

City of Harrisburg
Department of Public Works
Advanced Wastewater Treatment Facility



BUREAU OF SEWERAGE
MONTHLY REPORT
DECEMBER 2011

PHOTO: December Sunrise.

GENERAL

During the month of December, the AWTF met all monthly average NPDES permit requirements. The hydraulic loading to the facility averaged 29.6 MGD while achieving removal reductions of 94.0 percent CBOD, 91.1 percent Suspended Solids, and 73.1 percent Phosphorus (Exhibit A).

Contained in the body of this report are significant events that have transpired since last reporting. Factual information can be found in the attached exhibits.

OPERATIONS

During the period of November 29, 2011 through December 29, 2011 the Number 1 or Number 2 Enginator operated a total of 89 percent of the time for an average daily kWh output of 6,823 or a total production of 211,500 kWh. November revenue is anticipated to be approximately \$16,920.00 (Exhibit D).

Included in this report is flow information collected by ADS equipment and other monitoring devices. Data collected through December 2011 is presented in Exhibit B with flow in million gallons per day (MGD) broken down into Total, City, Suburbs and ten (10) drainage regions.

During the month of December, a total of 2,045,200 gallons of waste were delivered by the contract waste haulers to the AWTF (Exhibit G). Income, for the same period, amounted to \$48,819.60 (Exhibit G).

DECEMBER ACCOMPLISHMENTS

Operations

- This month marked the conclusion of the Sidestream Treatment and Bioaugmentation Pilot Program, a twenty month joint effort between m2t Technologies, HRG Engineering Inc., The Harrisburg Authority, and the Harrisburg AWTF. The study resulted in an abundance of analytical data which will be instrumental in shaping the design of the AWTF's future improvement projects.
- Performed a trial to study the effectiveness of adding Ferric Chloride to Secondary Digester sludge in an attempt to improve biosolids cake dryness. The additive had no effect on cake dryness.
- Assisted VeloDyne with repairs to the Hydromax Polymer Feed System. The repairs were successful and the feed system is functioning at full capacity once again.
- Unclogged several blockages in the Gorman Rupp Pumps, Classifiers and collection lines at the Grit Removal System.
- Completed canvassing for leave requests and finalized the 2012 employee work schedule.

Laboratory

- Completed the second series of semi-annual industrial user compliance sampling at the New Morgan Municipal Authority's 909 Elmerton Avenue facility and Orgrain Bakeries Manufacturing, Inc. (formerly Stroehmann Bakeries, Inc.). All annual industrial user compliance sampling has been completed.
- Performed weekly nutrient sampling and testing of our influent and effluent as required by our NPDES permit.
- Performed additional testing for the BNR pilot study.
- Performed a data audit of the AWTF laboratory's daily analysis work sheets.
- Submitted the annual application for laboratory accreditation under PA Act 252.

Industrial Waste Program

- Reviewed self monitoring reports submitted for November 2011.
- Completed Contract Waste Hauling and Pretreatment laboratory report preparation, and Quickbooks billing.
- Collected ADS flow monitoring data and updated the exhibit for the AWTF's monthly report.
- Issued Contract Waste Hauler permits and renewal letters.

Maintenance

- Replaced the dry polymer screw feeder and housing on the Polymer System for the Belt Filter Presses.
- Replaced air purge valve for the air brakes on G-16 the dump truck for the Belt Filter Presses.
- Replaced the batteries on G-2 the dump truck for the Belt Filter Presses.
- Cleaned and reset the belt breakage sensor on Belt Filter Press Number 2.
- Repaired the lid support bracket on the final effluent sampler at the Chlorine Contact Tanks.

- Replaced the coupling on the hot water circulating pump on the mezzanine in the Co-generation Building.
- Replaced the peristaltic hose for BFP Feed Pump Number 2 in the basement of the Control Building.
- Replaced the chain and sprockets on the automatic gate opener at the facility entrance.
- Repaired the high pressure power washer in the Heavy Equipment Garage.
- Replaced multiple lights in the wet well and main floor of the Front Street Pump Station.
- Adjusted the packing on Return Sludge Pumps Number 1 and 4, unblocked the drains, and cleaned the floor in the Return Sludge Pump Station.

Field Maintenance

- Cleaned the scum off the siphon basins on the Paxton Creek Chambers.
- Flushed the siphon lines for CSO Number 026 and 048.
- Removed rags and debris from CSO Chambers Numbers 011, 026, 033, 048, and 063.
- Vactored, washed down, and inspected CSO Chambers Number 011, 013, 015, 021, 022, 023, 024, 038, 044, 048, and 051.

JANUARY GOALS

- Review and formulate comments to the Sidestream Treatment Pilot Plant Report and the Improvement Projects Basis of Design Report.
- Assist with the disassembly and removal of the Sidestream Treatment Pilot Plant.
- Begin work on the AWTF and annual US EPA pretreatment report.
- Update the applicable excess strength of waste surcharge rate for Ames True Temper Incorporated, Harrisburg Dairies, Inc., Hershey Creamery Company, and Orgrain Bakeries Manufacturing, Inc.
- Complete the fourth quarter significant noncompliance evaluations.
- Update Industrial User and Contract Waste Hauler data files.
- Issue Contract Waste Hauler permits and renewal letters.
- Issue new quality assurance and quality control (QA/QC) log books as required for laboratory accreditation under PA Act 252.
- Repair Barscreen Number 2 at the Front Street Pump Station.

EXHIBIT A

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Process Control - 2011

Parameters	January	February	March	April	May	June	July	August	September	October	November	December	Average	NPDES Limits
Volume, MGD	16.5	23.7	38.0	41.3	37.5	24.7	20.5	29.4	46.8	35.0	30.0	29.6	31.1	37.7
Carbonaceous Biochemical Oxygen Demand														
Influent, mg/l	192	136	89	71	82	118	138	101	61	109	122	103	110	----
Effluent, mg/l	17	22	16	10	6	5	5	5	6	6	5	5	9	25
Percent Removal, %	91.1	83.8	82.0	85.9	92.7	95.8	96.4	95.0	90.2	92.2	95.9	94.0	91.3	----
Effluent Loading, lb/d	2,288	4,333	4,804	3,323	2,015	1,053	861	1,202	2,319	1,782	1,348	1,429	2,230	7,860
Suspended Solids:														
Influent, mg/l	207	164	111	91	109	162	172	130	105	146	125	118	137	----
Effluent, mg/l	41	54	40	21	13	9	11	10	20	11	10	9	21	30
Percent Removal, %	80.2	67.0	64.0	76.9	88.1	94.4	93.6	92.3	81.0	89.8	89.9	91.1	84.0	----
Effluent Loading, lb/d	5,547	10,480	11,996	7,158	4,251	1,802	1,879	2,462	8,500	3,350	2,509	2,323	5,188	9,433
Nitrogen														
Total-N														
Influent, mg/l	27	24	15	12	13	19	36	19	10	18	17	15	19	----
Effluent, mg/l	30	23	16	12	12	15	19	14	8	13	14	13	16	Monitor
Effluent Loading, lb/d	4,197	4,169	4,452	4,168	3,824	2,954	3,151	3,239	3,532	3,308	4,336	3,298	3,719	----
NH3-N														
Influent mg/l	16	12	8	7	9	13	13	11	5	10	12	10	10	----
Effluent, mg/l	21	16	10	8	10	13	15	10	4	8	12	12	12	17 (2)
Effluent Loading, lb/d	2,931	3,013	2,732	2,512	2,799	2,724	2,505	2,144	1,456	2,107	2,873	2,796	2,549	4,716
Phosphorus:														
Influent, mg/l	4.4	3.1	2.1	1.9	2.2	3.0	3.4	2.5	1.7	2.7	2.6	2.6	2.7	----
Effluent, mg/l	1.6	1.5	1.3	0.9	1.0	1.3	1.3	0.8	0.6	0.8	0.9	0.7	1.1	2.0
Percent Removal, %	63.6	51.6	38.1	52.6	54.5	56.7	61.8	68.0	64.7	70.4	65.4	73.1	60.0	----
Effluent Loading, lb/d	213	285	371	281	299	261	216	193	212	209	219	172	244	629
pH:														
Influent, Std. Units	7.3	7.3	7.2	7.2	7.2	7.3	7.2	7.3	7.1	7.3	7.3	7.2	7.2	----
Effluent, Std. Units	7.0	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.7	6.8	6.8	6.8	6.9	6.0 - 9.0
Dissolved Oxygen:														
Effluent Minimum, mg/l	8.6	7.5	8.8	7.2	6.8	7.4	6.4	5.8	6.2	6.9	7.1	6.6	7.1	5.0 Mfn.
Fecal Coliform:														
Effluent, No./100 ml	13	24	87	49	9	7	5	21	36	107	22	65	37	200/100 ml (1)
Chlorine Residual:														
Effluent, mg/l	0.19	0.19	0.25	0.27	0.38	0.39	0.38	0.38	0.40	0.21	0.21	0.22	0.29	0.50

(1) Seasonal limit 2,000/100 ml Oct. 1 to Apr. 30 and 200/100 ml May 1 to Sept. 30.

(2) Seasonal Limit May 1 to Nov.1.

EXHIBIT B

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Flow Monitoring Information, MGD - 2011

Month	Total Flow	City Regions										Suburb Regions	Total Precip inches	
		1	2	3	4	5	6	7	8	9	10			
January	16,500	6,690	9,810	5,091	0.112	0.152	1,014	0.321	1,818	2,648	1,797	3,411	0.136	1,530
February	23,700	9,695	14,005	7,159	0.187	0.168	1,860	0.321	2,070	3,410	2,559	5,758	0.208	2,780
March	38,000	13,130	24,870	8,799	0.462	1,516	1,626	0.727	2,856	6,278	6,965	8,286	0.485	6,440
April	41,300	17,160	24,140	12,257	0.408	1,109	1,973	1,413	3,171	6,685	5,232	8,575	0.477	11,320
May	37,500	16,309	21,191	11,845	0.528	0.520	2,491	0.925	3,084	5,396	3,341	7,588	1.782	4,900
June	24,700	11,541	13,159	8,816	0.356	0.419	1,583	0.387	2,367	3,799	2,041	4,570	0.382	4,260
July	20,500	9,320	11,180	7,854	0.254	0.194	0,670	0.348	1,888	3,358	1,964	3,805	0.165	6,050
August	29,400	12,314	17,086	4,267	0.257	1,120	6,228	0.442	2,079	4,185	3,358	7,248	0.216	9,780
September	46,800	17,647	29,153	5,752	0.070	1,602	9,385	0.838	3,895	7,235	5,761	10,480	1.782	17,220
October	35,000	15,516	19,484	10,937	0.380	0.353	3,231	0.615	2,609	5,133	3,140	6,820	1.782	5,940
November	30,000	11,960	18,040	9,261	0.540	0.281	1,401	0.477	2,144	5,224	2,673	6,757	1.242	4,560
December	29,600	13,281	16,319	10,883	0.413	0.246	1,298	0.441	2,019	4,881	2,513	6,426	0.480	3,290
Average	31.08	12.88	18.20											6.51
Percent	100.00	41.44	58.56											78.07

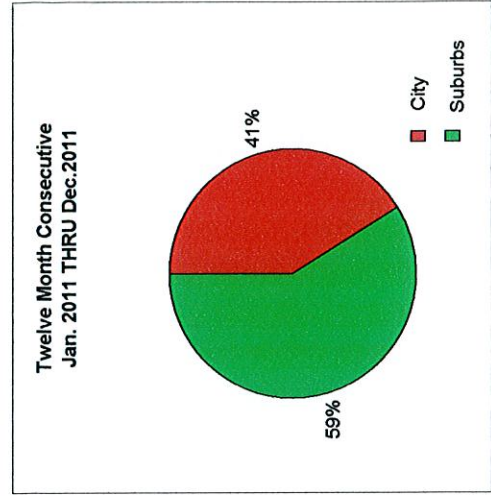
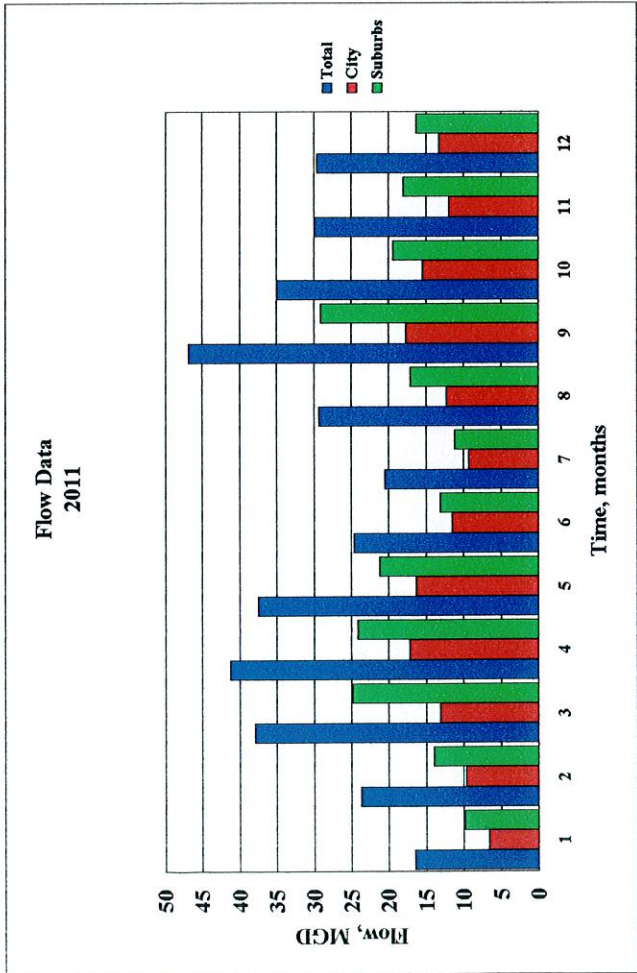


EXHIBIT C

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Treatment Utility and Chemical Usage - 2011

Utility / Chemical	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Electric														
Total, kWh	1,020,700	903,900	961,700	984,000	1,056,800	1,048,200	1,088,400	934,800	1,013,400	1,196,700	981,000	976,200	1,013,817	12,165,800
Average, kWh/Day	32,926	32,282	31,023	32,800	34,090	34,940	35,110	30,155	33,780	38,603	32,700	31,490	33,325	-----
Cost, Dollars	\$88,624.90	\$106,553.66	\$95,510.54	\$91,387.17	\$79,994.58	\$79,902.20	\$83,136.86	\$72,109.75	\$75,770.59	\$90,771.77	\$73,521.32	\$74,223.95	\$84,292.27	\$1,011,507.29
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	-----
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Natural Gas														
Total, Cu Ft	824.5	532.0	362.7	144.8	13.9	22.3	11.7	3.8	29.3	66.1	203.6	*	185	2,215
Average, Cu Ft/Day	29.5	19.0	11.7	4.8	0.4	0.7	0.4	0.1	1.0	2.2	6.8	*	7	-----
Cost, Dollars	\$13,476.15	\$6,472.96	\$3,513.90	\$1,489.62	\$236.45	\$312.05	\$211.46	\$147.05	\$356.46	\$686.18	\$1,498.39	*	\$2,366.72	\$28,400.67
Water														
Total, Gal.	661,000	696,000	665,000	923,000	575,000	638,000	638,000	599,000	538,000	459,000	580,000	*	633,818	6,972,000
Average, Gal./Day	21,323	24,857	21,452	30,767	18,548	21,267	20,581	19,323	17,933	15,300	18,710	*	20,914	-----
Cost, Dollars	\$5,939.33	\$6,140.58	\$5,962.33	\$7,445.83	\$5,444.83	\$5,807.08	\$5,807.08	\$5,582.83	\$5,232.08	\$4,777.83	\$5,475.58	*	\$5,301.12	\$63,613.38
Chlorine Disinfection														
Total, Lbs.	7,525	7,785	10,714	10,080	10,860	9,300	8,820	12,802	15,875	7,360	6,390	6,160	9,473	113,671
Average, Lbs./Day	243	278	346	336	350	310	285	413	529	237	213	199	312	-----
Avg Residual, mg/l	0.18	0.18	0.25	0.27	0.38	0.39	0.38	0.38	0.40	0.21	0.21	0.22	0.29	-----
Cost, \$/Lbs.	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	\$0.33	-----
Total Cost, Dollars	\$2,445.63	\$2,530.13	\$3,482.05	\$3,276.00	\$3,529.50	\$3,022.50	\$2,866.50	\$4,160.65	\$5,159.38	\$2,392.00	\$2,076.75	\$2,002.00	\$3,078.59	\$36,943.08
Phosphorous Removal														
Total FeSO4, Gals.	44,032	28,918	10,750	9,181	0	0	15,115	18,563	4,425	0	8,200	17,875	13,088	157,058
Average, Gals./Day	1,420	1,033	347	306	0	0	488	599	148	0	273	577	432	-----
FeSO4 Cost, \$/Gal.	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	\$0.54	-----
FeSO4 Total Cost, Dollar.	\$23,865.34	\$15,673.29	\$5,826.50	\$4,975.83	\$0.00	\$0.00	\$8,192.06	\$10,061.15	\$2,398.35	\$0.00	\$4,444.40	\$9,688.25	\$7,093.76	\$85,125.17

* No data at time of report

EXHIBIT D

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Cogeneration Electrical Production: 2010 - 2011

Period	Percent Run Time	Daily Avg Kilowatt	Kilowatt Hours Produced	Revenue Collected
Dec 29th - Jan 29th, 2010	85	7,177	222,500	\$32,485.00
Jan 29th - Feb 28th, 2010	62	5,329	149,200	\$21,783.20
Feb 28th - Mar 29th, 2010	77	5,832	180,790	\$26,395.34
Mar 29th - Apr 29th, 2010	75	5,467	164,000	\$23,944.00
Apr 29th - May 30th, 2010	100	8,058	249,800	\$36,470.80
May 30th - Jun 27th, 2010	79	6,890	206,700	\$30,178.20
Jun 27th - Jul 27th, 2010	59	3,945	122,300	\$17,855.80
Jul 27th - Aug 27th, 2010	49	2,335	72,400	\$10,570.40
Aug 27th - Sep 27th, 2010	38	1,750	52,500	\$7,665.00
Sep 27th - Oct 27th, 2010	31	1,961	60,800	\$8,876.80
Oct 27th - Nov 29th, 2010	52	3,230	96,900	\$14,147.40
Nov 29th - Dec 29th, 2010	36	2,506	77,700	\$11,344.20
Total - 2010	743	54,480	1,655,590	\$241,716.14
Monthly Average - 2010	62	4,540	137,966	\$20,143.01
Dec 29th - Jan 29th, 2011	87	6,594	204,400	\$19,961.70
Jan 29th - Feb 28th, 2011	90	7,082	198,300	\$19,365.98
Feb 28th - Mar 29th, 2011	58	4,397	136,300	\$13,311.06
Mar 29th - Apr 29th, 2011	70	4,567	137,000	\$13,379.42
Apr 29th - May 30th, 2011	56	3,890	120,600	\$11,777.80
May 30th - Jun 27th, 2011	95	6,150	184,500	\$14,760.00
Jun 27th - Jul 27th, 2011	87	5,458	169,200	\$13,536.00
Jul 27th - Aug 27th, 2011	70	4,094	126,900	\$10,152.00
Aug 27th - Sep 27th, 2011	53	3,510	105,300	\$8,424.00
Sep 27th - Oct 27th, 2011	77	5,516	171,000	\$13,680.00
Oct 27th - Nov 29th, 2011	82	5,967	179,000	\$14,320.00
Nov 29th - Dec 29th, 2011	89	6,823	211,500	\$16,920.00
Total - 2011	914	64,047	1,944,000	\$169,587.96
Monthly Average - 2011	76	5,337	162,000	\$14,132.33

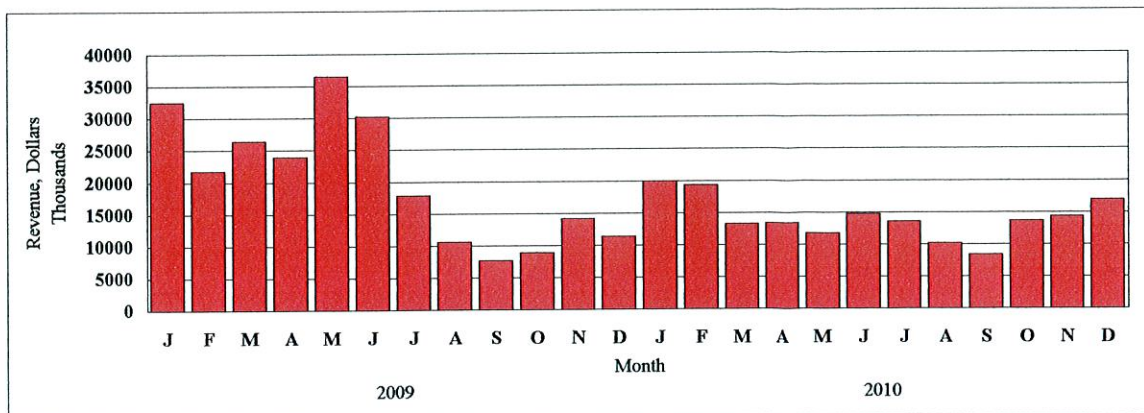


EXHIBIT E

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Sludge Handling Information - 2011

Process	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Solids Removal														
Process, Lbs.	927,425	962,337	910,551	910,551	910,551	797,841	790,955	929,620	868,162	791,948	767,725	818,190	865,488	10,385,857
CWH Program, Lbs.	241,180	223,240	188,119	97,257	127,320	173,423	138,434	74,920	45,780	128,300	97,580	124,280	138,319	1,659,833
Total Solids, Lbs.	1,168,605	1,185,577	1,098,670	1,174,839	1,202,753	971,264	929,389	1,004,540	913,942	920,248	865,305	942,470	1,031,467	12,377,603
Sludge Dewatering														
Feed Volume, Gals.	2,744,000	2,524,000	3,943,000	3,522,000	3,785,000	3,602,000	5,251,000	4,212,000	3,345,000	2,662,000	4,091,000	3,536,000	3,601,417	43,217,000
Feed Solids, %	1.9	2.0	2.5	2.2	2.6	2.0	1.8	2.3	3.1	3.0	1.9	1.9	2.3	-
Labor, Hours	371	339	435	416	426	344	523	383	345	278	449	418	394	4,726
Operations, Hours	543	551	793	737	846	627	1,031	748	687	550	892	818.3	735	8,823
Total Cake, Dry Tons	137	155	269	186	278	192	322	232	261	189	209	202	219	2,632
Total Cake, Wet Tons	821	882	1,435	962	1,236	951	1,677	1,159	1,126	864	1,153	1,094	1,113	13,360
Cake TS, %	17.0	17.6	19.0	19.3	22.5	20.2	19.2	20.0	23.2	21.9	18.1	18.5	19.7	-
Press Rate, Lbs./Hour	3,024	3,204	3,618	2,613	2,923	3,032	3,253	3,100	3,280	3,140	2,585	2,674	3,037	36,444
Polymer Dosage, Lbs	3,511	3,213	4,966	3,766	4,539	4,163	6,927	4,142	4,192	3,530	5,100	4,878	4,411	52,927
Polymer Dosage, Lbs/Dry Ton	25.6	20.7	18.4	20.3	16.3	21.6	21.5	17.9	16.0	18.7	24.4	24.1	20.5	-
Disposal Cost														
Labor, Dollars	\$7,121.01	\$6,513.66	\$8,351.09	\$8,001.29	\$8,187.72	\$6,613.60	\$10,052.06	\$7,361.26	\$6,638.59	\$5,345.08	\$8,620.17	\$8,033.96	\$7,569.96	\$90,839.49
Electrical, Dollars	\$238.92	\$242.26	\$348.96	\$324.15	\$372.24	\$276.01	\$453.60	\$329.12	\$302.06	\$242.18	\$392.52	\$360.05	\$323.51	\$3,882.08
Polymer, Dollars	\$6,565.57	\$6,007.38	\$9,286.16	\$7,042.98	\$8,488.29	\$7,992.19	\$13,300.61	\$7,953.02	\$8,048.64	\$6,777.60	\$9,792.00	\$9,365.95	\$8,385.03	\$100,620.39
Disposal, Dollars	\$33,289.72	\$42,005.00	\$79,317.00	\$44,598.00	\$19,888.99	\$24,192.19	\$36,814.54	\$42,407.24	\$14,580.82	\$29,395.05	\$34,206.40	\$30,624.94	\$35,943.32	\$431,319.89
Total Cost, Dollars	\$47,215.22	\$54,768.30	\$97,303.21	\$59,966.42	\$36,937.24	\$39,074.00	\$60,620.80	\$58,050.64	\$29,570.11	\$41,759.91	\$53,011.09	\$48,384.90	\$52,221.82	\$626,661.84
Cost Per Dry Ton, Dollars	\$344.64	\$352.83	\$361.18	\$322.98	\$132.98	\$203.18	\$188.45	\$250.74	\$113.19	\$220.95	\$253.64	\$239.53	\$238.11	-

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Conveyance Utility Usage - 2011

Location / Utility	January	February	March	April	May	June	July	August	September	October	November	December	Average	Total
Front Street Pump Station														
Electric														
Total, kWh	76,800	88,800	175,800	147,000	196,800	118,800	82,800	117,600	198,000	200,400	115,800	145,800	138,700	1,664,400
Average, kWh/Day	2,477	3,171	5,671	4,900	6,348	3,960	2,671	3,794	6,600	6,465	3,860	4,703	4,552	-----
Cost, Dollars	\$7,059.87	\$10,034.43	\$16,812.63	\$13,977.46	\$15,045.12	\$9,549.00	\$7,529.54	\$9,578.00	\$15,602.80	\$15,513.96	\$10,152.13	\$12,420.59	\$11,939.63	\$143,275.53
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water														
Total, Gals.	5,000	5,000	5,000	55,000	40,000	10,000	5,000	15,000	71,737	4,500	4,500	4,500	20,067	220,737
Average, Gal./Day	161	179	161	1,833	1,290	333	161	484	2,391	145	150	150	663	-----
Cost, Dollars	\$474.28	\$474.28	\$474.28	\$761.78	\$675.53	\$503.03	\$474.28	\$531.78	\$858.02	\$471.41	\$471.41	\$471.41	\$560.92	\$6,170.08
Spring Creek Pump Station														
Electric														
Total, kWh	35,840	36,160	54,400	65,600	94,400	62,400	47,680	37,760	80,640	86,720	60,480	66,560	60,720	728,640
Average, kWh/Day	1,156	1,291	1,755	2,187	3,045	2,080	1,538	1,218	2,688	2,797	2,016	2,147	1,993	-----
Cost, Dollars	\$3,449.58	\$5,225.15	\$7,197.07	\$7,860.14	\$8,715.21	\$5,990.21	\$3,642.89	\$3,642.89	\$7,384.31	\$8,097.73	\$5,661.95	\$6,641.92	\$6,242.14	\$74,905.63
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water														
Total, Gals.	53,000	22,000	1,000	0	1,000	1,000	0	1,000	50,000	17,000	19,000	15,000	15,000	165,000
Average, Gal./Day	1,710	786	32	0	32	33	0	32	1,667	567	613	497	497	-----
Cost, Dollars	\$353.36	\$175.11	\$54.36	\$48.61	\$54.36	\$54.36	\$48.61	\$54.36	\$336.11	\$146.36	\$157.86	\$134.86	\$134.86	\$1,483.46
Market Street Pump Station														
Electric														
Total, kWh	10,920	11,280	7,200	6,600	5,520	2,280	1,800	1,920	1,800	2,400	4,080	9,120	5,410	64,920
Average, kWh/Day	353	403	232	220	178	76	58	62	60	77	136	294	179	-----
Cost, Dollars	\$1,032.95	\$1,404.94	\$756.26	\$893.73	\$754.55	\$435.90	\$177.29	\$314.55	\$414.17	\$420.18	\$414.21	\$806.21	\$652.08	\$7,824.94
Fuel Oil														
Total, Gals.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average, Gals./Day	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost, Dollars	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
City Island Pump Station														
Electric														
Total, kWh	680	640	640	560	600	680	680	600	600	160	160	120	510	6,120
Average, kWh/Day	22	23	21	19	19	23	22	19	20	5	5	4	17	-----
Cost, Dollars	\$83.39	\$97.74	\$99.89	\$156.43	\$184.51	\$82.04	\$73.16	\$73.16	\$71.76	\$130.28	\$39.38	\$36.36	\$94.49	\$1,133.83

* No Data at time of report

EXHIBIT G

CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

Contract Waste Hauling Program 2010 - 2011

Month	Process		Septic		Total	
	Gallons	Revenue	Gallons	Revenue	Gallons	Revenue
January	1,067,100	\$50,472.30	59,100	\$2,127.60	1,126,200	\$52,599.90
February	1,328,500	\$63,740.10	17,000	\$612.00	1,345,000	\$64,352.10
March	2,160,100	\$78,015.30	71,800	\$2,584.80	2,231,900	\$80,600.10
April	1,567,500	\$46,314.00	144,800	\$5,212.80	1,712,300	\$51,526.80
May	1,020,600	\$48,610.80	100,800	\$3,628.80	1,121,400	\$52,239.60
June	1,401,200	\$72,730.80	155,000	\$5,580.00	1,556,200	\$78,310.80
July	1,264,950	\$66,506.25	117,350	\$4,224.60	1,382,300	\$70,730.85
August	1,675,300	\$75,141.00	117,550	\$4,231.80	1,792,850	\$79,372.80
September	1,252,400	\$59,003.10	129,400	\$4,658.40	1,381,800	\$63,661.50
October	2,387,300	\$89,448.30	129,200	\$4,651.20	2,516,500	\$94,099.50
November	1,883,400	\$68,918.10	54,000	\$1,944.00	1,937,400	\$70,862.10
December	1,427,200	\$69,126.00	13,100	\$471.00	1,440,300	\$69,597.60
Total - 2010	18,435,550	\$788,026.05	1,109,100	\$39,927.00	19,544,150	\$827,953.65
Monthly Average - 2010	1,536,296	\$65,668.84	92,425	\$3,327.25	1,628,679	\$68,996.14
January	1,057,200	\$60,045.60	25,000	\$900.00	1,082,200	\$60,945.60
February	809,000	\$47,724.00	10,000	\$360.00	819,000	\$48,084.00
March	1,797,400	\$54,335.40	0	\$0.00	1,797,400	\$54,335.40
April	1,324,600	\$29,827.80	29,500	\$1,062.00	1,354,100	\$30,889.80
May	1,662,500	\$38,160.00	54,700	\$1,969.20	1,717,200	\$40,129.20
June	2,090,800	\$51,300.00	121,800	\$4,384.80	2,212,600	\$55,684.80
July	1,500,750	\$46,357.50	157,700	\$5,434.20	1,658,450	\$51,791.70
August	411,100	\$14,995.80	140,025	\$4,747.52	551,125	\$19,743.32
September	688,325	\$17,745.30	13,600	\$309.60	701,925	\$18,054.90
October	2,075,200	\$47,888.10	131,400	\$3,850.20	2,206,600	\$51,738.30
November	1,475,700	\$36,011.70	1,034,000	\$3,191.40	1,579,100	\$39,203.10
December	2,018,900	\$48,088.80	26,300	\$730.80	2,045,200	\$48,819.60
Total - 2011	16,911,475	\$492,480.00	1,744,025	\$26,939.72	17,724,900	\$519,419.72
Monthly Average - 2011	1,409,290	\$41,040.00	145,335	\$2,244.98	1,477,075	\$43,284.98

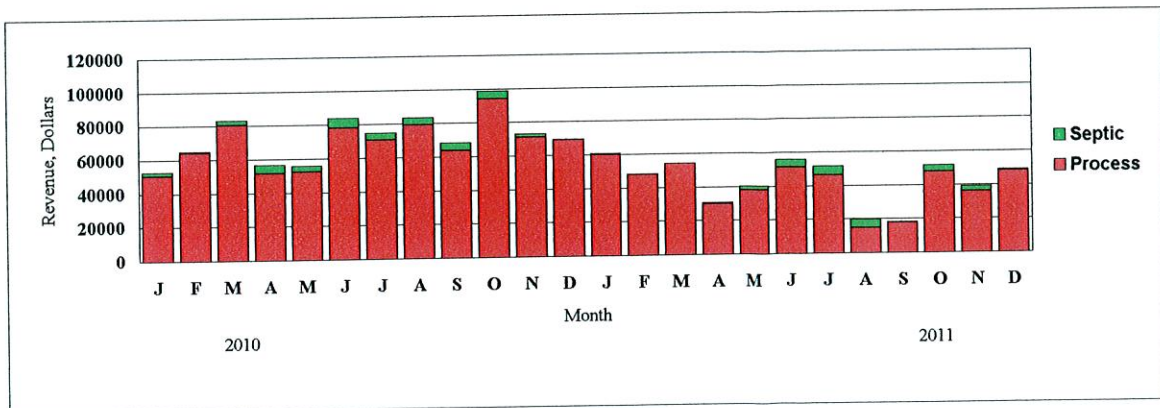


Exhibit H
CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

	Jan - Nov 11	Budget	\$ Over Budget
Income			
2900 · Income			
350 · Interest Income			
350002 · Interest Savings - Con/Treat	2,362.18	1,450.00	912.18
350003 · Interest Savings - Collection	470.21	250.00	220.21
352002 · Interest Other - Con/Treat	0.20	600.00	-599.80
352003 · Interest Other-Collection	0.00	100.00	-100.00
Total 350 · Interest Income	2,832.59	2,400.00	432.59
369 · Sewerage Utility Fund			
369002 · Conveyance/Treatment Revenue	4,355,861.47	5,143,000.00	-787,138.53
369003 · Collection System Revenue	760,262.79	928,000.00	-167,737.21
369005 · Sales of Scrap	105.30	400.00	-294.70
369008 · Sales to Public Authorities	7,895,268.91	7,943,746.00	-48,477.09
369010 · Sludge Handling Charges	530,066.90	370,000.00	160,066.90
369011 · Sales of Electric Power	297,987.48	150,000.00	147,987.48
369012 · Contract Waste Hauling Charges	1,750.00	2,000.00	-250.00
369013 · Pretreatment Charges	9,450.00	8,100.00	1,350.00
369014 · Contract Waste Hauling Lab Fees	21,638.50	29,000.00	-7,361.50
369015 · Pretreatment Lab Fees	18,699.00	18,000.00	699.00
369053 · Liens Principal - Convey/Treat	19,402.12	20,700.00	-1,297.88
369054 · Liens Interest - Convey/Treat	4,469.64	4,000.00	469.64
369055 · Liens Principal - Collection	3,861.84	4,100.00	-238.16
369056 · Liens Interest - Collection	889.68	900.00	-10.32
Total 369 · Sewerage Utility Fund	13,919,713.63	14,621,946.00	-702,232.37
385090 · Sewer Rev Misc.	5,992.25		
Total 2900 · Income	13,928,538.47	14,624,346.00	-695,807.53
Total Income	13,928,538.47	14,624,346.00	-695,807.53
Gross Profit	13,928,538.47	14,624,346.00	-695,807.53
Expense			
2910 · Administration			
414 · Salaries and Wages			
1414000 · Wages - Hourly Employees	206,394.77	228,698.00	-22,303.23
1416000 · Overtime	808.30	920.00	-111.70
1417000 · Sick Leave Buyback	3,345.14	3,400.00	-54.86
Total 414 · Salaries and Wages	210,548.21	233,018.00	-22,469.79
419 · Fringe Benefits			
1419001 · Social Security	17,556.53	20,939.00	-3,382.47
1419002 · Blue Cross/Shield	122,028.48	125,029.00	-3,000.52
1419005 · Severance Pay	21,303.41	21,303.49	-0.08
1419010 · Unemployment	0.00	8,000.00	-8,000.00
1419011 · Workers' Compensation	1,650.00	2,000.00	-350.00
1419012 · Loss Time / Medical @ WC	20,416.97	41,000.00	-20,583.03
1419014 · State Fees @ Workers' Comp.	0.00	1,300.00	-1,300.00
1419015 · Excess Insurance Policy @ WC	0.00	4,000.00	-4,000.00
Total 419 · Fringe Benefits	182,955.39	223,571.49	-40,616.10
420 · Communications			
1420010 · Advertising & Public Notices	839.53	1,500.00	-660.47
1420020 · Printing Reproducing & Report	5,660.74	6,269.00	-608.26
1420040 · Telephone	6,342.36	15,500.00	-9,157.64
1420050 · Postage	714.80	850.00	-135.20
Total 420 · Communications	13,557.43	24,119.00	-10,561.57
421 · Professional Fees			
1421020 · Audit Fees	0.00	21,930.00	-21,930.00
1421030 · Consulting	3,000.00	10,900.00	-7,900.00
1421040 · Collection	0.00	1,500.00	-1,500.00
1421050 · Professional Fees/Other	84,332.45	90,000.00	-5,667.55
Total 421 · Professional Fees	87,332.45	124,330.00	-36,997.55

Exhibit H
CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

	Jan - Nov 11	Budget	\$ Over Budget
423 · Insurance			
1423002 · Stop/Loss Premium	19,147.74	25,600.00	-6,452.26
1423010 · Automobile	17,176.81	17,176.81	0.00
1423011 · Auto Insurance Deductible	0.00	1,600.00	-1,600.00
1423020 · General Liability	31,205.01	31,205.01	0.00
1423030 · Boiler and Machinery	2,583.58	2,583.58	0.00
1423040 · Property	146,276.68	146,276.68	0.00
1423041 · Property Deductible	0.00	6,926.51	-6,926.51
1423050 · Inland Marine	10,614.45	23,624.22	-13,009.77
1423060 · Flood (Property & Crime)	103,266.00	103,266.00	0.00
1423090 · Public Official Liability	49,916.32	49,916.32	0.00
1423095 · Excess Liability	13,391.69	13,391.69	0.00
1423097 · Terrorism	0.00	0.00	0.00
Total 423 · Insurance	393,578.28	421,566.82	-27,988.54
425 · Maintenance			
1425090 · Maintenance Service Contract	29,896.13	30,768.84	-872.71
Total 425 · Maintenance	29,896.13	30,768.84	-872.71
429 · Other Contracted Services			
1429001 · Tuition for Employee Training	75.00	500.00	-425.00
1429003 · Interfund - General Admin.	2,763,752.00	3,018,507.00	-254,755.00
1429009 · Pension Fund Admin. Charge	0.00	120.00	-120.00
1429012 · Laundry & Dry Clean	9,916.82	10,000.00	-83.18
1429016 · Conferences	89.15	200.00	-110.85
1429017 · Membership Dues	0.00	100.00	-100.00
1429025 · CAT Event Disaster Recovery	9,583.56	9,583.56	0.00
1429095 · Bank Service Charge	5,746.19	6,000.00	-253.81
Total 429 · Other Contracted Services	2,789,162.72	3,045,010.56	-255,847.84
430 · Supplies and Expenses			
1430002 · Software & Licenses	16,000.00	16,000.00	0.00
1430003 · Subscriptions, Periodicals	0.00	200.00	-200.00
1430008 · Data Processing Supplies	0.00	200.00	-200.00
1430009 · Office Supplies	2,719.37	2,750.00	-30.63
Total 430 · Supplies and Expenses	18,719.37	19,150.00	-430.63
449 · Authority Payments			
1449030 · Transfer To Authority - Rental	2,286,286.74	2,286,442.00	-155.26
1449031 · Pennvest	300,127.20	338,294.08	-38,166.88
Total 449 · Authority Payments	2,586,413.94	2,624,736.08	-38,322.14
481 · General Fund			
481055 · Liability Insurance	7,800.00	7,800.00	0.00
Total 481 · General Fund	7,800.00	7,800.00	0.00
Total 2910 · Administration	6,319,963.92	6,754,070.79	-434,106.87
2920 · Operations			
414 · Salaries and Wages - Operations			
2414000 · Wages-Hourly Employees	761,154.85	867,828.00	-106,673.15
2416000 · Overtime	167,972.06	220,030.17	-52,058.11
414 · Salaries and Wages - Operations - Other	0.00	-30,000.00	30,000.00
Total 414 · Salaries and Wages - Operations	929,126.91	1,057,858.17	-128,731.26
419 · Fringe Benefits			
2419001 · Social Security	71,078.34	83,221.00	-12,142.66
2419002 · Blue Cross/Blue Shield	185,132.36	265,316.00	-80,183.64
Total 419 · Fringe Benefits	256,210.70	348,537.00	-92,326.30
422 · Utilities and Service			
2422010 · Water	61,374.40	115,000.00	-53,625.60
2422020 · Electricity	858,174.83	961,319.00	-103,144.17
2422030 · Heat	72,510.12	125,604.00	-53,093.88
2422090 · Garbage & Refuse Removal	703,012.90	823,570.00	-120,557.10
Total 422 · Utilities and Service	1,695,072.25	2,025,493.00	-330,420.75
424 · Rental			
2424060 · Other	0.00	1,176.00	-1,176.00
Total 424 · Rental	0.00	1,176.00	-1,176.00

Exhibit H
CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

	Jan - Nov 11	Budget	\$ Over Budget
425. · Maintenance and Repairs			
2425080 · Service Contracts	159,811.00	160,000.00	-189.00
2425090 · Maintenance Service Contract	0.00	0.00	0.00
2425099 · Other Contracted Maint & Repair	45,564.72	51,540.00	-5,975.28
Total 425. · Maintenance and Repairs	205,375.72	211,540.00	-6,164.28
429. · Contracted Services			
2429003 · General Admin. Charges	2,912,168.03	3,193,188.00	-281,019.97
Total 429. · Contracted Services	2,912,168.03	3,193,188.00	-281,019.97
430. · Supplies and Expenses			
2430011 · Custodial Supplies	5,039.04	8,000.00	-2,960.96
2430012 · Personnel Safety Supplies	0.00	1,000.00	-1,000.00
2430016 · Medical Surgical & Lab Supplies	81,874.19	82,000.00	-125.81
2430037 · Chemicals	414,721.05	419,000.00	-4,278.95
2430099 · Miscellaneous	368,433.54	420,500.00	-52,066.46
Total 430. · Supplies and Expenses	870,067.82	930,500.00	-60,432.18
Total 2920 · Operations	6,868,021.43	7,768,292.17	-900,270.74
2930 · Maintenance			
414.. · Wages and Salary			
3414000 · Wages-Hourly Employees	326,505.52	377,476.00	-50,970.48
3416000 · Overtime	5,852.06	6,025.00	-172.94
Total 414.. · Wages and Salary	332,357.58	383,501.00	-51,143.42
419.. · Fringe Benefits			
3419001 · Social Security	25,425.29	32,400.00	-6,974.71
3419002 · Blue Cross/Blue Shield	83,236.06	136,640.00	-53,403.94
Total 419.. · Fringe Benefits	108,661.35	169,040.00	-60,378.65
425.. · Maintenance and Repairs			
3425010 · Vehicle Equipment	10,100.00	10,100.00	0.00
3425060 · Operations Equipment	1,500.00	3,500.00	-2,000.00
Total 425.. · Maintenance and Repairs	11,600.00	13,600.00	-2,000.00
429.. · Contracted Service			
3429003 · General Admin. Charges	554,087.15	605,847.00	-51,759.85
3429090 · Miscellaneous	8,536.00	8,900.00	-364.00
Total 429.. · Contracted Service	562,623.15	614,747.00	-52,123.85
430.. · Supplies and Expenses			
3430012 · Personal Safety Supplies	0.00	0.00	0.00
3430030 · Snow/Ice Control Supplies	0.00	0.00	0.00
3430036 · Building & Construction Supplie	0.00	0.00	0.00
3430040 · Botanical	0.00	0.00	0.00
3430042 · Expendable Tools & Hardware	3,000.00	5,000.00	-2,000.00
3430045 · Utility Plant, Fuels, Lubricant	9,478.00	15,000.00	-5,522.00
3430050 · Motor Fuels & Lubricants	18,519.41	21,500.00	-2,980.59
3430051 · Tires & Batteries	1,682.08	2,600.00	-917.92
3430052 · Vehicle Parts & Supplies	4,132.15	7,500.00	-3,367.85
3430055 · Mechanical Equipmt-Parts & Supp	182,039.67	184,200.00	-2,160.33
3430057 · Pipe Connection Etc	10,114.00	11,000.00	-886.00
3430099 · Misc. Supplies & Expenses	27,565.96	31,000.00	-3,434.04
Total 430.. · Supplies and Expenses	256,531.27	277,800.00	-21,268.73
457.. · Sewer Plant Equipment			
3457000 · Plant Equipment	56,548.68	61,600.00	-5,051.32
Total 457.. · Sewer Plant Equipment	56,548.68	61,600.00	-5,051.32
Total 2930 · Maintenance	1,328,322.03	1,520,288.00	-191,965.97
2940 · Field Maintenance			
414... · Wages and Salary - Fd. Main.			
4414000 · Wages Hourly Employees	150,123.55	174,570.00	-24,446.45
4416000 · Overtime	18,733.01	18,821.48	-88.47
Total 414... · Wages and Salary - Fd. Main.	168,856.56	193,391.48	-24,534.92
419... · Fringe Benefits			
4419001 · Social Security	12,917.47	14,795.00	-1,877.53
4419002 · Blue Cross/Blue Shield	41,107.12	55,856.00	-14,748.88
Total 419... · Fringe Benefits	54,024.59	70,651.00	-16,626.41

Exhibit H
CITY OF HARRISBURG
ADVANCED WASTEWATER TREATMENT FACILITY

	<u>Jan - Nov 11</u>	<u>Budget</u>	<u>\$ Over Budget</u>
420... · Printing & Reproduction			
4420020 · Printing Repro & Report	0.00	0.00	0.00
Total 420... · Printing & Reproduction	0.00	0.00	0.00
422.. · Utilities			
4422010 · Water	7,188.14	10,000.00	-2,811.86
4422020 · Electricity	233,391.78	323,411.00	-90,019.22
4422030 · Heat	0.00	1,000.00	-1,000.00
4422090 · Garbage and Refuse	0.00	1,000.00	-1,000.00
Total 422.. · Utilities	240,579.92	335,411.00	-94,831.08
425... · Maintenance and Repairs			
4425010 · Vehicular Equipment	7,635.34	7,635.34	0.00
4425099 · Other Contracted Maint/Repairs	0.00	1,000.00	-1,000.00
Total 425... · Maintenance and Repairs	7,635.34	8,635.34	-1,000.00
429... · Contracted Services			
4429003 · General Admin. Charges	413,858.21	457,844.00	-43,985.79
Total 429... · Contracted Services	413,858.21	457,844.00	-43,985.79
430... · Supplies and Expenses			
4430012 · Personal Safety Supplies	0.00	250.00	-250.00
4430037 · Chemicals	0.00	200.00	-200.00
4430042 · Tools & Hardware	0.00	200.00	-200.00
4430050 · Motor Fuels/Lubricants	3,500.00	3,500.00	0.00
4430051 · Tires & Batteries	200.00	200.00	0.00
4430052 · Vehicle Parts & Supplies	2,614.66	2,614.66	0.00
4430055 · Mechanical Equipment P & S	3,377.74	6,000.00	-2,622.26
Total 430... · Supplies and Expenses	9,692.40	12,964.66	-3,272.26
Total 2940 · Field Maintenance	894,647.02	1,078,897.48	-184,250.46
Total Expense	15,410,954.40	17,121,548.44	-1,710,594.04
Net Income	<u>-1,482,415.93</u>	<u>-2,497,202.44</u>	<u>1,014,786.51</u>