

MINISTER OF CONSERVATION AND CLIMATE

Legislative Building Winnipeg, Manitoba, CANADA R3C 0V8

Jay Grewal
President
Manitoba Hydro
360 Portage Avenue
P.O. Box 815, Stn. Main
Winnipeg MB R3C 2P4
jgrewal@hydro.mb.ca

Dear Jay Grewal:

Manitoba Hydro requested on May 6, 2009, a Final Licence for the Churchill River Diversion (CRD) under the provisions of The Water Power Act and Regulations. It is understood that Manitoba Hydro's request was to include the interim licence terms that have been modified on an annual basis for the Augmented Flow Program (AFP) since 1986 in the Final Licence.

This decision and the licensing and non-licensing conditions have been informed based on the Crown-Indigenous Consultation Report, the Regional Cumulative Effects Assessment (RCEA) for Hydroelectric Developments on the Churchill, Burntwood and Nelson River Systems and the Clean Environment Commission's Report on RCEA as part of the licensing decision process. It should be noted that the following conditions are related to the CRD project area as defined in the Final Licence.

In accordance with Section 87 of The Water Power Regulation, the Licensee is instructed to:

- Work with Manitoba to expand the Coordinated Aquatics Monitoring Program to other
 areas including shoreline erosion, shoreline wetland issues (such as traditional plants,
 medicines and waterfowl) and monitoring of terrestrial and riparian components and
 shoreline health with the inclusion of Indigenous community participation and
 Indigenous traditional knowledge.
- Participate in any future large area planning initiative that may include studies in areas impacted by hydroelectric development, along with affected communities with other stakeholders.
- Continue to monitor and evaluate water quality, including toxicology and methylmercury (MeHg) in fish.

- Participate in the future licence modernization processes directed by the Province of Manitoba. The Province intends to evaluate the Water Power Act and Regulation to determine what amendments may be required for modernization.
- Manitoba acknowledges the traditional importance of the fishery to Indigenous resource users, has heard their concerns about the ongoing impacts of the project, and recognizes the activities and Agreements that Manitoba Hydro has undertaken to address these impacts. In preparation for renewal of the Final Licence and participation in large area planning, it is expected that Manitoba Hydro will work with Manitoba to undertake studies that may be employed to improve the environment for fish downstream of Missi control structure. These may include habitat studies, investigating flow regime scenarios, and any associated analysis.

My department will contact you in the near future to develop a Licence Implementation Guide collaboratively with Manitoba Hydro. This Guide will be used by Manitoba Hydro and the department to evaluate and measure compliance; outline specific operating requirements; and operational guidelines for how Manitoba Hydro operates CRD within the licence range and how it deals with excursions from that range.

In accordance with Section 82 of the Water Power Regulation, before executing the Final Licence, I, as Minister, am submitting the enclosed "Certificate of Acceptance" and its attached Exhibit "A" (Final Licence) in order to secure from you, the prospective licensee, an acceptance of the terms and conditions of the proposed Final Licence and an undertaking to observe the terms and conditions of the proposed Final Licence and the Water Power Regulation. Therefore, in this regard, please have the appropriate officials of Manitoba Hydro sign and seal two copies of the enclosed "Certificate of Acceptance", and return one copy to my office together with its attached Exhibit "A" by May 7, 2021.

If you have any questions regarding this matter, please contact Shannon Kohler, Director, Environmental Approvals Branch, at Shannon.Kohler@gov.mb.ca or 204-792-9074.

Sincerely,

"originally signed by"

Sarah Guillemard Minister

Enclosure(s)

Certificate of Acceptance
Exhibit A: Final Licence to Churchill River Diversion

c. Shannon Kohler

PROVINCE OF MANITOBA MANITOBA CONSERVATION AND CLIMATE

FINAL LICENCE FOR THE DIVERSION OF WATER FROM THE CHURCHILL RIVER TO THE NELSON RIVER, AND THE IMPOUNDMENT OF WATER ON THE RAT RIVER AND SOUTHERN INDIAN LAKE

(the "Churchill River Diversion")

Issued to Manitoba Hydro, a corporation duly incorporated by Act of Legislature of the Province of Manitoba, whose head office address is 360 Portage Avenue, Winnipeg, Manitoba, R3C 0G8 ("the Licensee")

Issued in accordance with the provisions of The Water Power Act, (C.C.S.M., c W60), and the Water Power Regulation (M.R. 25/88R) as amended from time to time.

Background:

- A. The Licensee was initially granted an Interim Licence dated December 19, 1972 providing the right to divert water from the Churchill River into the Nelson River, and to impound water on the Rat River and Southern Indian Lake, for the development of water power, and the right for that purpose to use and occupy certain lands of the Province; to construct, operate and maintain the Undertaking. This authorization was replaced by another Interim Licence dated May 11, 1973.
- B. The Licensee completed the Undertaking and is operating it for the development of water power. The nature of the Undertaking being control dams at the natural outlets of Southern Indian Lake at Missi Falls; an excavated diversion channel from South Bay on Southern Indian Lake to Issett Lake; control dams on the Rat River about 6.4 kilometres downstream from Notigi Lake; the Manasan Falls Ice Control Structure just upstream of the City of Thompson; the Churchill Weir about 10 kilometres south of the Town of Churchill; and all necessary machinery and equipment required for controlling the diversion and impoundment of water for the development of water power, as shown or described more particularly by means of the record plans and data filed with the Director, as specified herein.
- C. The initial development of the Undertaking was completed on September 1, 1976.
- D. On January 30, 1978, the Licensee provided written notification to the Deputy Minister that the Undertaking was completed.
- E. Since 2008 and in partnership with the Province of Manitoba, the Licensee has operated the Coordinated Aquatic Monitoring Program to monitor environmental effects of system operation.
- F. In 2015, the Licensee and the Province of Manitoba produced a Regional Cumulative Effects Assessment documenting the social and environmental changes resulting from hydroelectric development in northern Manitoba to fulfill a requirement of the Clean Environment Commission.
- G. The Licensee has done all the things which in the opinion of the Director are required to be done prior to the issuance of a Final Licence.
- H. The Licensee has fully complied with the requirements of the Water Power Regulation and the terms and conditions of the Interim Licence and authorized deviations insofar as it is required for the issuance of this Final Licence.
- I. The terms pertaining to the operation of this Undertaking are provided in imperial units to be consistent with the terms previously granted.
- J. This Final Licence incorporates the terms of the requested deviations and authorizations that have been granted since 1986. These granted deviations have amended Articles 9, 10, 11, 15(b) and 15(c) of the Interim Licence. These articles pertain to the maximum and minimum water levels on Southern Indian Lake (SIL), the maximum average weekly flow through the Notigi Control Structure (NCS), the

- draw down rate of SIL, and minimum upstream water level at the NCS. These granted deviations have become known as the Augmented Flow Program.

TERMS AND CONDITIONS OF THE FINAL LICENCE

PART 1.0 DEFINITIONS

- 1.1. In this Licence, the following words have the meaning ascribed to them and form part of the recital above:
 - (a) "ASL" means above mean sea level, Canadian Geodetic Datum;
 - (b) "Department" means the Department of Conservation and Climate, or such department under the responsibility of the Minister from time to time;
 - (c) "Director" means the Director of Environmental Approvals Branch of the Department, or such person who is performing the function of Director under The Water Power Act and the Water Power Regulation;
 - (d) "Minister" means the Minister responsible for the administration of The Water Power Act;
 - (e) "Severance Line" means the line within which, in the event that the licence should ever be terminated either by the failure to renew it upon the expiry of the term, or by voidance, cancellation, or any other legal process, the lands, works, and properties used or useful in connection with the Undertaking should be considered as essentially tributary to the power or storage development, and outside of which such lands, works, and properties should be subject to be taken over on a different basis;
 - (f) "Undertaking" means the Undertaking to be carried on pursuant to this Licence for works described in Section 2.2 of this Licence and all such ancillary works as may be necessary for its development and includes all matters authorized by this Licence;
 - (g) "The Water Power Act" means The Water Power Act (C.C.S.M. c. W60) and includes any amendment or replacement of that Act; and
 - (h) "Water Power Regulation" means the Water Power Regulation (M.R. 25/88R) and includes any amendments or replacement of that Regulation and any other regulations now or hereinafter in force governing the granting or administering of provincial water powers or the lands required in connection with the development and use of provincial water powers in effect from time to time.

PART 2.0 GRANT OF WATER POWER RIGHTS

- 2.1. Under authority of and subject to the provisions of The Water Power Act and the Water Power Regulation this Final Licence is issued, authorizing the Licensee to:
 - (a) divert water from the Churchill River into the Nelson River, and to impound water on the Rat River and Southern Indian Lake, for the development of water power;
 - (b) occupy lands of the Province described in Section 4.2 for the benefit of downstream power generating facilities to generate, transmit, sell and deliver electric power and energy; and
 - (c) operate and maintain the Undertaking, described in Section 2.2 of this Final Licence.
- 2.2. The Undertaking authorized to be maintained and operated by the Licensee under this Final Licensee consists of the following:
 - (a) The Missi Falls Control Structure, which regulates the amount of water allowed to pass down the Churchill River, consists of six spillway bays as well as earth

- dams and dykes. The control structure is capable of discharging 3,200 cubic metres per second (113,000 cubic feet per second) at a forebay level of 258.32 metres (847.5 feet) ASL. Major components include the spillway control structure, south channel dam, north channel dam, main dam and south dyke. Electrical power required for the operation of this control structure is generated and supplied by the Missi House Unit authorized under the Missi Falls Site Final Water Power Licence;
- (b) The South Bay Diversion Channel diverts water from the South Bay of Southern Indian Lake to Issett Lake. The channel is nominally 60 metres wide at its base and is about 9.3 kilometres long;
- (c) The Notigi Control Structure regulates the amount of water diverted to the Nelson River via the Rat and Burntwood Rivers. Major components consist of the spillway with three spillway bays, an adjacent electrical service substation building, main dam and a saddle dam. The control structure is capable of discharging 1,870 cubic metres per second (66,000 cubic feet per second) at a forebay elevation of 258.32 metres (847.5 feet) ASL;
- (d) The Manasan Falls Ice Control Structure is a passive control structure designed to reduce the risk of inundation due to ice in the City of Thomson. The project consists of an ice boom across the river upstream of a groin/gap structure, a by-pass channel with a concrete overflow weir and a flood channel protected with a fuse plug dyke;
- (e) The Churchill Weir is a mitigatory structure designed to increase water levels on the Churchill River to ensure a potable water source and to enhance recreation and aquatic habitat. The structure was built about 10 kilometres south of the Town of Churchill, just upstream of Mosquito Point. The structure consists of an overflow section and west and east dyke sections. The overflow section includes a fishway segment at the lowest point of the weir. Incorporated into the east dyke are the Goose Creek fishway and an emergency flood relief section; and
- (f) All necessary equipment, buildings and ancillary works required for the diversion of the Churchill River, together with such other approved works as have been constructed, all as shown by plans and descriptions thereof filed in the office of the Director at Winnipeg and as described in Section 7.3 (Appendix 1) of this Final Licence.

PART 3.0 REGULATION AND CONTROL OF WATERS

- 3.1. The Licensee may divert water from the Churchill River into the Nelson River, and to store water on the Rat River and Southern Indian Lake, for the development of water power on the Burntwood and Nelson rivers during the term of this Final Licence. However, in accordance with Section 72 of the Water Power Regulation, this licence is issued on the express condition that the Licensee shall:
 - (a) divert, use or store the water authorized to be diverted, used or stored by the Licensee in such a manner as not to interfere, in the opinion of the Minister, with the maximum advantageous development of the electric power and energy and other resources of the river or stream upon which the works are located;
 - (b) conform to and comply with any orders in respect of the control or regulation of the flow of the waters of such river or stream as may be made from time to time by the Minister or any person authorized by the Minister in that behalf; and
 - (c) at no time cause or permit the surface level of the waters of such river or stream or of any storage reservoir operated by the Licensee to be raised or lowered beyond the limits which shall be fixed from time to time by the Minister or by a person authorized by the Minister in that behalf.
- 3.2. Subject to Section 3.4 of this Final Licence, and except as may be otherwise authorized by the Minister, the Licensee shall, during periods when the water level of Southern Indian Lake is above elevation 258.32 metres (847.5 feet) ASL, operate the Missi Falls and Notigi Control Structures in such a manner as to effect

- the maximum discharge possible under the circumstances then prevailing until the water level of Southern Indian Lake recedes to elevation 258.32 metres (847.5 feet) ASL.
- 3.3. Subject to Section 3.5 of this Final Licence, and except as may be otherwise authorized by the Minister, the Licensee shall regulate the outflow from Southern Indian Lake so as to prevent the water level from receding below elevation 256.95 metres (843.0 feet) ASL.
- 3.4. Flows from Notigi Control Structure are limited as follows:
 - (a) Between May 16th and October 31st the Licensee shall not release more than an average weekly flow of 991 cubic metres per second (35,000 cubic feet per second) through the Notigi Control Structure and shall vary the magnitude of the release through that structure from time to time so that the flow in the Burntwood River does not cause the water level at the Thompson Sea Plane Base to rise above 188.67 metres (619.0 feet) ASL; and
 - (b) Between November 1st and May 15th the Licensee shall not release more than an average weekly flow of 963 cubic metres per second (34,000 cubic feet per second) through the Notigi Control Structure and shall vary the magnitude of the release through that structure from time to time so that the flow in the Burntwood River does not cause the water level at the Thompson Pumphouse to rise above 189.89 metres (623.0 feet) ASL.
- 3.5. Releases from Missi Falls Control Structure shall not be less than 14 cubic metres per second (500 cubic feet per second) during the open water period and 42 cubic metres per second (1,500 cubic feet per second) during the ice cover period. Such greater releases as may be required for the needs of downstream interests shall be released as ordered by the Minister.
- 3.6. Subject to Sections 3.2, 3.3 and 3.4 of this Final Licence, but notwithstanding any other terms or conditions of this Final Licence, the Licensee shall operate the Missi Falls and Notigi Control Structures in such a manner that:
 - (a) Any increase or decrease in the rate of outflow through either structure during any calendar day shall not exceed 280 cubic metres per second (10,000 cubic feet per second);
 - (b) The maximum drawdown on Southern Indian Lake of 1.37 metres (4.5 feet) be staged over a period of time and in such a manner so as to minimize adverse impacts on Southern Indian Lake residents; and
 - (c) The minimum water level immediately upstream of the Notigi Control Structure shall not be less than elevation 254.20 metres (834.0 feet) ASL.
- 3.7 As and at the times requested by the Minister, the Licensee shall submit to the Minister, for approval, a schedule of the proposed releases from, over, or through the several works, and the Minister may approve the schedules with or without variation; and subject to any order made under the Act, the Licensee shall comply with the schedules so approved.

PART 4.0 LANDS TO BE USED AND OCCUPIED

- 4.1 The Severance Line is defined as shown on Plan No. 60-1-1009 (Sheets 1 to 32) filed in the office of the Director. These plans may be amended from time to time.
- 4.2 The Licensee may enter upon, use, occupy or flood the lands of the Province for the maintenance and operation of the Undertaking broadly described as located; along the Churchill River from just below the Town of Leaf Rapids to Southern Indian Lake to just above the Town of Churchill; and from Southern Indian Lake via the South Bay Channel to the Rat and Burntwood Rivers to the mouth of Split Lake. These lands comprise 76,884.1 hectares (189,885.8 acres) as shown on Plan No. 60-1-1009 (Sheets 1 to 32) filed in the office of the Director and shall be the following:

- (a) Lands of the province not covered by water required for main diverting works, powerhouse and similar works, comprise 729.4 hectares (1,802.3 acres);
- (b) Lands of the province covered by water required for main diverting works, powerhouse and similar works, comprise 63.0 hectares (155.7 acres);
- (c) Lands of the province required only to be flooded in connection with the storage or pondage of water comprise 75,956.2 hectares (187,691.8 acres);
- (d) Lands of the province required for rights-of-way comprise 95.5 hectares (236.0 acres); and
- (e) Lands of the province required for substations, distribution stations, etc. comprise 0.0 hectares (0.0 acres).

PART 5.0 LAND USE RENTALS

5.1. The Licensee shall pay a land rental during the term of this Final Licence for the use and occupation and flooding of lands of the Province in accordance with the Water Power Regulation then in force, or as may be amended, under Section 48 of the Water Power Regulation. This rental shall be determined by the rate prescribed in Section 48(3.1) of the Water Power Regulation, and by the area described in Section 4.2 of this Final Licence.

PART 6.0 DURATION OF FINAL LICENCE

6.1. In accordance with Section 45 of the Water Power Regulation, the term of this Final Licence shall be for the fifty (50) year period from September 1, 1976 to September 1, 2026. This Final Licence shall thereafter be subject to renewal or extension in accordance with the provisions of the applicable Acts and Regulations then in force.

PART 7.0 GENERAL PROVISIONS

- 7.1 The Licensee shall comply with:
 - (a) all terms and conditions of this Licence;
 - (b) all applicable provisions of The Water Power Act and the Water Power Regulation;
 - (c) all applicable federal and provincial laws; and
 - (d) any instructions of the Minister concerning any of those matters not inconsistent with the above-mentioned Acts and Regulations.
- 7.2 All water levels referred to in this Final Licence shall be understood to have wind and wave effects eliminated where applicable.
- 7.3 The plans filed by the Licensee and made a part of this Final Licence are as listed in Appendix 1.
- 7.4 The Licensee shall, to the satisfaction of the Director, provide a monthly forecast of waters levels and flows in connection with the operation of the Undertaking.
- 7.5 The Licensee shall provide monthly written reports on the operations of the Undertaking to the Director. The Licensee must also forward these reports to affected communities.
- 7.6 As provided for in Section 65 of the Water Power Regulation, the Licensee shall submit all information and data on water levels and flows necessary to enable the Director to determine compliance with this Final Licence and other approvals pertaining to water levels and flows in connection with the operation of the Undertaking.
- 7.7 The Licensee shall provide the Minister, the Director, or any person appointed by either for the purpose with free access to all parts of the works, lands and properties of the Licensee and to all books, plans, records or accounts used in

- connection with or affecting this Final Licence or the Undertaking, and may from time to time make measurements and observations and take such other steps for carrying out any inquiry as may be considered necessary or expedient in the administration of the Regulation.
- 7.8 The Licensee shall participate in future planning, studies and other initiatives as instructed by the Minister, in areas impacted by the Undertaking along with affected communities and other stakeholders.
- 7.9 The Licensee shall, to the satisfaction of the Minister, continue to participate in a system-wide monitoring program in the lands and waters that are affected by the Undertaking, including Indigenous community participation and Indigenous traditional knowledge.
- 7.10 The Licensee shall, to the satisfaction of the Minister, continue to implement a public safety and debris management program in lands and waters within the Severance Line, and report annually to the Director.
- 7.11 The Licensee shall submit an annual report to the Director documenting the Licensee's engagement with Indigenous communities on the continued operation of the Undertaking.
- 7.12 The Licensee shall, to the satisfaction of the Minister, continue to evaluate, report, and implement options for mitigating shoreline erosion due to the Undertaking consistent with existing and future settlement agreements.
- 7.13 The Licensee shall, to the satisfaction of the Minister, prepare a licence implementation guide, within one year of the date of this Final Licence.

Issued at Winnipeg this 12 th day of	may	, 2021 by the Honourable Minister of
Conservation and Climate.	J	

Sarah Guillemard

"originally signed by"
Minister of Conservation and Climate

Appendix 1

The following approved plans filed by the Licensee in the office of the Director constitute part of this Final Licence.

Manitoba Plan Number Numbe			
Number Churchill	Province of	Licensee's Drawing	
Number Churchill Go-1-1010 1-00531-DE-13510- OBS Churchill Go-1-1011 1-00531-DE-13510- OBS Churchill WEIR - PROJECT LAYOUT AND GENERAL ARRANGEMENT GO-1-1012 1-00531-DE-13510- OBS Churchill WEIR - PLAN & PROFILE OBS Churchill WEIR - PLAN & PROFILE OBS		_	Description
60-1-1010		Trainibo.	
0001 (Sheet 1) Rev. 2			
Churchill Weir - Plan & Profile	60-1-1010	1-00531-DE-13510-	CHURCHILL WEIR – PROJECT LAYOUT AND
60-1-1011		0001 (Sheet 1) Rev.	GENERAL ARRANGEMENT
0003 (Sheet 1) Rev. 3 3 1-00531-DE-13510- 0003 (Sheet 3) Rev. 3 3 60-1-1013 1-00531-DE-13510- 0004 (Sheets 1 & 2) 0005 (Sheet 1) Rev. 3 60-1-1014 1-00531-DE-13510- 0005 (Sheet 1) Rev. 2 2 2 1-15 LAYOUT 2 2 2 2 2 1-15 LAYOUT 2 2 2 2 2 1-15 LAYOUT 2 2 2 2 2 2 2 1-15 LAYOUT 2 2 2 1-15 LAYOUT 2 2 2 2 2 2 2 2 2 2			
3	60-1-1011	1-00531-DE-13510-	CHURCHILL WEIR - PLAN & PROFILE
60-1-1012		0003 (Sheet 1) Rev.	
0003 (Sheet 3) Rev. 3		3	
30	60-1-1012	1-00531-DE-13510-	CHURCHILL WEIR - SECTIONS & DETAILS
G0-1-1013		0003 (Sheet 3) Rev.	
(Sheets 1 & 2) 0004 (Sheets 1 & 2) Rev. 3 60-1-1014 1-00531-DE-13510- 0005 (Sheet 1) Rev. 2 60-1-1015 1-00531-DE-13510- 0005 (Sheet 2) Rev. 2 60-1-1016 1-00531-DE-13510- 0007 (Sheet 1) Rev. 2 60-1-1017 1-00531-DE-13510- 0008 (Sheet 1) Rev. 2 60-1-1017 1-00531-DE-13510- 0008 (Sheet 1) Rev. 3 60-1-1018 (Sheets 1 to 3) 0029 (Sheets 1 to 3) 0029 (Sheets 1 to 3) 0039 (Sheet 1) Rev. 3 60-1-1019 1-00531-DE-13510- 0037 (Sheet 1) Rev. 0 60-1-1019 1-00531-DE-13510- 0037 (Sheet 1) Rev. 0 60-1-1020 1-00531-DE-13510- 0037 (Sheet 2) Rev. 0 60-1-1021 1-00531-DE-13510- 0037 (Sheet 3) Rev. 0 60-1-1022 1-00531-DE-13510- 0037 (Sheet 3) Rev. 0 60-1-1024 1-00531-DE-13510- 0037 (Sheet 4) Rev. 0 60-1-1024 1-00531-DE-13510- 0037 (Sheet 5) Rev. 0 60-1-1026 1-00531-DE-13510- 0037 (Sheet 7) Rev. 0 60-1-1026 1-00531-DE-13510- 0037 (Sheet 5) Rev. 0 60-1-1026 1-00531-DE-13510- 0037 (Sheet 7) Rev. 0 60-1-1026 1-0008-RE-11510- 0037 (Sheet 7) Rev. 0 60-1-1009 (Sheets 1 to 3)			
Rev. 3	60-1-1013	1-00531-DE-13510-	CHURCHILL WEIR – DOWNSTREAM DRAINAGE
60-1-1014	(Sheets 1 & 2)		CLEARING & DETAILS
0005 (Sheet 1) Rev. 21+15 LAYOUT 2			
CHURCHILL WEIR - FISHWAY STATION 18+15 TO	60-1-1014	1-00531-DE-13510-	
0005 (Sheet 2) Rev. 2 21+15 SECTIONS & DETAILS		0005 (Sheet 1) Rev.	21+15 LAYOUT
0005 (Sheet 2) Rev. 2 21+15 SECTIONS & DETAILS		2	
2	60-1-1015	1-00531-DE-13510-	CHURCHILL WEIR - FISHWAY STATION 18+15 TO
0007 (Sheet 1) Rev. 2 2 CROSSING STRUCTURE PLAN, SECTIONS AND DETAILS		0005 (Sheet 2) Rev.	21+15 SECTIONS & DETAILS
0007 (Sheet 1) Rev. 2 2 CROSSING STRUCTURE PLAN, SECTIONS AND DETAILS		2	
CHURCHILL WEIR - GOOSE CREEK CULVERT	60-1-1016	1-00531-DE-13510-	CHURCHILL WEIR – GOOSE CREEK BRIDGE
60-1-1017		0007 (Sheet 1) Rev.	CROSSING STRUCTURE PLAN, SECTIONS AND
0008 (Sheet 1) Rev. 3		2	DETAILS
3	60-1-1017	1-00531-DE-13510-	
Column		0008 (Sheet 1) Rev.	CROSSING PLAN, SECTIONS AND DETAIL
Sheets 1 to 3 0029 (Sheets 1 to 3 Rev. 3, 4, 4 1-00531-DE-13510-0037 (Sheet 1) Rev. 0 0 1-00531-DE-13510-0037 (Sheet 3) Rev. 0 0 0 0 0 0 0 0 0 0		3	
Rev. 3, 4, 4	60-1-1018	1-00531-DE-13510-	GOOSE CREEK ENHANCEMENT PLAN AND
CHURCHILL WEIR - GOOSE CREEK FISHWAY	(Sheets 1 to 3)	0029 (Sheets 1 to 3)	SECTIONS
0030 (Sheet 1) Rev. 3			
Sample	60-1-1019	1-00531-DE-13510-	
60-1-1020			
0037 (Sheet 1) Rev. 0			
0	60-1-1020		CHURCHILL WEIR AS BUILT PLAN
60-1-1021		0037 (Sheet 1) Rev.	
0037 (Sheet 2) Rev. 0 0 0 0 0 0 0 0 0			
0	60-1-1021		CHURCHILL WEIR EAST DYKE AS BUILT SECTIONS
60-1-1022		0037 (Sheet 2) Rev.	
0037 (Sheet 3) Rev. 0		1-	
0	60-1-1022		
60-1-1023		0037 (Sheet 3) Rev.	EAST WEIR
0037 (Sheet 4) Rev. 0			
0	60-1-1023		CHURCHILL WEIR EAST DYKE FISH PASSAGE
60-1-1024		0037 (Sheet 4) Rev.	
0037 (Sheet 5) Rev. STATION 21+55 TO 25+90 0			
0	60-1-1024		
60-1-1025		. '	STATION 21+55 TO 25+90
0037 (Sheet 6) Rev. STATION 26+20 TO 31+45 0			
0	60-1-1025		
60-1-1026		0037 (Sheet 6) Rev.	STATION 26+20 TO 31+45
0037 (Sheet 7) Rev. BUILT SECTIONS STATION 31+82 TO 36+89			
0 General Go-1-1009 1-00188-PE-11510- SEVERANCE LINE AND LANDS REQUIRED FOR (Sheets 1 to 32) 32) General Gener	60-1-1026		
General 60-1-1009 1-00188-PE-11510- SEVERANCE LINE AND LANDS REQUIRED FOR (Sheets 1 to 32) 32) FLOODING AND OTHER PURPOSES			BUILT SECTIONS STATION 31+82 TO 36+89
60-1-1009 1-00188-PE-11510- SEVERANCE LINE AND LANDS REQUIRED FOR FLOODING AND OTHER PURPOSES 32) 32)		U	
(Sheets 1 to 32) Sheets 1 to FLOODING AND OTHER PURPOSES 32)		1	
32) 32)			
	,	1	FLOODING AND OTHER PURPOSES
		32)	
	Manasan	1	
57-1-1013 1-00188-B-00513 MANASAN BYPASS CHANNEL – SITE PLAN	57-1-1013		MANASAN BYPASS CHANNEL – SITE PLAN
0001/00		0001/00	

57-1-1014	00188-C-00618	MANASAN FALLS ICE BOOM - PLAN & FOUNDATION
		DETAILS
57-1-1018	1-00188-D-03901	MANASAN SITE - CONTROL STRUCTURE - PLAN OF
	(Sheet 1) Rev. 4	COMPLETED STRUCTURE
57-1-1019	1-00188-D-03901	MANASAN SITE - CONTROL STRUCTURE -
	(Sheet 2) Rev. 4	SECTIONS OF COMPLETED STRUCTURE

Manitoba Plan Number Number Number Number Number S7-1-1015 00188-E-03909 MANASAN CONTROL STRUCTURE - REHABILITATION REHABILITATION REHABILITATION REHABILITATION MANASAN BYPASS CHANNEL - AS BUILT STRUCTURE	Province of	Licensee's Drawing	Description
Manasan (continued)			Becomption
Manasan (continued)			
57-1-1015 00188-E-03909 MANASAN CONTROL STRUCTURE - REHABILITATION 57-1-1016 00188-E-03920 MANASAN BYPASS CHANNEL - AS BUILT 57-1-1017 1-00188-E-03921 STRUCTURE 57-1-1017 1-00188-E-03914 STRUCTURE 57-1-1017 1-00188-E-03914 STRUCTURE STRUCTURE 57-1-1017 1-00188-E-03914 STRUCTURE PLAN & SECTIONS 61-6-1056 1-00187-D-21000 MISSI FALLS PROJECT - BREAKWATER-AS BUILT M-11) 61-6-1057 7-00187-D-00039 MISSI FALLS PROJECT - PLAN & AS BUILT X- SECTIONS OF MAIN DYKE PERMANENT CONNECTOR ROAD 61-6-1058 7-00187-D-00109 MISSI FALLS PROJECT - PLAN AND AS-BUILT X- SECTIONS OF MAIN DYKE PERMANENT CONNECTOR ROAD 61-6-1059 1-00187-D-00110 MISSI FALLS CONTROL - HORTH CHANNEL DAM SECTIONS OF MAIN DYKE SECTIONS OF MAIN DYKE 61-6-1069 1-00187-D-00110 MISSI FALLS CONTROL - HORTH CHANNEL DAM CONNECTOR ROAD MISSI FALLS PROJECT - PLAN AND AS-BUILT X- SECTIONS OF MAIN DYKE SECTIONS OF MAIN DYKE SECTIONS OF MAIN DYKE MISSI FALLS PROJECT - PLAN AND AS-BUILT X- SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN AND AS-BUILT X- SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN & AS BUILT X- SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN & AS BUILT X- SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS CONTROL - AREA PLAN MISSI FALLS CONTROL - BRILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-3) MISSI FALLS CONTROL - SPILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL - SPILLWA		nued)	
REHABILITATION MANSAN BYPASS CHANNEL - AS BUILT STRUCTURES STRUCTURES STRUCTURES STRUCTURES STRUCTURES STRUCTURES STRUCTURES STRUCTURES STRUCTURE STRUCTURES STRUCTURES STRUCTURE ST			MANASAN CONTROL STRUCTURE -
STRUCTURES	0	00.000 = 00000	
S77-1-1017 1-00188-E-03914 MANASAN BYPASS CHANNEL - COMPLETED	57-1-1016	00188-E-03920	MANASAN BYPASS CHANNEL – AS BUILT
Scheets 1 & 2 STRUCTURE PLAN & SECTIONS	57-1-1017	1-00188-E-03914	
Missi 61-6-1055 7-00187-D-00113 Missi Falls PROJECT - BREAKWATER.AS BUILT 61-6-1056 1-00187-D-20100- Missi Falls Control - Earth Dams, Dykes and BREAKWATER TYPICAL CROSS-SECTIONS (PLATE M-11) Missi Falls PROJECT - PLAN & AS BUILT X-SECTIONS (Sheets 1 to 8) SCETIONS OF MAIN DYKE PERMANENT CONNECTOR ROAD Missi Falls PROJECT - PLAN & AS BUILT X-SECTIONS OF MAIN DYKE PERMANENT CONNECTOR ROAD Missi Falls PROJECT - PLAN AND AS-BUILT X-SECTIONS OF MAIN DYKE PERMANENT CONNECTOR ROAD Missi Falls PROJECT - PLAN AND AS-BUILT X-SECTIONS OF MAIN DYKE PERMANENT CONNECTOR ROAD Missi Falls PROJECT - PLAN AND AS-BUILT X-SECTIONS OF MAIN DYKE MISSI FALLS PROJECT - PLAN AND AS-BUILT X-SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN AND AS-BUILT X-SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS OF SOUTH CHANNEL DAM AND CONNECTOR ROAD MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS SOUTH DYKES MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS SOUTH DYKES MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS SOUTH DYKES MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS SOUTH DYKES MISSI FALLS CONTROL - AREA PLAN MISSI FALLS CONTROL - AREA PLAN MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS OF SOUTH CHANNEL STRUCTURES (PLATE M-2) MISSI FALLS CONTROL - BROAD MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS OF SOUTH CHANNEL STRUCTURES (PLATE M-2) MISSI FALLS CONTROL - BROAD MISSI FALLS PROJECT - PLAN & AS BUILT X-SECTIONS OF SOUTH CHANNEL STRUCTURES (PLATE M-2) MISSI FALLS CONTROL - SPILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-2) MISSI FALLS CONTROL - SPILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL - SPILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL - SPILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (P			STRUCTURE PLAN & SECTIONS
61-6-1056	Missi	1	
0002 BREAKWATER TYPICAL CROSS-SECTIÓNS (PLATE M-1)	61-6-1055	7-00187-D-00113	MISSI FALLS PROJECT – BREAKWATER-AS BUILT
0002 BREAKWATER TYPICAL CROSS-SECTIONS (PLATE M-11)	61-6-1056		MISSI FALLS CONTROL - EARTH DAMS, DYKES AND
(Sheets 1 to 8) (Sheets 1 to 8)		0002	
CONNECTOR ROAD	61-6-1057	7-00187-D-00093	MISSI FALLS PROJECT – PLAN & AS BUILT X-
(Sheets 1 to 0	(Sheets 1 to 8)	(Sheets 1 to 8)	
38	61-6-1058	7-00187-D-00109	MISSI FALLS PROJECT - PLAN AND AS-BUILT X-
61-6-1059	,	(Sheets 1 to 38)	SECTIONS OF MAIN DYKE
0002 0001/01 EXCAVATION AND FILL		1-00187-DF-21110-	MISSI FALLS CONTROL - NORTH CHANNEL DAM
(Sheets 1 to 16) (Sheets 1 to 16) (Sheets 1 to 16) (Sheets 1 to 6) (Sheets 1 to 4) (Sheets 1 to 2) (Sheets 1 to 3) (Sheets 1 to 4) (Sheets 1 to 4) (Sheets 1 to 4) (Sheets 1 to 5) (Sheets 1 t			
16 61-6-1061	61-6-1060	7-00187-D-00110	MISSI FALLS PROJECT - PLAN AND AS-BUILT X-
16)		(Sheets 1 to 16)	SECTIONS OF SOUTH CHANNEL DAM AND
Sheets 1 to 6 Sheets 1 to 6 Control Sheets 1 to 6 Control Sheets 1 to 6 Sheets 1	16)		
61-6-1062 1-00187-DD-10100- 0007 MISSI FALLS CONTROL – LOCATION OF PROJECT AND WICINITY MAP MISSI FALLS CONTROL – AREA PLAN MISSI FALLS CONTROL – AREA PLAN MISSI FALLS CONTROL – AREA PLAN MISSI FALLS CONTROL – GENERAL ARRANGEMENT OF SOUTH CHANNEL STRUCTURES (PLATE M-2) MISSI FALLS PROJECT – PLAN & AS BUILT X- SECTIONS ROCK GROIN G1-6-1066 7-00187-D-00037 MISSI FALLS PROJECT – PLAN & X-SECTIONS OF SOUTH TRANSITION STRUCTURE MISSI FALLS CONTROL – MISSI FALLS SPILLWAY G1-6-1067 1-00187-DF-023100- 0004 0001/01 MISSI FALLS CONTROL – MISSI FALLS SPILLWAY CHANNEL CROSS SECTIONS (PLATE M-3) MISSI FALLS CONTROL – SPILLWAY PLAN OF STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-3) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE M-4) MISSI FALLS CONTROL – SPILLWAY DOWNSTREAM ELEVATION AND CROSS SECTIONS (PLATE N-4) MOTIGI CONTROL – BAREA PLAN (PLATE N-3) MISSI FALLS CONTROL – BAREA PLAN (PLATE N-3) MISSI FALLS CONTROL – BAREA PLAN (PLATE N-3) MISSI FALLS CONTROL – BAREA PLAN (PLATE M-4) MISSI FALLS CONTROL – SADDLE DAM AS CONSTRUCTED MOTIGI CONTROL – BAREA PLAN COFFERDAM MISSI FALLS CONTROL – BAREA PLAN COFFERDAM MISSI FALLS CONTROL – BAREA PLAN COFFERDAM MISSI FALLS CONTROL – BAREA PLAN (PLATE M-4) MISSI FALLS CONTROL – BAREA PLAN (PLATE	61-6-1061	7-00187-D-00091	MISSI FALLS PROJECT - PLAN & AS BUILT X-
0007 AND VICINITY MAP	(Sheets 1 to 6)	(Sheets 1 to 6)	
61-6-1063	61-6-1062	1-00187-DD-10100-	MISSI FALLS CONTROL – LOCATION OF PROJECT
0008			
61-6-1064	61-6-1063		MISSI FALLS CONTROL – AREA PLAN
0001			
61-6-1065 (Sheets 1 to 4) (Sheets 1 to 2) (Sheets 1 to 4) (Sheets 1 to 5)	61-6-1064		
(Sheets 1 to 4) (Sheets 1 to 2) (Sheets 1 to 4) (Sheets 1 to 5) (Sheets 1 to 5			
Sheets 1 to 4 (Sheets 1 to 4) (Sheets 1 to 2) (Sheets 1 to 4) (Sheets 1 to 5) (Sheets 1 to			
(Sheets 1 to 4) (Sheets 1 to 4) (Sheets 1 to 4) (Sheets 1 to 2) (Sheets 1 & 2) (Sheets 1			
1-00187-E-00202 (Sheets 1 to 2) (CHANNEL CROSS SECTIONS 1979 (MR)) (CHANNEL CROSS SECTIONS (PLATE M-3)) (Sheets 1 8-2) (Sheets 1 & 2) (Sheets 1 to 4) (Sheets 1 to 4) (Sheets 1 to 5) (Sh			
(Sheets 1 to 2) (Sheets 1 to 2) (CHANNEL CROSS SECTIONS 1979 (MR) (National Control of Structure and Channel Cross Sections (PLATE M-3) (Notigi of Structure) (Sheets 1 & 2) (Sheets 1 to 5) (Sheets 1 to		13	
1-0187-DF-23100-			
0004 0001/01 STRUCTURE AND CHANNEL CROSS SECTIONS (PLATE M-3)			
1-00187-DF-23100-	01-0-1000		STRUCTURE AND CHANNEL CROSS SECTIONS
Notigi	61-6-1069	1-00187-DF-23100-	
S7-3-1054			
Sheets 1 & 2 (Sheets 1 & 2)		7-00185-F-00106	NOTIGI CONTROL - LIPSTREAM COFFERDAM AS
1-00185-DF-23100-			
0003 0001/01 ELEVATION AND CROSS SECTIONS (PLATE N-4) 57-3-1056			
57-3-1056			
0004 0001/01 57-3-1057 1-00185-DF-10100-	57-3-1056		
57-3-1057 1-00185-DF-10100- 0008 0001/01 NOTIGI CONTROL – AREA PLAN (PLATE N-1) 57-3-1058 1-00185-DF-10100- 0009 0001/01 NOTIGI CONTROL – GENERAL ARRANGEMENT OF STRUCTURES (PLATE N-2) 57-3-1059 7-00185-D-00107 NOTIGI CONTROL – SITE PLAN OF PROJECT AS CONSTRUCTED 57-3-1060 1-00185-DF-21100- 0006 0001/01 NOTIGI CONTROL – EARTH DAMS TYPICAL CROSS SECTIONS (PLATE N-5) 57-3-1061 7-00185-D-00100 NOTIGI CONTROL – MAIN DAM AS CONSTRUCTED (Sheets 1 to 4) 1-00185-DD-21100- 0004 0001/02 NOTIGI CONTROL – SADDLE DAM 0004 0001/02 57-3-1063 7-00185-D-00101 NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED 57-3-1064 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM 2E AS			
57-3-1058 1-00185-DF-10100- 0009 0001/01 NOTIGI CONTROL – GENERAL ARRANGEMENT OF STRUCTURES (PLATE N-2) 57-3-1059 7-00185-D-00107 NOTIGI CONTROL – SITE PLAN OF PROJECT AS CONSTRUCTED 57-3-1060 1-00185-DF-21100- 0006 0001/01 NOTIGI CONTROL – EARTH DAMS TYPICAL CROSS SECTIONS (PLATE N-5) 57-3-1061 7-00185-D-00100 NOTIGI CONTROL – MAIN DAM AS CONSTRUCTED (Sheets 1 to 4) NOTIGI CONTROL – SADDLE DAM 57-3-1063 7-00185-D-00101 NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED (Sheets 1 to 5) (Sheets 1 to 5) NOTIGI CONTROL – SADDLE DAM 2E AS	57-3-1057	1-00185-DF-10100-	NOTIGI CONTROL – AREA PLAN (PLATE N-1)
0009 0001/01 STRUCTURES (PLATE N-2) 57-3-1059 7-00185-D-00107 NOTIGI CONTROL – SITE PLAN OF PROJECT AS CONSTRUCTED 57-3-1060 1-00185-DF-21100-	57-3-1058		NOTICI CONTROL - GENERAL ARRANGEMENT OF
57-3-1059 7-00185-D-00107 NOTIGI CONTROL – SITE PLAN OF PROJECT AS CONSTRUCTED 57-3-1060 1-00185-DF-21100- 0006 0001/01 NOTIGI CONTROL – EARTH DAMS TYPICAL CROSS SECTIONS (PLATE N-5) 57-3-1061 7-00185-D-00100 NOTIGI CONTROL – MAIN DAM AS CONSTRUCTED (Sheets 1 to 4) 1-00185-DD-21100- 0004 0001/02 NOTIGI CONTROL – SADDLE DAM 0004 0001/02 57-3-1063 7-00185-D-00101 NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED 0004 0001/02 57-3-1064 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM 2E AS	37-3-1030		
CONSTRUCTED	57-3-1059		
57-3-1060 1-00185-DF-21100- 0006 0001/01 NOTIGI CONTROL – EARTH DAMS TYPICAL CROSS SECTIONS (PLATE N-5) 57-3-1061 (Sheets 1 to 4) 7-00185-D-00100 (Sheets 1 to 4) NOTIGI CONTROL – MAIN DAM AS CONSTRUCTED 57-3-1062 1-00185-DD-21100- 0004 0001/02 NOTIGI CONTROL – SADDLE DAM 0004 0001/02 57-3-1063 (Sheets 1 to 5) 7-00185-D-00101 (Sheets 1 to 5) NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED 57-3-1064 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM 2E AS	3, 3, 1000	. 55,55 5 50107	
0006 0001/01 SECTIONS (PLATE N-5)	57-3-1060	1-00185-DF-21100-	
57-3-1061 7-00185-D-00100 NOTIGI CONTROL – MAIN DAM AS CONSTRUCTED (Sheets 1 to 4) (Sheets 1 to 4) 57-3-1062 1-00185-DD-21100- 0004 0001/02 57-3-1063 7-00185-D-00101 (Sheets 1 to 5) 57-3-1064 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED		l	
(Sheets 1 to 4) (Sheets 1 to 4) 57-3-1062 1-00185-DD-21100- 0004 0001/02 NOTIGI CONTROL – SADDLE DAM NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED (Sheets 1 to 5) (Sheets 1 to 5) (Sheets 1 to 5) 57-3-1064 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM 2E AS	57-3-1061		
57-3-1062			
0004 0001/02 57-3-1063 7-00185-D-00101 NOTIGI CONTROL – SADDLE DAM AS CONSTRUCTED (Sheets 1 to 5) (Sheets 1 to 5) 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM 2E AS		,	NOTIGI CONTROL – SADDLE DAM
57-3-1063			
57-3-1064 7-00185-D-00105 NOTIGI CONTROL – SADDLE DAM 2E AS	57-3-1063		NOTIGI CONTROL - SADDLE DAM AS CONSTRUCTED
		(Sheets 1 to 5)	
CONSTRUCTED	57-3-1064	7-00185-D-00105	
			CONSTRUCTED

Province of	Licensee's Drawing	Description
Manitoba Plan	Number	
number		
Notigi (continue	d)	
57-3-1066	1-00185-DF-23110-	NOTIGI CONTROL – SPILLWAY CHANNEL
	0003 0001/05	EXCAVATION
57-3-1067	1-00185-E-00202	NOTIGI SPILLWAY CHANNEL – CROSS SECTIONS &
(Sheets 1 & 2)	(Sheets 1 & 2)	CONTOURS 1978
South Bay Dive	rsion Channel	
57-3-1068	7-00186-E-00393	SOUTH BAY CHANNEL AS BUILT
(Sheets 1 to 6)	(Sheets 1 to 6)	
57-3-1069	7-00186-E-00394	SOUTH BAY CHANNEL - AS BUILT PLAN LAYOUT
(Sheets 1 & 2)	(Sheets 1 & 2)	