

**Municipality Of Huron East  
 2011 Operations Report  
 Brussels Wastewater Facilities  
 Reporting Period Jan-Dec 2011**

## 1. Introduction

Raw sewage from the town of Brussels collects at the Stratton Street pumping before being pumped to the WWTP. The treatment process consists of an extended aeration sewage treatment facility with tertiary filtration, Hypochlorite disinfection with a treatment effluent to the Maitland River.

Following is a list the facilities main treatment components.

- An inlet works consisting of (2) grit removal channels.
- An emergency bypass bar screen and overflow to chlorine contact chamber.
- Two aeration tanks equipped with two surface aerators per tank.
- One final clarifier
- An aerated sludge holding tank c/w sludge return/wasting facilities.
- Chlorine contact chamber.
- Effluent filtration via two compartment effluent filter.
- Aerated sludge storage tank (930 cubic meters).
- An insulated chemical storage tank with metering pumps.

The sewage works including the Stratton Street pump station, are owned by the corporation of the municipality of Huron East.

## 2. Regulatory Issues

Operation Management International Canada Inc (OMI) has made every effort during the reporting period to operate this wastewater system in accordance with applicable laws, certificates and regulations. To the best of our knowledge, the following report truthfully and accurately reflects any and all matters of non-compliance regarding the ownership and operation of the wastewater treatment plant during the reporting period.

During this period, the plant was operated in full compliance with applicable laws, regulations and the WWTP'S Certificate of Approval, save and except the following:

x	None during this period
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Or

Requirement	Duration of Failure	Measures to Correct the Failure

### 3. Compliance with Quality/Quantity Criteria

#### Brussels WWTP

Month	Average Volume/Day m <sup>3</sup> /d	Plant Utilization (based on Avg. Day)	Max Volume/Day m <sup>3</sup> /d
Jan	611	69.4 %	1649
Feb	528	60.0 %	1050
Mar	941	106.9 %	1951
April	798	90.7 %	1293
May	737	83.7 %	2055
June	550	62.5 %	960
July	424	59.5 %	470
Aug	462	52.5 %	854
Sept	437	49.6 %	576
Oct	680	77.3 %	1282
Nov	506	57.5 %	1588
Dec	725	82.4 %	1335

Plant Average Day Design Capacity is 880 m<sup>3</sup>/d

## 4. Quality Assurance/Quality Control

- Maxxam Analytics Inc. conducts the required physical, chemical and biological testing of influent and effluent from each WWTP.

## 5. Maintenance Summary

### Brussels Pump Station

- Repair Pump 2 & 3

### Brussels WPCP

- Disinfect Filter with Hydrogen Peroxide.
- Repair # 1 Sludge pump bearing and seals.
- Install float switch on filter
- Maitland welding repaired header # 2 Aeration tank
- Install new diffusers in Aeration tanks 1 & 2
- ICS install new chemical feed pump board
- Switch from Gas to Liquid Chlorine
- Hauled 768 M3 sludge from storage tank in 2011 ( Land Applied )

### General

- Maintained aeration blowers, return pumps and sewage pumps
- Inspected and ran all diesel generators monthly
- Maintained all chemical pumps and injection systems.

## 6. Environmental/Operating Problems

- There were no unusual environmental/operating problems during 2011

## 7. Proposed Alterations, Extensions or Replacements

- Switch from Gas to Liquid Chlorine in 2011
- Amended Environmental Compliance Approval in process

## 8. Calibration Procedures

- Flow meters were calibrated in 2011

## 9. Health & Safety Items

- Lifting equipment, Fire extinguishers, Gas monitors Monthly/Yearly inspections. Weekly Safety meeting along with Quarterly walk through completed for 2011

## 10. Status of Capital Projects

- None during this period

## 11. Other Items

- None

2011

MONTH Jan

Brussels S.T.P.

Operating Number 110002354

YEAR 2011

Operating Authority: O.M.I. Canada Inc.

Municipality of Huron East

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 4-Jan	3269	68	140	2.4	2.0	14.0	0.41	0.08	35	7.19	8.1
2 10-Jan	4115						0.27		22	7.11	10.6
3 17-Jan	3207								35	7.09	11.1
4 24-Jan	3971								4600	7.16	10.9
5 27-Jan									100		
6 31-Jan	4197								2000	7.16	10.8
<b>Number of tests</b>		1	1	1	1	1	2	1	6	5	5
<b>Monthly Avg mg/l</b>		68	140	2.4	2.0	14.0	0.34	0.08	171	7.14	10.18
<b>Monthly Averages kg/d</b>					1.2	8.5	0.2	0.048			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
 Ammonia Changes Monthly See C of A  
 pH is to be maintained in the range of 6.5 to 9.5 inclusive at all times

2011

MONTH Feb

Brussels S.T.P.  
 Operating Number 110002354  
 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 7-Feb	4232	220	230	6.0	3.0	10.0	0.24	0.06	29	7.26	12.4
2 14-Feb	4462						0.22		31	7.17	11.9
3 22-Feb	3570								320	7.09	12.5
4 28-Feb	2931								4200	7.10	11.8
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		220	230	6.0	3.0	10.0	0.23	0.06	186	7.16	12.15
<b>Monthly Averages kg/d</b>					1.6	5.3	0.12	0.03			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
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2011

MONTH Mar

Brussels S.T.P.  
 Operating Number 110002354  
 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 7-Mar	3279	36	46	1.6	3.0	13.0	0.16	0.05	1900	7.23	12.4
2 14-Mar	3560						0.10		24	7.09	12.1
3 21-Mar	3701								140	7.11	12.4
4 28-Mar	4082								18	7.1	11.9
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		36	46	1.6	3.0	13.0	0.13	0.05	104	7.13	12.20
<b>Monthly Averages kg/d</b>					2.8	12.2	0.12	0.047			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
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2012

MONTH Apr

Brussels S.T.P.

Operating Number 110002354

YEAR 2011

Operating Authority: O.M.I. Canada Inc.

Municipality of Huron East

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 4-Apr	3334	110	140	3.4	3.0	13.0	0.15	0.05	910	7.24	11.5
2 13-Apr	3062						0.13		7	6.98	11.2
3 20-Apr	1686								3900	7.12	11.7
4 26-Apr	3605								30	6.86	11.0
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		110	140	3.4	3.0	13.0	0.14	0.05	165	7.05	11.35
<b>Monthly Averages kg/d</b>					2.4	2.4	0.11	0.039			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
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2011

MONTH May

Brussels S.T.P.

Operating Number 110002354

YEAR 2011

Operating Authority: O.M.I. Canada Inc.

Municipality of Huron East

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 2-May	4190	77	110	3.2	2.0	7.0	0.08	0.08	94	7.12	10.5
2 9-May	4876						0.08		140	7.06	10.5
3 16-May	3746								2	6.90	10.3
4 24-May	1639								8	7.14	9.7
5 30-May	3971								12	7.05	9.80
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	5	5	5
<b>Monthly Avg mg/l</b>		77	110	3.2	2.0	7.0	0.08	0.08	19	7.05	10.16
<b>Monthly Averages kg/d</b>					1.5	5.2	0.58	0.058			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
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2011

MONTH June

Brussels S.T.P.  
 Operating Number 110002354  
 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 6-Jun	5586	66	230	3.0	2.0	4.0	0.10	0.07	31	7.05	9.5
2 13-Jun	4577						0.11		2	6.53	6.0
3 20-Jun	3700								1	6.75	8.9
4 27-Jun	4473								4	7.05	8.8
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		66	230	3.0	2.0	4.0	0.11	0.070	4	6.85	8.30
<b>Monthly Averages kg/d</b>					1.1	2.2	0.06	0.038			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
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2011

MONTH July

Brussels S.T.P.

Operating Number 110002354

YEAR 2011

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Municipality of Huron East

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 4-Jul	3135	29	30	1.7	2.0	5.0	0.25	0.20	1	7.09	8.6
2 11-Jul	3445						0.24		1	7.21	8.0
3 18-Jul	3604								1	7.34	7.8
4 25-Jul	4214								5	7.18	8.6
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		29	30	1.7	2.0	5.0	0.25	0.20	1	7.21	8.25
<b>Monthly Averages kg/d</b>					0.8	2.1	0.106	0.085			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
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2011

MONTH Aug

Brussels S.T.P.  
 Operating Number 110002354  
 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 2-Aug	3444	42	41	2.6	2.0	2.0	0.16	0.11	6	7.21	8.3
2 9-Aug	3230						0.15		100	6.88	8.0
3 15-Aug	3650								1	6.94	8.5
4 22-Aug	2327								1	6.92	8.6
5 29-Aug	2958								4300	7.39	8.6
6											
<b>Number of tests</b>											
<b>Monthly Avg mg/l</b>		42	41	2.6	2.0	2.0	0.16	0.11	19	7.07	8.4
<b>Monthly Averages kg/d</b>					0.9	0.9	0.074				
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
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2011

MONTH Sept

Brussels S.T.P.

Operating Number 110002354

YEAR 2011

Operating Authority: O.M.I. Canada Inc.

Municipality of Huron East

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 6-Sep	2300	63	73	3.1	2.0	1.0	0.22	0.12	1	6.92	8.7
2 13-Sep	2555						0.28		1	6.69	8.5
3 19-Sep	2860								1	6.66	8.9
4 26-Sep	3173								13	6.94	8.8
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		63	73	3.1	2.0	1.0	0.25	0.12	2	6.80	8.7
<b>Monthly Averages kg/d</b>					0.9	0.4	0.109	0.052			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
 Ammonia Changes Monthly See C of A  
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2011

MONTH Oct

Brussels S.T.P.  
 Operating Number 110002354  
 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

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	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 3-Oct	3476	53	14	0.6	2.0	4.0	0.39	0.11	21	7.01	8.8
2 11-Oct	3746						0.41		100	7.08	8.2
3 17-Oct	3737								100	7.01	8.9
4 19-Oct							0.24				
5 24-Oct	3494						0.35		100	6.99	8.92
6 31-Oct	1885						0.27		36	7.40	8.9
<b>Number of tests</b>		1	1	1	1	1	5	1	5	5	5
<b>Monthly Avg mg/l</b>		53	14	0.6	2.0	4.0	0.33	0.11	68	7.02	8.7
<b>Monthly Averages kg/d</b>					1.4	2.7	0.224	0.075			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
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2011

MONTH Nov

Brussels S.T.P.  
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 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

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	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 7-Nov	3970	120	120	4.2	2.0	4.0	0.25	0.05	130	7.61	9.3
2 14-Nov	3150						0.30		130	7.12	9.3
3 21-Nov	3541								40	7.21	9.9
4 28-Nov	4135								120	7.31	9.6
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		120	120	4.2	2.0	4.0	0.28	0.05	95	7.31	9.5
<b>Monthly Averages kg/d</b>					1.0	2.0	0.14	0.025			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
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2011

MONTH Dec

Brussels S.T.P.  
 Operating Number 110002354  
 Operating Authority: O.M.I. Canada Inc.  
 Municipality of Huron East

YEAR 2011

ANALYS Maxxam

Test # Date	MLSS	RAW INFLUENT			FINAL EFFLUENT						
	East Aeration S.S.	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH	D.O.
1 5-Dec	2559	32	32	1.6	2.0	6.0	0.23	0.05	83	7.33	9.6
2 12-Dec	3270						0.25		50	7.52	10.5
3 19-Dec	2710								55	7.21	10.2
4 28-Dec	3328								1	7.17	10.3
5											
6											
<b>Number of tests</b>		1	1	1	1	1	2	1	4	4	4
<b>Monthly Avg mg/l</b>		32	32	1.6	2.0	6.0	0.24	0.05	22	7.31	10.2
<b>Monthly Averages kg/d</b>					1.5	4.4	0.174	0.036			
<b>Monthly Objectives</b>					10.0	10.0	see CofA	see CofA	0		
<b>Monthly Limits mg/l/kg/d</b>					15.0	15.0	see CofA	see CofA	200		

**Comments:** Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
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2011

BYPASS STP

Bypass Events

Brussels S.T.P.

Operating Number 110002354

Operating Authority: O.M.I. Canada Inc.

Municipality of Huron East

YEAR 2011

ANALYST Maxxam

Date		Time/Volume of Event			Notification		Sampled		Results of Analyst						
Day Month	Start	Finish	Duration Hrs/min	Volume M3	Yes	No	Yes	No	BOD5 mg/L	S. S. mg/L	Total P mg/L	Alkalinity CaCO3 mg/L	Ammonia NH3 mg/L	E-Coli Per 100ml	pH
1 Jan	1-Jan 13:00	2-Jan 13:30	24.50	1649	x		x		19.0	21.0	0.59	na	na	200000	7.70
2 May	19-May 5:30	13:45	8.75	475	x		x		4.0	12.0	0.42			50000	7.44
3															
4															
5 /															
6 /															
7															
8															

Comments: 2 to report in 2011



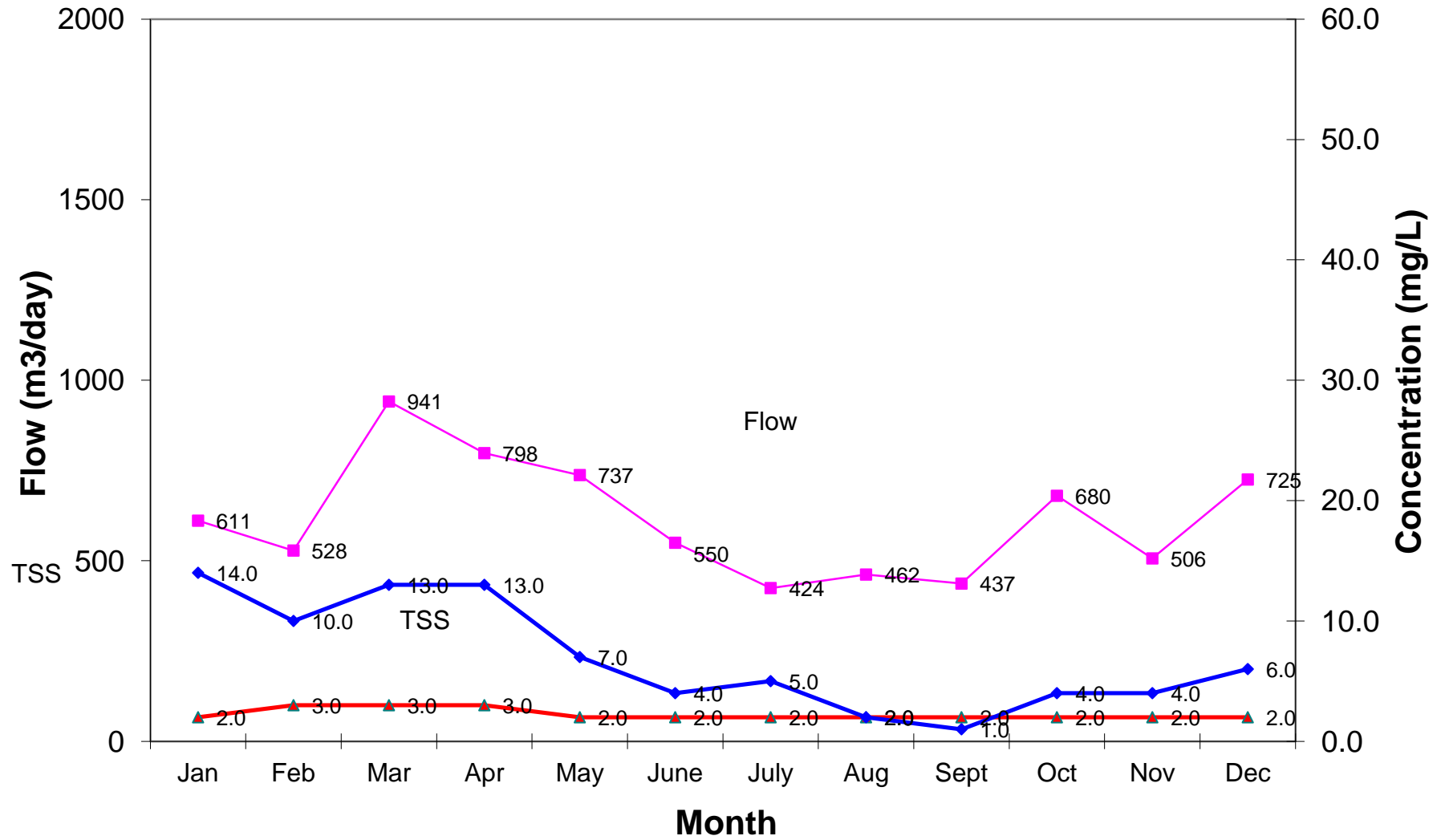
## O.M.I. Canada Flow Reports Brussels STP 2011

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1564	467	563	556	846	634	431	328	482	641	518	1335
2	1649	419	555	755	854	633	431	420	207	614	523	1081
3	926	392	503	696	733	560	447	426	390	534	473	894
4	1011	449	479	881	618	524	429	374	358	556	500	870
5	692	403	990	1161	634	549	470	398	435	540	489	1191
6	714	380	1583	1049	602	540	412	380	453	515	621	1201
7	655	475	1089	891	594	684	425	407	433	487	414	912
8	625	405	897	667	645	960	446	440	435	462	450	775
9	518	405	752	684	524	755	394	410	437	511	383	668
10	546	433	1148	717	533	572	390	483	441	471	485	615
11	489	424	1129	827	506	556	438	485	381	468	503	625
12	535	427	810	775	498	632	436	518	410	463	406	569
13	457	435	991	648	449	507	405	411	460	522	486	541
14	503	429	912	639	484	532	419	404	423	592	488	530
15	573	447	847	582	716	464	380	446	419	812	490	680
16	456	386	760	660	675	548	449	420	396	1079	428	980
17	503	434	987	664	629	482	441	618	409	900	449	816
18	492	848	1689	640	588	548	412	583	399	717	435	713
19	529	1050	1951	643	1112	419	428	451	410	602	482	678
20	452	1027	1417	842	2055	455	423	321	463	857	419	770
21	497	664	1297	924	1132	499	428	548	441	1282	419	484
22	384	678	1154	852	900	472	431	656	430	1084	404	608
23	465	563	1110	813	787	529	398	481	398	822	438	492
24	535	600	879	819	809	562	464	241	576	702	410	546
25	475	481	839	703	650	480	444	500	490	701	427	605
26	450	500	662	729	725	496	441	854	496	708	431	544
27	470	554	684	694	703	525	451	452	566	843	449	576
28	441	617	680	1093	846	542	306	554	504	705	575	563
29	415		631	1293	563	407	434	426	481	678	611	504
30	489		597	1045	713	430	396	461	479	627	1588	511
31	432		588		734		456	420		582		598
<b>Total</b>	18942	14792	29173	23942	22857	16496	13155	14316	13102	21077	15194	22475
<b>Min.</b>	384	380	479	556	449	407	306	241	207	462	383	484
<b>Max</b>	1649	1050	1951	1293	2055	960	470	854	576	1282	1588	1335
<b>Avg.</b>	611	528	941	798	737	550	424	462	437	680	506	725

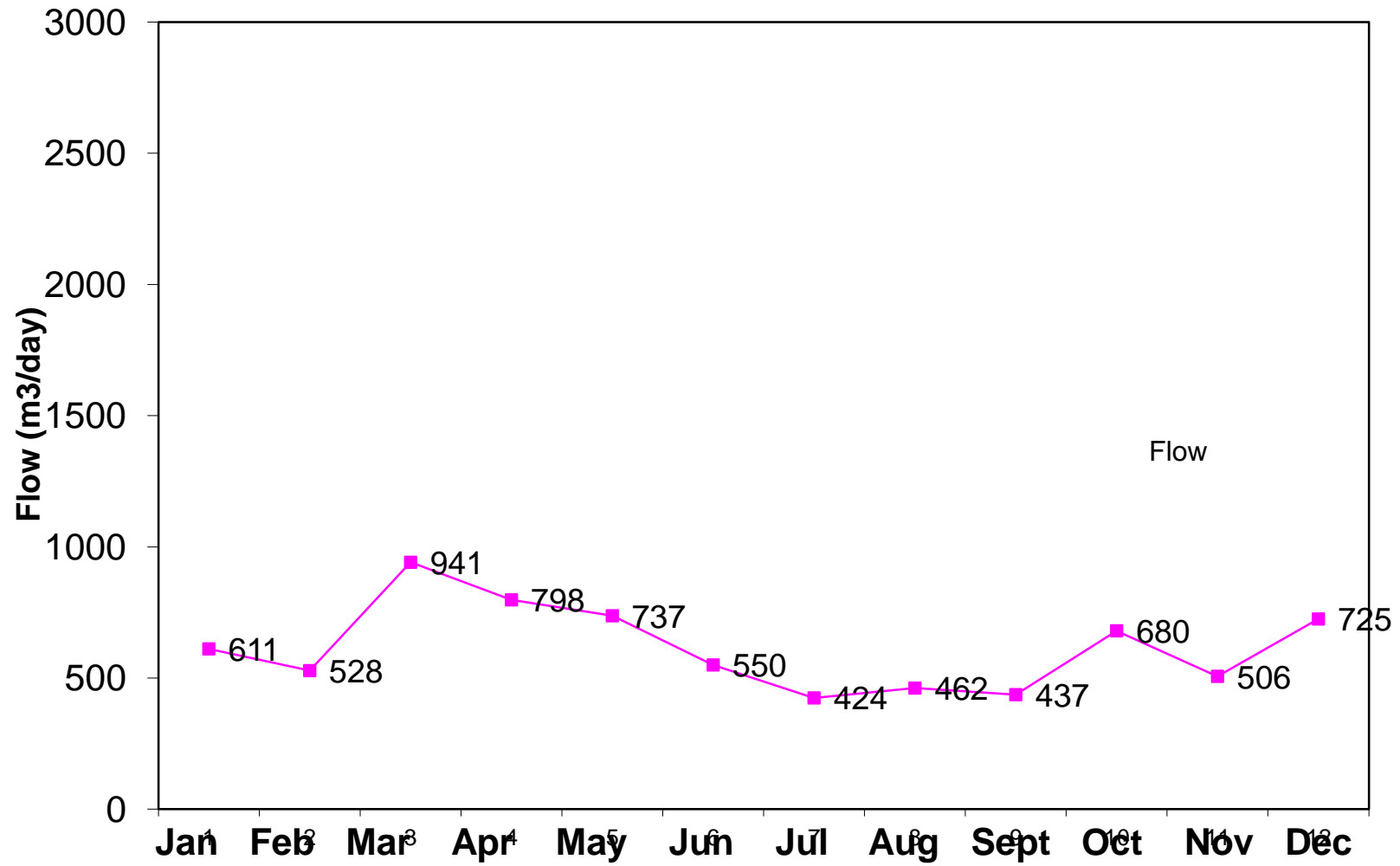
### O.M.I. Canada CI2 Results Brussels STP 2011

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.07	0.12	0.19	0.16	0.19	0.19	0.19	0.17	0.14	0.16	0.14	0.21
2	0.11	0.19	0.23	0.18	0.14	0.22	0.20	0.15	0.19	0.14	0.17	0.22
3	0.06	0.17	0.17	0.14	0.19	0.17	0.20	0.18	0.22	0.17	0.19	0.20
4	0.28	0.18	0.19	0.14	0.15	0.18	0.18	0.19	0.21	0.22	0.24	0.17
5	0.24	0.16	0.21	0.18	0.19	0.19	0.19	0.15	0.19	0.14	0.23	0.21
6	0.18	0.12	0.17	0.22	0.14	0.19	0.13	0.19	0.16	0.15	0.20	0.18
7	0.19	0.09	0.16	0.16	0.12	0.15	0.11	0.14	0.17	0.14	0.18	0.19
8	0.17	0.18	0.21	0.18	0.14	0.11	0.21	0.15	0.16	0.14	0.14	0.18
9	0.12	0.29	0.15	0.19	0.18	0.22	0.18	0.14	0.14	0.13	0.17	0.08
10	0.14	0.20	0.18	0.19	0.14	0.18	0.14	0.08	0.17	0.14	0.14	0.18
11	0.18	0.22	0.22	0.21	0.17	0.18	0.21	0.13	0.21	0.13	0.18	0.17
12	0.15	0.16	0.16	0.16	0.16	0.19	0.15	0.18	0.18	0.12	0.19	0.22
13	0.07	0.14	0.15	0.14	0.18	0.31	0.12	0.21	0.16	0.14	0.19	0.17
14	0.21	0.19	0.21	0.17	0.11	0.23	0.17	0.15	0.19	0.17	0.19	0.14
15	0.16	0.21	0.17	0.15	0.14	0.12	0.20	0.19	0.15	0.20	0.18	0.15
16	0.18	0.14	0.14	0.18	0.18	0.36	0.18	0.14	0.12	0.19	0.20	0.17
17	0.16	0.16	0.15	0.18	0.16	0.14	0.14	0.12	0.18	0.20	0.21	0.17
18	0.17	0.21	0.10	0.16	0.16	0.12	0.20	0.07	0.21	0.23	0.20	0.14
19	0.08	0.16	0.11	0.19	0.12	0.18	0.20	0.22	0.17	0.20	0.18	0.18
20	0.16	0.22	0.18	0.20	0.19	0.16	0.16	0.23	0.15	0.18	0.16	0.16
21	0.19	0.17	0.12	0.16	0.2	0.18	0.14	0.18	0.22	0.11	0.16	0.19
22	0.17	0.18	0.18	0.19	0.11	0.16	0.11	0.16	0.17	0.13	0.19	0.16
23	0.14	0.15	0.17	0.19	0.15	0.11	0.11	0.15	0.20	0.10	0.14	0.13
24	0.25	0.19	0.19	0.14	0.22	0.15	0.12	0.17	0.10	0.21	0.17	0.21
25	0.16	0.17	0.14	0.11	0.16	0.12	0.14	0.17	0.25	0.22	0.14	0.18
26	0.14	0.15	0.22	0.17	0.14	0.22	0.17	0.14	0.23	0.16	0.14	0.19
27	0.18	0.17	0.23	0.13	0.18	0.19	0.14	0.15	0.16	0.21	0.12	0.16
28	0.18	0.19	0.18	0.16	0.16	0.17	0.15	0.17	0.18	0.15	0.13	0.19
29	0.16	0.16	0.17	0.11	0.12	0.17	0.08	0.07	0.14	0.10	0.18	0.17
30	0.12		0.19	0.18	0.14	0.20	0.11	0.04	0.20	0.18	0.24	0.20
31	0.12		0.18		0.17		0.07	0.17		0.22		0.21
Min.	0.06	0.09	0.10	0.11	0.11	0.11	0.07	0.04	0.10	0.10	0.12	0.08
Max	0.28	0.29	0.23	0.22	0.22	0.36	0.21	0.23	0.25	0.23	0.24	0.22
Avg.	0.16	0.17	0.17	0.17	0.16	0.18	0.15	0.15	0.18	0.16	0.18	0.18

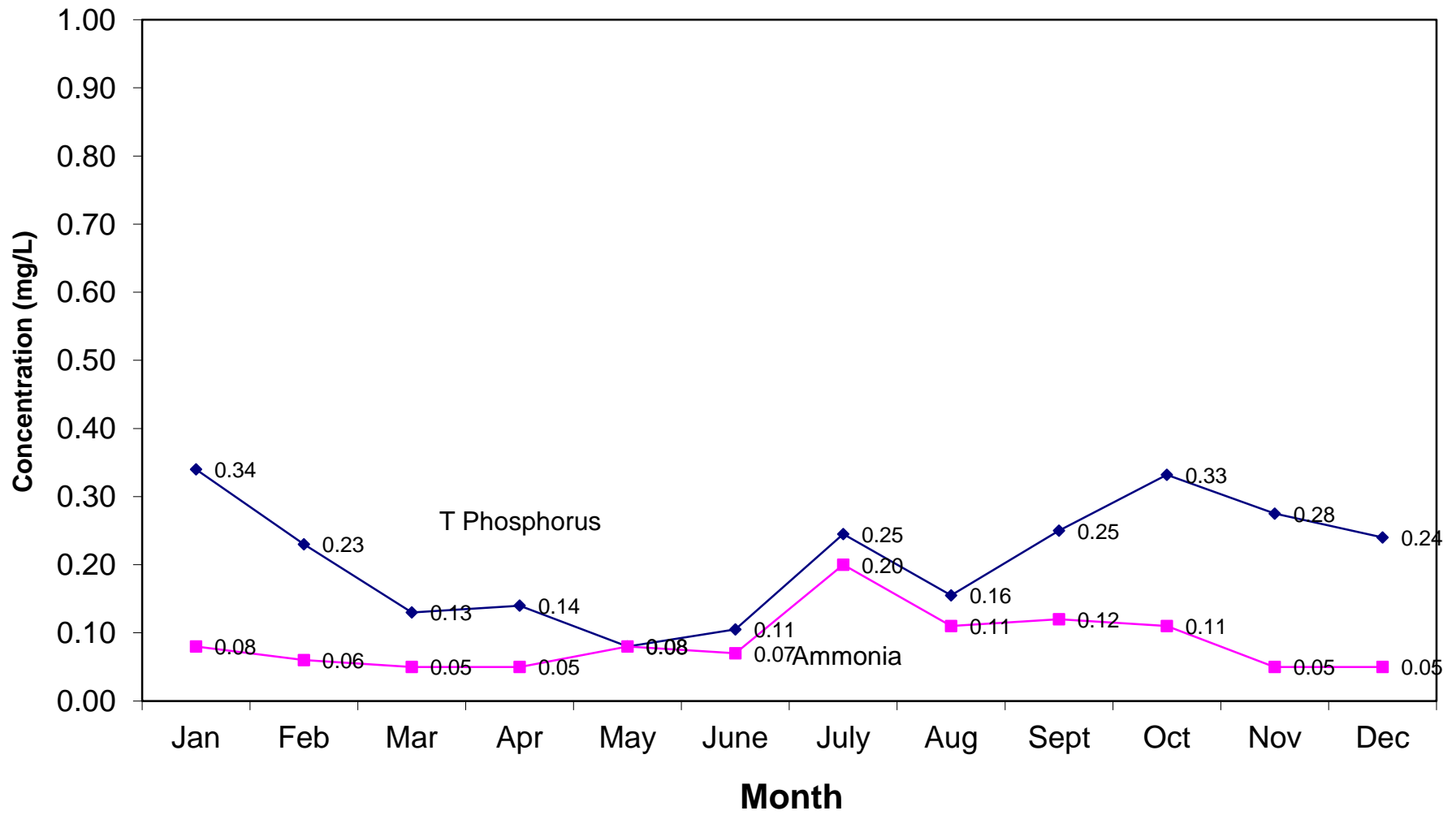
# Brussels STP BOD and TSS vs Flow



## Brussels STP. Average Monthly Flows



# Brussels STP Monthly Total Phosphorus and Ammonia



## 2012 Municipality of Huron East Brussels STP Monthly Average Lab Results

RAW SEWAGE				Effluent Concentration mg/l								Effluent Loading kg/d							
Test Date	BOD5 mg/L	S. S. mg/L	Total P mg/L	BOD5 mg/L	S. S. mg/L	Total P mg/L	Ammonia		E-Coli		Cl2 Res	pH	D.O	BOD5 kg/d	S.S. kg/d	Total P kg/d	Ammonia		Avg Monthly Flow
							NH3 mg/L	Per 100ml	Per 100ml	Per 100ml							NH3 kg/d	Per 100ml	
Monthly																			
Jan	68	140	2.4	2.0	14.0	0.34	0.08	171	0.16	7.14	10.2	1.2	8.5	0.20	0.05	611			
Feb	220	230	6.0	3.0	10.0	0.23	0.06	186	0.17	7.16	12.2	1.6	5.3	0.12	0.03	528			
Mar	36	46	1.6	3.0	13.0	0.13	0.05	104	0.17	7.13	12.2	2.8	12.2	0.12	0.05	941			
Apr	110	140	3.4	3.0	13.0	0.14	0.05	165	0.17	7.05	11.4	2.4	2.4	0.11	0.04	798			
May	77	110	3.2	2.0	7.0	0.08	0.08	19	0.16	7.05	10.2	1.5	5.2	0.58	0.06	737			
June	66	230	3.0	2.0	4.0	0.11	0.07	4	0.18	8.30	8.3	1.1	2.2	0.06	0.04	550			
July	29	30	1.7	2.0	5.0	0.25	0.20	1	0.15	8.25	8.3	0.8	2.1	0.11	0.08	424			
Aug	42	41	2.6	2.0	2.0	0.16	0.11	19	0.15	7.07	8.4	0.9	0.9	0.07	0.00	462			
Sept	63	73	3.1	2.0	1.0	0.25	0.12	2	0.18	8.70	8.7	0.9	0.4	0.11	0.05	437			
Oct	53	14	0.6	2.0	4.0	0.33	0.11	68	0.16	7.02	8.7	1.4	2.7	0.22	0.07	680			
Nov	120	120	4.2	2.0	4.0	0.28	0.05	95	0.18	7.31	9.5	1.0	2.0	0.14	0.03	506			
Dec	32	32	1.6	2.0	6.0	0.24	0.05	22	0.18	7.31	10.2	1.5	4.4	0.17	0.04	725			
<b>Monthly Objectives</b>				10.0	10.0	See CofA		0					10.0	10.0	See CofA				
<b>Monthly Limits</b>				15.0	15.0	See CofA		200					15.0	15.0	See CofA				
<b>Yearly Averages/Min/Max</b>																			
Average	76	101	2.8	2.3	6.9	0.21	0.09	29	0.17	7.46	9.84	1.4	4.0	0.2	0.0	617			
Minimum	29	14	0.6	2.0	1.0	0.08	0.05	1	0.15	7.02	8.25	0.8	0.4	0.1	0.0	424			
Maximum	220	230	6.0	3.0	14.0	0.34	0.20	186	0.18	8.70	12.20	2.8	12.2	0.6	0.1	941			

**Comments:**  
 Total Phosphorus-May 1-Oct 31 Limit 0.3mg/L 0.3 kg/d  
 Total Phosphorus-November 1-April 30= Limit 1.0mg/L 0.9 kg/d  
 Ammonia Changes Monthly See C of A  
 pH is to be maintained in the range of 6.5 to 9.5 inclusive at all times