is the only remaining diversion and is the final component in the implementation of the selected alternative from the *Township Wastewater Needs Evaluation*.

This proposed increase in flow to the RCSTP was included in the design of the plant's recent capacity upgrade. The project is anticipated to increase the operating efficiency and improve the function of the RCSTP due to the increased hydraulic and organic loadings, decrease the cost for conveyance and treatment of flows sent to West Goshen Township, decrease East Goshen's

9. ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS:

- A copy of the additional information is attached. If PENNVEST funding is to be sought for the project, address these additional items in terms of any project impacts and measures to avoid or mitigate same.
- Cost Effectiveness
 - Air quality
 - Floodplains
 - Wild and scenic rivers
 - Coastal zone management
 - Socio-economic impacts
 - Water supplies
 - Other environmentally sensitive areas

J. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (See Section J of instructions)

- An alternative sewage facilities analysis has been prepared as described in Section J of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section J of the instructions.

K. CHAPTER 94 CONSISTENCY DETERMINATION (See Section K of instructions)

- Projects that propose the use of existing municipal collection, conveyance or wastewater treatment facilities, or the construction of collection and conveyance facilities to be served by existing municipal wastewater treatment facilities must be consistent with the requirements of Chapter 94 of DEP's rules and regulations (relating to Municipal Wasteload Management). If more than one municipality or authority will be affected by the project, please obtain the information required in this section for each. Additional sheets may be attached for this purpose.

1. Project Flows 300,000 gpd
2. Total Sewage Flows to Facilities
 - a. Enter average and peak sewage flows for each proposed or existing facility as designed or permitted.
 - b. Enter the present average and peak sewage flows for the critical sections of existing facilities.
 - c. Enter the average and peak sewage flows projected for 5 years through the critical sections of existing facilities which includes existing, proposed, or future projects.

To complete the table, refer to Section K of instructions.

	a. Design and/or Permitted Capacity (gpd)		b. Present Flows (gpd)		c. Projected Flows in 5 years (gpd)	
	Average	Peak	Average	Peak	Average	Peak
Collection	717,902	717,902	30,525	101,954	30,525	101,954
Conveyance	1,903,769	1,903,769	363,835	1,215,209	667,660	1,795,034
Treatment	750,000	3,000,000	384,000	1,280,850	687,825	1,860,675

3. Collection and Conveyance Facilities

The questions below are to be answered by the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities. These questions should be answered in coordination with the latest Chapter 94 annual report and the above table.

This project proposes sewer extensions or tap-ins. Will these actions create a hydraulic overload within five years on any existing collection or conveyance facilities that are part of the system? Yes No

- a. If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until all inconsistencies with Chapter 94 are resolved or unless there is an approved plan and schedule granting an allocation for this project. A letter granting allocations to this project under the plan and schedule must be attached to the module package.

b. If no, the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with Chapter 94 requirements and that this proposal will not affect this status.

c. Collection System

Name of Agency, Authority, Municipality East Goshen Municipal Authority

Name of Responsible Agent Jack E. Yahraes, Chairman

Agent Signature _____

Date _____

d. Conveyance System

Name of Agency, Authority, Municipality East Goshen Municipal Authority

Name of Responsible Agent Jack E. Yahraes, Chairman

Agent Signature _____

Date _____

K. CHAPTER 94 CONSISTENCY DETERMINATION (continued)

4. Treatment Facility

The questions below are to be answered by the facility permittee in coordination with the information in the table and the latest Chapter 94 report.

This project proposes the use of an existing wastewater treatment plant for the disposal of sewage. Will this action create a hydraulic or organic overload within 5 years at that facility? Yes No

a. If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this inconsistency with Chapter 94 is resolved or unless there is an approved plan and schedule granting an allocation for this project. A letter granting allocations to this project under the plan and schedule must be attached to the planning module.

b. If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with Chapter 94 requirements and that this proposal will not impact this status

c. Name of Agency, Authority, Municipality East Goshen Municipal Authority

Name of Responsible Agent Jack E. Yahraes, Chairman

Agent Signature _____

Date _____

L. INSTITUTIONAL EVALUATION (See Section L of instructions)

An institutional evaluation is attached. Identify the entity which will design, obtain necessary permits, construct, own and operate the proposed facilities. If a low pressure vacuum or effluent sewer are proposed, discuss purchase, installation, operation and maintenance responsibilities for the individual pumping, valves, tanks, etc.



ANY OTHER
MATTER

MEMORANDUM

TO: Rick Smith
East Goshen Municipal Authority

CC: Mark Miller
Ronald Smith Inc.

FROM: Michael J. Ellis, P.E. *mje*

DATE: May 9, 2014

SUBJECT: **RECOMMENDATION FOR PAYMENT #3 (FINAL)**
RESERVE PUMP STATION SANITARY SEWER DIVERSION

ok RS 5-9-14

We recommend the Municipal Authority conditionally approve Payment #3 (Final) to Ronald Smith Inc. for the subject project in the amount of \$7,316.82 at their May 12th meeting. The recommended condition is that payment not be physically made until the contractor addresses the following items to the satisfaction of the Authority Engineer, Township Manager, and Township PW Director:

Outstanding Items

1. Remove the filter sock along the creek.
2. Restore the constructed lawn area at the former location of the pump station building and driveway. Grass is not growing in well, and the soil is rocky. Additional topsoil and seed is expected to be needed.
3. Submit a corrected Application and Certification form for Payment #3 (Final). We've marked up the submitted application with required revisions and have attached it for your reference.
4. As-built plans have been submitted by the contractor directly to the Township. Pennoni needs to review the plans to confirm they are acceptable. I intend to perform the review prior to the May 12th Municipal Authority meeting.

We have reviewed the following attached contract closeout documents and have found them acceptable:

- Daily Field Report from Earth Engineering Inc. certifying the backfill compaction within the detention basin berm
- Contractor's Release
- Consent of Surety to Final Payment
- Contract Bond (including the Maintenance Bond)
- Payroll Certifications #1-7 for Ronald Smith Inc.

The Maintenance Bond was provided with the original contract bond at the beginning of the project. As stated in the Maintenance Bond, the 2-year guarantee period shall begin on the date of acceptance of the work. The date of acceptance shall be considered November 6, 2013, which is the date that Pennoni certified Payment Application #2, at which point the project was substantially complete.

END OF MEMO