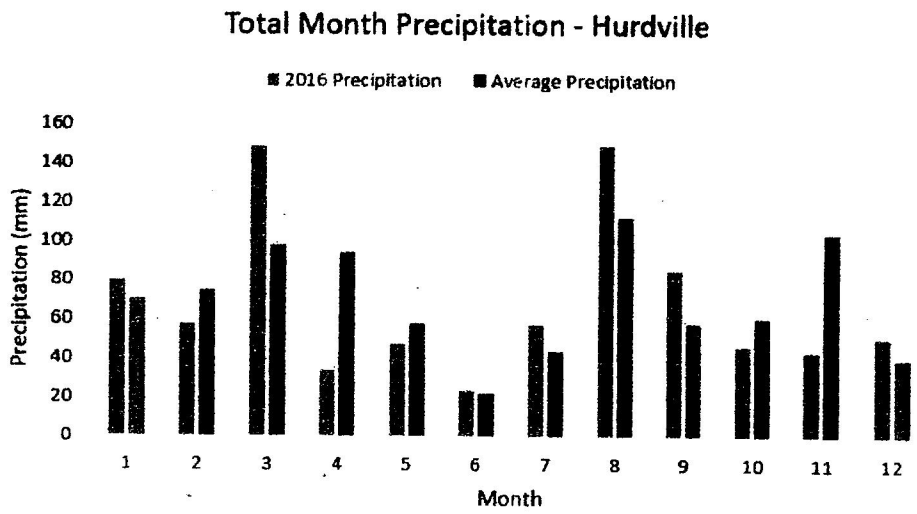
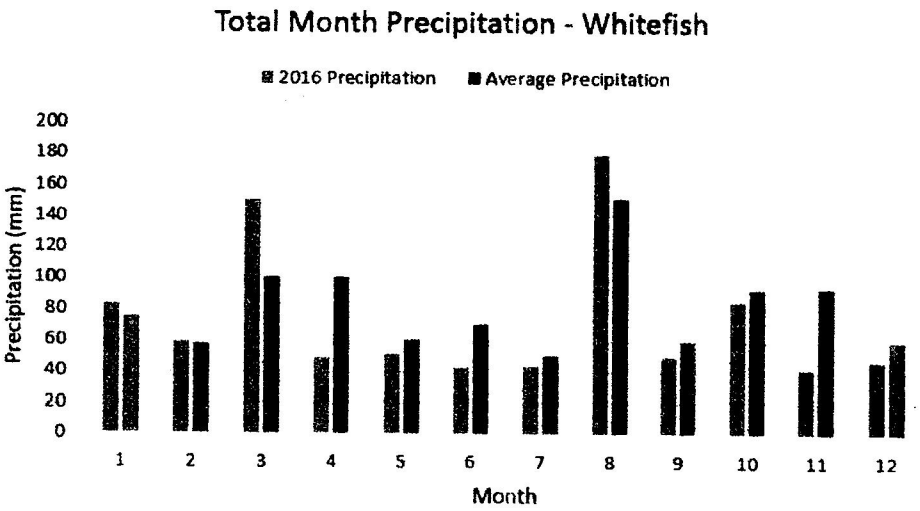
Seguin Watershed Conditions Review, Watershed Communications and BGL Dams

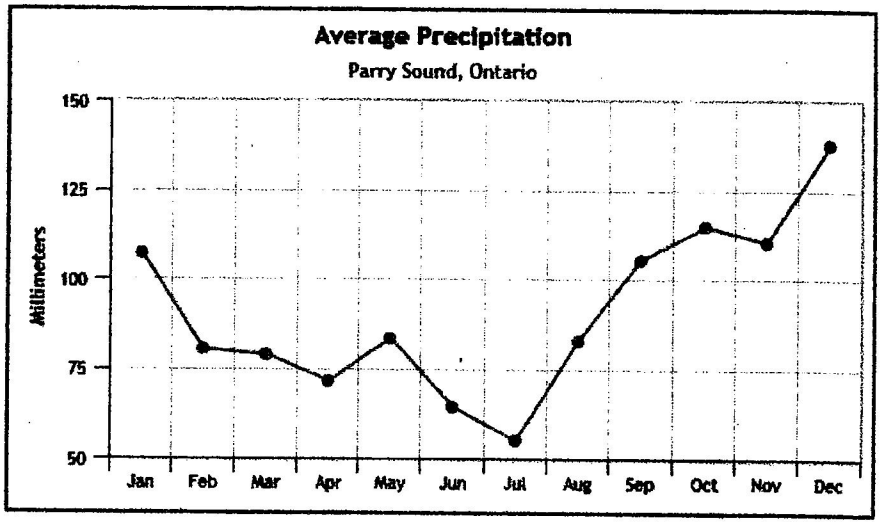
SAC Meeting – May 30, 2017

Bracebridge Generation

2016 Precipitation

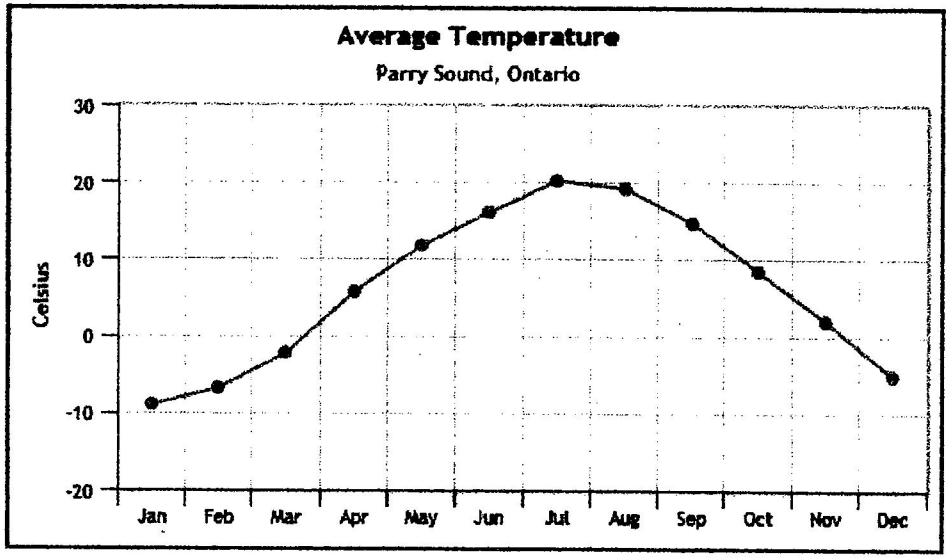




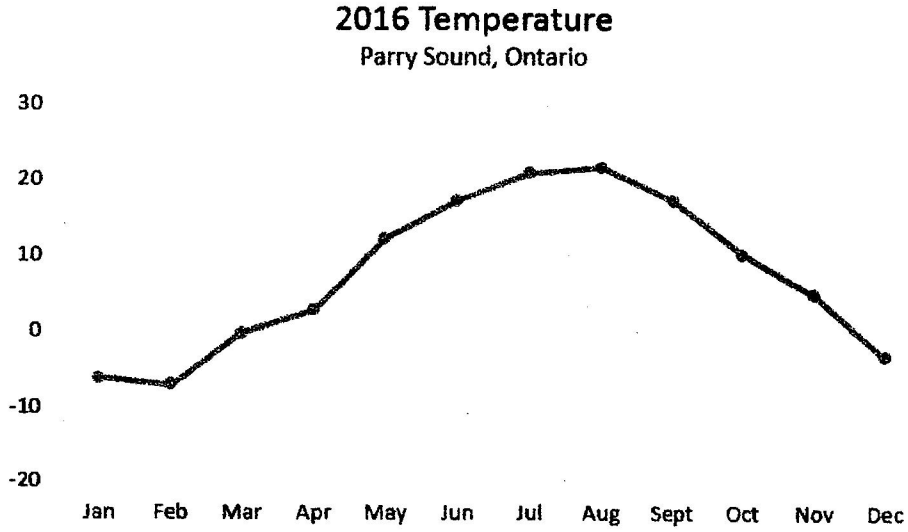


http://www.weatherbase.com/weather/weather.php3?s=133827&cityname=Parry-Sound-Ontario-Canada&units=metric

2016 Temperature

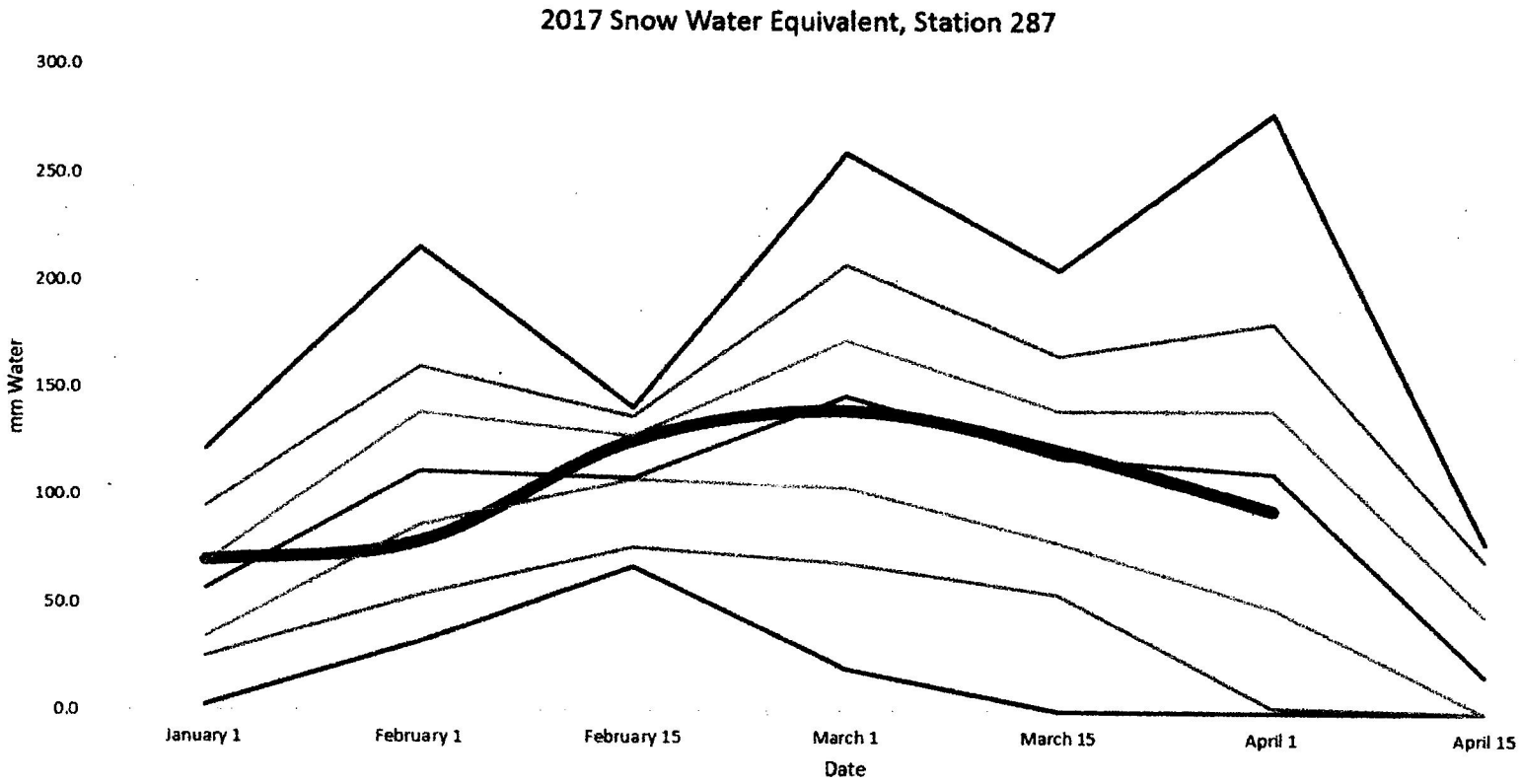


http://www.weatherbase.com/weather/weather.php3?s=133827&cityname=Parry-Sound-Ontario-Canada&units=metric



http://climate.weather.gc.ca/climate_data/daily_data_e.html?StationID=32128&timeframe=2&StartYear=1840&EndYear=2017&type=line&MeasTypeID=meantemp&Day=23&Year=2016&Month=12

Snow – 2016/2017



2016 Weather Review

- Mild winter in 2016
- Early start to freshet in 2016
- Fair weather summer with below average precipitation resulting in high evaporation rates
- Dry fall

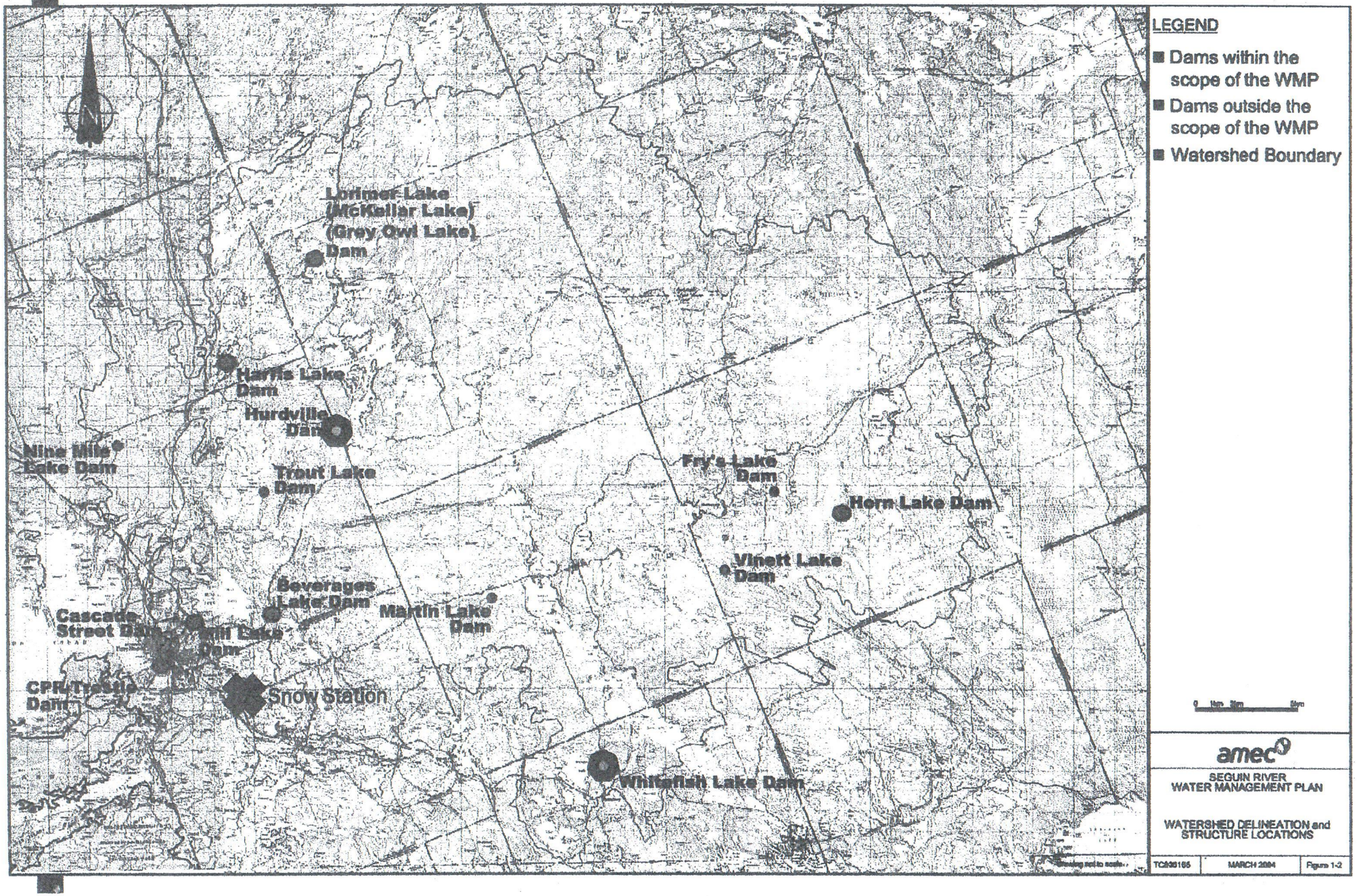
2017 Weather Review

- Significant February rain event and thaw followed by below average temperatures
- Early start to freshet in 2017

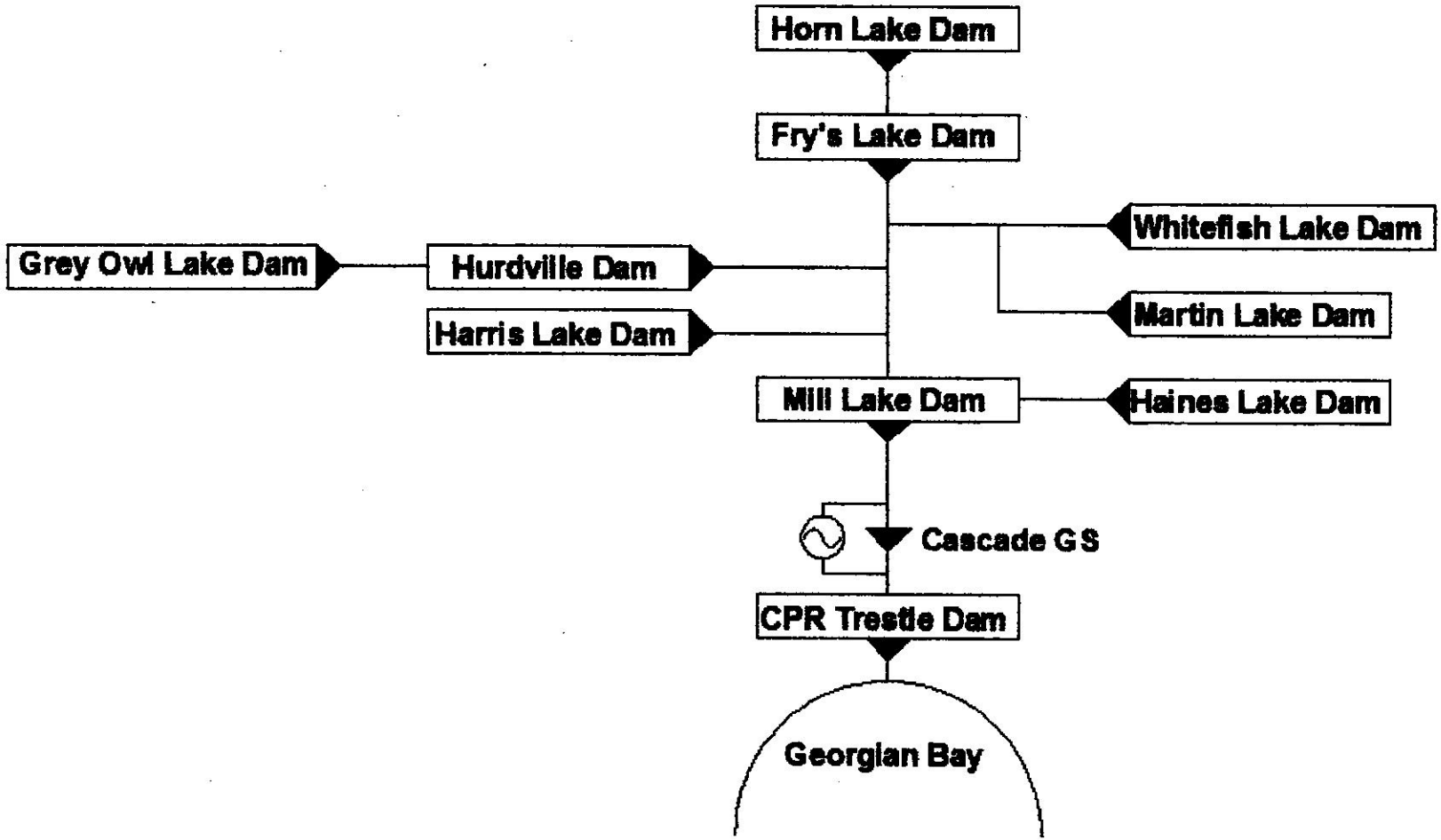
Watershed MNRF Bulletins 2017

February 23rd	Water Safety
March 3rd	Flood Outlook
March 13th	Water Safety
March 20th	Water Safety
March 27th	Water Safety
April 3rd	Flood Outlook
April 7th	Flood Watch
April 12th	Flood Warning
April 15th	Flood Warning
April 19th	Flood Warning
April 24th	Flood Warning
April 28th	Flood Warning
May 4th	Flood Watch
May 11th	Water Safety
May 16th	Water Safety

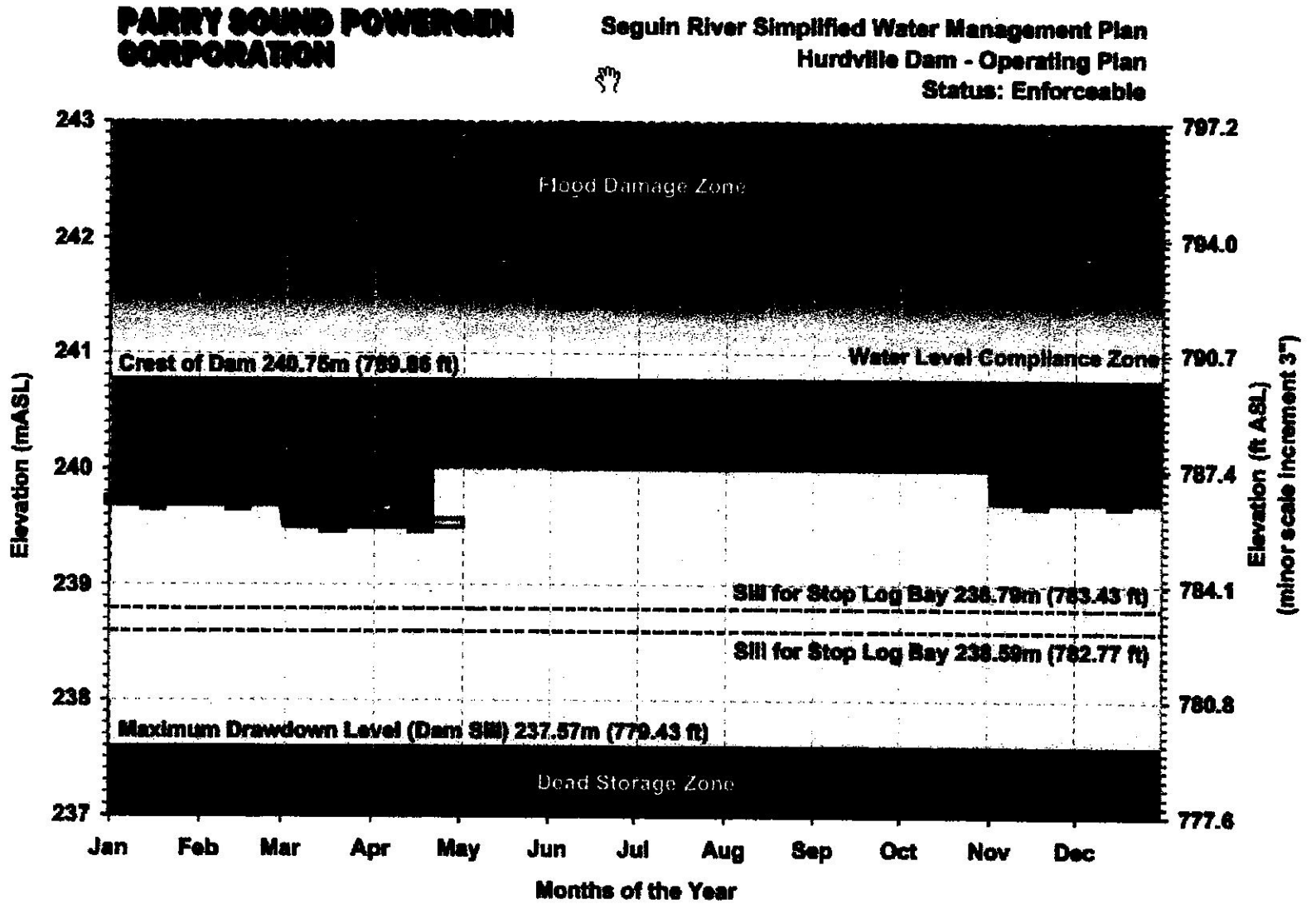
Seguin River Watershed



Seguin River Control Structures



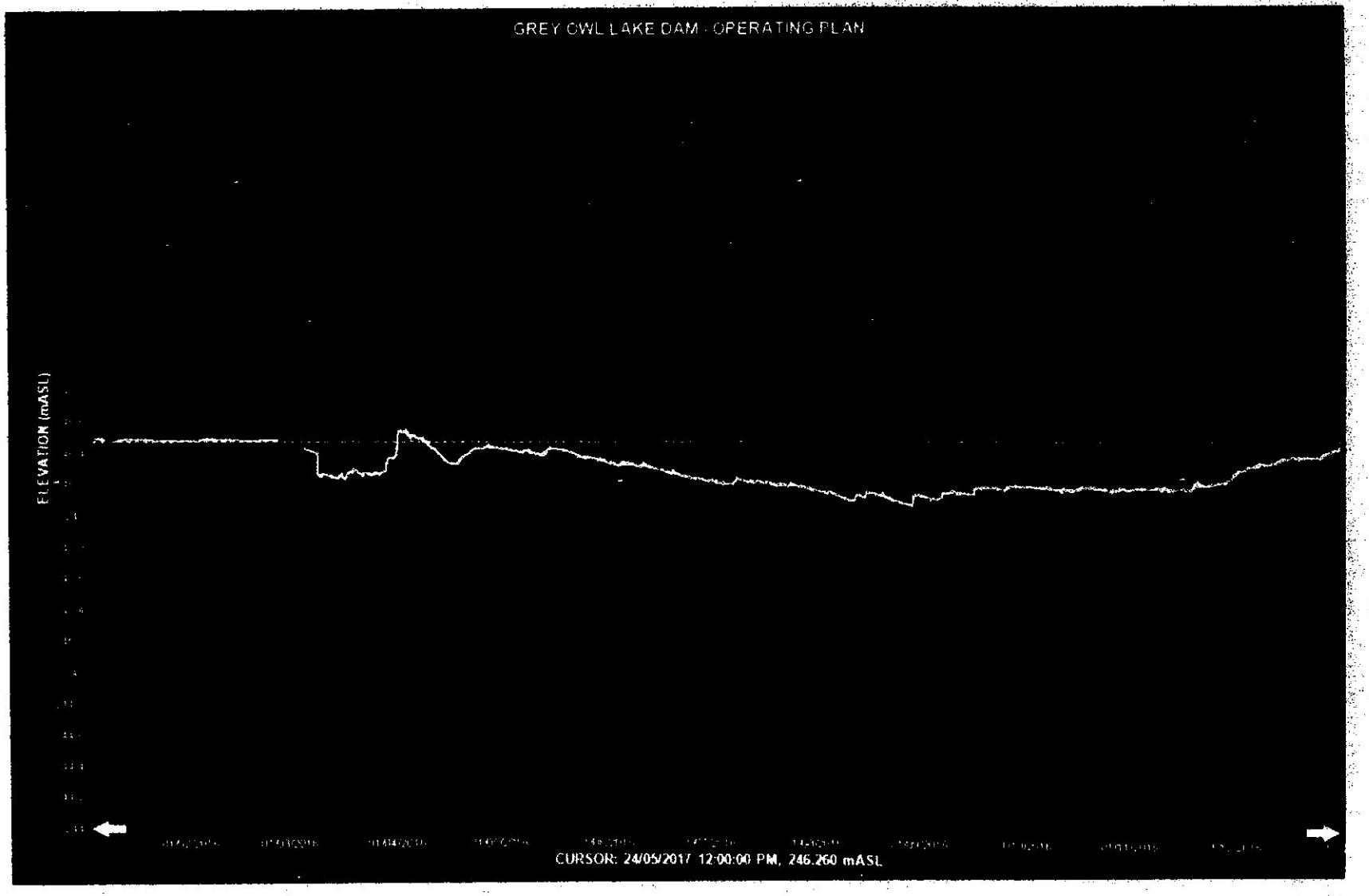
Hurdville Dam Operating Plan



Operating Plan documented May 2009
Flood Damage Zone delineation not currently available

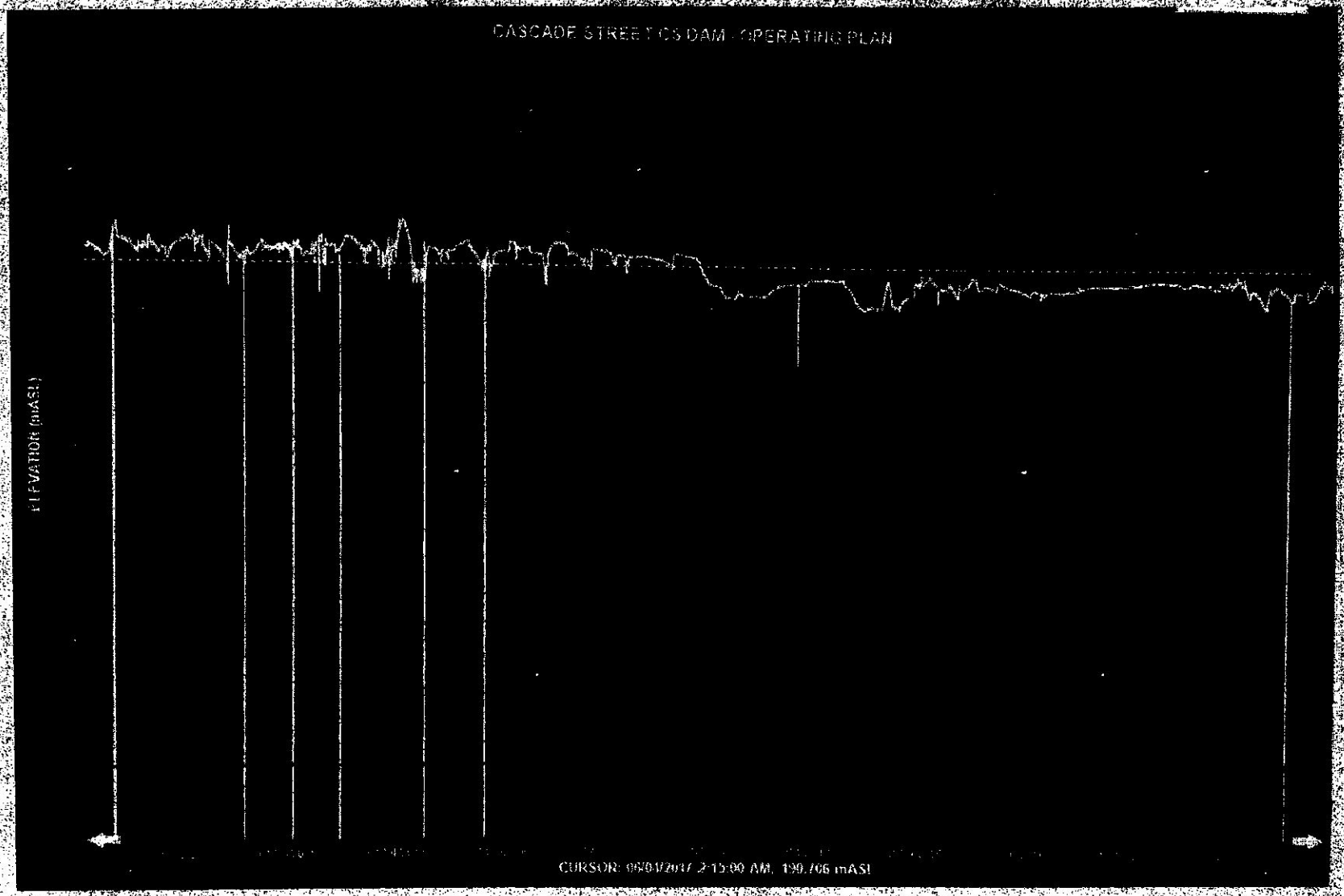
Grey Owl Lake Dam 2016

- Datum 246.47
- Low water complaints appear around -.35 m from Datum (246.12) with boat passage between lakes and access to the boat launch from opposite lake



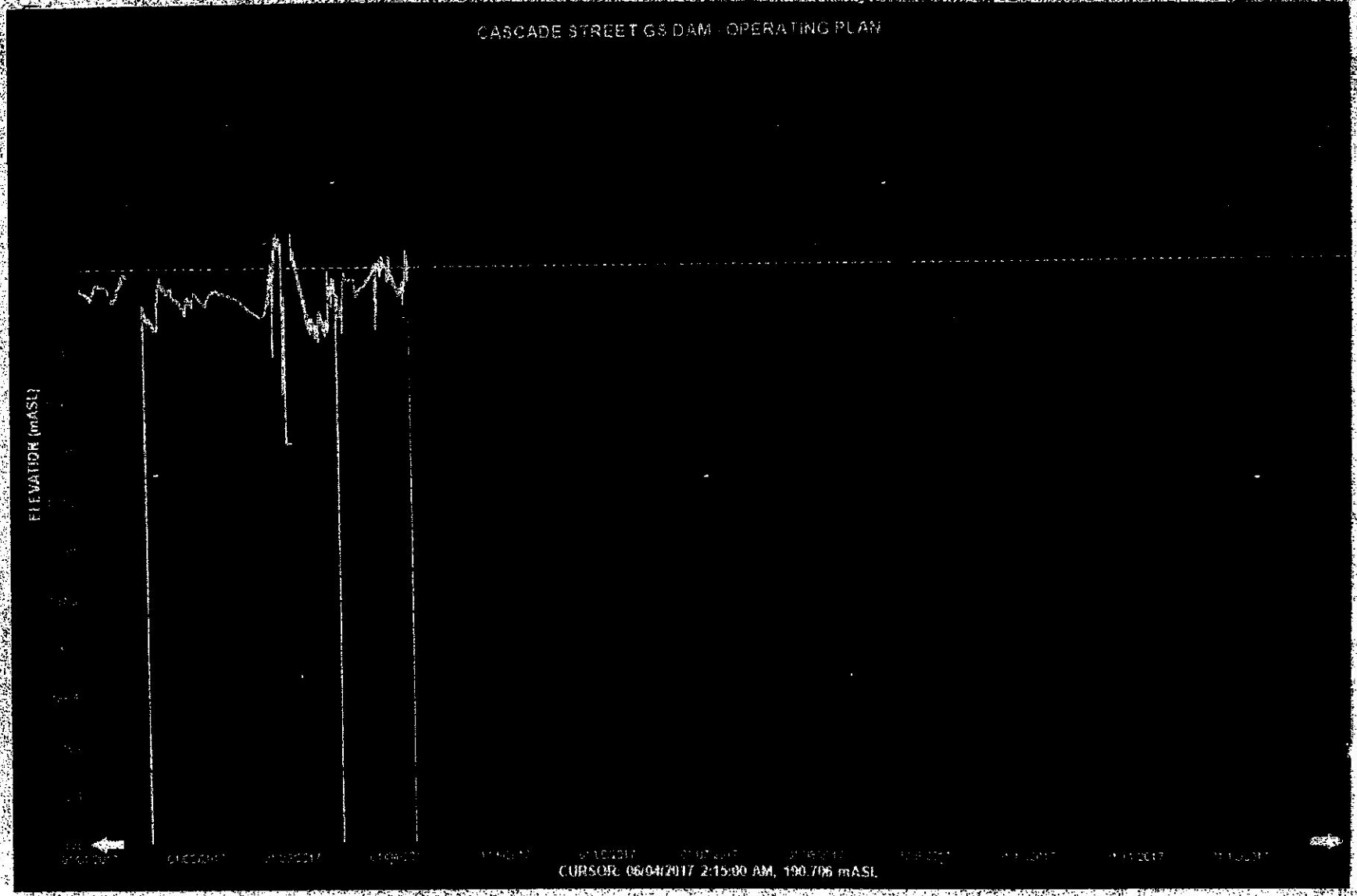
Cascade Street 2016

- Datum 192.54
- Winter event following precipitation and flow/level balancing
- Spring event with dam fully operated
- Low water complaints in August from high evaporation event



Cascade Street 2017

- Datum 192.54
- Spring events with dam fully operated
- Low water complaints in August from high evaporation event



Watershed work

Cascade GS
- generating station redevelopment
- dam safety work
- new RX3000 gsm gauge
- new stoplogs
- stoplog setting calculator

CPR Dam
- new stoplogs
- new public safety signs
- temporary repair to nosing
- new RX3000 gsm gauge
- stoplog setting calculator

Fry's Lake Dam
- new stoplogs
- new public safety signs
- new RX3000 gsm gauge
- stoplog setting calculator

Grey Owl Lake Dam
- new U30 gsm gauge
- new public safety signs
- stoplog setting calculator

Haines Lake Dam
- new stoplogs
- new public safety signs
- new U30 gsm gauge
- erosion protection
- stoplog setting calculator

Harris Lake Dam
- new public safety signs
- new U30 gsm gauge
- stoplog setting calculator

Horn Lake Dam
- new public safety signs
- new U30 gsm gauge
- stoplog setting calculator

Hurdville Dam
- new stoplogs
- new public safety signs
- new RX3000 gsm gauge
- dam pier capping and new service gains
- new dam deck and gantry
- safety boom
- stoplog setting calculator

Martin Lake Dam
- new public safety signs
- new RX3000 gsm gauge
- stoplog setting calculator

Mill Lake Dam
- new stoplogs
- new public safety signs
- minor dam repairs/protection
- railing repairs
- new U30 gsm gauge
- stoplog setting calculator

Whitefish Lake Dam
- new public safety signs
- new U30 gsm gauge

BRACEBRIDGE GENERATION LTD.

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Bracebridge, ON
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FX: 705.645.4667
www.bracebridgegeneration.com

Meeting Information
Subject/Title: Seguin River SWMP SAC meeting minutes
Date/Time: May 30, 2017 5:00 pm
Location: Bobby Orr Community Centre, 1970 – 1972 Stanley Cup Hall

Meeting Participants
SAC Chair: Paul Borneman
In Attendance: SAC: Paul Borneman, Stevan McCallum, Daniella Baker, Phil Boyd, Henry Beier, Steve Stone MNRF: BGL: Vince Kulchycki, Bryan Ingram Guest:
Regrets:
Recorder: Bryan Ingram / Vince Kulchycki

Item No.

1 **Introductions**

2 **Questions or comments on SAC Terms of Reference**

a. Questions arose regarding member term. It was noted that replacement could occur at any time if member cannot further perform duties on the SAC committee. Some member terms may be extended. One change to page 3 of the TOR.

"Members shall be appointed to the SAC for a term of three to five years, rotating two at a time."

Was amended to:

"Members shall be appointed to the SAC for a ***preferred*** term of three to five years, rotating two at a time."

b. Question arose regarding MNRF involvement in the SAC. Bryan Ingram noted that MNRF sent regrets for this particular meeting however had expressed interest in attending meetings
c. Question arose regarding training provided by BGL for SAC members. Bryan Ingram noted that the initial meeting presentation by BGL will contain concepts that will assist the SAC in understanding water management. Further review of the Seguin River Simplified Water Management Plan as provided electronically and on paper would provide the basis of training for the committee.

3 Approve the SAC Terms of Reference

a. Henry Beier moved for approving the TOR
b. Phil Boyd seconded

4 Chair elections

a. Stevan McCallum nominated Paul Borneman as Chair
    i. Committee voted and candidate elected
b. Paul Borneman nominated Daniella Baker as Vise Chair
    i. Committee voted and candidate elected

5 Presentation

Bryan Ingram provided presentation on the year in review to the SAC committee (SAC-30-May-2017.pdf) *Attached.

6 Questions and Answers

a. Suggestion to utilize flood indicators similar to fire warnings
b. Suggestion to utilize volunteers to collect data.
c. SAC asked BG to get MNR to make the bulletins more clear.
d. Communication noted to be an important aspect of consultation
    i. MNRF responsibilities
    ii. BGL new twitter and facebook page
e. Suggestion for BG to Provide documentation regarding proper water intake construction and protection.
f. Suggestion for BG to Provide info on dock protections.
g. Suggestion for BG to Provide notification to residents of drawdowns via social media and website.
h. Paul Borneman noted historic challenges with financing of infrastructure improvements in the watershed for Parry Sound PowerGen. The utility had explored divesting of infrastructure and the exploration of utilizing a conservation authority to own and manage the infrastructure.
i. Vince Kulchycki, these concerns were echoed by Bracebridge Generation and we have been looking at divesting this infrastructure as well as they no longer are used for their original purpose of storing water for generation, but the primary revenue of the dam is recreational activities and income to townships thru taxes.
j. Phil Boyd motion to adjourn, seconded by Henry Beier.

SRSWMP – AMMENDMENT 1-2017-09

Regarding: Seguin River Simplified Water Management Plan – Amendment

Date: September 1, 2017

Purpose: To incorporate the rebuilt Cascade Street Generation Station into the Seguin River Simplified Water Management Plan

Submitted by: Vince Kulchycki, Chief Operating Officer, Lakeland Holding Ltd.
Bryan Ingram, Manager of Operations, Bracebridge Generation

Scope: This document shall be inserted after the cover page and before the report number page to serve as a notice to changes in the document.

Clarification: In July 2014, Lakeland Holding and Parry Sound Holdco formally merged along with its subsidiaries; Therefore, in this document, Bracebridge Generation Ltd, replaces Parry Sound PowerGen Corporation as the owner of the generation station and operator of the dam structures.

Amendments: (Numbers correspond to table of contents numbering)

TOC: Revised to suit amendment

1.6: Remove this section in its entirety. The environmental assessment is complete.

2.2: In the second Paragraph, last sentence, will be changed from: "two operational turbines generating 1.2 MW of power", will be corrected to "one operational turbine generating 3.1 MW of power".

8.1: New page describing Cascade Street Dam and Generating Station location, characteristics and operational strategies and conditions

8.1: Revised Mill Lake Dam operating plan to match the text in table 8-1 and original plan intent

TABLE OF CONTENTS

5) Document resource values and environmental, social and economic issues within the zones of influence of the water control structures;

6) Establish whether a change in water control structure operation (water levels and discharge flows) would have a net environmental, social and/or economic benefit;

7) Preparation of a consultation summary report.

As noted previously, the system is, and has always been, operated based on professional judgement and/or operator experience. As such, and as further documented in Section 3, little information specific to water level and flow management has been formally recorded. This planning effort, therefore, provides the opportunity to understand, formalize and document the current operational plan in a manner consistent with Plan Objective #1.

2.2 HYDROTECHNICAL FACILITIES

Hydroelectric power generation has occurred on the Seguin River since the late 1800's and there are presently fourteen (14) water control structures within the Seguin River Watershed. MNR and the Town of Parry Sound each own one (1) of these structures. PowerGen owns the remaining twelve (12), of which two (2) are not operated, nine (9) are operated as multi-use reservoirs and one (1) is a generating station.

The Cascade Street Generating Station (GS), a hydroelectric-based facility, is located within the Town of Parry Sound approximately one (1) kilometre upstream from the mouth of the Seguin River. It is located on Lot 28, Concession III, Township of McDougall, now in the Town of Parry Sound, and is owned by Parry Sound PowerGen Corporation (PowerGen), a wholly owned subsidiary company of Parry Sound Hydro Corporation. The Cascade Street GS is the only hydroelectric power generating station in the watershed. No significant tributaries enter below the generating station, and as such, effectively all runoff from the Seguin River Watershed must pass through the generating station or be bypassed through the associated dam structure. The Cascade Street GS currently has one operational turbine generating 3.1 MW of power.

As well as the Cascade Street GS and the associated dam, PowerGen owns and operates eleven (11) additional water control structures in the Seguin River Watershed, for a total of twelve (12). Operations of the water control structures, with the exception of the Nine Mile Lake Dam and the Trout Lake Dam, subsequently have an influence on the hydropower generation at the Cascade Street GS and are included in the SRSWMP.

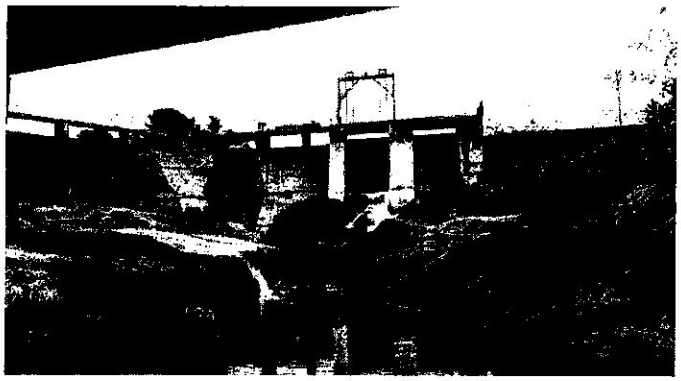
The CPR Trestle Dam, owned by the Town of Parry Sound, controls the upstream waterbody known as the Mill Pond located within the Town itself. The dam is operated to largely maintain stable water levels in Mill Pond and moderate floodwaters. The stability of Mill Pond water levels is an important consideration in the turbine submergence requirements at the Cascade Street GS. As such, it is included within the scope of the SRSWMP.

Accordingly, a total of eleven (11) dams (summarized in Table 2-1) have been defined within the scope of the SRSWMP. These dams have all been included within the scope given their potential to provide water storage for hydropower production purposes, although not all may be effectively operated for that purpose at present. As well, by including all operated dams within the scope of the SRSWMP, a mechanism for documentation of the consistent long-term dam operations and the resultant existing lake conditions is ensured.

One additional water control structure, the Vinett Lake Dam, is located within the Seguin River Watershed. The Vinett Lake Dam, owned by the Ontario Ministry of Natural Resources, is located in a headwater area in the eastern portion of the watershed and used for maintenance/ enhancement of waterfowl habitat. This dam is not included in the scope of the SRSWMP.

All of the dams located within the Seguin River Watershed are illustrated on Figure 1-2. Details regarding the location, infrastructure, and operation of each of the dams are provided in the Scoping Report in Appendix C of this report (the three dams that are not controlled for flow management at the Cascade Street GS and therefore not included in the SRSWMP are summarized in Table 2-2).

Cascade Street Dam and Generating Station



Watershed Location – This facility located within the Town of Parry Sound and has an upstream drainage area of 1034 km^2.

Structural Characteristics – The Cascade Street facility, owned by Bracebridge Generation Limited, consists of a dam and a powerhouse. It was originally constructed in 1919 and the intake and powerhouse was redeveloped in 2017 to produce 3.1 MW from one double regulated Kaplan turbine. The dam consists of a long overflow weir, two automated sluicegates and 4 log spillways.

Operational Characteristics – This run-of-river waterpower facility has a turbine flow capacity of 35 m^3/s. It has an operational head of 11.3 m. The turbine is automatically regulated to maintain upstream water levels in reference to a water level setpoint. Any excess flow is spilled over or through the dam by-passing the plant. Nominal head pond level is 190.63 MASL with a maximum of 191.15 MASL. There will be no water taking for the purpose of electricity generation at any time of the year when average daily flows are below 2 m^3/s at the Cascade Facility. During the period of April 15 to June 15, the facility will be operated as run of the river, without any attempt to store and cycle flows.

Goal/Purpose of Dam/Generating Station

The facility is capable of generating 3.1 MW of electricity at normal operation.