From:

Rebecca Marshall < RMarshall@ocwa.com>

Sent:

Sunday, February 11, 2018 1:09 PM

To: Cc:

Elaine Gunnell; Roxanne St. Germain

Subject:

Eric Nielson; Yvan Rondeau; Rebecca Marshall Temagami Operations Report - 4th Quarter 2017

Attachments:

Temagami Operations Report Oct to Dec 2017.pdf

Good Afternoon,

Please find attached: the fourth quarter operations Report for the Temagami North and South Water and Wastewater Systems.

### Regards,

Rebecca Marshall | Process and Compliance Technician | North Eastern Ontario Hub | Ontario Clean Water Agency | Tel: 705-648-4267 | Fax: 705-567-7974 | Email: rmarshall@ocwa.com

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# Temagami North & South Water & Wastewater Systems

### **OPERATIONAL OVERVIEW**

### **OPERATIONS & MAINTENANCE**

- All preventative maintenance completed as per the work management system
- All microbiological and chemical sampling completed as per O. Reg 170
- Temagami South WTP turbidity meter for filter #2 was repaired
- · Temagami South WTP PLC power supply was replaced

#### **INCIDENTS & COMPLAINTS**

#### **Temagami North**

Sodium adverse: result of 26.5 mg/L (limit = 20 mg/L) collected from a POE sample on October 10th.
 MOECC SAC and MOH were notified. Resample collected on October 18th (Na result = 23.7 mg/L).
 No further action required. AWQI# 137330

#### **Temagami South**

- Turbidity Adverse: Filter #2 turbidity analyzer stopped working at approximately 10:00 on Oct.12/2017. The analyzer was repaired and put back into service at approximately 15:00 on Oct.2/.17. The turbidity was not measured during this time. Water was directed to users from 10:04 to 11:00 and from 12:53 to 13:34 during the time frame that the turbidity analyzer was not working. The meter was not programmed to alarm if the bulb burnt out so the operator didn't discover the issue until checking the trends. The analyzer will now alarm if the bulb burns out. MOECC SAC and MOH notified. AWQI# 137009.
- Sodium adverse: result of 23.1 mg/L (limit = 20 mg/L) collected from a POE sample on October 10th.
   MOECC SAC and MOH were notified. Resample collected on October 18th (Na result = 19.4 mg/L).
   No further actions required. AWQI# 137332

### QUALITY & ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS) PROGRESS

 The Annual Management Review Meeting for the Temagami North and South Drinking Water Systems took place on December 8, 2017 and minutes have been emailed. This meeting is a requirement of the DWQMS.

### **MOECC Inspections & Findings**

- Temagami South Lagoon was inspected by the MOECC on August 2, 2017; the report was issued on December 21, 2017. The only required action was that a plan be in place to ensure that the seasonal discharges are in accordance with the effluent objectives in the Environmental Compliance Approval. This action is required because the TSS limits were exceeded during the 2016 spring discharge and the BOD objective was exceeded during the 2017 spring discharge. Plans are being made to remove the sludge from the lagoon in the upcoming spring and this will resolve the issue.
- Temagami North DWS and Temagami South DWS were both inspected on November 23<sup>rd</sup>, 2017 but neither report has been received yet.

### **HEALTH & SAFETY**

- The monthly Health and Safety inspections were completed. No issues to report at this time.
- Training: Slips, Trips & Falls, Winter/Defensive Driving and Asbestos Safety

#### **2017 CAPITAL PLAN SUMMARY**

**Temagami North Water Treatment Plant** 

Proposed Expenditure	Status
Clearwell inspection and cleaning if required (should be done every 5 years)	Deferred to 2018
Submersible Pump – to supply flow to the plant when the high lift pumps are unavailable	Deferred to 2018
Inspection of Plant Intake Structure	Approved – CWWF (spring 2018)
Ultrasonic level measurement device for the chemical tanks (process optimization)	Ready to install
Emergency Generator – load test (prescribed in CSA guidelines)	Completed
Chlorination system at the tower (low residuals in parts of the system – MOECC concerned)	Deferred to 2018
Replace Turbidity Meters (current meters are failing: compliance issue)	Deferred to 2018
Relocation of Post pH adjustment & Installation of pH meter (improve operation monitoring)	Deferred to 2018
Chemical Pump parts (repairs and maintenance)	Deferred to 2018
Installation of a SCADA system (improve operation, control, monitoring and reporting)	On hold
Generator – Annual Service	Completed

Temagami North Lagoon

Proposed Expenditure	Status
Lagoon clean out and upgrade to existing equipment (EXP working on lagoon optimization)	Waiting for Approval
Generator at Spruce Drive Pump Station (Annual Service)	Waiting for Approval

**Temagami South Water Treatment Plant** 

Proposed Expenditure	Status	
Replace Emergency Generator	In progress	
Inspection of Plant Intake Structure	Completed	
Ultrasonic level measurement device for the chemical tanks (process optimization)	Ready to install	
Relocation of Post pH adjustment & Installation of pH meter (improve operation monitoring)	Deferred to 2018	
Chemical Pump parts (repairs and maintenance)	Deferred to 2018	
Installation of a SCADA system (improve operation, control, monitoring and reporting)	On hold	
Generator – Annual Service	No longer needed	

**Temagami South Lagoon** 

Proposed Expenditure Status		
Sludge Removal	Approved – CWWF	
(yearly from south cell)	(spring 2018)	

### **CALL-BACK SUMMARY**

System	Call-Backs this Quarter	Total Call-Backs to Date	
Temagami North WTP	7	31	
Temagami North Lagoon	2	19	
Temagami South WTP	5	21	
Temagami South Lagoon	1	1	
Total	10	57	

Please see Appendix A for Call-Back details

# DRINKING WATER SYSTEM PERFORMANCE SUMMARY

Temagami North Drinking Water System	Oct	Nov	Dec	Compliance
Maximum Daily Raw Flow Volume (m³/d)	272	528*	198	Max 460
Maximum Peak Raw Flow Rate (L/min)	435	452.4	409	Max 456
Maximum Treated Flow (m³/d)	242	316	192	Max 328
Total Treated Flow (m³)	3,878	4,033	4,352	
Free Chlorine Residual from analyzer (mg/L)	1.22 to 1.65	1.18 to 1.78	1.22 to 1.71	Min 0.85
Distribution Chlorine Residual (mg/L)	0.15 to 1.41	0.39 to 1.20	0.36 to 1.42	Min 0.05
Filter 1: % of time turbidity was < 0.3 NTU	100	100	100	Min 95%
Filter 2: % of time turbidity was <0.3 NTU	100	100	100	Min 95%

<sup>\*</sup>high flows (Nov. 27) due to increased back washes because of high turbidity

Temagami South Drinking Water System	Oct	Nov	Dec	Compliance
Maximum Daily Raw Flow Volume (m³/d)	273	405	277	Max 1,005
Maximum Peak Raw Flow Rate (L/min)	615	641	606	Max 700
Maximum Treated Flow (m³/d)	266	344	266	Max 950
Total Treated Flow (m <sup>3</sup> /d)	4,484	4,832	5,742	-
Free chlorine residual from analyzer (mg/L)	1.18 to 1.94	1.13 to 1.79	1.16 to 2.68	Min 1.00
Distribution chlorine residual (mg/L)	0.25 to 1.69	0.43 to 1.53	0.54 to 1.50	Min 0.05
Filter 2: % of time turbidity < 0.3 NTU	99.9	100	100	Min 95%

# WASTE WATER TREATMENT SYSTEM PERFORMANCE SUMMARY

Temagami North Lagoon	Oct	Nov	Dec	Compliance (ECA)
AS PER 1	HE ENVIRONMENT	AL CERTIFICATE O	F APPROVAL	
Average Daily Flow - Influent (m³/day)	194	301	319	Max 390 (annual average
Max Daily Flow (m <sup>3</sup> /day)	295	825	972	Max 1,200/day
Total Volume Treated (m³)	6,004	9,018	9,902	-
cBOD₅	2.1	1.8	1.8	25 mg/L (annual average)
Total Suspended Solids	2	<1	<1	25 mg/L (annual average,
Total Phosphorous	0.021	0.031	0.048	1.0 mg/L (annual average
Total Ammonia Nitrogen (mg/L)	2.55	2.06	2.28	-
рН	6.91 to 7.71	7.3 to 7.53	7.4 to 7.5	6.0 to 9.5 (inclusive)
Escherichia coli (E. coli) (cfu/100mL)	20	1000	2700	Geometric Mean of 200 (objective)
AS PER WAS	STEWATER SYSTEM	EFFLUENT REGUL	ATIONS (WSER)	
cBOD₅	2.1	1.8	1.8	25 mg/L (quarterly average
Total Suspended Solids	2	0.5	0.5	25 mg/L (quarterly average

Temagami South Lagoon	Oct	Nov	Dec	Compliance (ECA)
AS PER THE E	NVIRONMENTA	L CERTIFICATE (	OF APPROVAL	
Average Daily Flow - Influent (m³/day)	113	131	151	Annual Average of 232
Total Volume Treated (m³)	3,498	3,922	4,677	-
Discharge Flow (m³/day)	1,041	1,041		Max 2877.12
BOD5 (mg/L)	10.2	2.75		25 mg/L (seasonal average)
Total Suspended Solids (mg/L)	16.8	6.75		25 mg/L (seasonal average)
Total Phosphorous (mg/L)	0.177	0.106		1.0 mg/L (seasonal average)
Total Ammonia Nitrogen (mg/L)	2.06	3.28		-
F	Prior to Disch	arge Samplin	g	
Total Phosphorous (mg/L)	0.139			-
Hydrogen Sulphide (mg/L)	<0.02			-
Escherichia coli (E. coli) (cfu/100mL)	<5			-
As per Wastew	ATER SYSTEM	FFLUENT REGU	LATIONS (WSE	R)
cBOD5	9	2.4		25 mg/L (annual average)
Total Suspended Solids (TSS)	16.8	6.75		25 mg/L (annual average)
rotal suspended Solids (155)	70.8	6.75		25 mg/L (annuai averag

Began discharging on October 16<sup>th</sup> and ended on November 6<sup>th</sup>

# **APPENDIX A**

**CALL BACK REPORTS** 



344624: High/Low Clearwell Level 6028

Asset:

Location: 6028

Temagami South Water Treatment Plant

Page Time:	05/05/2017 06:30 PM
Arrive time:	05/05/2017 07:25 PM
Leave time:	05/05/2017 07:35 PM
Finish Time:	12/18/2017 03:00 PM
Report Date:	5/5/17
Reported By:	Claude Mongrain
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	



506545: Call in High Level alarm Tem N WTP 6030

Asset:

Location: 6030-WTTM

6030, Temagami North WTP

Page Time:	10/10/2017 04:30 AM
Arrive time:	10/10/2017 02:45 PM
Leave time:	10/10/2017 05:15 AM
Finish Time:	10/11/2017 03:49 PM
Report Date:	10/11/17
Reported By:	Chris Barkhouse
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	CLOSE
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

Actual Labor				
Task ID	Craft	Labor	Regular Hours	Premium Hours
tra pour le communication de la communication	INSTTECH	Chris Barkhouse	00:00	04:00

Log			THE RESIDENCE OF THE PARTY OF T
Date	Created By	Description	
10/11/17	Chris Barkhouse		

Respond to Hi/Lo level alarm. Came in to plant and reviewed trends on Wonderware and confirmed it was not a low level alarm and low lift pumps were off. Alarm was now off and plant was not in immediate danger. Informed operator to look at when there.



509653: call plant shut 6030 wtp

Asset:

Location: 6030-WTTM-P

6030, Temagami North WTP, Process

Page Time:	10/29/2017 01:45 PM
Arrive time:	10/29/2017 02:45 PM
Leave time:	10/29/2017 03:00 PM
Finish Time:	10/29/2017 04:00 PM
Report Date:	10/30/17
Reported By:	Claude Mongrain
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

Task ID	Craft	Labor	Regular Hours	Premium Hours
	MECHANIC	Claude Mongrain	00:00	04:00

Date	Created By	Description
10/30/17	Claude Mongrain	call plant shut down



541483: Call for chem pump Fail Tem North WTP

Asset:

Location: 6030-WTTM

6030, Temagami North WTP

Page Time:	11/13/2017 06:45 PM
Arrive time:	11/13/2017 07:15 PM
Leave time:	11/13/2017 08:00 PM
Finish Time:	11/13/2017 08:00 PM
Report Date:	11/14/17
Reported By:	Bryce Logan
Supervisor:	

	- · · · · · · · · · · · · · · · · · · ·
Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

Actual Labor	MINING OF SEALING IN SUIT OF	THE PARTY OF THE P		
Task ID	Craft	Labor	Regular Hours	Premium Hours
La Califferna Califfer	INSTTECH	Bryce Logan	00:00	08:00

Date	Created By	Description
11/14/17	Bryce Logan	Chem pump Fall
Call for chem pump Fail this probler	n was caused due to having to remove power supply to ten	nporarily get Temagami south plant making water due to its power supply failure.
11/14/17	Bryce Logan	pump fail

1/18/18 09:28:01

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543073: call temagami north low clear well 6030

Asset: 0000115717

ANALYZER TURBIDITY FILTER 02

Location: 6030-WTTM-P-PC- 6030, Temagami North WTP, Process, Process Controls, Filtration FILT

Page Time:	11/27/2017 04:45 PM
Arrive time:	11/27/2017 05:15 PM
Leave time:	11/27/2017 05:30 PM
Finish Time:	11/27/2017 05:45 PM
Report Date:	11/28/17
Reported By:	Claude Mongrain
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

Actual Labor				The second secon	
Task ID	Craft	Labor	Regular Hours	Premium Hours	
	MECHANIC	Claude Mongrain	00:00	04:00	

og			
Date	Created By	Description	
11/28/17	Claude Mongrain	call low clear well	



543084: Low Tower Alarm

Asset:

Location: 6028-WTTM

6028, Temagami South WTP

Page Time:	11/25/2017 03:30 AM
Arrive time:	11/25/2017 04:15 AM
Leave time:	11/25/2017 05:00 AM
Finish Time:	11/25/2017 05:00 AM
Report Date:	11/28/17
Reported By:	Bryce Logan
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6028W-000

Actual Labor			E CLESS OF CHICAGO CANADA	REPUBLIC RESIDENCE
Task ID	Craft	Labor	Regular Hours	Premium Hours
	INSTTECH	Bryce Logan	00:00	04:00

Log		
Date	Created By	Description
11/28/17	Bryce Logan	l ow Tower Alarm

Call for low tower alarm. Found the both low lifts were locked out on the PLC since Thursday. reset low lifts and everything started back up and is running properly. Looks like pumps tripped after the divers did their inspection when they turned the lowlifts off and locked them out.

1/18/18 09:28:01

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563647: call low cl2 tem. south wtp 6028

Asset: 0000277351

due to faulty cl17 dip to aprox. 0.8 for 2 minute

ANALYZER CHLORINE 01 RESIDUAL TREATED

Location: 6028-WTTM-P-PC 6028, Temagami South WTP, Process, Process Controls

Page Time:	11/30/2017 04:00 AM
Arrive time:	11/30/2017 04:05 AM
Leave time:	11/30/2017 04:15 AM
Finish Time:	11/30/2017 04:30 AM
Report Date:	12/1/17
Reported By:	Claude Mongrain
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6028W-000

Task ID	Craft	Labor	Regular Hours	Premium Hours
	MECHANIC	Claude Mongrain	00:00	04:00
Date	Created By		Description	



564801: call low clear well tem. north wtp 6030

Asset: 0000115971

TANK CLEAR WELL 02

Location: 6030-WTTM-P-SR 6030, Temagami North WTP, Process, Storage

	The state of the s
Page Time:	12/01/2017 12:00 AM
Arrive time:	12/01/2017 01:05 AM
Leave time:	12/01/2017 12:30 AM
Finish Time:	12/01/2017 12:30 AM
Report Date:	12/1/17
Reported By:	Claude Mongrain
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	СОМР
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

Actual Labor				
Task ID	Craft	Labor	Regular Hours	Premium Hours
	MECHANIC	Claude Mongrain	00:00	04:00

Date	Created By	Description	
12/1/17	Claude Mongrain	call low clear well	



576667: call low cl2 tem, south WTP 6028

Asset: 0000277351

check from wonderware dip for 2 minute and back up high lift off

ANALYZER CHLORINE 01 RESIDUAL TREATED

Location: 6028-WTTM-P-PC 6028, Temagami South WTP, Process, Process Controls

Page Time:	12/01/2017 09:45 PM
Arrive time:	12/01/2017 09:45 PM
Leave time:	12/01/2017 10:00 PM
Finish Time:	12/01/2017 10:00 PM
Report Date:	12/3/17
Reported By:	Claude Mongrain
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6028W-000

Task ID	Craft	Labor	Regular Hours	Premium Hours
	MECHANIC	Claude Mongrain	00:00	04:00
		THE RESERVE OF THE PERSON OF T		AND DESCRIPTION OF THE PARTY OF
Date	Created By		Description	Appropriate the same of the sa



577018: call low cl2 temagami wtp6028

Asset: 0000277351

ANALYZER CHLORINE 01 RESIDUAL TREATED Location: 6028-WTTM-P-PC 6028, Temagami South WTP, Process, Process Controls

Page Time:	12/03/2017 10:00 PM
Arrive time:	12/03/2017 10:05 PM
Leave time:	12/03/2017 10:10 PM
Finish Time:	12/03/2017 10:20 PM
Report Date:	12/5/17
Reported By:	Claude Mongrain
Supervisor:	E 100 2 III 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6028W-000

Task ID	Craft	Labor	Regular Hours	Premium Hours
	MECHANIC	Claude Mongrain	00:00	04:00

Date	Created By	Description	
12/5/17	Claude Mongrain	call low ci2	

1/18/18 09:28:01

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577475: low or high clearwell level

Asset:

Location: 6030-WTTM-P-SR 6030, Temagami North WTP, Process, Storage

Page Time:	12/07/2017 12:15 AM
Arrive time:	12/07/2017 01:30 AM
Leave time:	12/07/2017 02:30 AM
Finish Time:	12/07/2017 02:30 AM
Report Date:	12/7/17
Reported By:	Patrick Dinel
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

Created By	Description
W N	high or low chlear well alarm
	Patrick Dinel



577717: High or low clearwell Tem. WTP

Asset: 0000115712

METER LEVEL CLEARWELL 02- LIT02

Location: 6030-WTTM-P-PC 6030, Temagami North WTP, Process, Process Controls

Page Time:	12/07/2017 12:15 AM
Arrive time:	12/07/2017 01:30 AM
Leave time:	12/07/2017 02:30 AM
Finish Time:	12/07/2017 02:30 AM
Report Date:	12/8/17
Reported By:	Patrick Dinel
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6030W-000

ctual Labor			THE RESERVE OF THE PARTY OF THE PARTY.	DESIENTED AND STREET
Task ID	Craft	Labor	Regular Hours	Premium Hours
1-61	OPERATOR	Patrick Dinel	00:00	04:00

Date	Created By	Description	
12/8/17	Patrick Dinel	High or low clear well alarm	

respond to High or low clear well alarm check well level found level was high checked set points reset alarm



580036: High Level alarm 6029

Asset:

Location: 6029-WWSP

6029, Temagami North Lagoon Spruce Pumping Station

Page Time:	12/21/2017 11:15 PM
Arrive time:	
Leave time:	12/22/2017 12:30 AM
Finish Time:	12/22/2017 12:30 AM
Report Date:	12/22/17
Reported By:	Bryce Logan
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM60295-000

Actual Labor	Control of the Contro		Ballian mendid mendan	establing allowing the posterior
Task ID	Craft	Labor	Regular Hours	Premium Hours
	INSTTECH	Bryce Logan	00:00	04:00

g			
Date	Created By	Description	
12/22/17	Bryce Logan	Call for high level	

1/18/18 09:28:01 13 / 15



580424: High Level Alarm 5997

Asset:

Location: 5997-WLTM

5997, Temagami South Lagoon

Page Time:	12/25/2017 03:45 AM
Arrive time:	12/25/2017 04:30 AM
Leave time:	12/25/2017 06:00 AM
Finish Time:	12/25/2017 06:00 AM
Report Date:	12/27/17
Reported By:	Bryce Logan
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	COMP
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM5997S-000

ctual Labor				
Task ID	Craft	Labor	Regular Hours	Premium Hours
	INSTTECH	Bryce Logan	00:00	08:00

Date	Created By	Description
12/27/17	Bryce Logan	Call from temagami shores SPS

1/18/18 09:28:01

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580430: High Level Alarm 6029

Asset:

Location: 6029-WWSP

6029, Temagami North Lagoon Spruce Pumping Station

Page Time:	12/26/2017 04:45 AM
Arrive time:	12/26/2017 05:30 AM
Leave time:	12/26/2017 06:45 AM
Finish Time:	12/26/2017 06:45 AM
Report Date:	12/27/17
Reported By:	Bryce Logan
Supervisor:	

Site:	OCWASITE
Priority:	5
Work Type:	CALL
Status:	СОМР
Classification	REFURBISH/REPLACE
GL Account:	TEMAGM6029S-000

Actual Labor				The second second second second
Task ID	Craft	Labor	Regular Hours	Premium Hours
	INSTTECH	Bryce Logan	00:00	08:00

Date	Created By	Description
12/27/17	Bryce Logan	High Level Alarm