Keeyask Generation Project

Environmental Impact Statement

Supporting Volume

Public Involvement

Hydropower Limited Partnership

June 2012

KEEYASK GENERATION PROJECT

ENVIRONMENTAL IMPACT STATEMENT

PUBLIC INVOLVEMENT
SUPPORTING VOLUME

APPENDIX 4

CROSS LAKE FIRST NATION AND PIMICIKAMAK CREE NATION ARTICLE 9 CONSULTATION

KEEYASK
Hydropower Limited Partnership

Appendix 4 includes:

APPENDIX 4A - Cross Lake First Nation and Pimicikamak Cree Nation Consultation Summary Report

APPENDIX 4B - Presentations to Cross Lake First Nation and Pimicikamak Cree Nation

KEEYASK GENERATION PROJECT

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PUBLIC INVOLVEMENT
SUPPORTING VOLUME

APPENDIX 4A

CROSS LAKE FIRST NATION AND PIMICIKAMAK CREE NATION ARTICLE 9 CONSULTATION SUMMARY REPORT

KEEYASK
Hydropower Limited Partnership

Contact:

Guideline Requirements: contact information of those groups consulted

Cross Lake First Nation[1]
Cross Lake, MB R0B 0J0
Ph: (204) 676-2218; Fx: (204) 676-2117

Pimicikamak Okimawin
P.O. Box 399
Cross Lake, MB R0B 0J0

Territories:

Guideline Requirements: Descriptions of the traditional territories and potential or established Aboriginal and Treaty rights that were asserted by the groups in relation to the assessment area

The First Nation is a party to Treaty 5. The First Nation asserts Aboriginal and Treaty rights, including governance rights, over the area shown in the attached map.

Process:

Guideline Requirements: descriptions of the consultation processes used to identify the factors to be considered in the EIS

As discussed, the First Nation does not have a comprehensive NFA implementation agreement, which would otherwise provide for consultation regarding future development. Consultation continues to be governed by Article 9 of the NFA. Article 9 consultations include, but are not limited to, face-to-face meetings between Manitoba Hydro and representatives of the First Nation. Article 9 consultations are designed to create the opportunity for Manitoba Hydro to provide information to the First Nation about its proposed projects and to elicit from the First Nation any information they feel needs to be understood and considered by Manitoba Hydro.

In these particular Article 9 consultations, Manitoba Hydro has requested, but has not received permission, to hold broader community meetings in Cross Lake, unless the content to be discussed is the development of an "accommodation proposal." Manitoba Hydro has also requested, but has not been permitted, to meet with and hear directly from community Elders and resource users concerning their use of areas that might be affected by the Project.

The current representatives (as of June 19, 2011) of the First Nation in the Article 9 process are:

Darwin Paupanakis (Executive Council Representative)
Sandra Halcrow (Elders Council Representative)
Charles Miller (Youth Council Representative)

[1] Under the NFA, the Northern Flood Committee represented the Cross Lake Band of Indians and dealt with the Cross Lake Reserve and the collective community resident on the Cross Lake Reserve. Under the *Indian Act* the Cross Lake Band of Indians formally registered a change of its name to the Cross Lake First Nation. Subsequently, the Cross Lake First Nation, through its Chief and Council, advised Manitoba Hydro that for many purposes the Nation had moved to a traditional form of government, Pimicikamak Okimawin, consisting of an Executive Council, who are elected and who also serve as Chief and Council of the Band under the *Indian Act*, a Women's Council, an Elder's Council and a Youth Council.

Rita Monias (Women's Council Representative)
Phillip Beardy (Representative at large)
Kate Kempton (Legal Counsel)
Dr. Annette Luttermann (Technical Consultant)

Manitoba Hydro has consulted with the First Nation because of requirements under the NFA. Manitoba Hydro values both its relationship with the First Nation and compliance with its duties under Article 9 of the NFA. The lengthy and complex record of consultations with the First Nation should not be understood to indicate that Manitoba Hydro has come to a conclusion at to if and how the First Nation will be affected by the Project.

Content:

Guideline Requirements: lists of factors suggested for inclusion in the EIS, whether or not the factors were included, and the rationale for exclusions; and efforts made to solicit the above information from Aboriginal groups if the proponent has been unable to obtain the information

On June 12, 2001, Manitoba Hydro notified the the First Nation of its intention to prepare plans for future development at Gull Rapids [the Project], pursuant to Article 9.1 of the Northern Flood Agreement (the "NFA"). Representatives of Manitoba Hydro met with representatives of the First Nation from 2002 through 2005, where the primary focus of consultations was the Wuskwatim Generation Project. During this time period, consultation with respect to the Project was limited to discussions of the general (preliminary) project description, a preliminary review of direct effects and a review of potential opportunities for training, employment and business.

On January 26, 2005, Manitoba Hydro advised that the Project was still being considered and requested that an appropriate Article 9 process be developed. Representatives of the First Nation advised that they did not want to discuss potential benefits or other preliminary information until there was more complete information on potential negative effects.

On September 13, 2007, Manitoba Hydro expressed a desire to continue the Article 9 process, sharing additional environmental information and seeking the First Nation's views in relation to the proposed Project and its potential impact. Throughout 2007 and 2008, Manitoba Hydro continued to request meetings with the First Nation; however, with the exception of a meeting on June 9, 2008, the Article 9 process was in abeyance.

Representatives of Manitoba Hydro and the First Nation have been meeting regularly since February, 2009 and presentations have been made by Manitoba Hydro representatives to the First Nation's representatives on the following topics:

Future Development	Project Description	System Operations
System Effects	Environmental Assessments	Training, Employment, and Business Opportunities
Keeyask EIS Discussion	Aquatic Environment	Physical Environment
Terrestrial Environment	Socio-Economic Environment	Heritage Resources
Resource Use	Water Fowl	Caribou
Public Involvement Program Round 1	Public Involvement Program Round 2	Manitoba Hydro Aboriginal Cultural Awareness Workshop

Prior to October 20, 2010, the First Nation took the position that while they were interested in the direct physical and environmental effects of the Project, these were not their primary

concerns and they did not want to hear presentations on environmental impacts. Since that time, the First Nation has changed their position and Manitoba Hydro has made many of its presentations on environmental factors and repeated and updated presentations on system effects, system operations, the public involvement program and training, employment and business opportunities.

To facilitate consultations, Manitoba Hydro has also provided support to the First Nation by funding their use of the services of an independent technical expert (Dr. Annette Luttermann). Dr. Luttermann has now attended a number of the Article 9 meetings on the First Nation's behalf and has contributed to the process.

In the course of these discussions, the First Nation has raised a number of issues, details of which can be found in the PI SV and in a detailed record of Article 9 consultations maintained by Manitoba Hydro. Some examples of the issues the First Nation has raised to date (while not an exhaustive list) include:

- a request to review a list of study reports -- Manitoba Hydro considered the First Nation's request and provided a list of study reports, including the Keeyask annotated reference to field studies, environmental study reports and technical memoranda.

- a request to review component studies in draft form prior to integration into the EIS -- Manitoba Hydro considered the First Nation's request and provided Dr. Luttermann access to studies located on the Stantec FTP site, but otherwise concluded it was not prepared to share the EIS while it is still in draft form.

- a request for a list of VECs -- A list of VECs was provided.

- a concern that the scoping document is too generic and does not include the full list of VECs to be used -- Manitoba Hydro considered the First Nation's concerns and determined that the scoping document contained a reasonable level of detail and conformed with the standards in place.

- a recent request that Manitoba Hydro fund a 2-year land use and occupancy study (to be conducted by Tobias and Associates). The First Nation is currently developing a proposal for Manitoba Hydro's consideration.

- a concern that any effects of the Project be considered cumulatively with the Lake Winnipeg Regulation and Churchill River Diversion.

- a concern that the study area is not broad enough and the whole of the First Nation's traditional territory should be considered -- Manitoba Hydro's position is that the study areas that were developed for the environmental assessment effectively capture the effects of the Project on the environment.

Manitoba Hydro and the First Nation continue to have ongoing discussions about the Project. The above factors related to the EIS are not intended to provide an exhaustive list, rather, they are meaningful and noteworthy considerations illustrative of the ongoing process and dialogue between the parties. A full record of consultations can be found in the Article 9 Record maintained by Manitoba Hydro.


Northern Boundary of Treaty 5 authorized in 1875 Privy Council Minutes
Boundary of Treaty 5 from its written text and the 1878 map
Area added when the Commissioners met with Tépasténam

KEEYASK GENERATION PROJECT

ENVIRONMENTAL IMPACT STATEMENT

PUBLIC INVOLVEMENT
SUPPORTING VOLUME

APPENDIX 4B

CROSS LAKE FIRST NATION AND PIMICIKAMAK CREE NATION ARTICLE 9 CONSULTATION PRESENTATIONS

KEEYASK
Hydropower Limited Partnership

Table 4B-1: Cross Lake First Nation/Pimicikamak Okimawin - Article 9 Presentations

Date	Presentation	Description	Presenters
2002-08-20	Potential Hydro-Electric Developments	Overview of Potential Projects (including Project descriptions for Notigi, Gull [Keeyask] and Wuskwatim Projects	George Rempel (TetrES) Cam Osler (InterGroup)
2003-12-15	Pre-Project Training Initiatives	Training and Employment Opportunities for PCN/CLFN	Joy Kovnats Shawna Pachal Bob Knight (Manitoba Advanced Education and Training)
2008-06-09	Introductory Support Materials	Overview of the existing system and proposed new projects	Mike Saxton
2009-02-17	Introductory Support Materials (June 9, 2008)	Overview of the existing system and proposed new projects	Mike Saxton
2009-02-17	Environmental Impact Assessment - Public Involvement Program - Round 1	Overview of Keeyask Project components, construction activities and construction employment, potential project Partnership, environmental approvals, public involvement opportunities and Round 1 consultations, and Keeyask environmental studies (including physical environment, aquatic, terrestrial, heritage resource, socio-economic, and resource use studies	Ryan Kustra John Osler (InterGroup)

Date	Presentation	Description	Presenters
2009-05-13	System Operations	Potential new generation, hydraulic system effects, supply and demand changes, existing generating stations and control structures, the Environmental Impact Statement, hydraulic studies, zone of hydraulic system effects, and the hydraulic zone of influence	Bruce Hinton Harold Surminski
2010-01-27	Status of Environmental Assessments for the Keeyask and Conawapa Generation Projects	Aboriginal partnerships and agreements, project overview and location, PIP process, EA studies overview (including physical, aquatic, and terrestrial environments, resource use, socio-economic environment, heritage resources, and information about Conawapa	Ryan Kustra John Osler (InterGroup)
2010-04-07	Future Development: Training, Employment, and Business Opportunities (TEBO)	Future development strategy, pre-project training, employment opportunities, and business opportunities	Richard Goulet
2010-12-15	The Manitoba Hydro System and its Operation	Key components (including generation, transmission and water control) and system operation (including water supply, Manitoba load, export markets, Lake Winnipeg Regulation and the Churchill River Diversion)	Harold Surminski
2011-02-03	The Manitoba Hydro System and its Operation (Summary)	Summary of December 15, 2010 presentation	Harold Surminski
2011-02-03	Summary of Hydraulic System Effects	Hydraulic system effects, characteristics of the Keeyask and Conawapa Generating stations, expectations re and demonstration of hydraulic system effects for various development plans	Bruce Hinton

Date	Presentation	Description	Presenters
2011-04-28	Keeyask Project Description	Project Description, Proponent and Board Structure, Role of the General Partner, Project location, components and principal structures (including powerhouse complex, turbines and generators, spillway, dams, dikes, reservoir, supporting infrastructure, camp and work areas, access road, coffer dams, ice boom, material sources, public access, safety and security facilities and related infrastructure), project footprint (including flooded area and water surface profiles), waste streams, physical environment, terrestrial environment, aquatic environment, species at risk and critical habitat, socio-economic environment, land, heritage, public consultation, and status of public involvement for the environmental impact assessment	Ryan Kustra George Rempel (Stantec)
2011-06-28	Future Development: Training, Employment, and Business Opportunities (TEBO)	Future development strategy, pre-project training, employment opportunities, and business opportunities	Richard Goulet
2011-09-08	Keeyask EIS Discussion with Pimicikamak	General approach, the EIS, approach to environmental assessment, and information shared with Pimicikamak	George Rempel (Stantec)
2011-09-08	Keeyask Aquatic Environment	Valued ecosystem components (VECs), aquatic ecosystems and habitat (including water and sediment quality and aquatic habitat), algae and aquatic plants, aquatic invertebrates, fish, mercury concentrations and other characteristics of fish quality	Friederike Schneider-Vierea (North/South Consultants Inc.)

Date	Presentation	Description	Presenters
2011-09-08	Keeyask Physical Environment	Physical environment, water regime and ice processes, shoreline erosion, sedimentation, water temperature and dissolved oxygen, water temperature and oxygen, typical day in winter	William Dewit
2011-11-09	Keeyask Terrestrial Environment	VECs, study areas, ecosystem diversity (including existing, potential effects and mitigation),	James Ehnes (ECOSTEM Ltd.)
2011-11-09	Keeyask Waterfowl	Existing waterfowl, potential effects and potential mitigation	Leanne Wyenberg (Stantec)
2011-11-09	Keeyask Caribou	Existing caribou, potential effects and potential mitigation	Rob Berger (Wildlife Resource Consulting Services MB Inc.)
2011-11-09	Keeyask Resource Use	VECs, study area selection, assessment scope, domestic fishing, domestic hunting and gathering, commercial trapping and adverse effects agreements	Don MacDonell (North/South Consultants Inc.)
2011-11-09	Keeyask Generation Project Socio-Economic Environment	Overview of pathways of effect, VECs (including economy, population, infrastructure and services, personal, family and community life, study areas, and initial results for potential construction workforce requirements	Janet Kinley (Intergroup)
2011-11-09	Keeyask Heritage Resources	VECs, local study area, cultural chronology, archaeological sites (including potential effects and mitigation), burial sites (including potential effects and mitigation) and cultural landscape (including potential effects and mitigation)	Virginia Petch (Northern Lights Heritage Services Inc.)

Date	Presentation	Description	Presenters
2012-04-25	Environmental Impact Assessment - Public Involvement Program - Round II	Project location and overview, Keeyask Hydropower Limited Partnership, Keeyask Public Involvement Program, project effects and mitigation (including employment and training, sediment and erosion, ice and water conditions, water quality, mercury, fish and human health, lake sturgeon, and caribou)	John Osler (InterGroup)

* limited to EA related presentations made to CLFN/Pimicikamak representatives in attendance at Article 9 meetings held on the date noted.

Presentation to Pimicikamak Cree Nation

by Manitoba Hydro

Re: Potential Hydro-Electric Developments

August 20,2002

Purpose:

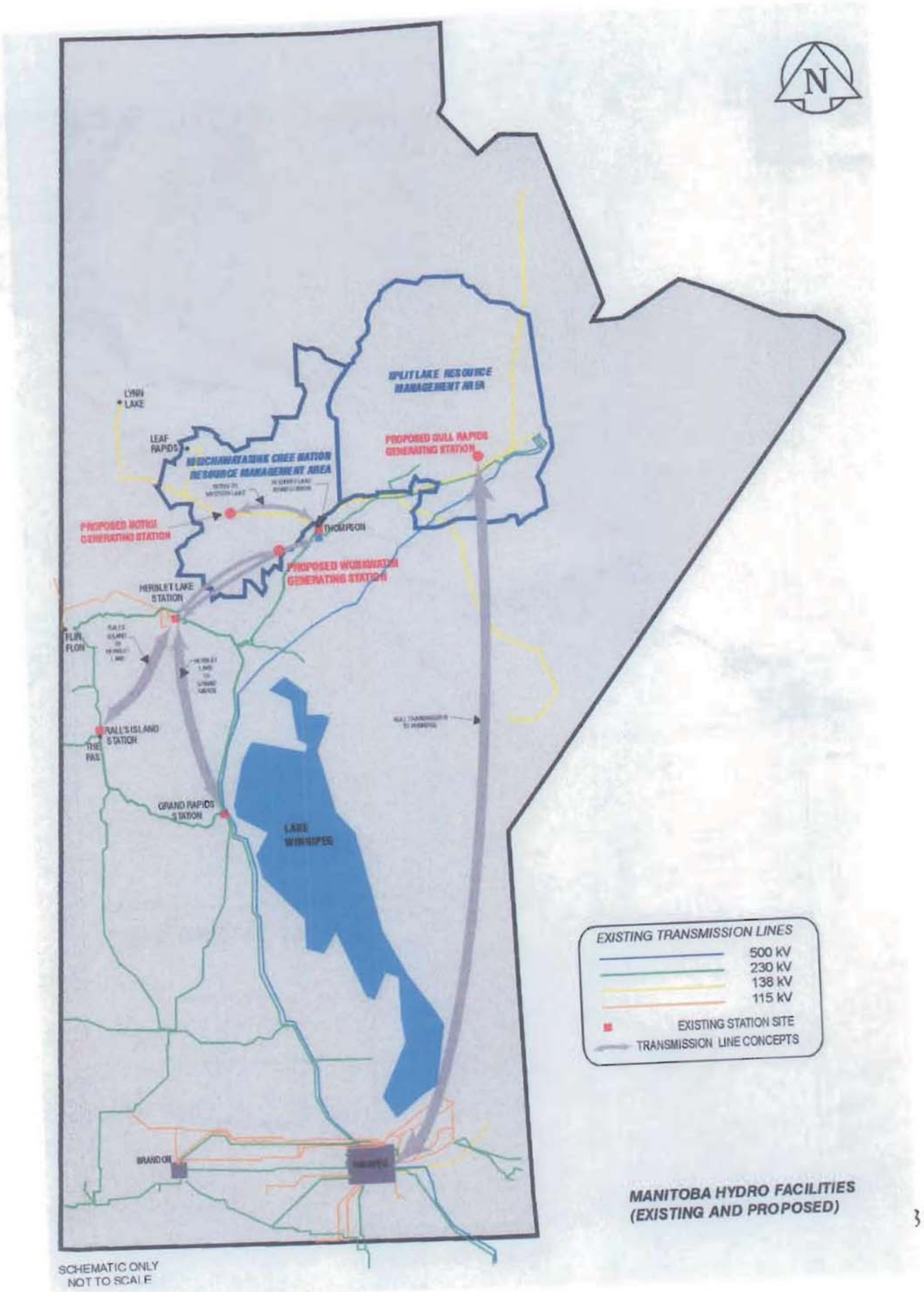
Information –Sharing as Part of Bonafide and Meaningful Consultation with the Community of Cross Lake under Article 9.2 of the NFA

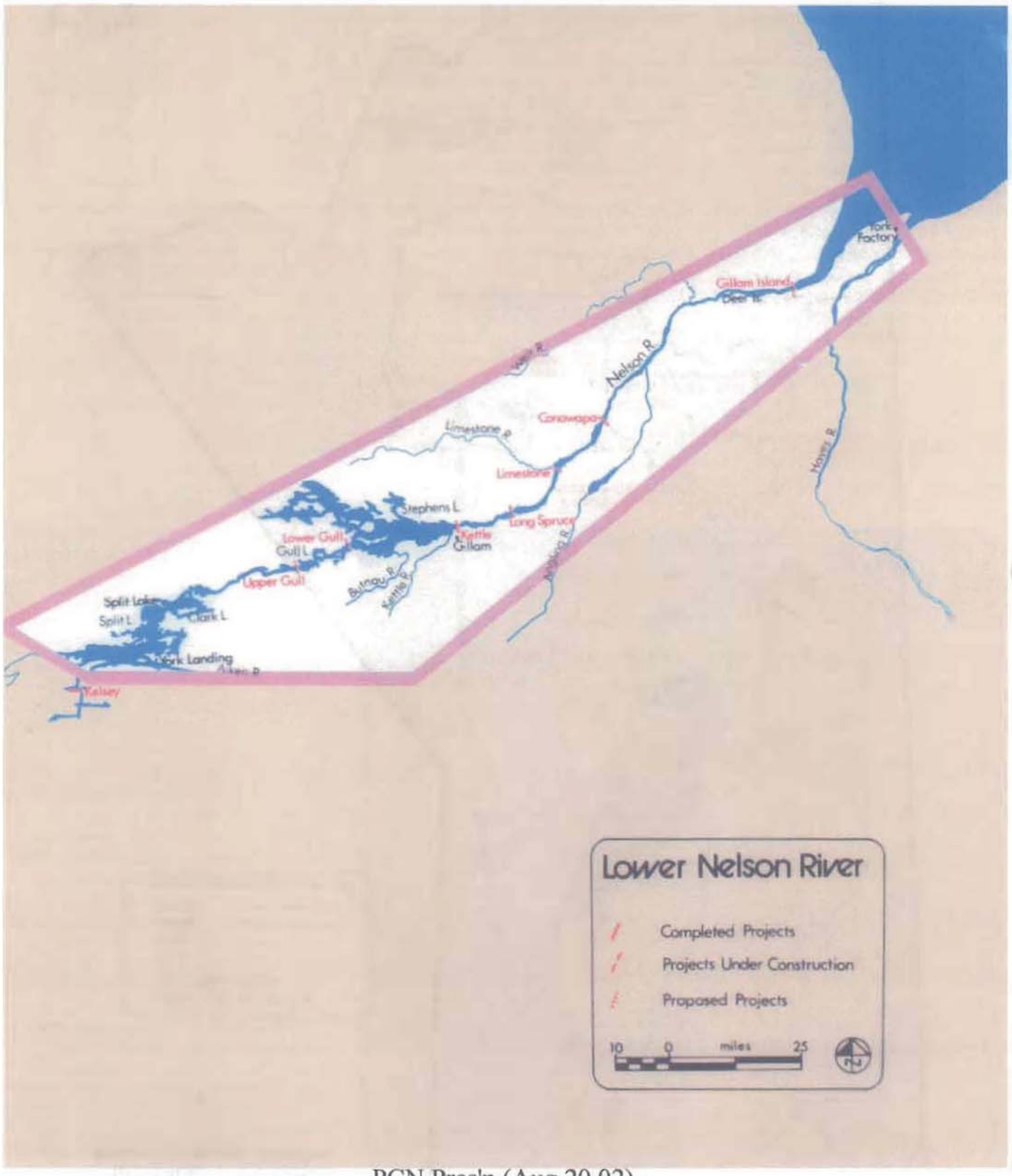
Outline to Presentation

- Overview of Potential Projects
- Potential Notigi Project
- Potential Gull Project
- Potential Wuskwatim Projects
- Potential Schedule

PCN Pres'n (Aug 20,02) -
Project Overview

2


N
SPLIT LAKE RESOURCE MANAGEMENT AREA
LYNN LAKE
LEAF RAPIDS
MISKANAWAHK CREE NATION RESOURCE MANAGEMENT AREA
PROPOSED GULL RAPIDS GENERATING STATION
PROPOSED KETTLE GENERATING STATION
THOMPSON
PROPOSED WUSKWATIM GENERATING STATION
HERBLET LAKE STATION
FLIN FLON
RALL'S ISLAND STATION
THE PAS
GRAND RAPIDS STATION
LAKE WINNIPEG
BRANDON
EXISTING TRANSMISSION LINES
500 kV
230 kV
138 kV
115 kV
EXISTING STATION SITE
TRANSMISSION LINE CONCEPTS
MANITOBA HYDRO FACILITIES
(EXISTING AND PROPOSED)
SCHEMATIC ONLY
NOT TO SCALE



PCN Pres'n (Aug 20,02) -
Project Overview

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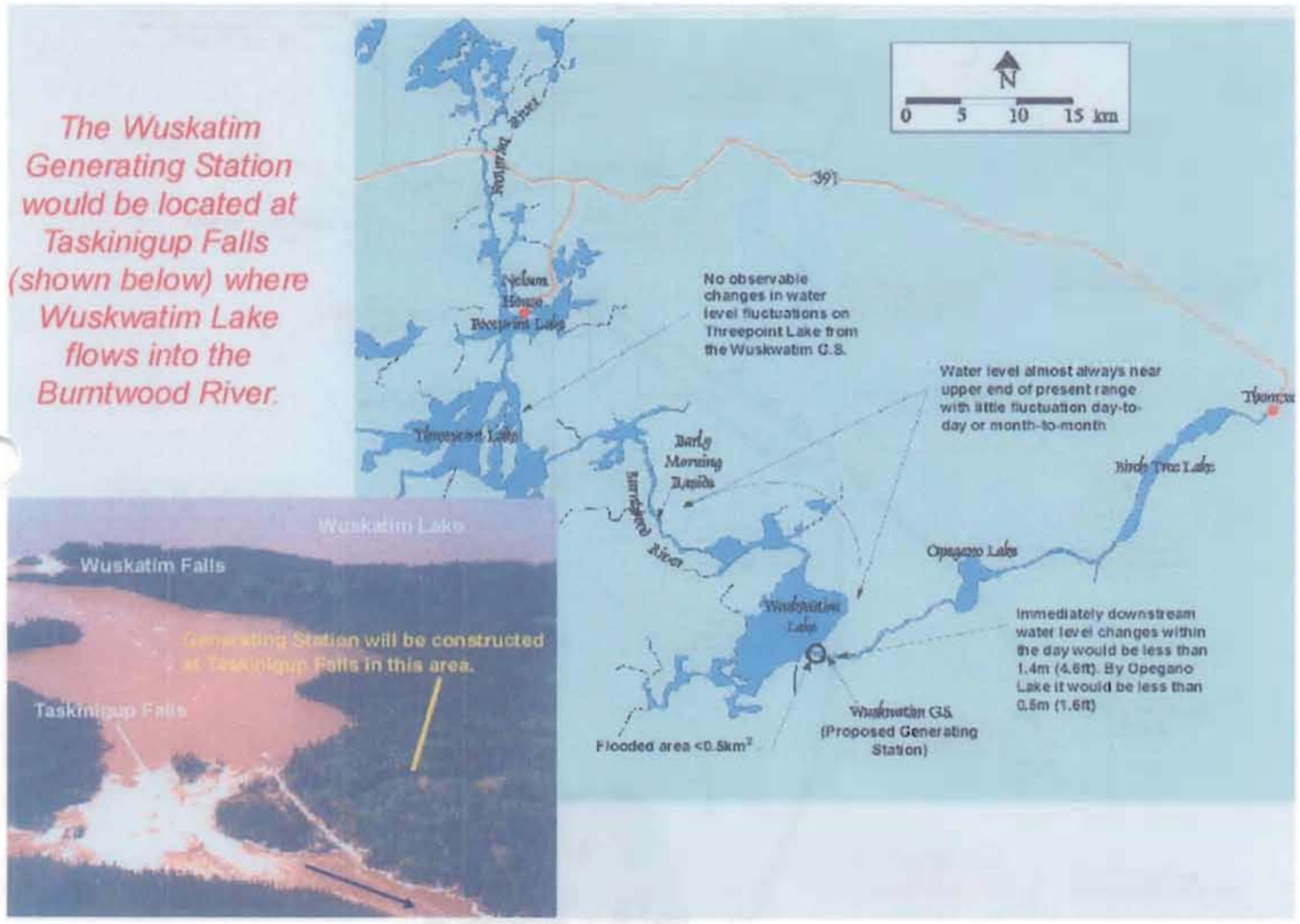


PCN Pres'n (Aug 20,02) -
Project Overview

5

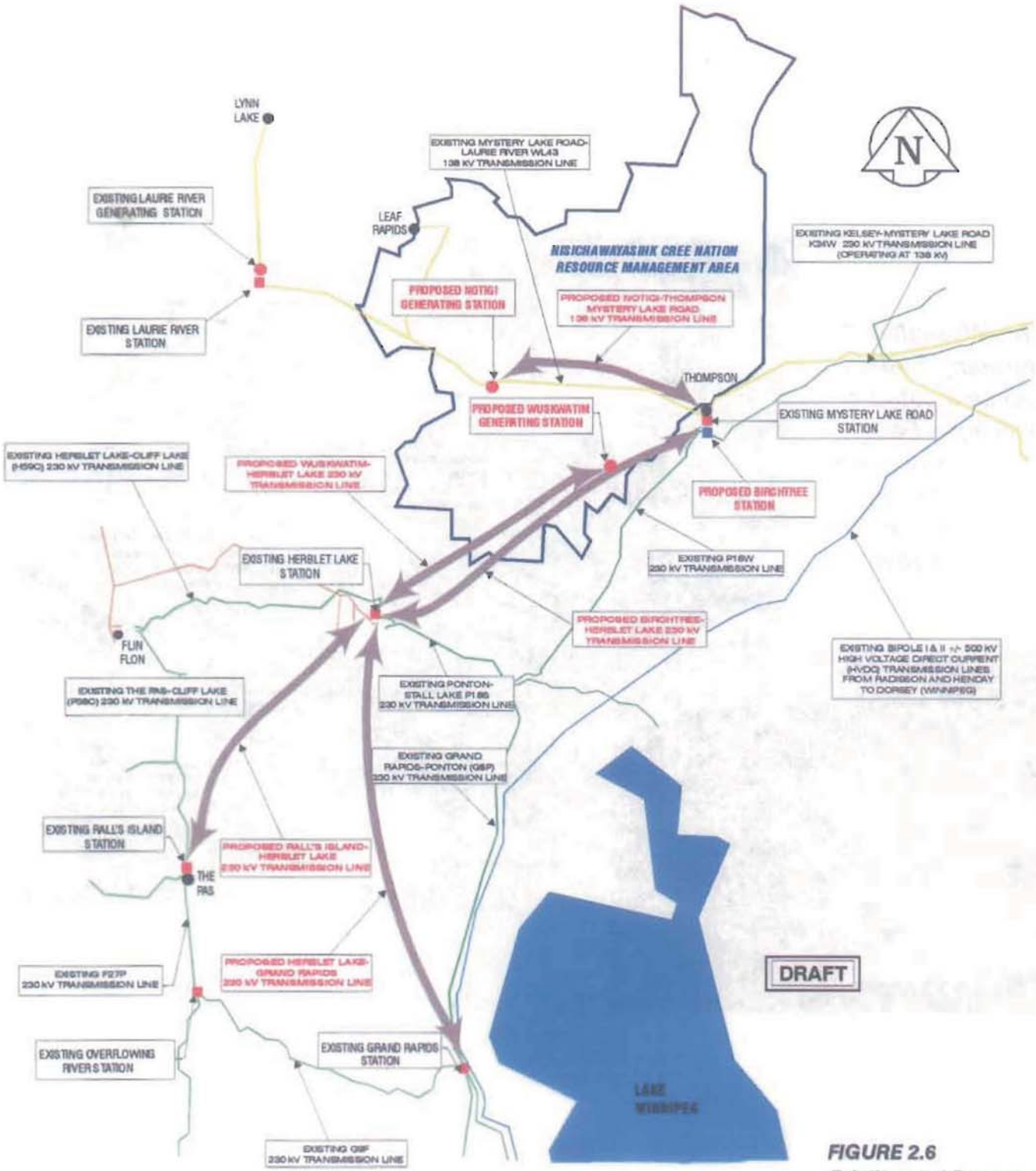
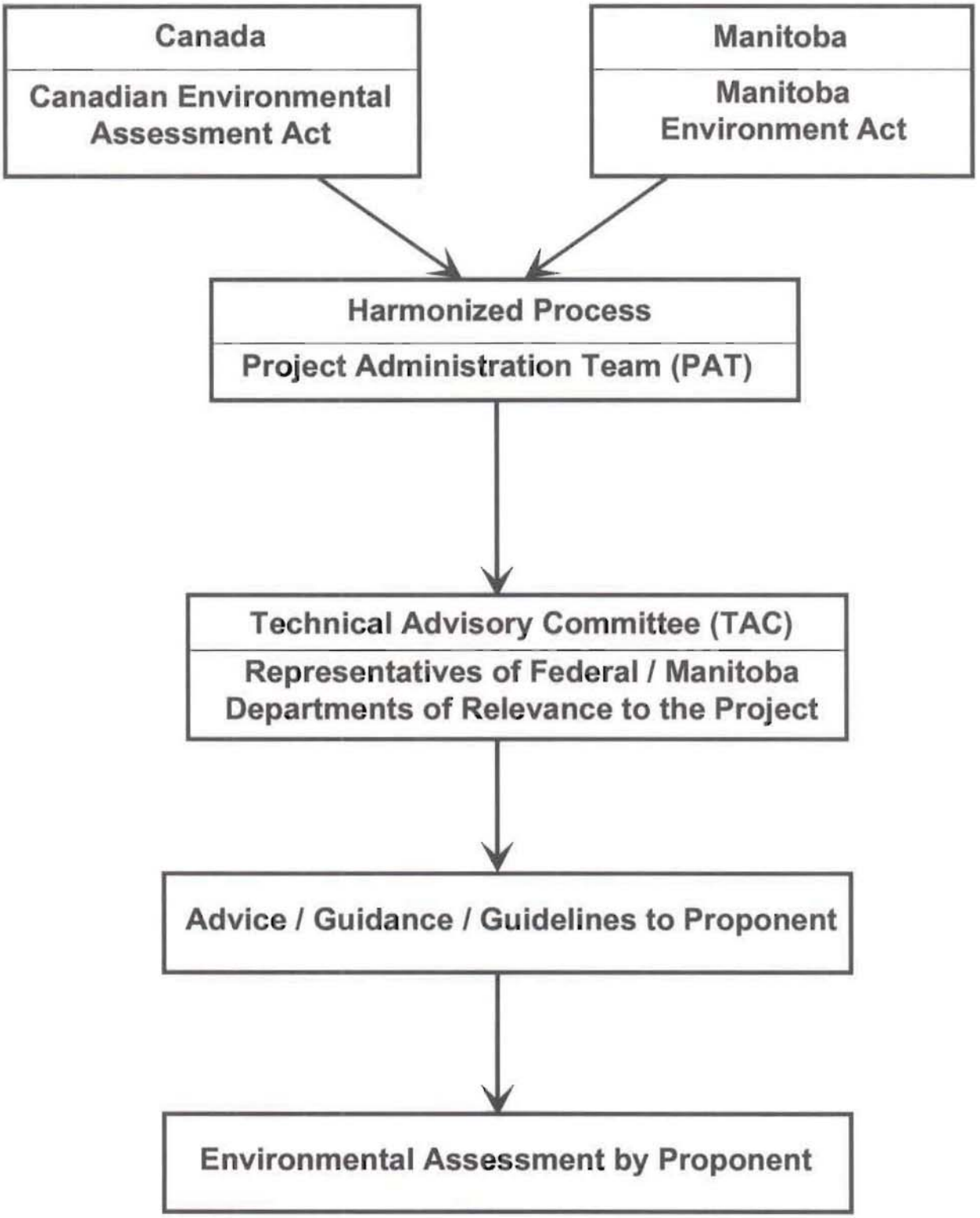


FIGURE 2.6
Existing and Proposed Manitoba Hydro Facilities

-Wuskwatim And Notigi

Project Overview



PCN Pres'n (Aug 20,02) -
Project Overview

7

Presentation to Pimicikamak Cree Nation

by Manitoba Hydro

Re: Potential Hydro-Electric Developments

August 20,2002

Purpose:

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Outline to Presentation

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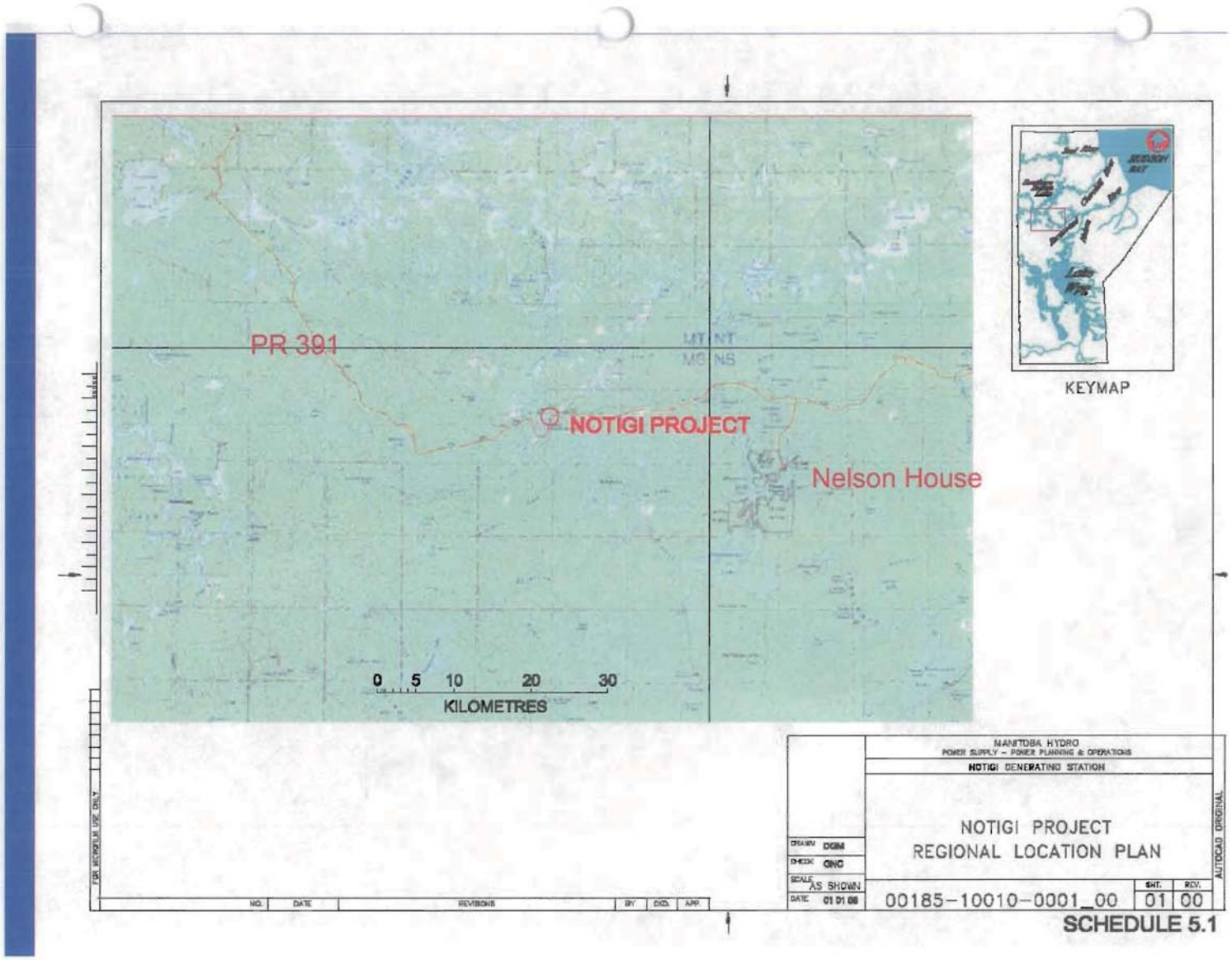
- Potential Schedule

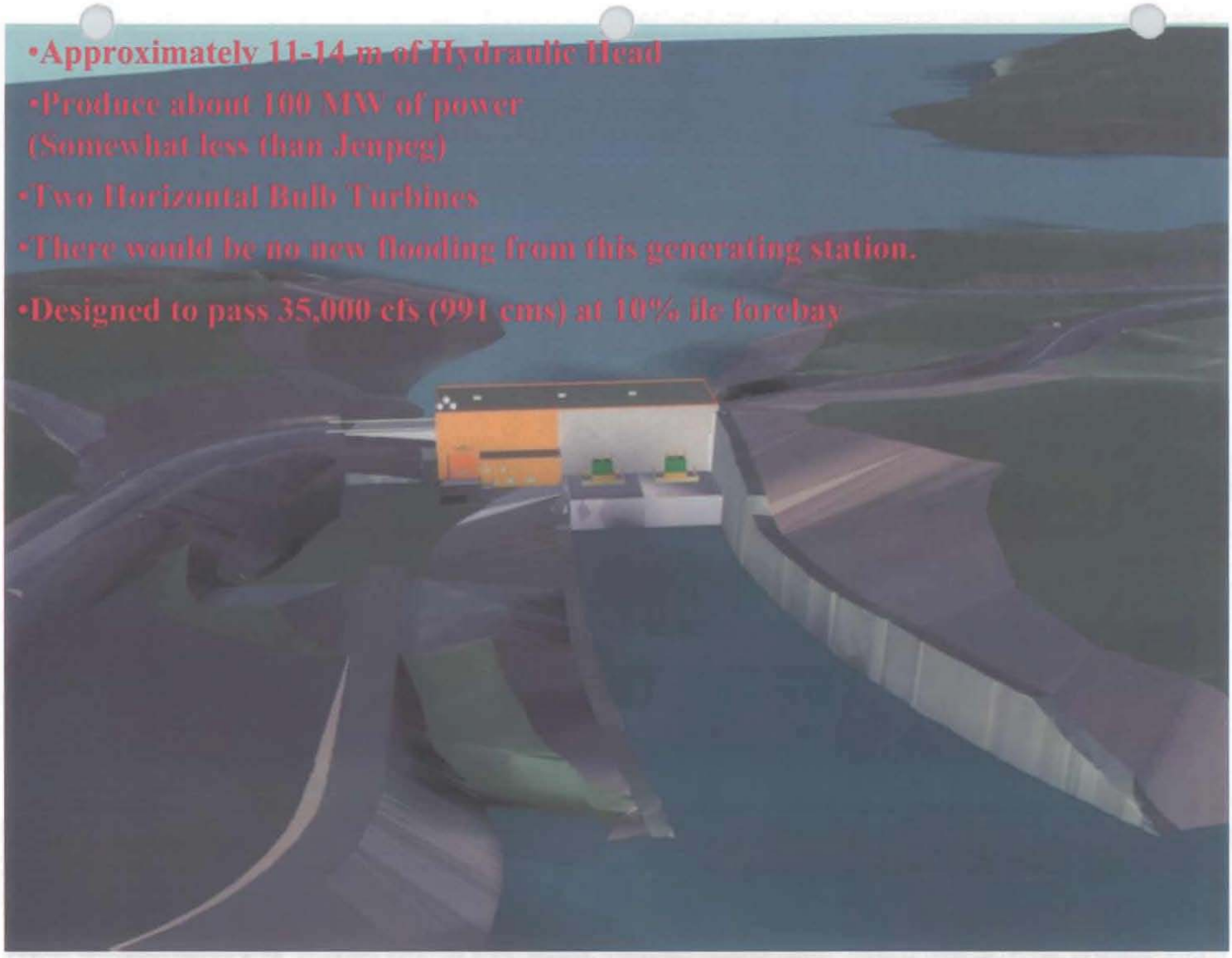
PCN Pres'n (Aug 20,02) -
Project Overview

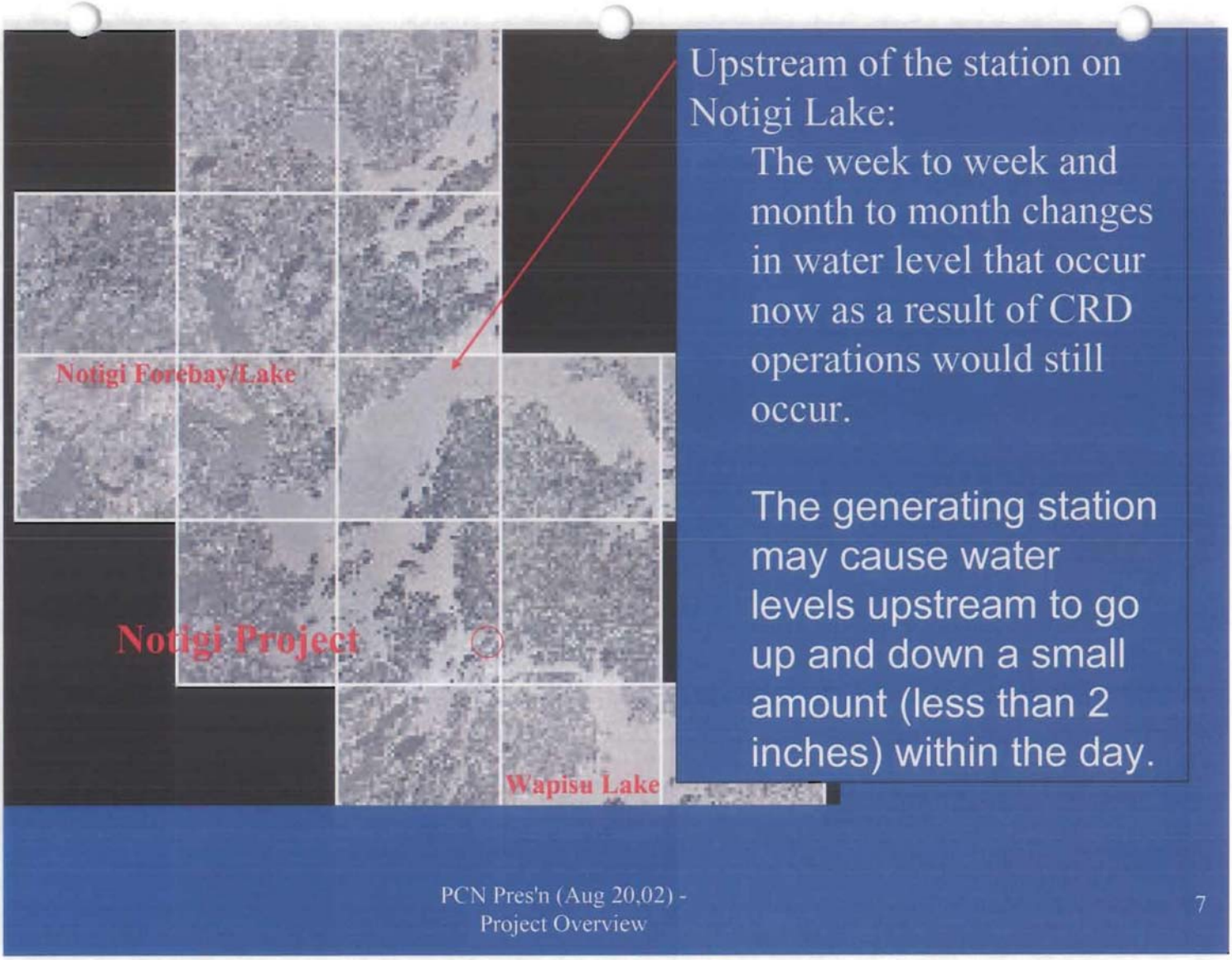
2

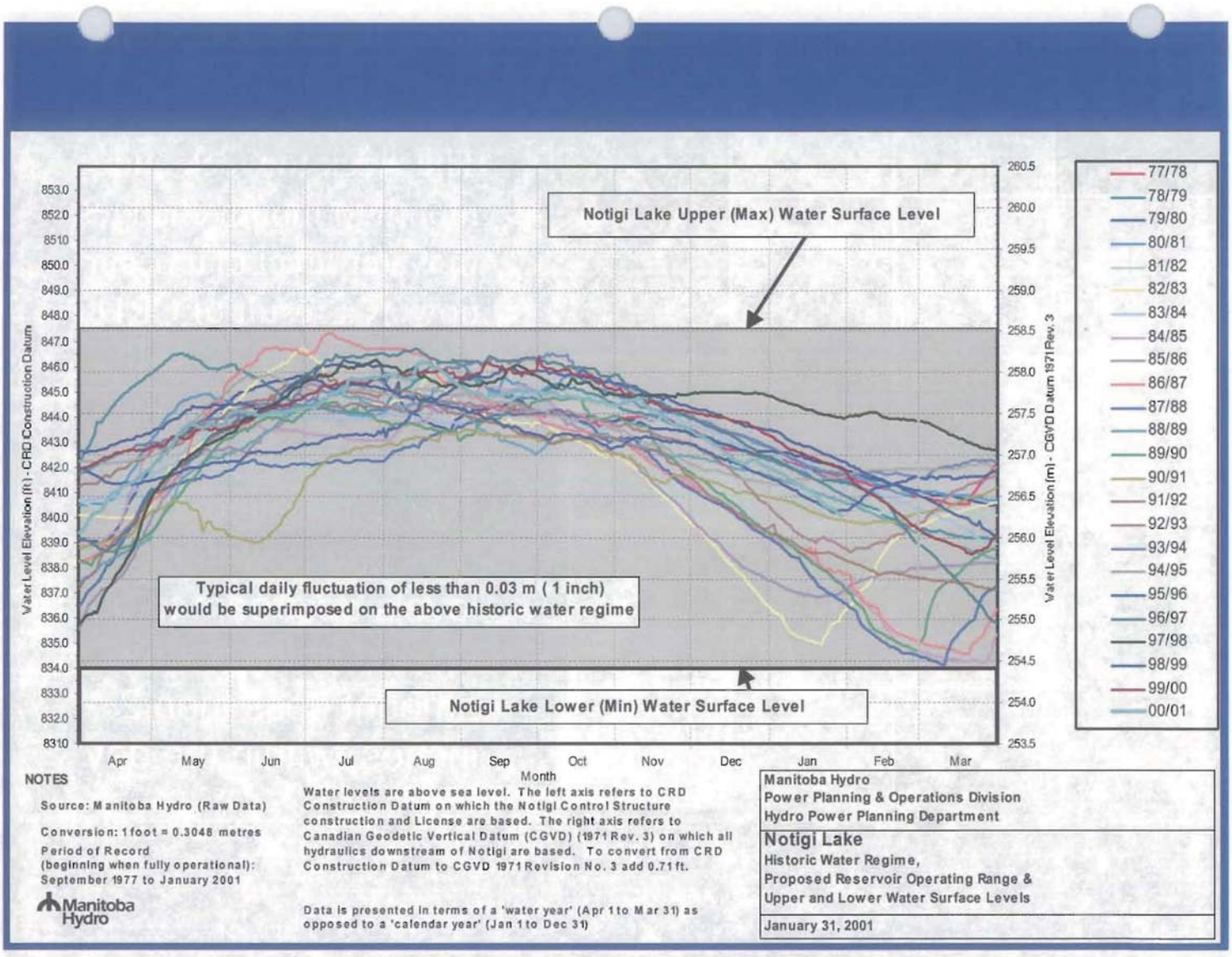

PR 391
NOTIGI PROJECT
Nelson House
0 5 10 20 30
KILOMETRES
KEYMAP
MANITOBA HYDRO
POWER SUPPLY – POWER PLANNING & OPERATIONS
NOTIGI GENERATING STATION
NOTIGI PROJECT
REGIONAL LOCATION PLAN
00185-10010-0001_00
SCHEDULE 5.1


Notigi Forebay/ Lake
Manitoba Hydro Maintenance Yard
Notigi Control Structure


General Arrangement
Transmission Line Corridor
Existing Dock and Service Area
Switchyard
Notigi
Lake/Forebay
Camp
Contractor's Work Area
PR 391
Powerhouse
Existing Main Dam
Sewage Treatment Plant
Rat River
Existing Control Structure (Spillway)


•Approximately 11-14 m of Hydraulic Head
•Produce about 100 MW of power
(Somewhat less than Jenpeg)
•Two Horizontal Bulb Turbines
•There would be no new flooding from this generating station.
•Designed to pass 35,000 cfs (991 cms) at 10% ile forebay


Upstream of the station on Notigi Lake:
The week to week and month to month changes in water level that occur now as a result of CRD operations would still occur.
The generating station may cause water levels upstream to go up and down a small amount (less than 2 inches) within the day.
Notigi Forebay/Lake
Notigi Project
Wapisu Lake
PCN Pres'n (Aug 20,02) - Project Overview
7

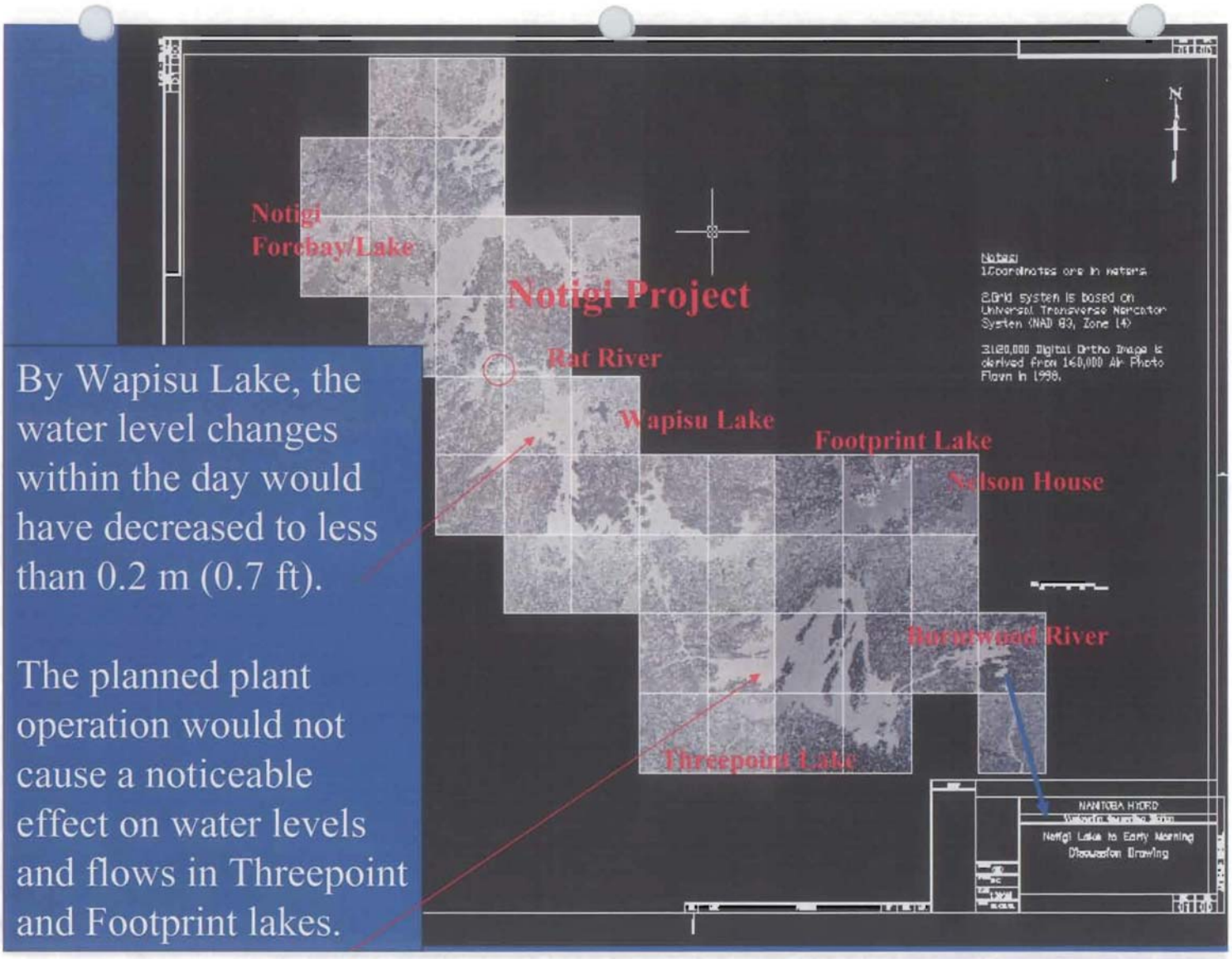

Notigi Lake Upper (Max) Water Surface Level
Typical daily fluctuation of less than 0.03 m (1 inch)
would be superimposed on the above historic water regime
Notigi Lake Lower (Min) Water Surface Level
Water Level Elevation (ft) - CRD Construction Datum
Water Level Elevation (m) - CGVD Datum 1971 Rev. 3
Month
Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar
77/78 78/79 79/80 80/81 81/82 82/83 83/84 84/85 85/86 86/87 87/88 88/89 89/90 90/91 91/92 92/93 93/94 94/95 95/96 96/97 97/98 98/99 99/00 00/01
NOTES
Source: Manitoba Hydro (Raw Data)
Conversion: 1 foot = 0.3048 metres
Period of Record
(beginning when fully operational):
September 1977 to January 2001
Manitoba Hydro
Water levels are above sea level. The left axis refers to CRD Construction Datum on which the Notigi Control Structure construction and License are based. The right axis refers to Canadian Geodetic Vertical Datum (CGVD) (1971 Rev. 3) on which all hydraulics downstream of Notigi are based. To convert from CRD Construction Datum to CGVD 1971 Revision No. 3 add 0.71 ft.
Data is presented in terms of a 'water year' (Apr 1 to Mar 31) as opposed to a 'calendar year' (Jan 1 to Dec 31)
Manitoba Hydro
Power Planning & Operations Division
Hydro Power Planning Department
Notigi Lake
Historic Water Regime,
Proposed Reservoir Operating Range &
Upper and Lower Water Surface Levels
January 31, 2001

Downstream of the station, the planned plant operation would result in water level and flow changes within the day.

Immediately downstream of the station (tailrace), water levels within the day would go up and down an average of 0.4 m (1.3 ft). The maximum change within the day would be 0.7 m (2.3 ft).

Project Overview

9

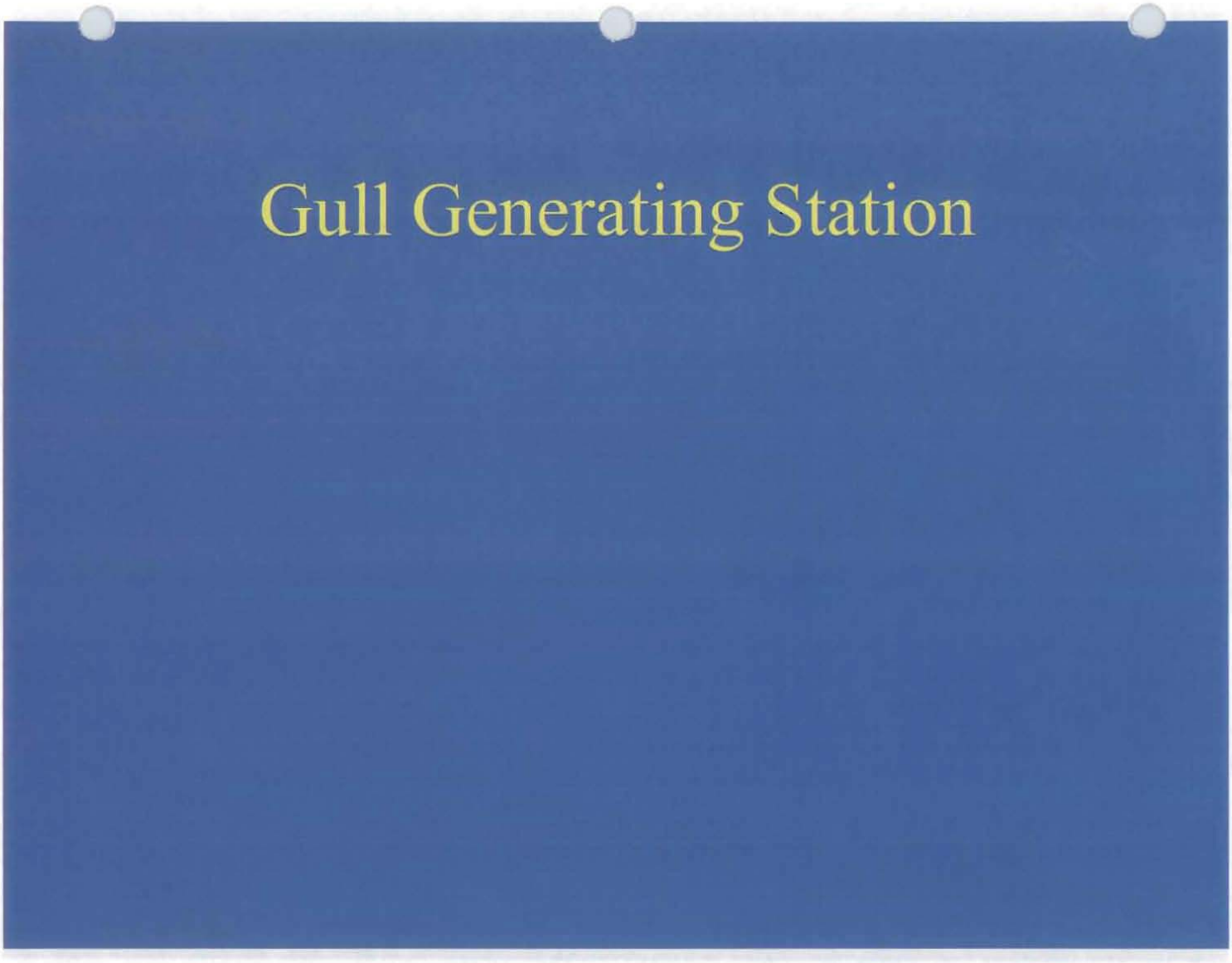

Notigi Forebay/Lake
Notigi Project
Rat River
Wapisu Lake
Footprint Lake
Nelson House
Burntwood River
Threepoint Lake
By Wapisu Lake, the water level changes within the day would have decreased to less than 0.2 m (0.7 ft).
The planned plant operation would not cause a noticeable effect on water levels and flows in Threepoint and Footprint lakes.
MANITOBA HYDRO
Notigi Lake to Early Morning Discussion Drawing

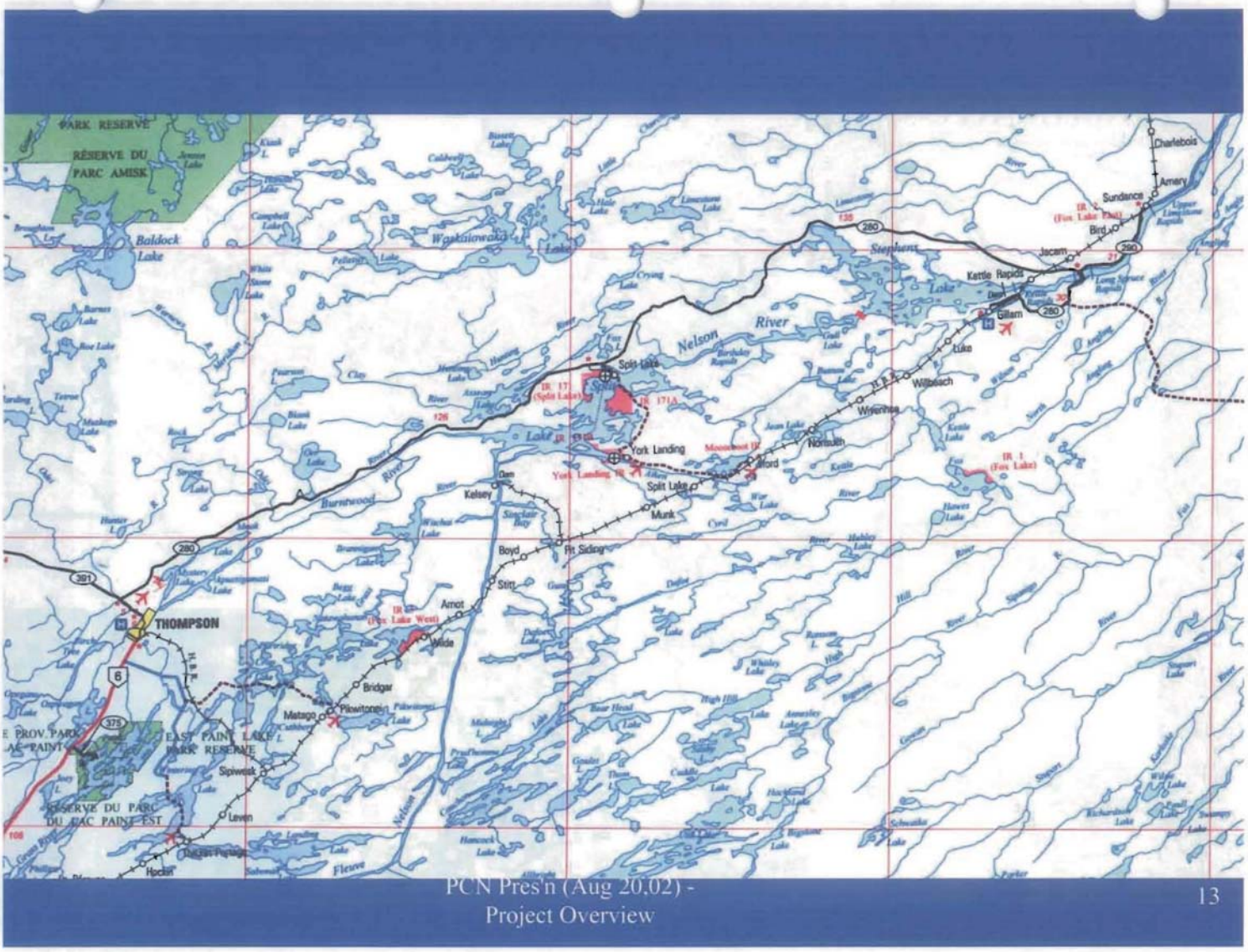
Notigi Generating Station

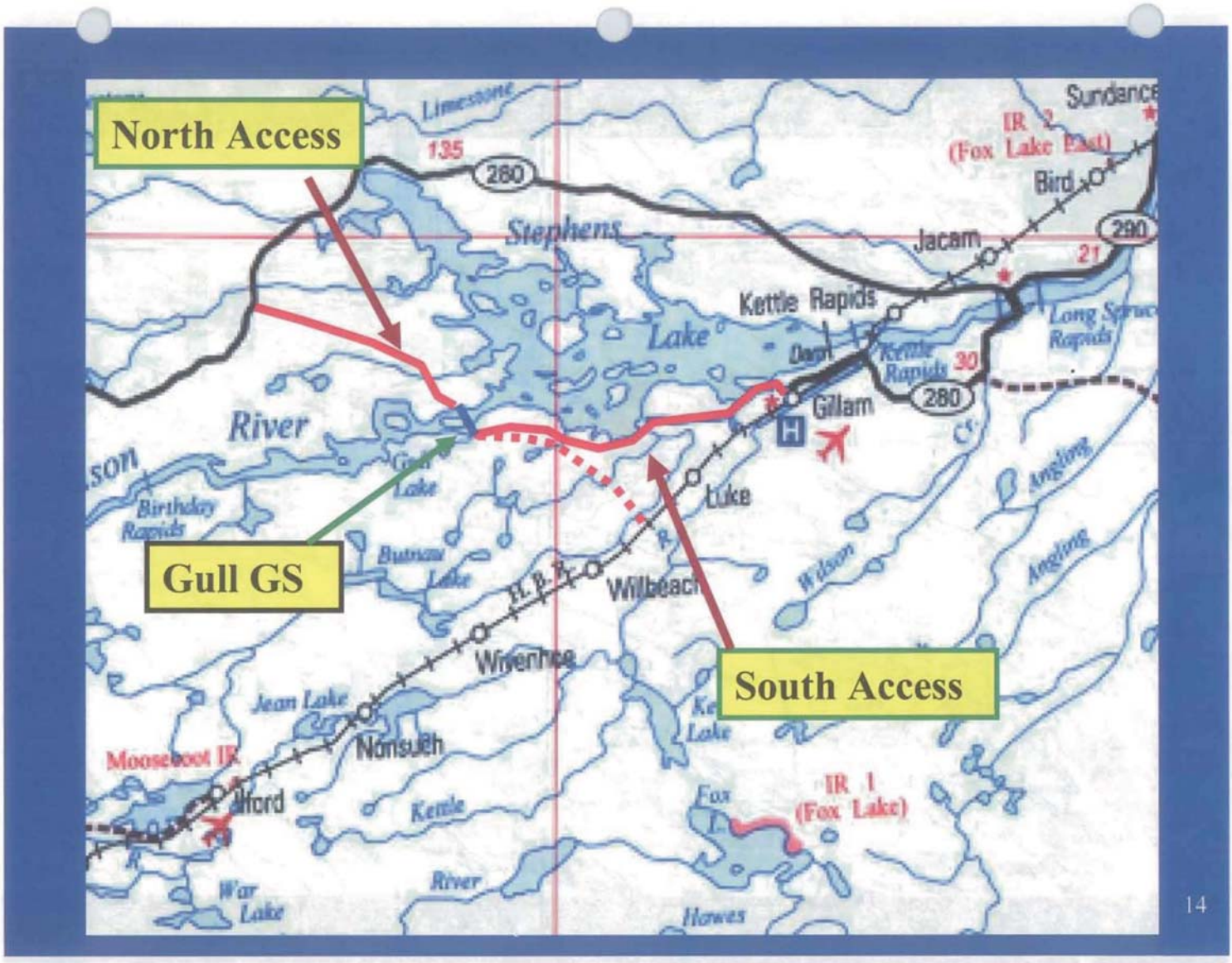
- Downstream of the generating station, the week to week and month to month changes in water level that occur now would continue.
- The operation of Notigi will not change the way CRD is currently operated because the CRD is intended to feed the lower Nelson Plants.
- The water level and flow effects resulting from the daily operation at Notigi G.S. are diminished as they reach Threepoint and Footprint Lakes.

PCN Pres'n (Aug 20,02) -
Project Overview

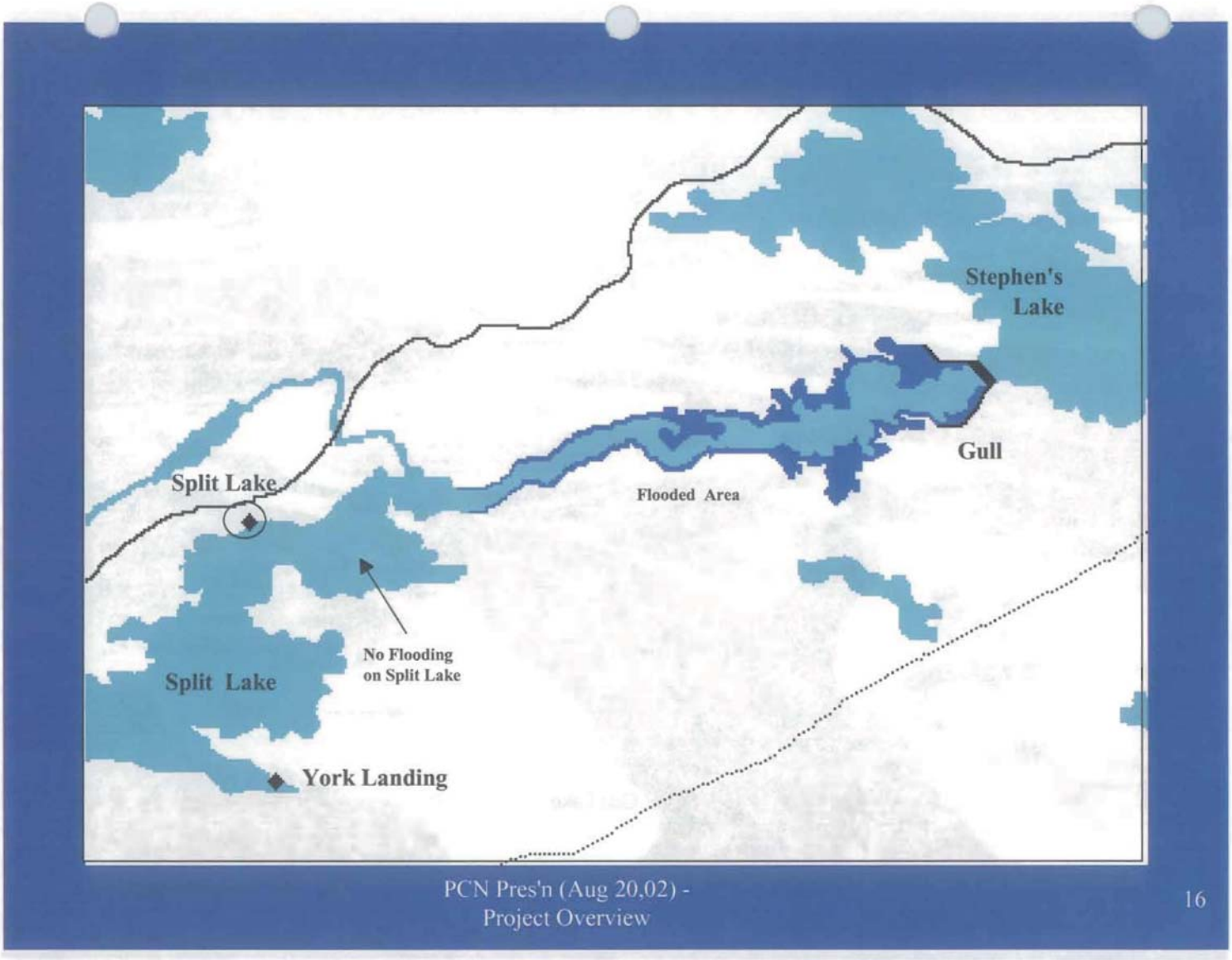
11


Gull Generating Station


PARK RESERVE
RÉSERVE DU PARC AMISK
Baldock Lake
Wapisiwaskaw Lake
Stephens Lake
Nelson River
Split Lake
York Landing
Kelsey
Burntwood River
Thompson
Charlebois
Amery
Sundance
Bird
Jacem
Kettle Rapids
Gillam
Wilbiach
Wyerihis
Normuth
Ilford
Munk
Boyd
Pt Sidney
Stitt
Arnot
Wilde
Bridgar
Pikwitonei
Matago
Sipiwesk
Leven
EAST PAINT LAKE PARK RESERVE
RÉSERVE DU PARC DU LAC PAINT EST
Hocket
Fleuve
280
391
6
375
290
PCN Pres'n (Aug 20,02) -
Project Overview
13


North Access
Gull GS
South Access
Limestone
135
280
Stephens
Lake
River
Sundance
IR 2
(Fox Lake East)
Bird
290
Jacam
21
Kettle Rapids
Dam
Kettle Rapids
30
280
Gillam
Long Spruce Rapids
Birthday Rapids
Butnau Lake
Wilbeach
Wilson
Angling
Wiwerhee
Jean Lake
Moosefoot IR
Nonsuch
Ilford
Kettle
War Lake
River
Fox Lake
IR 1
(Fox Lake)
Howes
14


Stephens Lake
Proposed Keeyask
Generating Station Site
2000 Burn
Flow
North
Gull Lake
PCN Pres'n (Aug 20,02) -
Project Overview
15


Stephen's
Lake
Gull
Split Lake
Flooded Area
No Flooding
on Split Lake
Split Lake
York Landing
PCN Pres'n (Aug 20,02) -
Project Overview
16

Water Regime

- Proposed project will result in flooding approx. 4700 ha between Gull Rapids and Birthday Rapids
- No effect on Split Lake or Clark Lake in open water, slightly higher winter levels than at present in most years
- Water levels downstream will depend on the river flow and water levels on Stephens Lake

PCN Pres'n (Aug 20,02) -
Project Overview

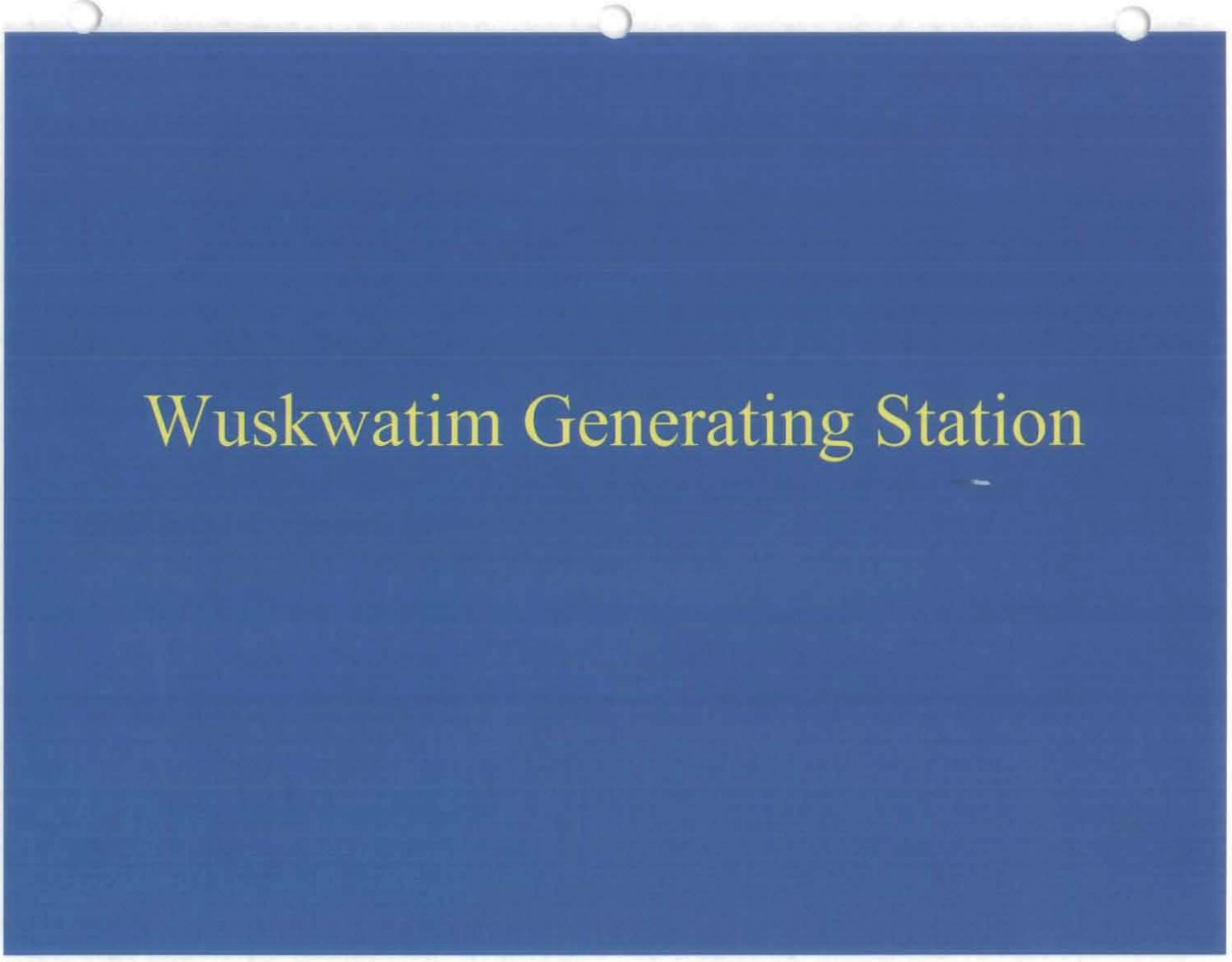
17

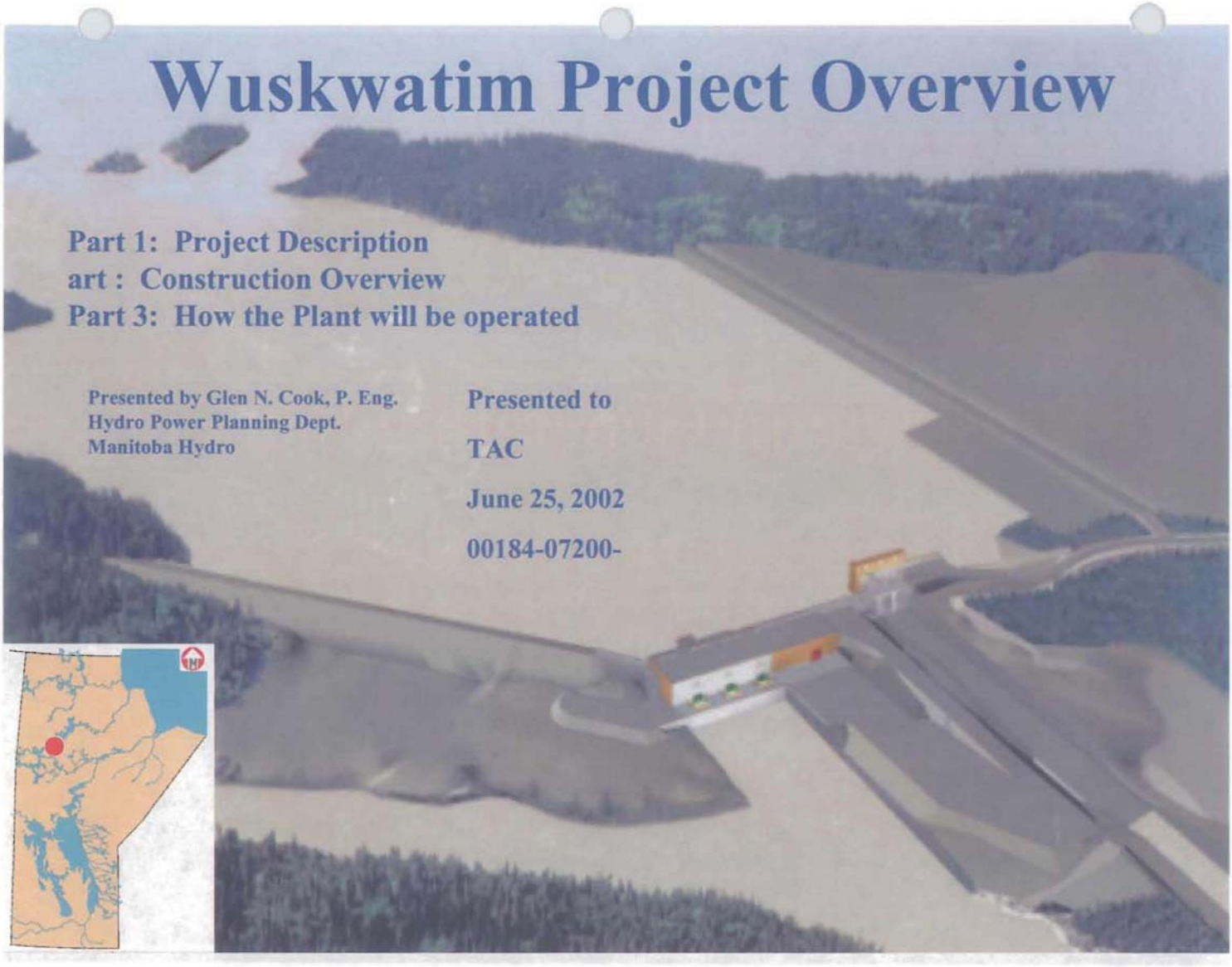
Water Regime Cont'd

- In most years there will be about a 0.3 m (1 ft) decline in water levels from the tailrace to Stephens Lake
- No changes in terms or conditions of existing licenses (Lake Wpg. or CRD)
- The Gull project will require associated transmission lines

PCN Pres'n (Aug 20,02) - Project Overview

18


Wuskwatim Generating Station


Wuskwatim Project Overview
Part 1: Project Description
art : Construction Overview
Part 3: How the Plant will be operated
Presented by Glen N. Cook, P. Eng.
Hydro Power Planning Dept.
Manitoba Hydro
Presented to
TAC
June 25, 2002
00184-07200-

Outline

- Wuskwatim Project Description
- Construction Overview
- How the Plant will be Operated

PCN Pres'n (Aug 20,02) -
Project Overview

21

Part 1

- **Wuskwatim Project Description**
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PCN Pres'n (Aug 20,02) -
Project Overview

22