



STATE OF ALASKA
ALASKA CLEAN/DRINKING WATER FUND
GREEN PROJECT ASSESSMENT FORM

Division of Water
M&L

JUN 07 2012

Received

As applicable under the EPA annual capitalization grants provided to the Alaska Clean Water Fund (ACWF) and Alaska Drinking Water Fund (ADWF) loan programs, a portion of funds appropriated shall be for projects to address green infrastructure, water or energy efficiency improvements or other environmentally innovative activities." To meet this condition under the federal grant for administering these funds, this assessment form is provided to document this eligibility or what is termed a "Categorical" or "Business Case" justification, which will be reviewed by DEC for provisional compliance. For more information on green infrastructure development, please review the following EPA web site:

http://cfpub.epa.gov/npdes/home.cfm?program_id=298

For those projects requiring a "Business Case," Part 2 will require completion to qualify a "traditional project" as green; justification is broken down into two parts, technical and financial. The technical part should use information from a variety of sources such as maintenance or operation records, engineering studies, project plans or other applicable documentation to identify problems (including any data on water and/or energy inefficiencies) in the existing facility, and that clarifies the technical benefits from the project in water and/or energy efficiency terms. Financial justification needs to show estimated savings to a project based on the technical benefits, and demonstrate that the green component of the project provides a substantial savings and environmental benefit.

For more information and assistance in completing this assessment form, please contact the Municipal Matching Grants & Loans program in Anchorage at 907-269-7673, or in Juneau at 907-465-5300.

GENERAL INFORMATION

Name of Community CITY OF PETERSBURG
Address P.O. Box 329
PETERSBURG AK 99833
Contact Name KARL HAGERMAN Title PUBLIC WORKS DIRECTOR Telephone (907) 772-4430

PROJECT INFORMATION

Project Name PETERSBURG SEWER UPGRADES Location PETERSBURG, AK
Project Type: New Construction X Upgrades
 Stormwater Infrastructure X Energy Efficiency Project
 Water Efficiency Project Innovative Environmental Project

Green Project Description: PETERSBURG'S SEWER UPGRADES PROJECT IS PART OF AN ONGOING EFFORT TO REDUCE INFLOW AND INFILTRATION WITHIN THE CITY'S WASTEWATER COLLECTION SYSTEM. HIGH ANNUAL RAINFALL AND HIGH WATER TABLES COMBINE WITH AWWA COLLECTION SYSTEM PIPING TO MAKE PETERSBURG'S SYSTEM SUSCEPTIBLE TO I+I INFLUENCES AND SYSTEM INEFFICIENCIES. BY REDUCING I+I, ENERGY REQUIRED TO MOVE WASTEWATER TO THE TREATMENT PLANT IS ALSO REDUCED. REPLACEMENT OF AWWA INFRASTRUCTURE IS MOST COST EFFECTIVE WAY TO REDUCE I+I.

PART 1 – GREEN PROJECT CATEGORY & COSTS

Identify the most appropriate “Green” Clean Water or Drinking Water category project type. Note, any selection with (BC) at the end will require a Business Case demonstration.

ENERGY EFFICIENCY – the use of improved technologies and practices to reduce the energy consumption of water quality projects.

☐ Wastewater/water utility energy audits ☐ Clean power for public owned facilities
☐ Leak detection equipment ☐ Retrofits/upgrades to pumps & treatment processes (BC)
☐ Replace/rehabilitation of distribution (BC) ☒ Other: I+I Reduction (BC)

WATER EFFICIENCY – the use of improved technologies and practices to deliver equal or better services with less water.

☐ Water meters ☐ Fixture Retrofit ☐ Landscape/Irrigation
☐ Graywater or other water recycling ☐ Replace/rehabilitation of distribution (BC)
☐ Leak detection equipment ☐ OTHER: _____ (BC)

GREEN INFRASTRUCTURE – Practices that manage and treat stormwater and that maintain and restore natural hydrology by infiltrating, evapotranspiring and capturing and using stormwater.

☐ Green Streets ☐ Water harvesting and reuse
☐ Porous pavement, bioretention, trees, green roofs, water gardens, constructed wetlands
☐ Hydromodification for riparian buffers, floodplains, and wetlands
☐ Downspout disconnection to remove stormwater from combined sewers and storm sewers
☐ OTHER: _____ (BC)

ENVIRONMENTALLY INNOVATIVE PROJECTS – Demonstrate new/innovative approaches to managing water resources in a more sustainable way. This may include projects that achieve pollution prevention or pollutant removal with reduced costs and projects that foster adaptation of water protection programs and practices to climate change.

☐ Wetland restoration ☐ Decentralized wastewater treatment solutions
☐ Water reuse ☐ Green stormwater infrastructure ☐ Water balance approaches
☐ Adaptation to climate change ☐ Integrated water resource management
☐ OTHER: _____ (BC)

PROJECT & GREEN COMPONENT COSTS

	<u>TOTAL PROJECT COSTS</u>	<u>TOTAL "GREEN" COMPONENT COSTS</u>
Administration	\$ _____	\$ _____
Legal	\$ _____	\$ _____
Preliminary Studies/Reports	\$ _____	\$ _____
Engineering Design	\$ <u>40404</u>	\$ _____
Inspection/Surveying/Construction	\$ <u>15000</u>	\$ _____
Management		
Construction	\$ <u>455 000</u>	\$ <u>455,000</u>
Equipment	\$ _____	\$ _____
Contingencies	\$ <u>40 000</u>	\$ _____
Other _____	\$ _____	\$ _____
Total Costs	\$ <u>550,404</u>	\$ _____

PART 2 – PROJECT "BUSINESS CASE" TECHNICAL/FINANCIAL ASSESSMENT

TECHNICAL ANALYSIS OF BENEFITS*

In addition to this form, a supporting technical and financial analysis is required to verify energy and water saving efficiencies for any green component of the project. For green infrastructure and innovative environmental type projects, the analysis should include any applicable efficiency and environmental benefits. For assisting MGL in evaluating "Business Case" assessments of water main, meter, and pump facility replacement type projects, the attached form titled "ADWF - Water/Energy Efficiency Determination - Water Main Replacement/Meter/Pump Facility" is required to be completed. Once the form is complete along with any supporting documentation, please submit documentation to the MGL program for review and concurrence. Note, only water/energy efficiencies that achieve a 20% or greater increase in efficiency will categorically qualify as a Green project.

CERTIFICATION STATEMENT:

I certify the above information is current and accurate.

KARL HAGERMAN
Name

PUBLIC WORKS DIRECTOR
Title

Karl Hegerman
Signature

APRIL 3, 2012
Date

Submit Completed Form to:

Alaska Department of Environmental Conservation
Municipal Matching Grants & Loans
555 Cordova Street
Anchorage, AK 99501-2617

Green Project Business Case

City of Petersburg Sewer Upgrades Project

Business Case Summary

The City of Petersburg's Sewer Upgrades Project is being constructed concurrently with the City's Water Upgrades Project. The Sewer Upgrades are focused on replacement of aging wastewater collection system infrastructure in support of the City's long time goal of reducing and/or eliminating Inflow and Infiltration into the wastewater system. Past utility construction practices of the City did not employ proper pipe foundation installation practices in every case and this fact in combination with general street construction practices that essentially "floated" a layer of rock on top of water saturated peat bog (muskeg) have resulted in sewers that are susceptible to settlement, misalignment, cracking and failure. Furthermore, materials utilized for many of Petersburg's original sewer extensions, such as concrete pipe and asbestos cement pipe (transite), are not resilient enough to withstand the differential settling and or lateral forces that are being placed upon them in light of poor pipeline construction methods.

The conditions described above are seen in many of Petersburg's older sewers. As a result of sewer pipe installation techniques of the past, as well as growth of the community and increased traffic on streets that are not well supported, surface and ground water inflows and infiltration into the collection system is an ongoing problem. Storm flows in Petersburg can be described as extreme in many instances. High annual precipitation (113" in the last 12 months) in combination with high local water tables produce conditions that exacerbate even the slightest failure of the collection system piping and sanitary sewer manholes. This condition has been so remarkable in Petersburg's history that wastewater staff currently tracks the correlation between local rainfall events and flows to the treatment plant. This record of precipitation versus treatment plant flows allows the City to evaluate the effectiveness of all improvements to our collection system that are focused on reducing the influence of storm flows.

Inflow and Infiltration are two of the largest concerns for any wastewater system and the reasons for concern are documented and real. Storm water flows to a sanitary sewer system will rob the system of design capacity and cause increased costs of pumping and treatment of the waste stream. Petersburg's geography and community development adjacent to Mitkof Island's shoreline, has lead to the development and placement of the local trunk system at the lowest points possible, which is practically on the beach in many areas and relies on a series of lift stations to convey wastewater from all points to the treatment plant. The system is currently comprised of 20 lift stations of various configurations that serve approximately 3000 customers. With this amount of lift station infrastructure and the companion energy requirements to operate the lift stations, storm water flows have a marked impact on power costs to the wastewater utility.

It is for the above stated reasons that the City has taken on the task of identifying and replacing all sections of aged transite or concrete sewer pipe – as is the goal of this project. Current construction methods include standards for sub-excavation to competent soils beneath sewer pipe runs with development of correct grade accomplished by building pipe foundations with compacted rock and approved bedding. Pipe runs originally located outside of the existing road prism are relocated to within the road to provide for more stable conditions of the utility. Pipe materials are specified as properly

rated ductile iron or C900 PVC pipe. Manhole replacements are also being performed with attention paid to proper foundation preparation and materials, as well as modern waterproofing of all manhole joints and pick holes. All manhole penetrations are made watertight with cast in place neoprene “boots” and gasketed manhole lids and frames prevent surface water inflow.

Technical Information and Support of Green Project Status

As mentioned in the project summary the utility has been tracking the relationship between rainfall events and system flows for some time. This tracking information is based upon reported values of plant flows on the City’s monthly Discharge Monitoring Report (DMR) in comparison with treatment plant operations staff daily recordings of rainfall. When charted side by side over the course of each month, the relationship between rainfall and plant flows is extremely obvious.

From this tracking and record keeping, the City can extrapolate some information that is helpful in determining the volumes of storm water influence on the wastewater system and the attributed costs to to pump and treat these flows. Below are some of the records that have been extracted from the utility DMR’s and utilized for this business case. The time period being used as for data extraction is the most recent 12 month period: March 2011 – February 2012.

Technical Data (March 2011 – February 2012)

<u>Description</u>	<u>Value</u>	<u>Source/Calculation</u>
Annual rainfall:	113”	Actual daily records at WWTP
Average monthly lowest flow day or “baseline”:	0.3078 MGD	Average of monthly lowest flow
Total annual “baseline” flow:	112.3 MG	Daily baseline x 365
Total annual overall flows to WWTP:	187 MG	Actual daily records at WWTP
Total annual flows attributed to I&I:	74.7 MG	Overall flow minus baseline
Percentage of flows attributed to I&I annually:	39.9%	I&I flows divided by total flows

This information has been taken directly from the monthly reporting spreadsheets and precipitation vs. wastewater flow charts contained within Appendix A.

Based on the assumption that the lowest flow within any one month is the closest that the system gets to truly accepting sanitary sewer flows alone, a baseline of annual flows was calculated using the average of monthly lowest flow days and extending those daily flows to an annual amount. With the actual recorded data available for total flows to the treatment plant, for the same time period, we can see that 40% of flows within the collection system and to the treatment plant can be attributed to precipitation events and more specifically Inflow and Infiltration. This demonstrates very clearly that storm water flows are an issue for the City of Petersburg and that by reducing the amount of I&I, the City will be regaining capacity of the system and reducing energy and treatment costs.

Financial Information in Support of Green Project Status

As shown above, I&I is a substantial problem for the City of Petersburg. The costs of pumping and treating the flows attributed to I&I can be defined by the following calculations.

Arriving at a cost per gallon to treat wastewater in Petersburg will give this report its baseline costs per gallon for all flows received at the treatment plant. Information was gathered from monthly DMR's, financial statements and utility budget documents. This analysis is based on information from the last complete fiscal year cycle, FY2011.

Total FY11 flows = 159MG

FY11 Petersburg Wastewater - Overall Power Expenses = \$74,722 (includes power use at WWTP and collection system lift stations)

Power cost allocation per million gallons to operate the utility: \$469.95 per MG

Applying this cost to the volumes of I&I influenced flows over the course of the year indicates what the cost allocation is for the I&I flows.

I&I flows = 74.7 MG

Power cost allocation to I&I flows = 74.7 MG x \$469.95/MG = \$35,105.26

Using these values, and a reasonable goal of reducing I&I flows to 25% of overall flows, a potential savings of energy as a result of the Upgrades Project and future projects to address system wide Inflow and Infiltration is calculated below.

25% x Total FY11 Flow 159 MG = 39.75 MG of I&I Flow (goal)

Calculated I&I flows 74.7 MG – Goal I&I flows 39.75 MG = I&I reduction of 34.9 MG

34.9 MG x \$469.95/MG = \$16,424.75 Cost reduction attributed to achieving I&I goal

Cost reduction \$16,424.75/ Total power cost \$72,422.00 x 100% = 21.98% or 22%

This level of cost reduction represents a **22% annual savings** in the wastewater utility's electrical expense budgetary line item when reductions in I&I are achieved.

This financial information does illustrate the positive impacts that reductions in I&I can have for Petersburg's wastewater utility in regards to energy requirements to pump and treat non-point sources of storm water. The City is planning to affect this reduction in energy costs by way of pipe and manhole replacements within the Sewer Upgrades Project and future projects that target the community's aging infrastructure.

Completed by: Karl Hagerman, Public Works Director

Attachments

Wastewater DMR Data Spreadsheets (3/2011 – 2/2012) – 12 sheets

Wastewater Utility – Monthly comparison charts: WW Flow vs. Precipitation (3/2011 – 2/2012) – 12 sheets

Wastewater Utility – FY2013 Proposed Budget – Includes actual expenses for FY2011 – 3 sheets

March Monthly Report

March Monthly Report

Date	Temp. Deg F	Precip. Flow	Influent MGD	Sludge Transferred Gallons	Influent S.S. m/L	pH	Effluent D.O mg/L	Effluent S.S. m/L	Effluent Temp. Deg. C	Influent		Effluent		Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mLs	Effluent NH3 mg/L	
										T.S.S. lbs/Day	B.O.D mg/L	T.S.S. mg/L	B.O.D mg/L						
3/1/11	6	0.00	0.284	5094															
3/2/11	12	0.00	0.300	12771															
3/3/11	25	0.5" S	0.300	5847															
3/4/11	31	0.00	0.269	5088	5.0	7.1	3.4	0.1	4.0	138.7	311.2	161.0	361.2	45.7	102.5	240.1	628889	21.0	
3/5/11	32	0.5" S	0.249	8653															
3/6/11	30	0.00	0.281	5962															
3/7/11	21	0.00	0.292	6101															
3/8/11	27	0.00	0.269	5100															
3/9/11	32	3.0" S	0.279	5102															
3/10/11	32	0.5" S	0.281	8268															
3/11/11	27	3.0" S	0.275	5872	7.0	7.0	4.0	0.1	3.4								805556		
3/12/11	28	4.0" S	0.256	6324															
3/13/11	31	3.0" S	0.261	5406						170.0	370.0	189.0	411.4	66.0	143.7	98.0	213.3		
3/14/11	32	2.0" S	0.278	5980															
3/15/11	36	0.30	0.319	8833															
3/16/11	37	0.20	0.412	10133															
3/17/11	36	0.40	0.601	5439															
3/18/11	31	0.00	0.448	5338	4.0	6.9	8.1	0.1	4.2	106.7	398.7	100.0	373.6	45.7	170.7	64.5	241.0	833333	
3/19/11	23	0.00	0.383	4735															
3/20/11	24	0.00	0.362	6200															
3/21/11	24	0.00	0.359	6381															
3/22/11	32	0.00	0.339	5680															
3/23/11	39	0.00	0.335	8965															
3/24/11	29	0.00	0.387	4228															
3/25/11	29	0.00	0.379	3128	5.0	6.9	8.0	0.1	3.8										
3/26/11	32	0.00	0.357	15936															
3/27/11	34	0.00	0.438	7891															
3/28/11	32	0.00	0.402	2276															
3/29/11	40	0.10	0.473	2698															
3/30/11	40	0.80	0.674	6277															
3/31/11	39	0.50	0.837	5296															
Total		2.3	11.4	201002.0															
Min.	6	0.0	0.249	2276	4.0	6.9	3.4	0.1	3.4	106.7	311.2	100.0	361.2	45.7	102.526	64.5	213.32	628889	21.0
Max.	40	0.8	0.837	15936	7.0	7.1	8.1	0.1	4.2	170.0	398.7	189.0	411.4	66.0	170.75	107.0	240.99	833333	21.0
Average	29.8	0.1	0.367	6483.9	5.3	7.0	5.9	0.1	3.9	138.5	360.0	150.0	382.1	52.5	139.0	89.8	231.5	755926	21.0
% RMV														61.4			#REF!		

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

Date	Temp. Deg. F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. m/L	pH	Effluent		Effluent S.S. m/L	Temp. Deg. C	Influent		Effluent		Effluent T.S.S. lbs/Day	Effluent B.O.D. lbs/Day	M-FC per 100mls	Effluent NH3 mg/L
							D.O. mg/L	mg/L			T.S.S. mg/L	B.O.D. mg/L	T.S.S. mg/L	B.O.D. mg/L				
4/1/11	38	0.60	0.734	5348	4.0	6.9	9.8	0.1	2.2									
4/2/11	36	0.00	0.569	4909														
4/3/11	41	0.00	0.485	6524														
4/4/11	37	0.50	0.590	6034														
4/5/11	33	0.20	0.569	5003														
4/6/11	37	0.10	0.452	10493														
4/7/11	35	0.10	0.391	5832														
4/8/11	35	0.40	0.387	5436	8.0	7.2	6.9	0.1	4.6	122.7	396.0	128.0	413.1	42.0	135.6	80.5	259.8	240000
4/9/11	35	0.60	0.636	5043														
4/10/11	33	0.30	0.562	18008														
4/11/11	36	0.10	0.522	6158														
4/12/11	44	0.20	0.460	5212														
4/13/11	48	0.20	0.460	11799														
4/14/11	36	0.10	0.460	5533														
4/15/11	38	0.10	0.423	5684	7.0	7.0	6.4	0.1	4.2	100.7	355.3	114.0	402.2	23.7	83.6	57.0	201.1	250000
4/16/11	39	0.00	0.382	5180														
4/17/11	35	0.00	0.342	0														
4/18/11	35	0.00	0.343	11357														
4/19/11	37	0.00	0.346	5199														
4/20/11	38	0.00	0.312	5016														
4/21/11	41	0.00	0.311	6154														
4/22/11	39	0.20	0.319	6179	19.0	7.0	3.4	0.1	5.6									
4/23/11	38	0.00	0.333	5539														
4/24/11	35	0.00	0.335	5418														
4/25/11	55	0.20	0.371	5611														
4/26/11	43	0.40	0.278	4693														
4/27/11	43	0.20	0.379	6510														
4/28/11	45	0.00	0.368	5810														
4/29/11	43	0.00	0.324	5906	16.0	6.8	5.4	0.1	5.5									
4/30/11	43	0.00	0.308	5461														
Total		4.5	12.751	191049														
Min.	33	0.0	0.278	0	4	6.8	3.4	0.1	2.2	100.7	355.3	114.0	402.2	23.7	83.6	57.0	201.1	240000
Max.	55	0.6	0.734	18008	19	7.2	9.8	0.1	5.6	122.7	396.0	128.0	413.1	42.0	135.6	80.5	259.8	250000
Average	39.0	0.2	0.425	6368	10.8	7.0	6.4	0.1	4.4	111.7	375.6	121.0	407.7	32.9	109.6	68.8	230.5	245000
% RWV															70.8		43.5	

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

4/3/2012

Date	Temp. Deg. F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. mg/L	pH	Effluent D.O. mg/L	Effluent S.S. mg/L	Effluent Temp. Deg. C	Influent T.S.S. mg/L	Influent T.S.S. lbs/Day	Influent B.O.D. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mls	Effluent NH3 mg/L
5/1/11	41	0.00	0.305	5667															
5/2/11	49	0.40	0.363	5931															
5/3/11	44	0.10	0.362	12588															
5/4/11	41	0.90	0.468	5626	7.5	7.2	8.4	0.1	5.6	128.7	502.3	135.0	526.9	36.7	143.2	78.5	306.4	374444	
5/5/11	48	0.20	0.608	6404															
5/6/11	44	0.20	0.509	6080															
5/7/11	47	0.00	0.460	5015															
5/8/11	44	0.00	0.391	6089															
5/9/11	43	0.10	0.369	5816															
5/10/11	43	0.50	0.378	12757															
5/11/11	45	0.30	0.490	5094	8.0	7.2	5.7	0.1	6.6	125.3	512.1	114.0	465.9	39.7	162.2	85.5	349.4	822222	14.0
5/12/11	44	0.00	0.409	6321															
5/13/11	44	0.00	0.374	6541															
5/14/11	43	0.00	0.333	4931															
5/15/11	46	0.00	0.340	4758															
5/16/11	51	0.00	0.360	5271															
5/17/11	49	0.20	0.336	8280															
5/18/11	45	0.20	0.346	10142	24.0	7.1	3.8	0.1	8.0										
5/19/11	55	0.00	0.331	5818															
5/20/11	53	0.00	0.321	6177															
5/21/11	55	0.00	0.320	6512															
5/22/11	46	0.10	0.283	5663															
5/23/11	48	0.10	0.334	3983															
5/24/11	58	0.00	0.312	6325															
5/25/11	57	0.00	0.308	5082	9.0	7.0	3.0	0.1	8.6										
5/26/11	59	0.00	0.296	6297															
5/27/11	49	0.10	0.291	7966															
5/28/11	52	0.00	0.272	4738															
5/29/11	50	0.00	0.279	4884															
5/30/11	55	0.00	0.298	8667															
5/31/11	61	0.00	0.294	4790															
Total		3.4	11.140	200213															
Min.	41	0.0	0.272	3983	7.5	7.0	3.0	0.1	5.6	125.3	502.3	114.0	465.9	36.7	143.2	78.5	306.4	374444	14.0
Max.	61	0.9	0.608	12757	24.0	7.2	8.4	0.1	8.6	128.7	512.1	135.0	526.9	39.7	162.2	85.5	349.4	822222	14.0
Average	49	0.1	0.359	6458	12.1	7.1	5.2	0.1	7.2	127.0	507.2	124.5	496.4	38.2	152.7	82.0	327.9	598333	14.0
% RMV														69.9			33.9		

Date	Temp. Deg F	Precip	Influent Sludge Flow MGD	Influent Transferred S.S. m/L	Influent pH	Effluent DO mg/L	Effluent S.S. m/L	Effluent Temp. Deg. C	Influent T.S.S. mg/L	Influent T.S.S. lbs/Day	Influent B.O.D. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mls	Effluent NH3 mg/L	
6/1/11	60	0.00	0.294	6643															
6/2/11	54	0.00	0.291	14413															
6/3/11	60	0.00	0.270	4975	14.0	7.1	2.8	0.1	9.6	204.0	459.4	239.0	538.2	56.7	127.7	119.0	268.0	627778	24.0
6/4/11	48	0.00	0.263	4947															
6/5/11	50	0.40	0.317	5862															
6/6/11	56	0.00	0.316	6472															
6/7/11	56	0.00	0.291	7796														833333	
6/8/11	56	0.00	0.282	5097															
6/9/11	56	0.00	0.280	5615															
6/10/11	52	0.10	0.260	4926	18.0	7.0	2.8	0.1	10.2	205.3	445.2	222.0	481.4	53.3	115.6	111.0	240.7		
6/11/11	51	0.10	0.285	5013															
6/12/11	51	0.10	0.295	7392															
6/13/11	52	0.10	0.323	6288															
6/14/11	53	0.80	0.396	5744															
6/15/11	58	0.10	0.567	11309															
6/16/11	58	0.00	0.394	5540															
6/17/11	59	0.00	0.339	5397	27.0	7.1	3.2	0.1	10.8										
6/18/11	51	0.10	0.325	4841															
6/19/11	52	0.00	0.327	5660															
6/20/11	56	0.10	0.368	6440															
6/21/11	58	0.00	0.318	4998															
6/22/11	57	0.00	0.300	4752															
6/23/11	60	0.00	0.285	5128															
6/24/11	53	0.20	0.305	6174	26.0	7.2	2.9	0.1	11.4										
6/25/11	52	0.10	0.317	4749															
6/26/11	57	0.00	0.335	8153															
6/27/11	58	0.00	0.328	6769															
6/28/11	55	0.10	0.313	6025															
6/29/11	50	0.40	0.346	5241															
6/30/11	51	0.60	0.574	14720															
Total		3.3	9.904	197079															
Min.	48	0.0	0.260	4749	14.0	7.0	2.8	0.1	9.6	204.0	445.2	222.0	481.4	53.3	115.6	111.0	240.7	627778	24
Max.	60	0.8	0.574	14720	27.0	7.2	3.2	0.1	11.4	205.3	459.4	239.0	538.2	56.7	127.7	119.0	268.0	833333	24
Average	55	0.1	0.330	6569	21.3	7.1	2.9	0.1	10.5	204.7	452.3	230.5	509.8	55.0	121.6	115.0	254.3	730556	24.00
% RMV															73.1		42.5		

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

4/3/2012

Date	Temp. Deg. F	Precip. Flow MGD	Influent Sludge Transferred Gallons	Influent S.S. ml/L	Effluent pH	Effluent D.O. mg/L	Effluent S.S. ml/L	Effluent Temp. Deg. C	Influent T.S.S. mg/L	Influent B.O.D. lbs/Day	Influent T.S.S. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mils	Effluent NH3 mg/L	
8/1/11	56	0.10	0.456	6965															
8/2/11	54	0.00	0.385	4677															
8/3/11	56	0.00	0.393	16990															
8/4/11	55	0.20	0.383	6071															
8/5/11	54	0.40	0.515	5120	5.0	7.1	3.2	0.1	12.8	122.7	527.0	136.0	584.1	51.7	222.1	88.5	380.1	1038899	20.3
8/6/11	52	0.00	0.451	4981															
8/7/11	47	0.00	0.418	8799															
8/8/11	51	0.00	0.416	6850															
8/9/11	57	0.00	0.397	5177															
8/10/11	61	0.00	0.384	5031															
8/11/11	52	0.90	0.433	6244															
8/12/11	51	0.60	0.736	5044	6.0	6.9	5.5	0.1	12.6	196.0	1203.1	148.0	908.5	82.0	503.3	71.3	437.7	561667	
8/13/11	48	0.00	0.547	4376															
8/14/11	53	0.10	0.466	8009															
8/15/11	51	0.40	0.470	5505															
8/16/11	51	2.80	1.465	10013															
8/17/11	53	0.60	1.221	5262															
8/18/11	52	0.30	0.746	6425															
8/19/11	52	0.10	0.559	6642	11.0	7.0	3.2	0.1	12.8										
8/20/11	59	2.30	0.916	4697															
8/21/11	56	3.30	1.219	5038															
8/22/11	55	0.50	1.087	7598															
8/23/11	56	2.80	0.934	5096															
8/24/11	55	1.50	1.223	4941															
8/25/11	50	0.20	0.809	5787															
8/26/11	50	0.10	0.559	7359	7.0	7.1	4.2	0.1	12.6										
8/27/11	50	0.40	0.521	4939															
8/28/11	52	0.50	0.596	6073															
8/29/11	53	0.70	0.966	6746															
8/30/11	60	0.10	0.966	8625															
8/31/11	52	0.30	0.449	5864															
Total		19.2	21.086	200944															
Min.	47	0.0	0.383	4376	5.0	6.9	3.2	0.1	12.6	122.7	527.0	136.0	584.1	51.7	222.1	71.3	380.1	561667	20.3
Max.	61	3.3	1.465	16990	11.0	7.1	5.5	0.1	12.8	196.0	1203.1	148.0	908.5	82.0	503.3	88.5	437.7	1038899	20.3
Average	53.4	0.6	0.680	6482	7.3	7.0	4.0	0.1	12.7	159.4	865.1	142.0	746.3	66.9	362.7	79.9	408.9	800278	20.3
% RMV															58.1		45.2		

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

September Monthly Report

Date	Temp. Deg. F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S.		pH	Effluent		D.O mg/L	Effluent S.S ml/L	Deg. C	Influent T.S.S.		Influent B.O.D. mg/L	Effluent T.S.S.		Effluent B.O.D. mg/L	Effluent M-F-C per 100mls	Effluent NH3 mg/L		
					ml/L	ml/L		lbs/Day	mg/L				lbs/Day	mg/L								
9/1/11	50	0.30	0.453	6012		11.0		6.9	3.9		0.1	12.4							518333	11.7		
9/2/11	51	0.10	0.654	5001																		
9/3/11	53	0.10	0.482	4768																		
9/4/11	53	3.20	1.495	11277																		
9/5/11	49	0.20	0.778	5824																		
9/6/11	54	3.50	1.553	6881																		
9/7/11	50	0.20	1.061	4915																		
9/8/11	51	0.30	0.566	4881																		
9/9/11	57	2.00	1.252	5175		5.0		6.9	9.4		0.1	12.0	186.0	1942.2	89.0	929.3	73.0	762.2	49.0	511.6	220667	
9/10/11	50	0.00	0.590	4992																		
9/11/11	41	0.00	0.466	5097																		
9/12/11	46	0.00	0.434	13792																		
9/13/11	56	0.00	0.376	4970																		
9/14/11	52	0.00	0.360	4970																		
9/15/11	48	0.60	0.441	5961																		
9/16/11	48	0.00	0.441	5054		8.0		6.9	4.8		0.1	12.4	213.0	783.4	115.0	423.0	82.0	301.6	61.0	224.4		
9/17/11	48	0.10	0.369	8921																		
9/18/11	46	0.20	0.402	9863																		
9/19/11	51	0.40	0.537	6407																		
9/20/11	52	2.20	0.871	5091																		
9/21/11	51	2.30	1.643	5118																		
9/22/11	49	1.90	1.397	6231																		
9/23/11	49	0.90	0.751	4939		4.0		6.8	8.4		0.1	11.2										
9/24/11	47	1.80	1.373	11700																		
9/25/11	38	0.00	0.596	4991																		
9/26/11	40	0.00	0.485	6285																		
9/27/11	46	0.80	0.496	5109																		
9/28/11	46	0.40	0.639	13447																		
9/29/11	43	0.60	0.649	5968																		
9/30/11	45	1.10	0.870	6752		4.0		7.0	8.0		0.1	10.3										
Total		23.2	22.480	200192																		
Min.	38	0.0	0.36	4768		4.0		6.8	3.9		0.1	10.3	186	783.4	89.0	423.0	73	301.6	49.0	224.4	220667	11.7
Max.	57	3.5	1.643	13792		11.0		7	9.4		0.1	12.4	213	1942.2	115.0	929.31	82	762.2	61	511.6	518333	11.7
Average	49	0.8	0.749	6673		6.4		6.9	6.9		0.1	11.7	199.5	1362.8	102.0	676.1	77.5	531.9	55.0	368.0	369500	11.7
% RMV																		61.0		41.7		

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

4/3/2012

Date	Temp Deg F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. m/L	Influent pH	Effluent D.O. mg/L	Effluent S.S. m/L	Effluent Temp. Deg. C	Influent T.S.S. lbs/Day	Influent B.O.D. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mls	Effluent NH3 mg/L
10/1/11	36	0.00	0.606	4960													
10/2/11	34	0.00	0.439	4739													
10/3/11	35	0.00	0.421	6510													
10/4/11	47	0.30	0.383	5027													
10/5/11	42	0.00	0.407	9676													
10/6/11	45	0.00	0.375	6092													
10/7/11	44	0.40	0.409	5770													
10/8/11	44	0.40	0.482	5029													
10/9/11	44	0.90	0.667	5077		1.0	7.2	7.0	0.1	9.8	182.0	1012.4	51.0	283.7		110000	
10/10/11	41	0.30	0.656	5157													
10/11/11	43	0.00	0.473	10033													
10/12/11	47	0.70	0.522	5044													
10/13/11	46	1.60	1.016	5841													
10/14/11	41	0.20	0.790	5005		6.0	7.3	8.0	0.1	9.7	124.7	821.6	63.0	415.1	37.0	243.8	275000
10/15/11	41	0.10	0.492	4895													
10/16/11	41	0.70	0.550	6099													
10/17/11	43	0.20	0.595	5858													
10/18/11	48	2.30	1.033	4942													
10/19/11	43	0.30	0.823	5031													
10/20/11	40	0.30	0.599	13817													
10/21/11	40	0.00	0.475	5094		5.0	7.2	6.7	0.1	9.4		84.0	332.8		46.5	184.2	
10/22/11	42	0.60	0.555	4923													
10/23/11	39	1.60	0.966	5258													
10/24/11	41	1.80	0.892	4984													
10/25/11	43	0.20	0.571	6193													
10/26/11	38	1.70	0.946	9952													
10/27/11	41	0.50	0.822	5172													
10/28/11	41	1.00	0.628	4919		6.0	7.1	9.6	0.1	8.8							
10/29/11	39	1.20	1.017	6613													
10/30/11	40	2.60	1.146	4756													
10/31/11	38	0.40	0.840	5351													
Total		20.3	20.596	187817													
Min.	34	0.0	0.375	4739		1.0	7.1	6.7	0.1	8.8	124.7	821.6	51.0	283.7	37.0	184.2	110000
Max.	48	2.6	1.146	13817		6.0	7.3	9.6	0.1	9.8	182.0	1012.4	63.0	415.1	46.5	243.8	275000
Average	41.5	0.7	0.664	6059		4.5	7.2	7.8	0.1	9.4	153.4	917.0	57.0	349.4	41.8	214.0	192500
% RMV													61.9		43.6		

Date	Temp Deg F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. ml/L	pH	Effluent D.O. mg/L	Effluent S.S. ml/L	Effluent Temp. Deg. C	Influent T.S.S. mg/L	Influent T.S.S. lbs/Day	Influent B.O.D. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mls	Effluent NH3 mg/L
11/1/11	40	0.40	0.527	10780															
11/2/11	36	1.60	1.091	5689															
11/3/11	28	0.00	0.521	5830															
11/4/11	30	0.5" S	0.416	4998															
11/5/11	43	0.50	0.424	4938															
11/6/11	38	0.10	0.510	5268															
11/7/11	37	0.70	0.717	5939															
11/8/11	34	0.30	0.571	10517															
11/9/11	36	0.00	0.452	5608		5.0	7.2	5.8	0.1	8.8	85.0	320.4	94.0	354.3	28.7	108.2	52.5	197.9	210000
11/10/11	34	0.00	0.385	5098															
11/11/11	36	0.70	0.540	10129															
11/12/11	33	0.70	0.504	4926															
11/13/11	34	0.40	0.793	6168															
11/14/11	29	0.5" S	0.507	6336															
11/15/11	33	3.0" S	0.407	5100		10.0	7.3	5.2	0.1	7.8								98000	
11/16/11	36	0.30	0.394	5868															
11/17/11	29	0.30	0.551	4959															
11/18/11	25	0.00	0.446	5396															
11/19/11	19	0.00	0.373	4847															
11/20/11	22	0.00	0.365	6176															
11/21/11	32	6.0" S	0.343	5867															
11/22/11	34	0.5" S	0.317	13347															
11/23/11	30	12.0" S	0.326	8257		8.0	7.1	4.0	0.1	7.0									
11/24/11	26	8.0" S	0.326	5087															
11/25/11	30	2.0" S	0.300	5016															
11/26/11	33	4.0" S	0.283	4847															
11/27/11	28	0.00	0.321	5100															
11/28/11	32	4.0" S	0.333	6215															
11/29/11	30	0.20	0.582	5877															
11/30/11	32	0.00	0.439	11035		5.0	7.4	5.6	0.1	6.4									

**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

4/3/2012

Date	Temp. Deg. F	Precip. Inch	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. mg/L	Influent pH	Effluent D.O. mg/L	Effluent S.S. mg/L	Temp. Deg. C	Influent T.S.S. mg/L	Influent lbs/Day	Influent B.O.D. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mL	Effluent NH3 mg/L
12/1/11	32	2.0" S	0.690	5663															
12/2/11	34	0.20	1.008	6341															
12/3/11	37	0.20	0.673	6438															
12/4/11	36	0.10	0.553	5642															
12/5/11	40	0.30	0.591	5098															
12/6/11	32	1.00	1.151	28313															
12/7/11	22	0.00	0.521	5096	7.0	7.5	9.2	0.1	5.2	67.0	291.1	73.0	317.2	30.3	131.7	65.5	284.6		8.9
12/8/11	31	0.00	0.420	7083															
12/9/11	38	0.00	0.394	6381															
12/10/11	32	0.00	0.741	4819															
12/11/11	31	0.00	0.502	6057															
12/12/11	33	0.00	0.443	6247															
12/13/11	32	0.10	0.516	9052															
12/14/11	23	0.00	0.431	5101	3.0	7.3	6.3	0.1	5.6	94.7	340.4	114.0	409.8	27.7	99.6	64.5	231.8	440000	
12/15/11	27	0.00	0.374	6147															
12/16/11	35	4.0" S	0.349	7854															
12/17/11	32	0.00	0.342	6070															
12/18/11	30	0.00	0.353	5398															
12/19/11	31	0.90	0.490	5594														370000	
12/20/11	36	0.60	0.775	6651	0.8	7.3	9.7	0.1	3.8										
12/21/11	34	0.10	0.532	6339															
12/22/11	40	1.00	0.771	6646															
12/23/11	39	1.30	1.241	6015															
12/24/11	37	0.50	0.750	5661															
12/25/11	32	0.80	0.765	5271															
12/26/11	35	0.40	0.694	5101															
12/27/11	31	0.60	0.900	5298															
12/28/11	35	0.10	0.500	6623															
12/29/11	31	0.90	0.720	4163	3.0	7.2	10.0	0.1	3.4										
12/30/11	21	0.10	0.501	6064															
12/31/11	27	1.0" S	0.379	4808															
Total		9.2	19.070	207034															
Min.	21	0.0	0.342	4163	0.8	7.2	6.3	0.1	3.4	67	291.1	73.0	317.2	27.7	99.6	64.5	231.8	370000	8.9
Max.	40	1.3	1.241	28313	7.0	7.5	10	0.1	5.6	94.7	340.4	114.0	409.8	30.3	131.7	65.5	284.6	440000	8.9
Average	32	0.3	0.615	6679	3.5	7.3	8.8	0.1	4.5	80.9	315.8	93.5	363.5	29.0	115.6	65.0	258.2	405000	8.9
% RMV															63.4		39.2		

Date	Temp. Deg. F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. ml/L	Influent pH	Effluent D.O mg/L	Effluent S.S. ml/L	Effluent Temp. Deg. C	Influent T.S.S. mg/L	Influent T.S.S. lbs/Day	Influent B.O.D. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent T.S.S. lbs/Day	Effluent B.O.D. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mils	Effluent NH3 mg/L
1/1/12	38	1.0" S		5954															
1/2/12	30	1.10		6077															
1/3/12	37	0.10		5101															
1/4/12	39	1.50		6403															
1/5/12	36	1.60		5101															
1/6/12	30	0.00		5016	4.0	7.1	9.1	0.1	4.5	59.3	356.6	83.0	499.1	40.0	240.5	61.0	366.8	383333	6.6
1/7/12	37	0.80		4930															
1/8/12	40	1.80		6337															
1/9/12	33	0.30		6043															
1/10/12	24	0.10		6382															
1/11/12	33	3.5" S		7830															
1/12/12	36	0.00		4930															
1/13/12	27	1.0" S		5387	6.0	7.1	9.7	0.4	4.4	172.0	1207.8	69.0	484.5	61.7	433.3	42.5	298.4	220000	
1/14/12	18	0.00		4931															
1/15/12	14	0.00		8780															
1/16/12	1	0.00		5776															
1/17/12	1	0.00		5100															
1/18/12	-2	0.00		6118															
1/19/12	5	0.00		5099															
1/20/12	20	4.0" S		6779	7.5	7.2	6.3	0.1	5.0										
1/21/12	26	6.0" S		5886															
1/22/12	31	4.0" S		5016															
1/23/12	33	2.0" S		5271															
1/24/12	36	2.0" S		5015															
1/25/12	32	2.0" S		5100															
1/26/12	26	6.0" S		7620															
1/27/12	27	4.0" S		7578	5.0	7.2	5.6	0.1	4.0										
1/28/12	28	3.0" S		4847															
1/29/12	28	0.50		5017															
1/30/12	34	0.70		6025															
1/31/12	35	0.70		5100															
Total		9.2		180549															
Min.	-2	0		4847	4.0	7.1	5.6	0.1	4	59.3	356.6	69.0	484.5	40	240.5	42.5	298.4	220000	6.6
Max.	40	1.8		8780	7.5	7.2	9.7	0.4	5	172	1207.8	83.0	499.1	61.7	433.3	61.0	366.8	383333	6.6
Average	26.9	0.5		5824.2	5.6	7.2	7.7	0.2	4.5	115.7	782.2	76.0	491.8	50.9	336.9	51.8	332.6	301667	6.6
% RMV																	32.4		

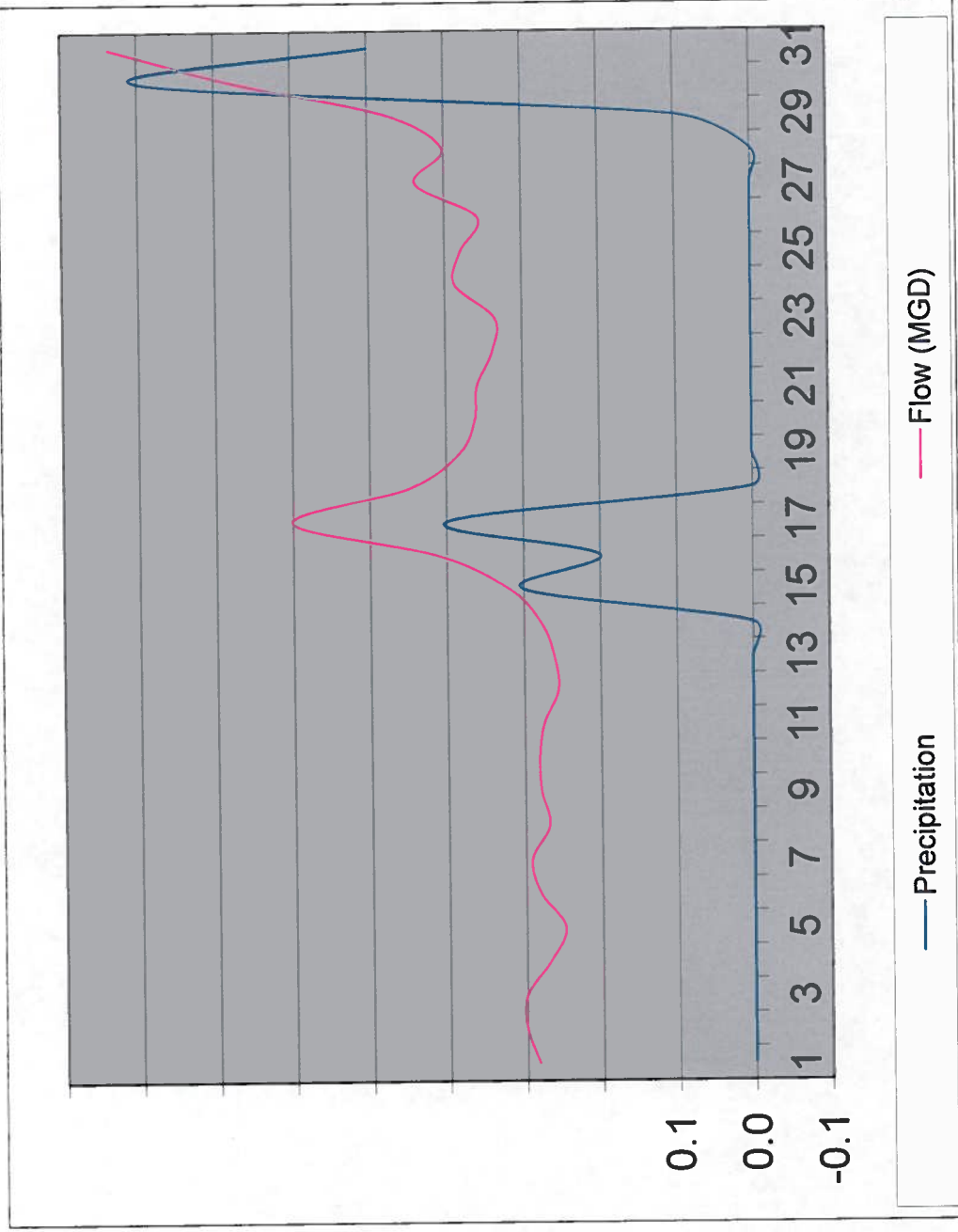
**City of Petersburg
Wastewater Utility
1404 N. 14th Street
Petersburg, Ak 99833**

February Monthly Report

Date	Temp. Deg F	Precip.	Influent Flow MGD	Sludge Transferred Gallons	Influent S.S. mL/L	Influent pH	Effluent D.O mg/L	Effluent S.S. mL/L	Effluent Temp. Deg. C	Influent T.S.S. mg/L	Influent B.O.D. lbs/Day	Influent T.S.S. mg/L	Influent B.O.D. lbs/Day	Effluent T.S.S. mg/L	Effluent B.O.D. lbs/Day	M-FC per 100mls	Effluent NH3 mg/L
2/1/12	35	0.40	0.722	6587													
2/2/12	40	1.10	0.966	6894													
2/3/12	38	0.70	1.093	5375	4.0	6.9	11.4	0.1	2.2	137.3	1251.9	54.7	498.8			326667	
2/4/12	29	0.20	0.766	4871													
2/5/12	29	0.00	0.447	9378													
2/6/12	34	0.20	0.385	5878													
2/7/12	34	0.00	0.373	5064													
2/8/12	37	0.00	0.361	5935													
2/9/12	37	0.00	0.360	7628													
2/10/12	33	0.00	0.451	5802	6.0	7.2	8.3	0.1	2.4							844444	
2/11/12	25	0.00	0.387	4932													
2/12/12	37	0.70	0.540	5656													
2/13/12	33	0.00	0.513	5101													
2/14/12	30	0.10	0.382	9047													
2/15/12	30	0.00	0.344	7736													
2/16/12	35	0.50	0.425	5655	5.0	7.1	8.4	0.1	3.4	280.7	994.9	66.3	235.0	67.5	239.3		14.0
2/17/12	36	0.20	0.435	10999													
2/18/12	36	0.00	0.401	4763													
2/19/12	33	0.30	0.403	10137													
2/20/12	37	0.10	0.454	3900													
2/21/12	38	0.70	0.673	10322													
2/22/12	34	0.20	0.521	9754	5.0	7.2	8.9	0.1	3.4		87.0	378.0		36.5	158.6		
2/23/12	32	0.00	0.443	22466													
2/24/12	26	0.00	0.383	13784													
2/25/12	24	0.00	0.346	13891													
2/26/12	24	0.00	0.334	10402													
2/27/12	32	6.0" S	0.337	9132													
2/28/12	34	0.60	0.314	12272													
2/29/12	27	0.00	0.310	6423													
Total		6.0	13.869	239784													
Min.	24.0	0.0	0.310	3900	4.0	6.9	8.3	0.1	2.2	137.3	994.9	87	378.0	54.7	235.0	36.5	158.6
Max.	40.0	1.1	1.093	22466	6.0	7.2	11.4	0.1	3.4	280.7	1251.9	202.0	716.0	66.3	498.8	67.5	239.3
Average	32.7	0.2	0.478	8268	5.0	7.1	9.3	0.1	2.9	209.0	1123.4	144.5	547.0	60.5	366.9	52.0	198.9
% RMV														67.3		63.6	

Day Precipitation Flow (MGD)

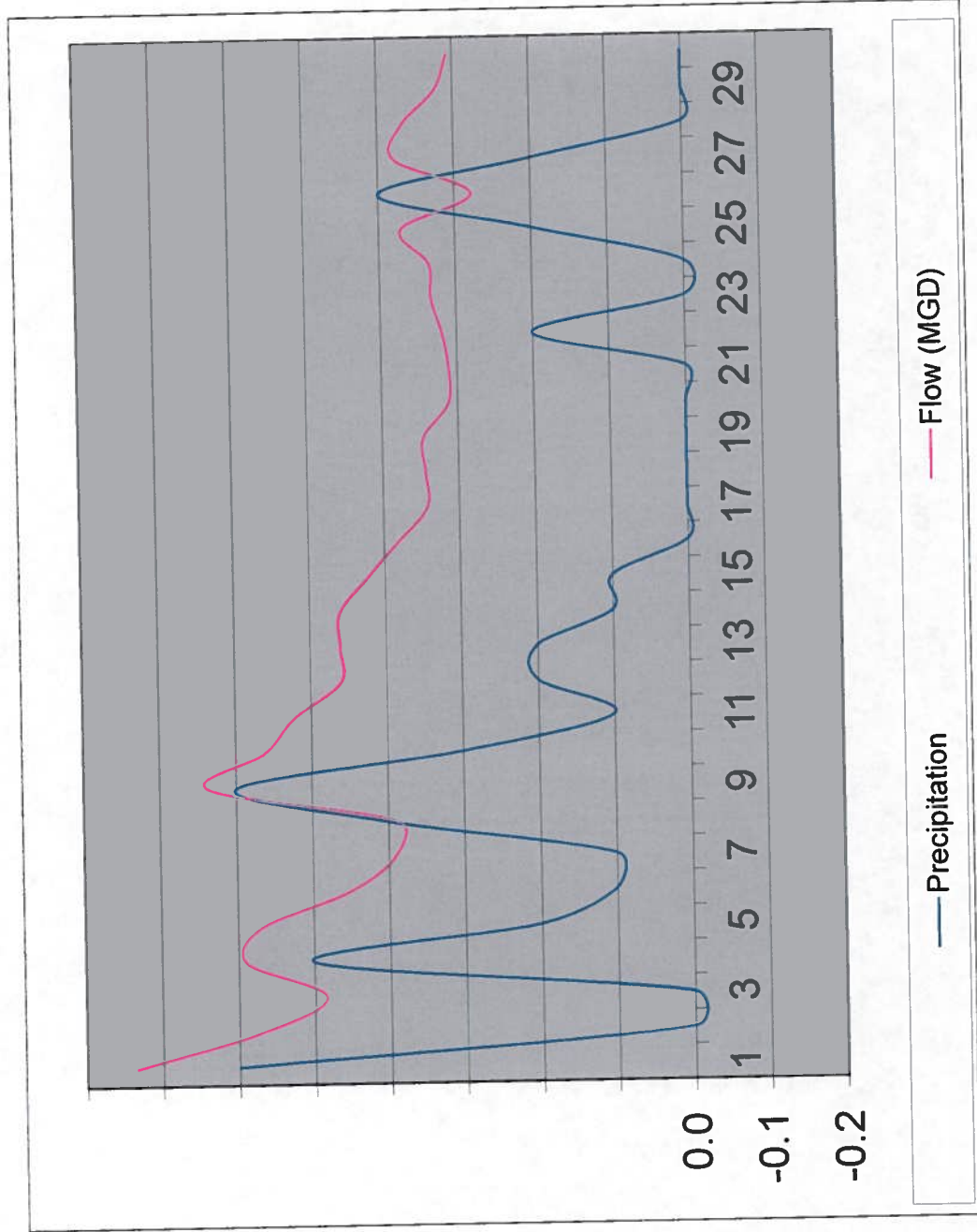
1	0.0	0.284
2	0.0	0.300
3	0.5" S	0.300
4	0.0	0.269
5	0.5" S	0.249
6	0.0	0.281
7	0.0	0.292
8	0.0	0.269
9	3.0" S	0.279
10	0.5" S	0.281
11	3.0" S	0.275
12	4.0" S	0.256
13	3.0" S	0.261
14	2.0" S	0.278
15	0.3	0.319
16	0.2	0.412
17	0.4	0.601
18	0.0	0.448
19	0.0	0.383
20	0.0	0.362
21	0.0	0.359
22	0.0	0.339
23	0.0	0.335
24	0.0	0.387
25	0.0	0.379
26	0.0	0.357
27	0.0	0.438
28	0.0	0.402
29	0.1	0.473
30	0.8	0.674
31	0.5	0.837



March 2011

Min Flow Median Flow Average Flow Max Flow
0.249 0.335 0.367 0.837

Day	Precipitation	Flow (MGD)
1	0.6	0.734
2	0.0	0.569
3	0.0	0.485
4	0.5	0.590
5	0.2	0.569
6	0.1	0.452
7	0.1	0.391
8	0.4	0.387
9	0.6	0.636
10	0.3	0.562
11	0.1	0.522
12	0.2	0.460
13	0.2	0.460
14	0.1	0.460
15	0.1	0.423
16	0.0	0.382
17	0.0	0.342
18	0.0	0.343
19	0.0	0.346
20	0.0	0.312
21	0.0	0.311
22	0.2	0.319
23	0.0	0.333
24	0.0	0.335
25	0.2	0.371
26	0.4	0.278
27	0.2	0.379
28	0.0	0.368
29	0.0	0.324
30	0.0	0.308

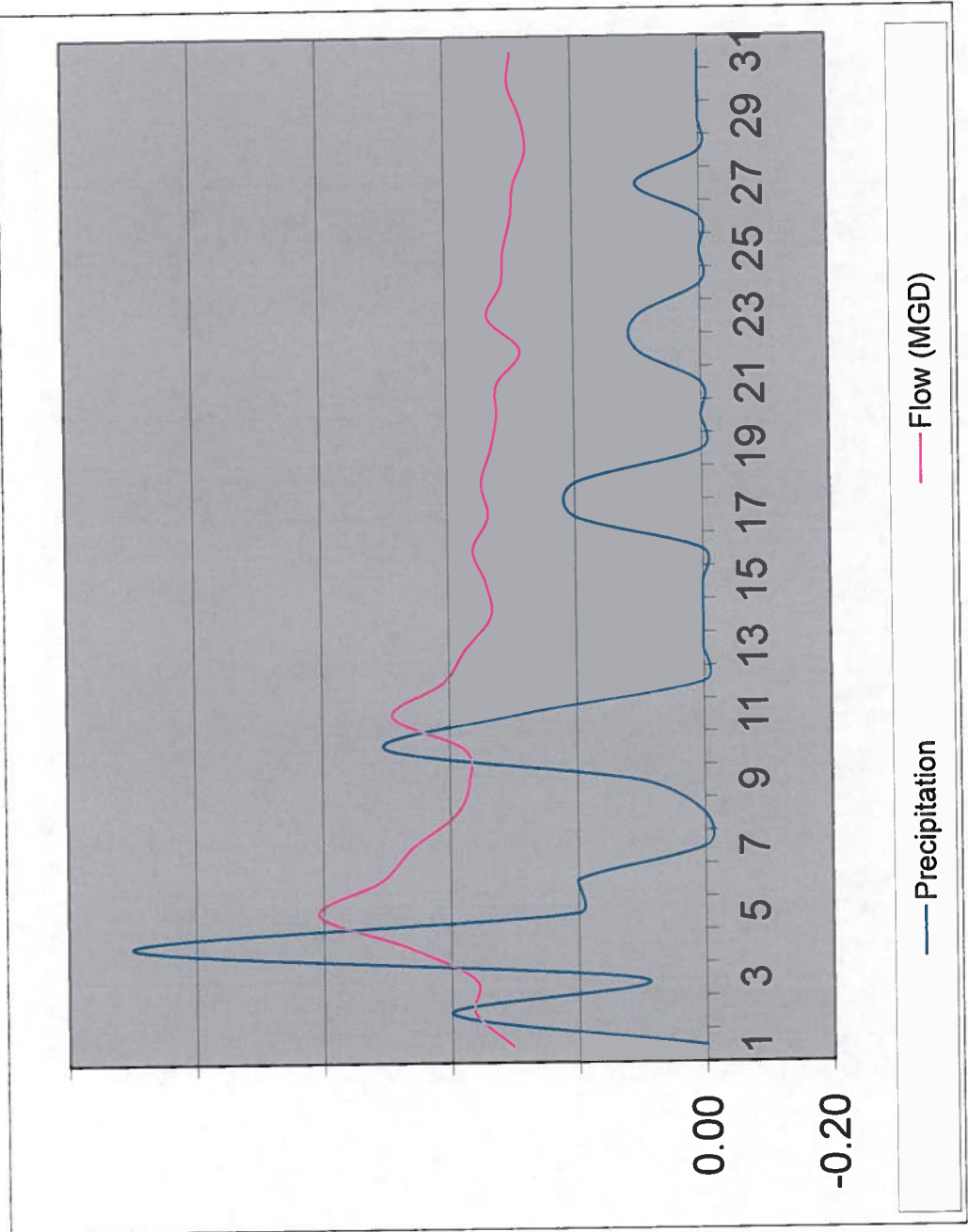


Min Flow 0.278 Median Flow 0.385 Average Flow 0.425 Max Flow 0.734

April 2011

Day Precipitation Flow (MGD)

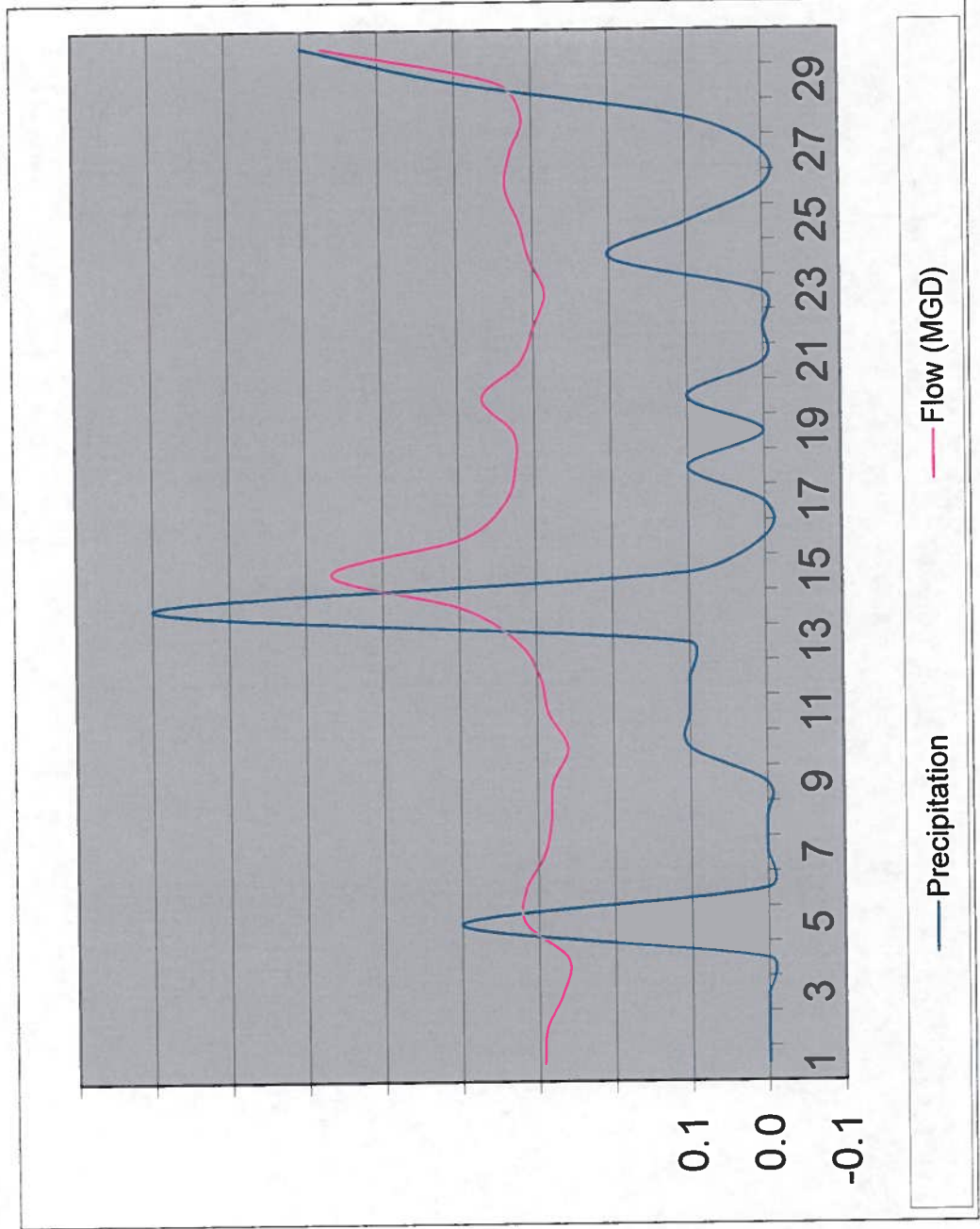
1	0.00	0.305
2	0.40	0.363
3	0.10	0.362
4	0.90	0.468
5	0.20	0.608
6	0.20	0.509
7	0.00	0.460
8	0.00	0.391
9	0.10	0.369
10	0.50	0.378
11	0.30	0.490
12	0.00	0.409
13	0.00	0.374
14	0.00	0.333
15	0.00	0.340
16	0.00	0.360
17	0.20	0.336
18	0.20	0.346
19	0.00	0.331
20	0.00	0.321
21	0.00	0.320
22	0.10	0.283
23	0.10	0.334
24	0.00	0.312
25	0.00	0.308
26	0.00	0.296
27	0.10	0.291
28	0.00	0.272
29	0.00	0.279
30	0.00	0.298
31	0.00	0.294



Min Flow Median Flow Average Flow Max Flow
0.272 0.336 0.359 0.608

May 2011

Day	Precipitation	Flow (MGD)
1	0.0	0.294
2	0.0	0.291
3	0.0	0.270
4	0.0	0.263
5	0.4	0.317
6	0.0	0.316
7	0.0	0.291
8	0.0	0.282
9	0.0	0.280
10	0.1	0.260
11	0.1	0.285
12	0.1	0.295
13	0.1	0.323
14	0.8	0.396
15	0.1	0.567
16	0.0	0.394
17	0.0	0.339
18	0.1	0.325
19	0.0	0.327
20	0.1	0.368
21	0.0	0.318
22	0.0	0.300
23	0.0	0.285
24	0.2	0.305
25	0.1	0.317
26	0.0	0.335
27	0.0	0.328
28	0.1	0.313
29	0.4	0.346
30	0.6	0.574

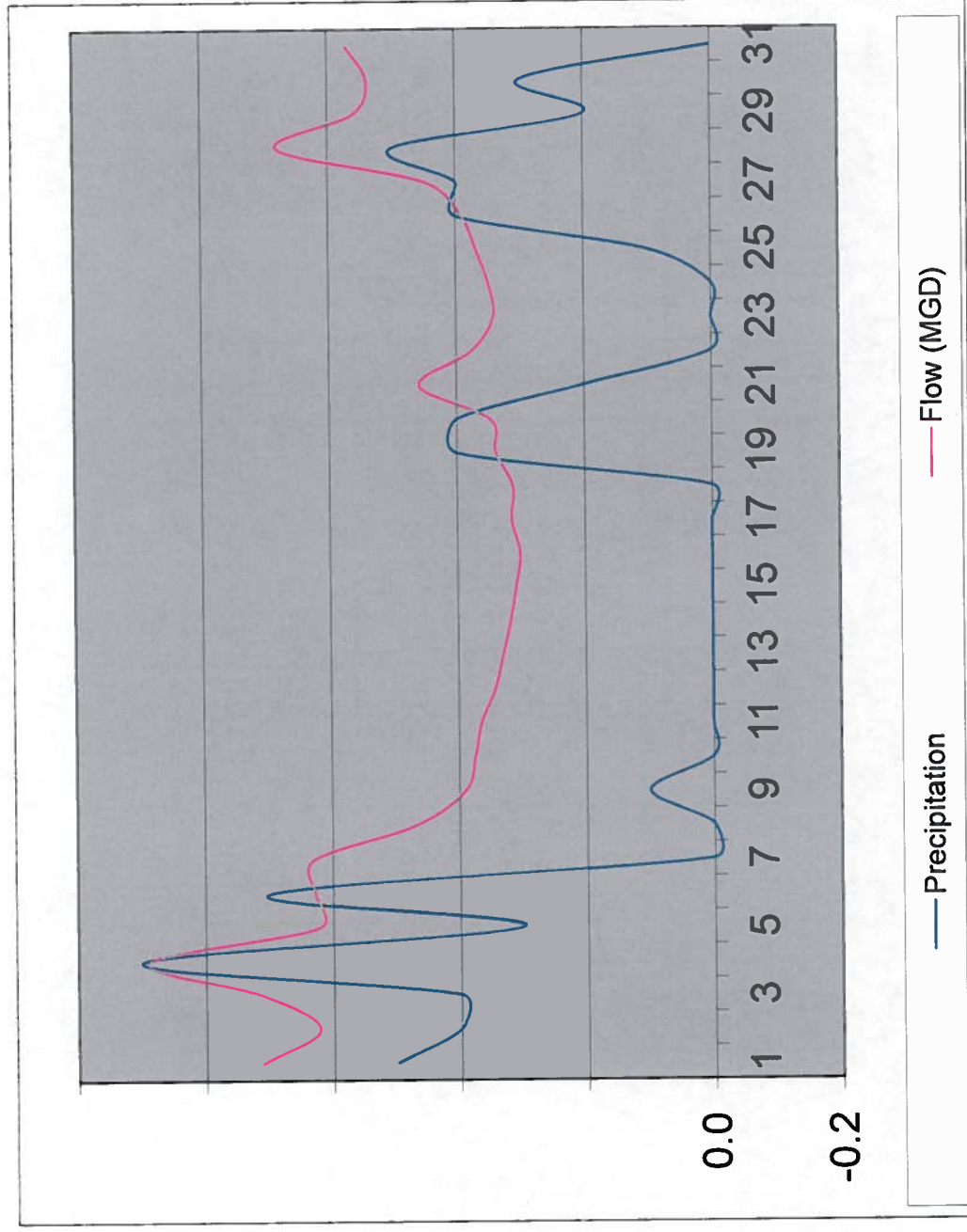


Min Flow 0.260 Median Flow 0.317 Average Flow 0.330 Max Flow 0.574

June 2011

Day Precipitation Flow (MGD)

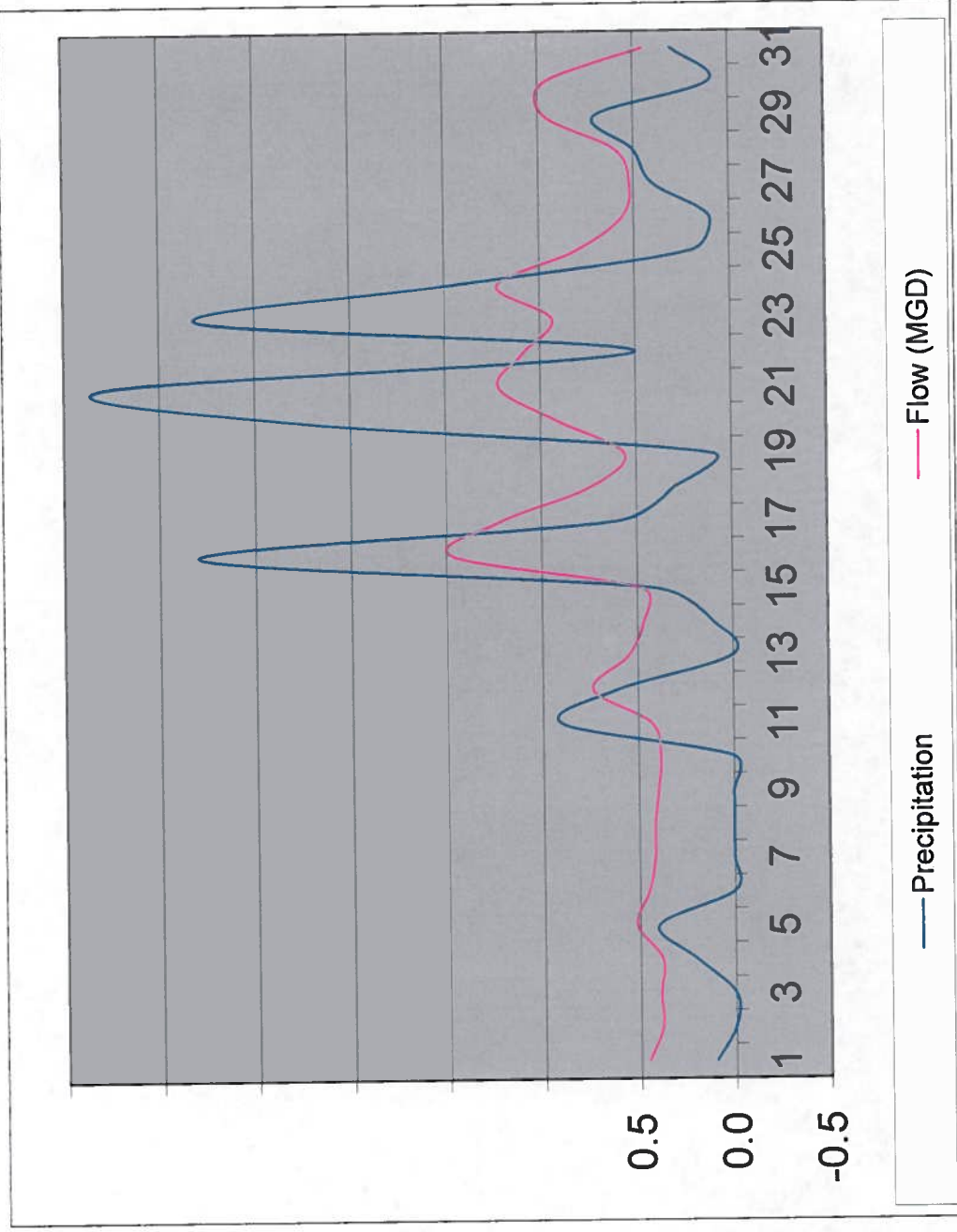
1	0.5	0.711
2	0.4	0.622
3	0.4	0.711
4	0.9	0.889
5	0.3	0.622
6	0.7	0.628
7	0.0	0.630
8	0.0	0.469
9	0.1	0.391
10	0.0	0.375
11	0.0	0.365
12	0.0	0.343
13	0.0	0.330
14	0.0	0.318
15	0.0	0.309
16	0.0	0.302
17	0.0	0.315
18	0.0	0.313
19	0.4	0.339
20	0.4	0.348
21	0.2	0.459
22	0.0	0.377
23	0.0	0.342
24	0.0	0.349
25	0.1	0.368
26	0.4	0.391
27	0.4	0.448
28	0.5	0.681
29	0.2	0.560
30	0.3	0.539
31	0.0	0.571



July 2011

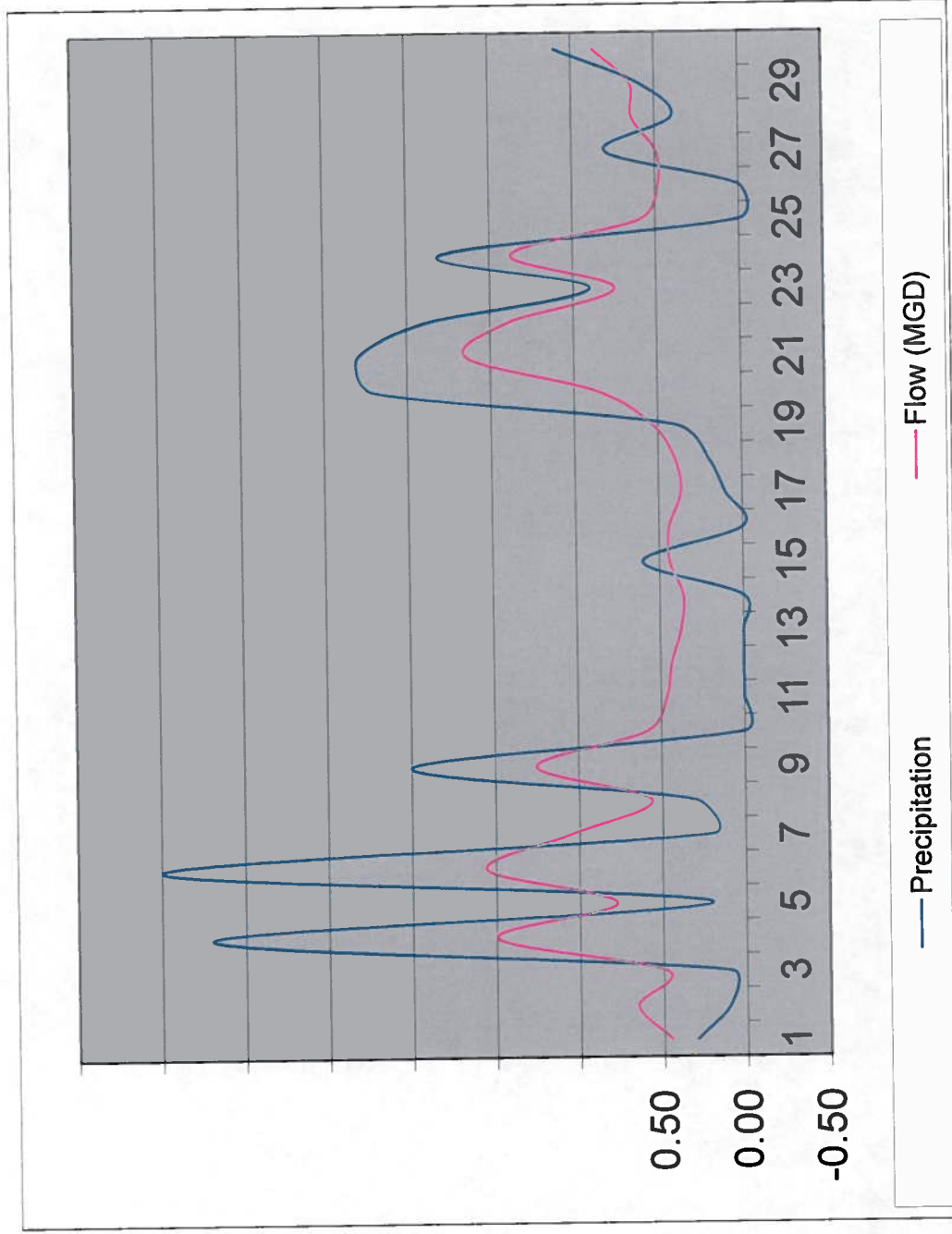
Min Flow Median Flow Average Flow Max Flow
0.302 0.391 0.465 0.889

Day	Precipitation	Flow (MGD)
1	0.1	0.456
2	0.0	0.385
3	0.0	0.393
4	0.2	0.383
5	0.4	0.515
6	0.0	0.451
7	0.0	0.418
8	0.0	0.416
9	0.0	0.397
10	0.0	0.384
11	0.9	0.433
12	0.6	0.736
13	0.0	0.547
14	0.1	0.466
15	0.4	0.470
16	2.8	1.465
17	0.6	1.221
18	0.3	0.746
19	0.1	0.559
20	2.3	0.916
21	3.3	1.219
22	0.5	1.087
23	2.8	0.934
24	1.5	1.223
25	0.2	0.809
26	0.1	0.559
27	0.4	0.521
28	0.5	0.596
29	0.7	0.966
30	0.1	0.966
31	0.3	0.449



August 2011

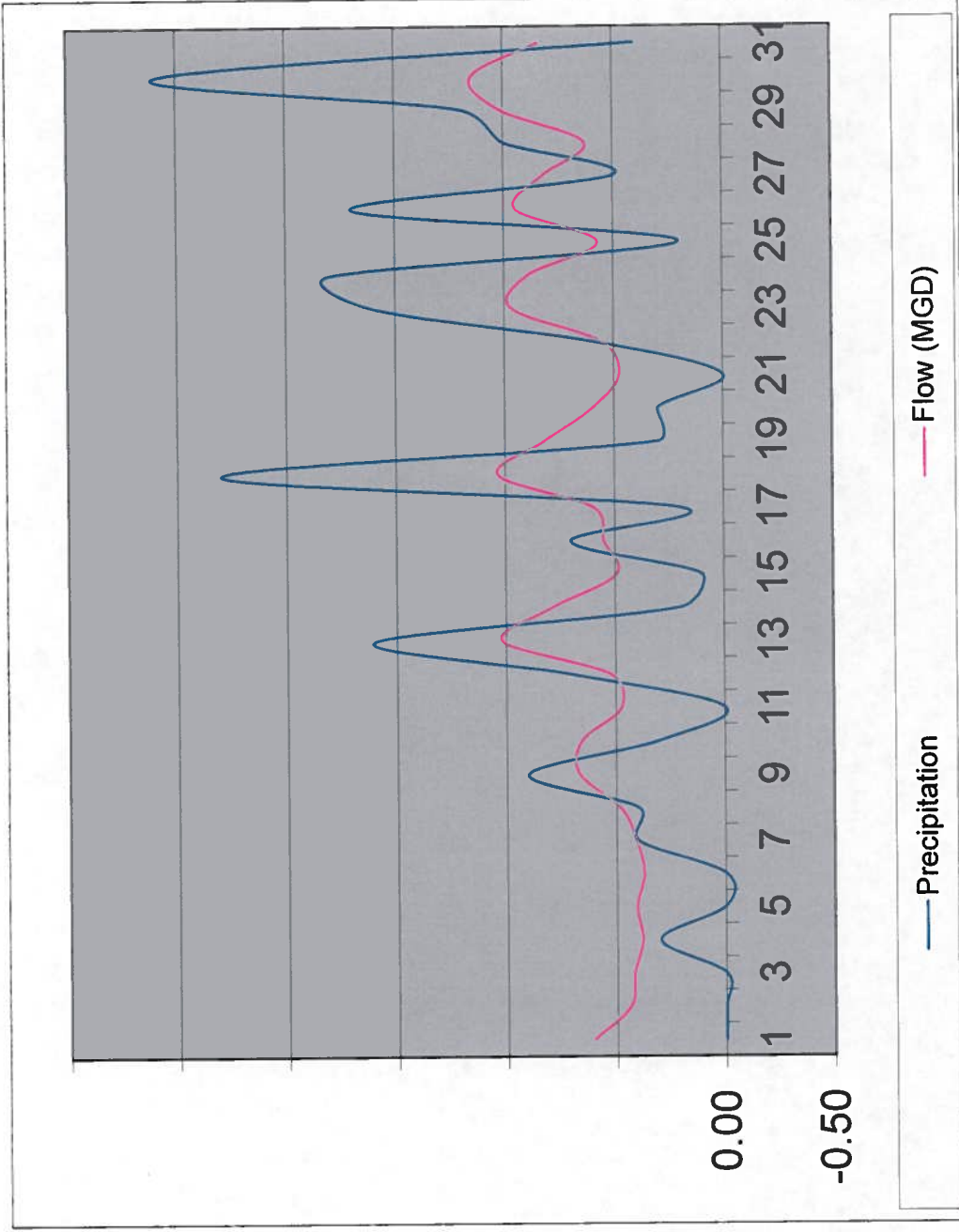
Day	Precipitation	Flow (MGD)
1	0.30	0.453
2	0.10	0.654
3	0.10	0.482
4	3.20	1.495
5	0.20	0.778
6	3.50	1.553
7	0.20	1.061
8	0.30	0.566
9	2.00	1.252
10	0.00	0.590
11	0.00	0.466
12	0.00	0.434
13	0.00	0.376
14	0.00	0.360
15	0.60	0.441
16	0.00	0.441
17	0.10	0.369
18	0.20	0.402
19	0.40	0.537
20	2.20	0.871
21	2.30	1.643
22	1.90	1.397
23	0.90	0.751
24	1.80	1.373
25	0.00	0.596
26	0.00	0.485
27	0.80	0.496
28	0.40	0.639
29	0.60	0.649
30	1.10	0.870



September 2011

Min Flow	0.360	Median Flow	0.593	Average Flow	0.749	Max Flow	1.643
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Day	Precipitation	Flow (MGD)
1	0.00	0.606
2	0.00	0.439
3	0.00	0.421
4	0.30	0.383
5	0.00	0.407
6	0.00	0.375
7	0.40	0.409
8	0.40	0.482
9	0.90	0.667
10	0.30	0.656
11	0.00	0.473
12	0.70	0.522
13	1.60	1.016
14	0.20	0.790
15	0.10	0.492
16	0.70	0.550
17	0.20	0.595
18	2.30	1.033
19	0.30	0.823
20	0.30	0.599
21	0.00	0.475
22	0.60	0.555
23	1.60	0.966
24	1.80	0.892
25	0.20	0.571
26	1.70	0.946
27	0.50	0.822
28	1.00	0.628
29	1.20	1.017
30	2.60	1.146
31	0.40	0.840

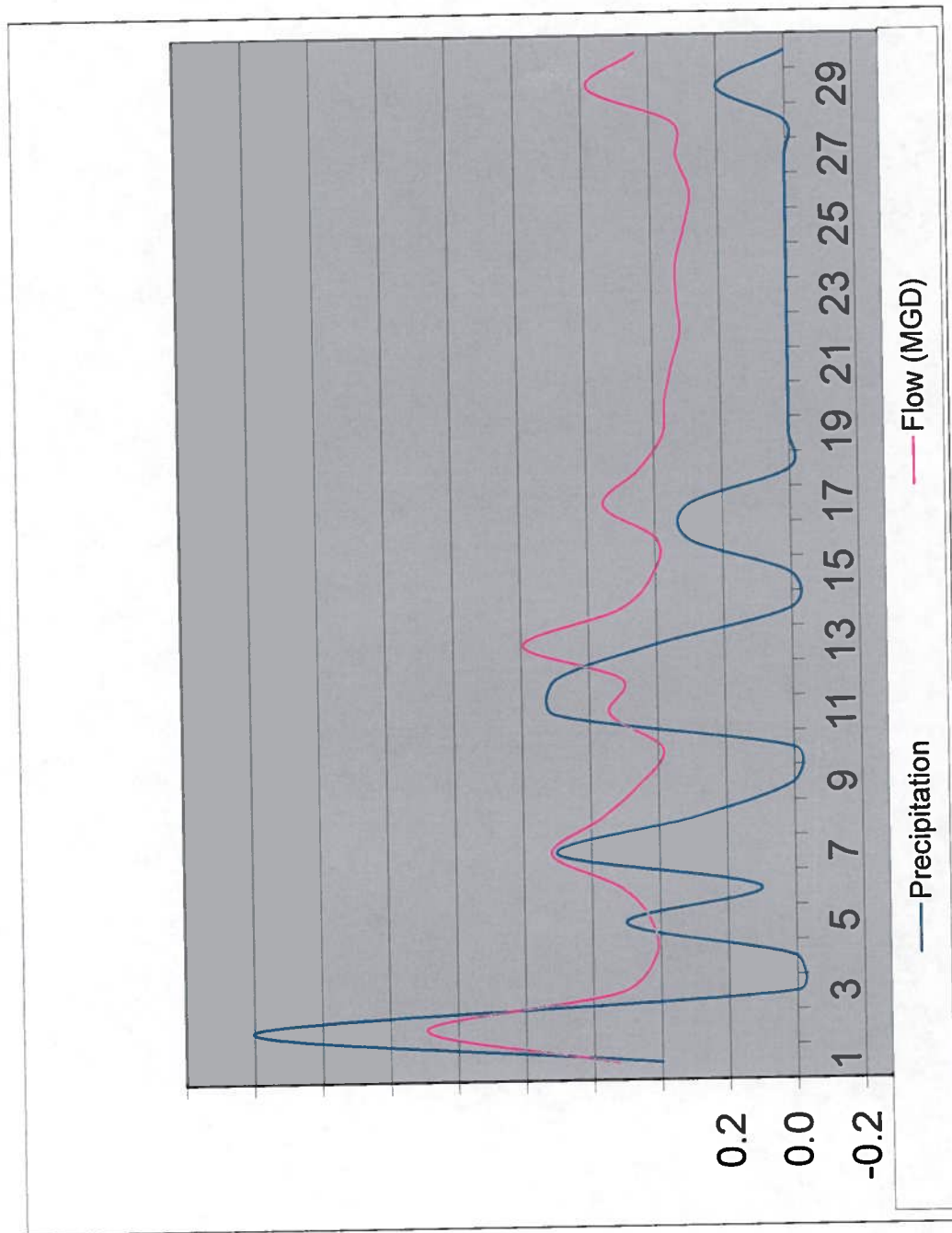


October 2011

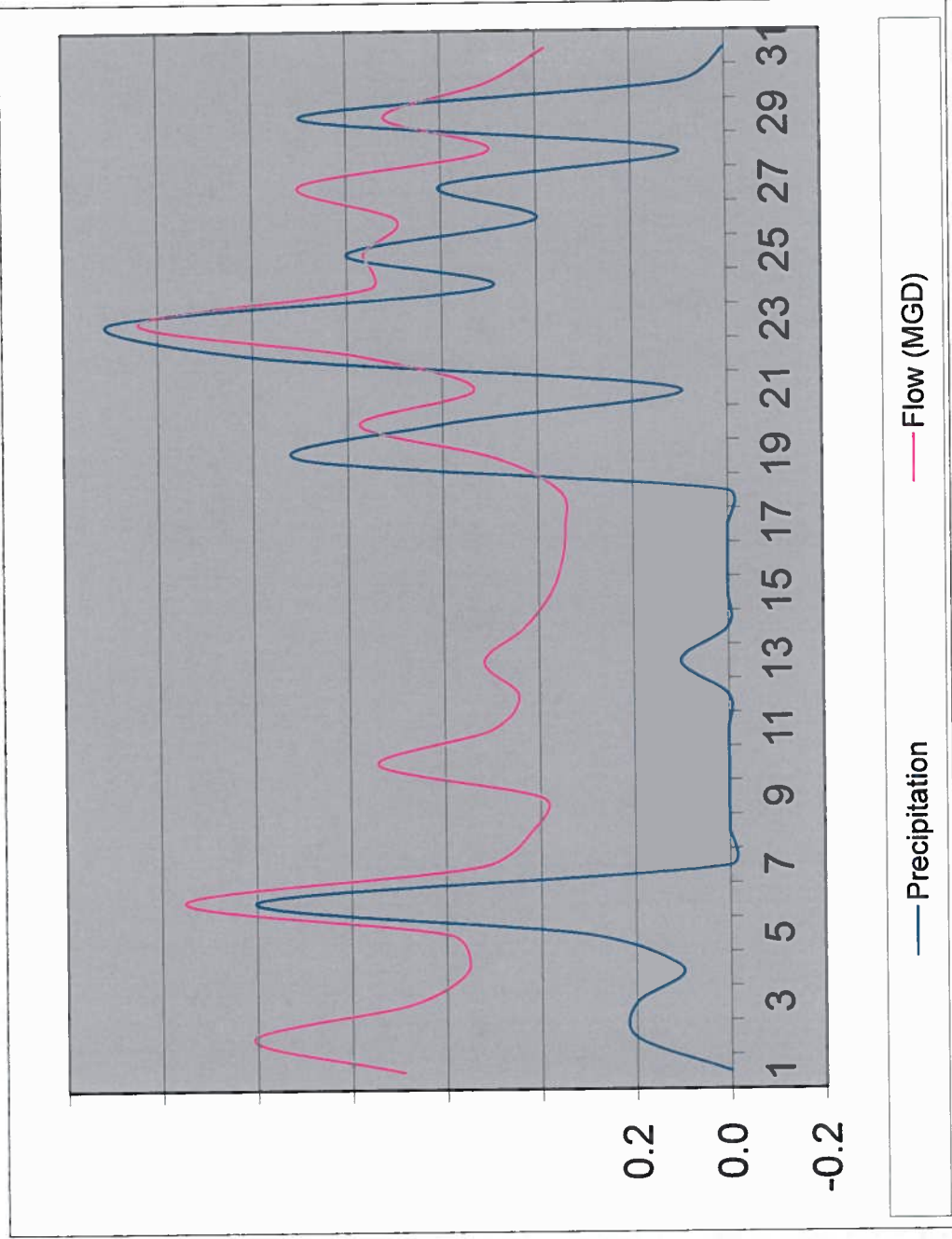
Day	Precipitation	Flow (MGD)
1	0.4	0.527
2	1.6	1.091
3	0.0	0.521
4	0.5" S	0.416
5	0.5	0.424
6	0.1	0.510
7	0.7	0.717
8	0.3	0.571
9	0.0	0.452
10	0.0	0.385
11	0.7	0.540
12	0.7	0.504
13	0.4	0.793
14	0.5" S	0.507
15	3.0" S	0.407
16	0.3	0.394
17	0.3	0.551
18	0.0	0.446
19	0.0	0.373
20	0.0	0.365
21	6.0" S	0.343
22	0.5" S	0.317
23	12.0" S	0.326
24	8.0" S	0.326
25	2.0" S	0.300
26	4.0" S	0.283
27	0.0	0.321
28	4.0" S	0.333
29	0.2	0.582
30	0.0	0.439

November 2011

Min Flow 0.283 Median Flow 0.432 Average Flow 0.469 Max Flow 1.091

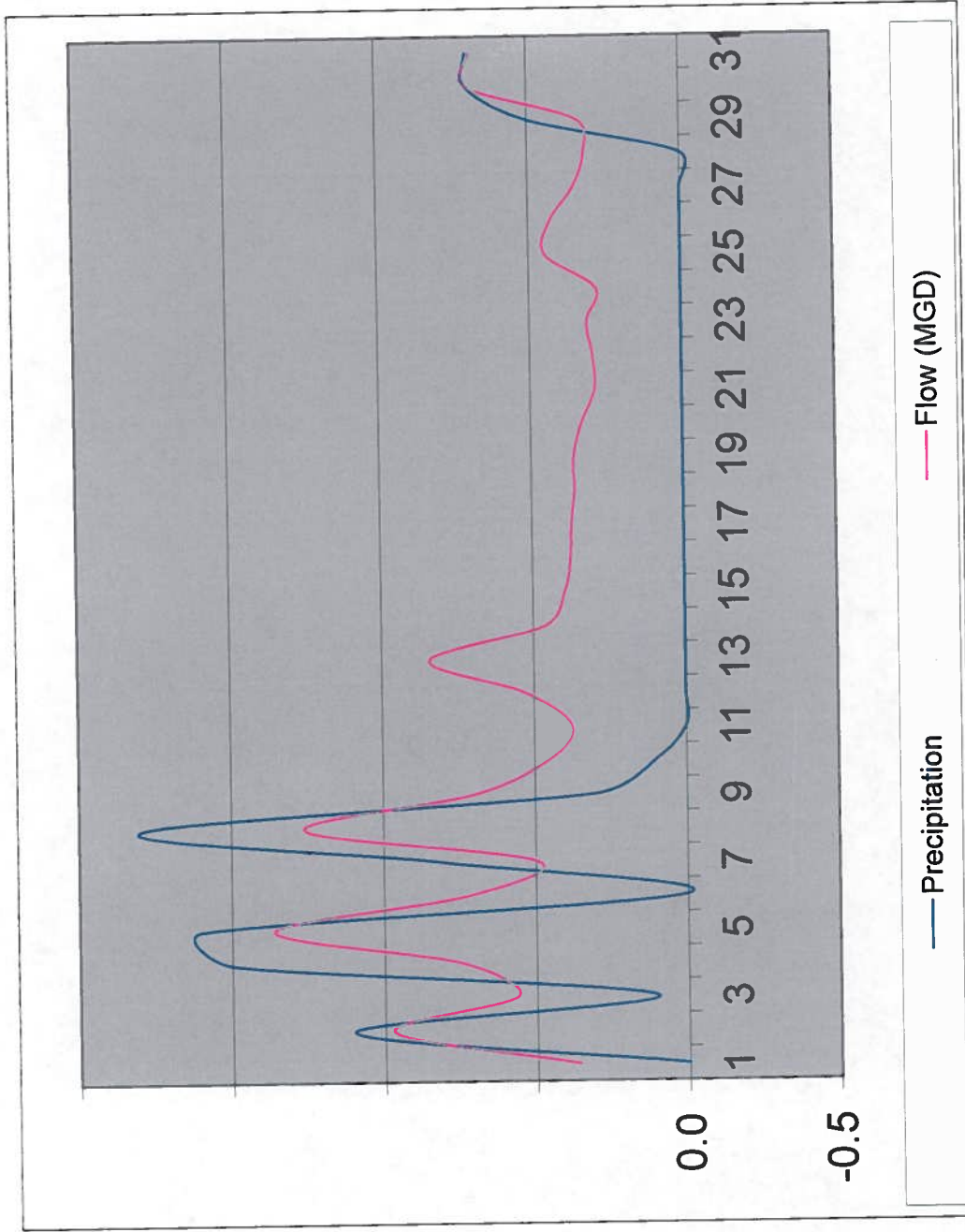


Day	Precipitation	Flow (MGD)
1	2.0" S	0.690
2	0.2	1.008
3	0.2	0.673
4	0.1	0.553
5	0.3	0.591
6	1.0	1.151
7	0.0	0.521
8	0.0	0.420
9	0.0	0.394
10	0.0	0.741
11	0.0	0.502
12	0.0	0.443
13	0.1	0.516
14	0.0	0.431
15	0.0	0.374
16	4.0" S	0.349
17	0.0	0.342
18	0.0	0.353
19	0.9	0.490
20	0.6	0.775
21	0.1	0.532
22	1.0	0.771
23	1.3	1.241
24	0.5	0.750
25	0.8	0.765
26	0.4	0.694
27	0.6	0.900
28	0.1	0.500
29	0.9	0.720
30	0.1	0.501
31	1.0" S	0.379



December 2011

Day	Precipitation	Flow (MGD)
1	1.0" S	0.359
2	1.1	0.971
3	0.1	0.564
4	1.5	0.740
5	1.6	1.360
6	0.0	0.721
7	0.8	0.492
8	1.8	1.259
9	0.3	0.701
10	0.1	0.455
11	3.5" S	0.376
12	0.0	0.526
13	1.0" S	0.842
14	0.0	0.460
15	0.0	0.394
16	0.0	0.373
17	0.0	0.369
18	0.0	0.358
19	0.0	0.359
20	4.0" S	0.332
21	6.0" S	0.287
22	4.0" S	0.293
23	2.0" S	0.311
24	2.0" S	0.280
25	2.0" S	0.446
26	6.0" S	0.428
27	4.0" S	0.351
28	3.0" S	0.315
29	0.5	0.337
30	0.7	0.699
31	0.7	0.689

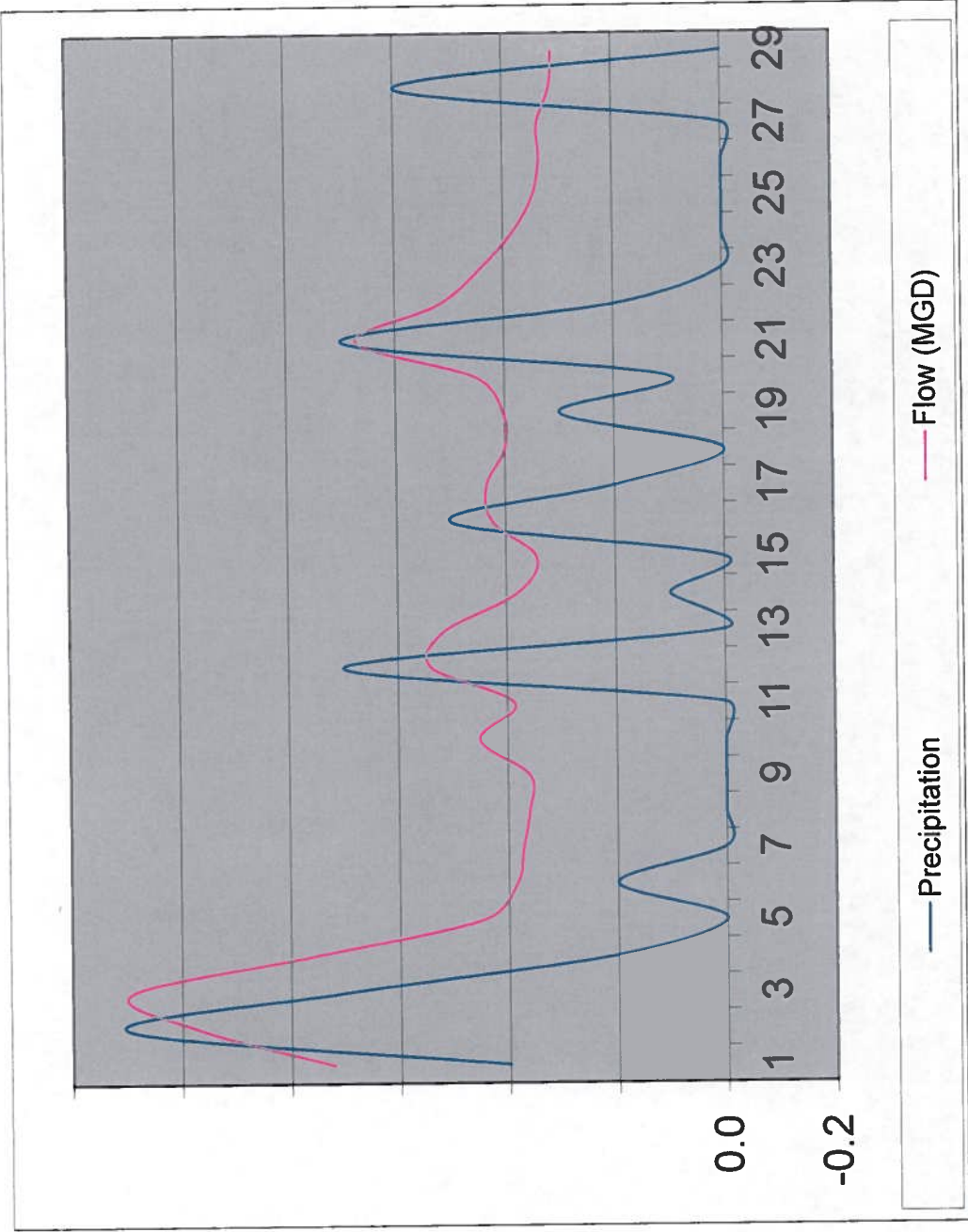


January 2012

Day	Precipitation	Flow (MGD)
1	0.4	0.722
2	1.1	0.966
3	0.7	1.093
4	0.2	0.766
5	0.0	0.447
6	0.2	0.385
7	0.0	0.373
8	0.0	0.361
9	0.0	0.360
10	0.0	0.451
11	0.0	0.387
12	0.7	0.540
13	0.0	0.513
14	0.1	0.382
15	0.0	0.344
16	0.5	0.425
17	0.2	0.435
18	0.0	0.401
19	0.3	0.403
20	0.1	0.454
21	0.7	0.673
22	0.2	0.521
23	0.0	0.443
24	0.0	0.383
25	0.0	0.346
26	0.0	0.334
27	6.0" S	0.337
28	0.6	0.314
29	0.0	0.310

2.000

February 2012



Min Flow 0.310 Median Flow 0.414 Average Flow 0.529 Max Flow 2.000

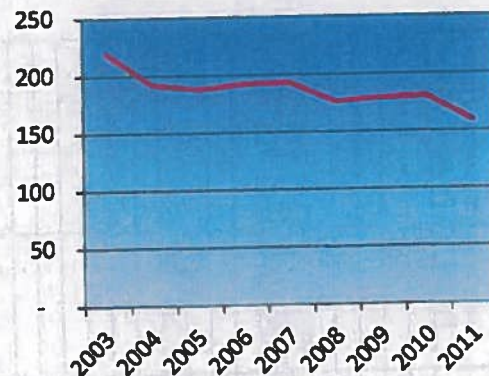
WASTEWATER

ENTERPRISE FUND - 430

Department Description:

The Wastewater department's mission is to provide for the efficient collection, treatment and discharge of all wastewater produced by the citizens of Petersburg. The certified staff operates and maintains the City's treatment plant, 20 pump stations, collection system and sludge disposal area in compliance with all stipulations in its discharge permit while providing the community with cost effective service.

Millions of Gallons Treated



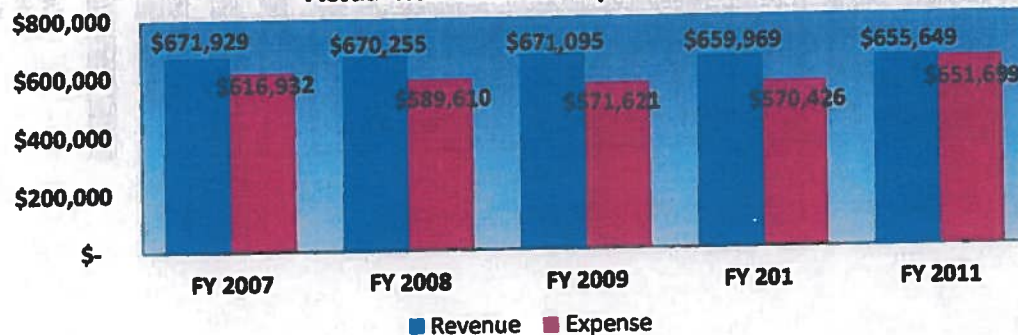
*FY2011
159 MG

Personnel: Wastewater Operator Supervisor, Plant Operator II, Plant Operator I (0.5 positions), 25% of the Public Works Director, Assistant Director and Administrative Assistant are expended to this fund. (3.25 FTE)

2013 Goals and Objectives:

- To perform all water quality testing within established quality control criteria.
- To complete all scheduled Preventative Maintenance tasks thoroughly and within deadlines every month thereby minimizing pump and equipment failures and eliminating emergency callouts of staff.
- To locate and eliminate inflow and infiltration points within the wastewater collection system using in-house labor and inspection equipment.
- Assist in Pump Station 5 project.

Actual Revenues vs. Expenditures



City of Petersburg, Alaska
Wastewater Fund - 430

430 Account Number	Description	FY 08/09 Actual	FY 09/10 Actual	FY 10/11 Actual	FY 11/12 Approved Budget	FY 12/13 Department Head Proposed Budget
Revenues & Other Sources						
Operating Revenues:						
000 407100	Residential Sales	459,401	484,163	467,965	469,000	470,000
000 407110	Commercial Sales	156,546	159,222	156,836	162,000	160,000
000 407170	Charges For Services	11,588	10,286	9,708	6,000	9,000
	Subtotal	627,535	653,672	634,509	637,000	639,000
Nonoperating Revenues:						
000 410100	Investment Income	29,251	20,312	12,183	12,000	11,000
000 402275	State PERS Relief	14,331	5,984	8,969	6,000	9,000
	Subtotal	43,582	26,296	21,152	18,000	20,000
	Total Revenue and Other Sources	671,095	680,968	655,661	655,000	659,000
Expenditures & Other Uses						
Operating Expense						
Payroll Expense:						
000 500110	Regular Pay	159,402	161,968	172,270	171,808	175,867
000 500120	Overtime	15,748	13,322	11,462	10,313	13,027
000 500200	Benefits	81,102	57,806	71,788	91,011	92,165
	Subtotal	256,252	233,096	255,520	273,132	281,059
Supplies:						
000 501320	Operating Supplies	21,995	18,414	20,227	15,287	16,623
000 501330	Maint. Supplies	17,880	28,273	19,732	19,434	19,869
000 501334	Safety Supplies	-	-	-	6,329	6,949
000 501340	Small Tools & Equip	3,076	3,617	5,235	3,488	4,888
000 501350	Inventory	(4,869)	8,413	(2,947)	-	-
000 501351	Fuel Oil	12,362	13,048	15,833	15,000	15,500
	Subtotal	50,444	69,764	55,079	59,538	63,829
Services & Charges:						
000 501410	Professional Services	7,826	11,939	11,843	24,380	9,940
000 501420	Communications	2,345	2,365	2,331	3,960	3,980
000 501430	Travel & Training	4,541	2,250	3,192	4,625	5,675
000 501440	Advertising & Printing	1,620	850	-	890	890
000 501451	Vehicle Replacement	34,479	29,335	29,335	27,427	27,427
000 501484	Vehicle Insurance	3,054	3,557	2,475	2,843	1,719
000 501482	Liability Insurance	3,150	2,915	2,708	3,200	3,112
000 501463	Property Insurance	7,089	5,708	5,255	6,300	6,043
000 501470	Utilities	74,843	75,387	74,722	72,000	72,000
000 501480	Repairs & Maint.	39,237	10,575	9,087	9,000	11,500
000 501485	Energy Conservation Measures	-	1,977	2,500	2,500	1,500

City of Petersburg, Alaska
Wastewater Fund - 430

430 Account Number	Description	FY 08/09 Actual	FY 09/10 Actual	FY 10/11 Actual	FY 11/12 Approved Budget	FY 12/13 Department Head Proposed Budget
000 501491	Overhead Charges	17,459	28,074	32,058	34,217	50,420
000 501930	Haz Mat Notices	3,000	3,000		3,000	3,000
000 501449	Motor Pool Charges O&M	15,909	14,117	31,108	22,872	20,390
000 501498	Credit Card Fees	3,296	3,469	3,469	5,000	5,000
000 501499	Bad Debt Accts	1,019	1,806	1,959	-	-
000 502000	Depreciation	408,733	368,228	352,325	370,000	353,000
	Subtotal	622,010	883,717	894,382	892,214	876,876
	Total Operating Expense	928,706	965,678	977,972	924,884	920,104
Other Uses						
000 500210	State PERS Relief		5,984	8,959	6,000	9,000
	Subtotal		5,984	8,959	6,000	9,000
Capital Outlays						
000 506519	Machinery & Equipment		10,000	-	21,500	42,500
000 506521	Sewer Lines	12,555		-	-	-
000 501980	WWTP SCADA upgrade			20,000	-	-
000 501980	PS 5 Design Services			28,000	12,000	-
000 506522	Clarifier Repairs		15,000	-	-	-
000 501980	Petersburg Road Improvements			30,000	2,500	-
000 506523	Office Replacement			70,000	70,000	-
	Subtotal	12,555	25,000	78,000	106,000	42,500
Debt Service						
426 508100	Principal Scow Bay - ADEC	30,351	30,808	31,269	31,738	32,214
426 508110	Interest Scow Bay - ADEC	8,742	8,288	7,824	7,355	6,879
	Subtotal	39,093	39,096	39,093	39,093	39,093
	Total Other Uses	81,643	70,076	128,062	151,083	80,883
	Total Expenditures & Other Uses	980,354	936,654	1,004,024	1,076,977	1,010,987
	Excess (deficiency) of revenues and other sources over expenditures and other uses	(308,289)	(276,886)	(248,374)	(420,977)	(361,087)
Cash & Investments, Beginning of year		965,824	1,050,208	1,084,664	1,118,576	0
Cash & Investments, End of year		1,050,208	1,084,664	1,118,576		
Operating Cash Flows		146,791	101,879	104,018		
Non-Operating Cash Flows		(91,658)	-8,735	-81,969		
Investment Income		29,251	20,312	12,183		
Increase/Decrease in Cash		84,384	34,456	34,212		