

Appendix A. LSMEOC Regulatory Approval Documents



MANITOBA

ORDER IN COUNCIL

DATE: **August 2, 2011**

ORDER IN COUNCIL NO.: **293/2011**

RECOMMENDED BY: **Minister of Conservation**

REGULATION MADE OR APPROVED: [124/2011](#)

ORDER

The *Lake St. Martin Outlet Channel Authorization Regulation* set out in the attached Schedule A is made.

AUTHORITY

The Environment Act, C.C.S.M. c. E125, states:

Action by minister to minimize danger

25(1) Notwithstanding anything in this Act, where the Lieutenant Governor in Council considers it in the public interest to take emergency action to alleviate an environmental emergency or where a health emergency as declared by the Minister of Health exists, the minister may authorize the taking of such action as is deemed necessary by the Lieutenant Governor in Council or the Minister of Health to mitigate the emergency or alleviate the threat to health without reference to the normal approval or licencing processes pursuant to this Act.

No injunction against minister

25(2) No injunction lies against the minister to restrain or prevent the minister or any person acting under the authority of the minister from taking action under subsection (1).

BACKGROUND

1. During the spring and summer of 2011, water levels in Lake Manitoba have increased to unprecedented levels, with peak levels predicted to be as much as five feet above the top of the normal operating range of the lake.
2. The existing outlet from Lake Manitoba, controlled by the Fairford Dam and consisting of the dam, the Fairford River, Lake St. Martin and the Dauphin River, has not been able to accommodate record inflows to the lake, leading to the rise in water levels.
3. Additional outlet capacity is required on an emergency basis to alleviate high water levels that are causing significant environmental damage to areas around Lake Manitoba and Lake St. Martin.
4. The construction of an outlet channel from Lake St. Martin south of the Dauphin River will increase outflows from Lake St. Martin and allow greater winter outflows from Lake Manitoba to Lake St. Martin.
5. The proposed outlet channel would normally require environmental assessment and licensing as a Class 3 Water Development (flood control projects protecting areas greater than 100 km²) pursuant to the *Classes of Development Regulation*, Manitoba Regulation 164/88 under *The Environment Act*.

As of 2014-07-02, this is the most current version available. It is current for the period set out in the footer below. It is the first version and has not been amended.

Le texte figurant ci-dessous constitue la codification la plus récente en date du 2014-07-02. Son contenu était à jour pendant la période indiquée en bas de page. Il s'agit de la première version; elle n'a fait l'objet d'aucune modification.

THE ENVIRONMENT ACT
(C.C.S.M. c. E125)

**Lake St. Martin Outlet Channel Authorization
Regulation**

Regulation 178/2014
Registered June 27, 2014

WHEREAS an outlet channel was constructed from Lake St. Martin in 2011 to reduce water levels on Lake Manitoba and Lake St. Martin that had reached unprecedented levels and the outlet channel successfully reduced these water levels when it was in operation in 2011 and 2012;

AND WHEREAS the Lieutenant Governor in Council considers it in the public interest that emergency action be taken to alleviate the environmental emergency caused by high water levels on Lake St. Martin;

AND WHEREAS the Lieutenant Governor in Council deems it necessary to operate the outlet channel from Lake St. Martin without reference to the normal approval and licensing processes under *The Environment Act*;

LOI SUR L'ENVIRONNEMENT
(c. E125 de la C.P.L.M.)

**Règlement autorisant l'utilisation du canal de
déversement du lac Saint-Martin**

Règlement 178/2014
Date d'enregistrement : le 27 juin 2014

Attendu :

qu'un canal de déversement de l'eau du lac Saint-Martin a été construit en 2011 en vue de réduire le niveau sans précédent de ce cours d'eau ainsi que de celui du lac Manitoba et que l'utilisation de ce canal a été couronnée de succès en 2011 et en 2012;

que le lieutenant-gouverneur en conseil estime qu'il est justifié dans l'intérêt public que des mesures d'urgence soient prises en vue de l'atténuation de la situation d'urgence environnementale causée par la crue du lac Saint-Martin;

que le lieutenant-gouverneur en conseil juge qu'il y a lieu d'utiliser le canal sans qu'il soit nécessaire de passer par la procédure normale d'approbation et de délivrance de licences prévue par la *Loi sur l'environnement*,

NOW THEREFORE the Lieutenant Governor in Council enacts as follows:

Authorization

1 The Minister of Conservation and Water Stewardship is authorized to approve the operation of the outlet channel from Lake St. Martin without complying with the normal approval and licensing requirements under *The Environment Act*.

Repeal

2 The *Lake St. Martin Outlet Channel Authorization Regulation*, Manitoba Regulation 124/2011, is repealed.

le lieutenant-gouverneur en conseil édicte ce qui suit :

Autorisation

1 Le ministre de la Conservation et de la Gestion des ressources hydriques est autorisé à approuver l'utilisation du canal de déversement de l'eau du lac Saint-Martin sans que les exigences normales prévues par la *Loi sur l'environnement* en matière d'approbation et de délivrance de licences soient respectées.

Abrogation

2 Le *Règlement autorisant la construction du canal de déversement du lac Saint-Martin*, R.M. 124/2011, est abrogé.



Transport Canada Transports Canada

Navigable Waters Protection Program
Programme de protection des eaux navigables
1100 9700 Jasper Avenue
Edmonton, AB T5J 4E6

Your File Votre référence

Our File Notre référence
8200-2011-600278

PRIORITY COURIER

OCT 31 2011

Manitoba Infrastructure and Transportation
1420 – 215 Garry Street
Winnipeg, MB R3C 3P3

Attention: Eric Christiansen

Re.: **Application under the *Navigable Waters Protection Act* for dredging, water control structures and conveyance ditching, Lake St. Martin and Buffalo Creek, Section 3, Township 33, Range 6, WPM and Section 02, Township 34, Range 5, WPM, Province of Manitoba**

Enclosed herewith is an Approval document signed on behalf of the Minister of Transport, Infrastructure and Communities pursuant to subsection 6(4) of the *Navigable Waters Protection Act* (R.S.C. 1985, c. N-22), as amended by Part 7 of the *Budget Implementation Act*, 2009, S.C. 2009, c. 2.

The buoys shall be in compliance with the Private Buoy Regulations as per the *Canada Shipping Act (2001)*.

NOTE: Should you not finish construction of your work by the dates indicated in your Approval document, it will be necessary to notify the Navigable Waters Protection Program immediately at 780-495-8215 or by e-mail at NWP-PEN.PN@tc.gc.ca so that alternate dates may be specified.

Sincerely,

Inga Thorsteinson
Navigable Waters Protection Officer
Navigable Waters Protection Program
Transport Canada
Prairie and Northern Region

RECEIVED BY
HIGHWAY PLANNING and DESIGN

NOV 07 2011

MANITOBA INFRASTRUCTURE
AND TRANSPORTATION

Enclosure



NAVIGABLE WATERS PROTECTION ACT (R.S.C. 1985, c. N-22) as amended by Part 7 of the Budget Implementation Act, 2009, S.C. 2009, c. 2 (Navigable Waters Protection Act), PART I
Subsection 6(4) – Approval after construction started

8200-2011-600278

Approval

APPLICANT: Manitoba Infrastructure and Transportation
1420 – 215 Garry Street
Winnipeg, Manitoba R3C 3P3

WORK: Dredging
Water control structures
Conveyance channels

SITE LOCATION: Located at Approximately N 51° 48' 8" – W 98° 13' 35" and N 51° 53' 45" – W 98° 03' 21", Section 3, Township 33, Range 6, WPM and Section 2, Township 34, Range 5, WPM, Lake St. Martin and Buffalo Creek, Province of Manitoba

IMPORTANT NOTICE: This document approves the work in terms of its effect on marine navigation under the *Navigable Waters Protection Act*. The work must be built, placed, maintained, operated, used and removed in accordance with the approved plan(s), the *Navigable Waters Protection Act*, its regulations and the terms and conditions in the Approval. It is the applicant's responsibility to obtain any other forms of approval, including building permits, under any applicable laws.

WHEREAS the above-named applicant has made application to the Minister of Transport, Infrastructure and Communities under the *Navigable Waters Protection Act* for approval of the above-described work at the above-referenced site in accordance with the attached plan(s);

THEREFORE, the Minister of Transport, Infrastructure and Communities, pursuant to subsection 6(4) of the *Navigable Waters Protection Act*, hereby approves the said work at the said site and plan(s) thereof, providing:

1. The Approval is valid for a period of 2 years.
2. The placement of any instream compensation under the *Fisheries Act* shall be subject to a separate application for 'Approval' under the provisions of Section 5 of the *Navigable Waters Protection Act*.
3. The outlet area on Lake St. Martin shall be marked with warning signage as not intended for navigation.
4. The warning signs shall be:
 - Legible at a minimum distance of 100 metres;
 - Display black lettering on yellow background;
 - Maintained during all periods of open-water while the inlet is in operation.

5. Three cautionary buoys will be placed in Lake St. Martin at the seaward limit of the dredged channel forebay.
6. Silt curtain installed during the open-water season shall be marked with cautionary buoys and yellow lights.
7. All temporary works shall be completely removed prior to the next open-water season.
8. The Reach 3 conveyance channel off Buffalo Creek shall be clearly marked with warning signage as not intended for navigation. The warning signage shall be placed on Buffalo Creek at the intersection with the conveyance channel on both banks of the channel.
9. The proponent/contractor shall provide colour photos and a plan showing the location and appropriate signs in place.
10. A Lake St. Martin water level and project status report, including current site photos of the outlet area, shall be submitted to this office on a weekly schedule from May 15, 2012, or open-water conditions, until the planned closure of the channel on August 31, 2012.
11. Any proposed alterations to the approved plan shall be subject to review and approval.
12. The proponent shall notify this office in writing two weeks prior to closing of the channel, and submit methodology for the decommissioning plan.

Winnipeg, Manitoba

Date: OCT 31 2011



Inga Thorsteinson
Navigable Waters Protection Program Officer
Navigable Waters Protection Program
Transport Canada
Prairie and Northern Region

for the Minister of Transport, Infrastructure and
Communities

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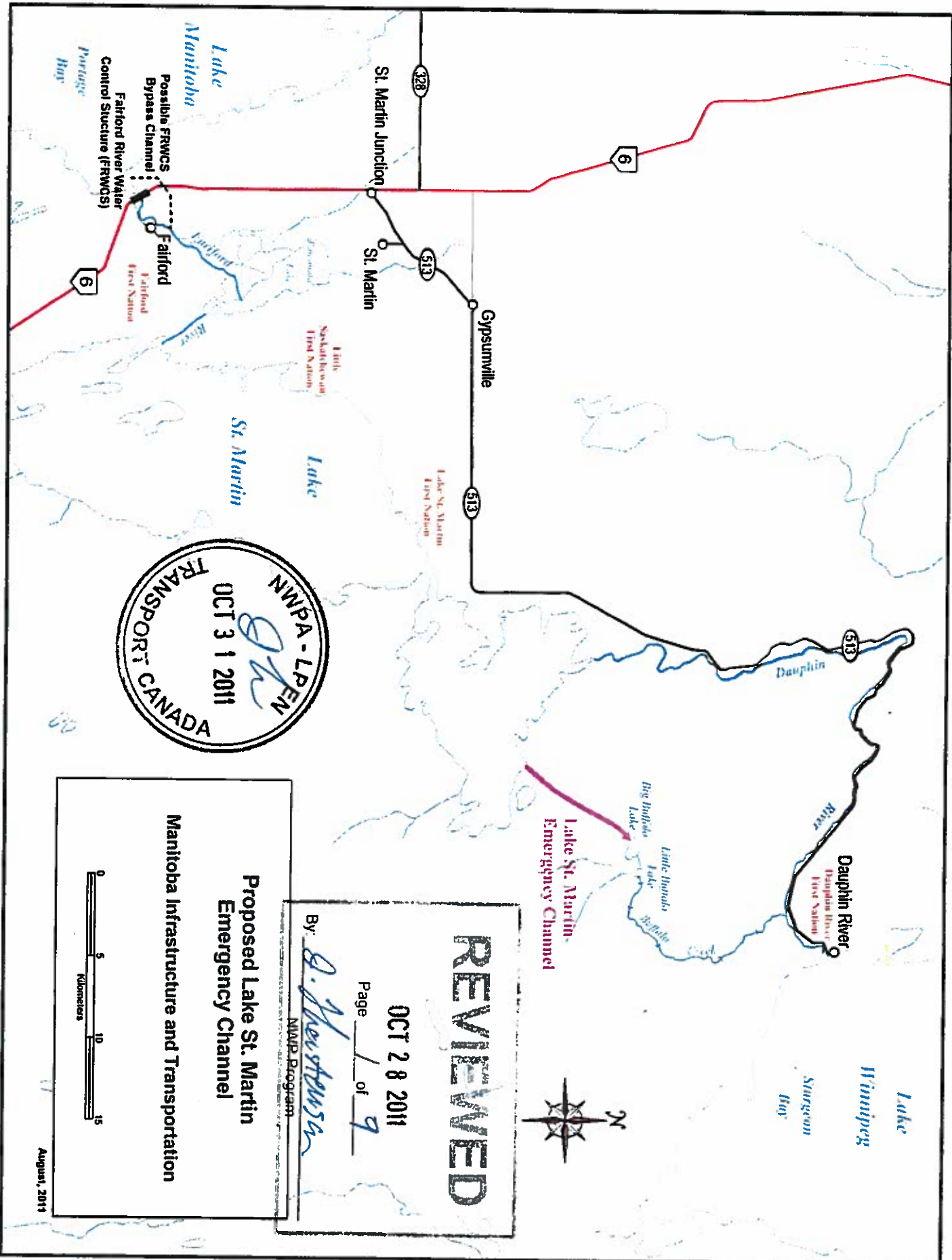
Winnipeg, Manitoba

Date: OCT 31 2011



Inga Thorsteinson
Navigable Waters Protection Program Officer
Navigable Waters Protection Program
Transport Canada
Prairie and Northern Region

for the Minister of Transport, Infrastructure and
Communities



NWPA - LPEN
 OCT 31 2011
 TRANSPORT CANADA



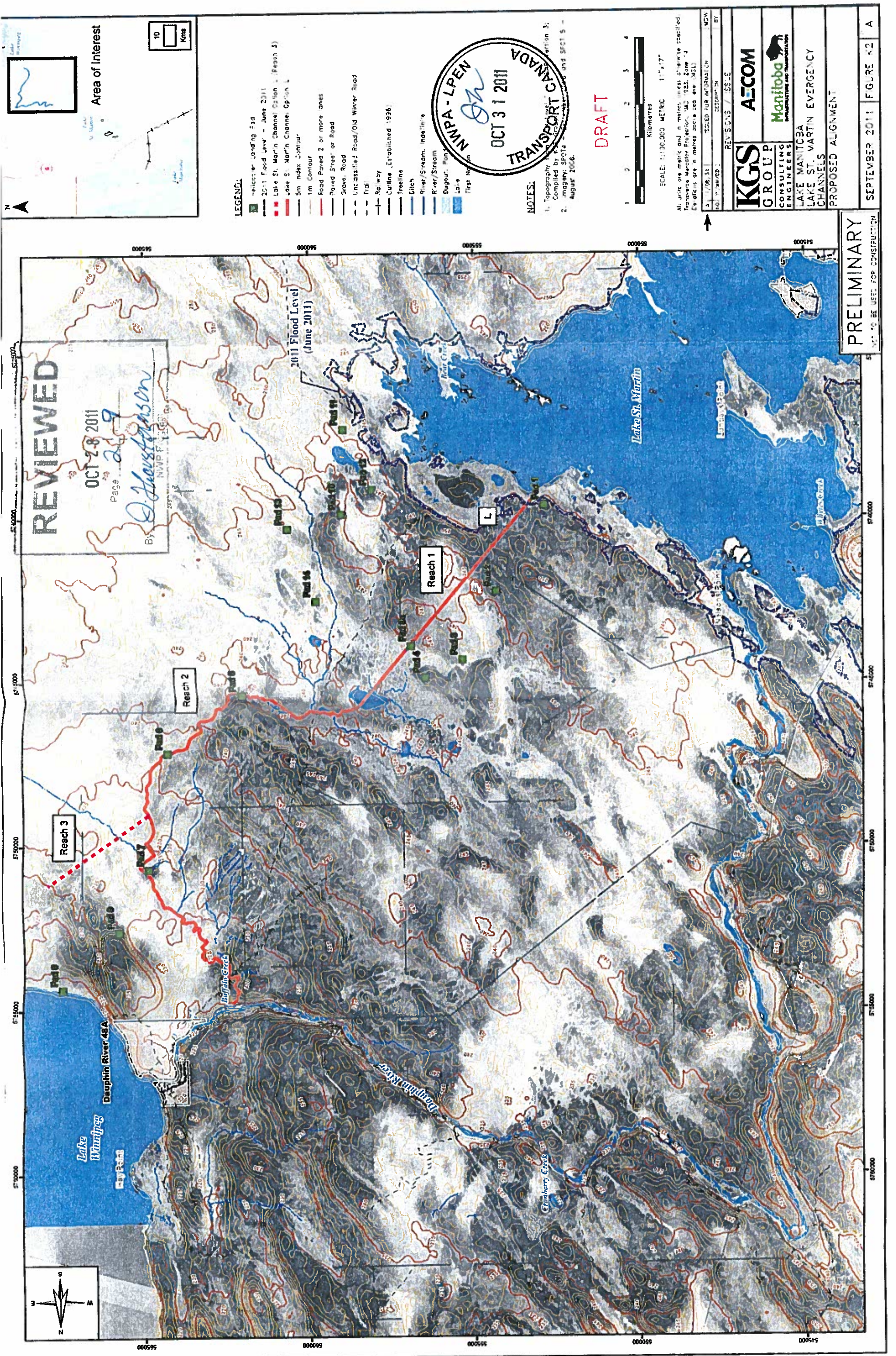
REVIEWED

OCT 28 2011
 Page 1 of 9
 By: *A. Neustrova*
 NWAP Program

**Proposed Lake St. Martin
 Emergency Channel**
 Manitoba Infrastructure and Transportation



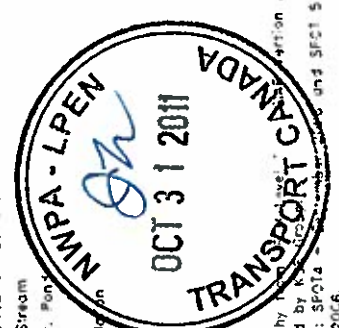
August, 2011



Area of Interest

10 Kms

- LEGEND:**
- electr. Landing Pad
 - 2011 Flood Level - June 2011
 - Lake St. Martin Channel (Caption - Reach 3)
 - Lake St. Martin Channel (Caption - Reach 2)
 - 5m Index Contour
 - 1m Contour
 - Road Paved 2 or more lanes
 - Paved Street or Road
 - Gravel Road
 - Unclassified Road/Old Winter Road
 - Trail
 - Railway
 - Culvert Established 1936
 - Treeline
 - Ditch
 - River/Stream, Indefinite
 - River/Stream
 - Dugout, Road
 - Loose
 - First Nation



- NOTES:**
1. Topography is based on the 1:50,000 scale map of the area.
 2. Imagery: SPOT4 - August 2006.

DRAFT

Scale: 1:50,000 METRIC 1"=17'

Kilometres

1 2 3 4

All units are metric and in metres unless otherwise specified.
 Transverse Mercator Projection, UTM, Zone 18, Datum: NAD 83, June 74
 Elevation are in metres above sea level (MSL)

NO. 1108 31 SCALED FOR INFORMATION MW
 NO. 1108 31 SCALED FOR INFORMATION MW
 BY

REVISED / ISSUE

KGS GROUP CONSULTING ENGINEERS	AECOM
LAKE MANITOBSA	Manitoba
LAKE ST. MARTIN EMERGENCY CHANNELS	
PROPOSED ALIGNMENT	

SEPTEMBER 2011 FIGURE K2 A

REVIEWED

OCT 28 2011

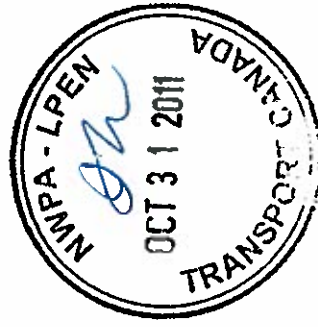
Page 2 of 9

By *D. Harrison*

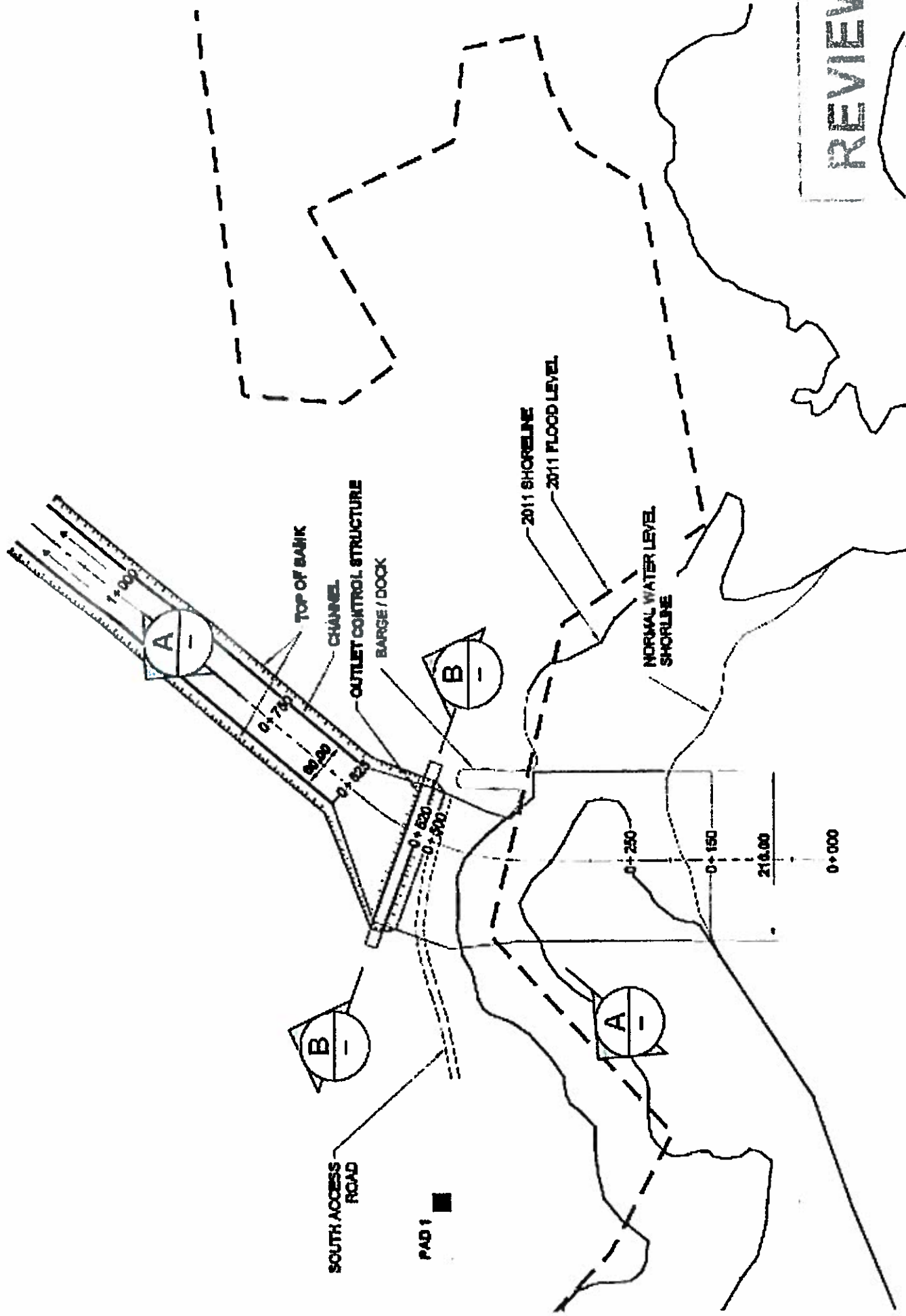
NWMP 1108 31

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION



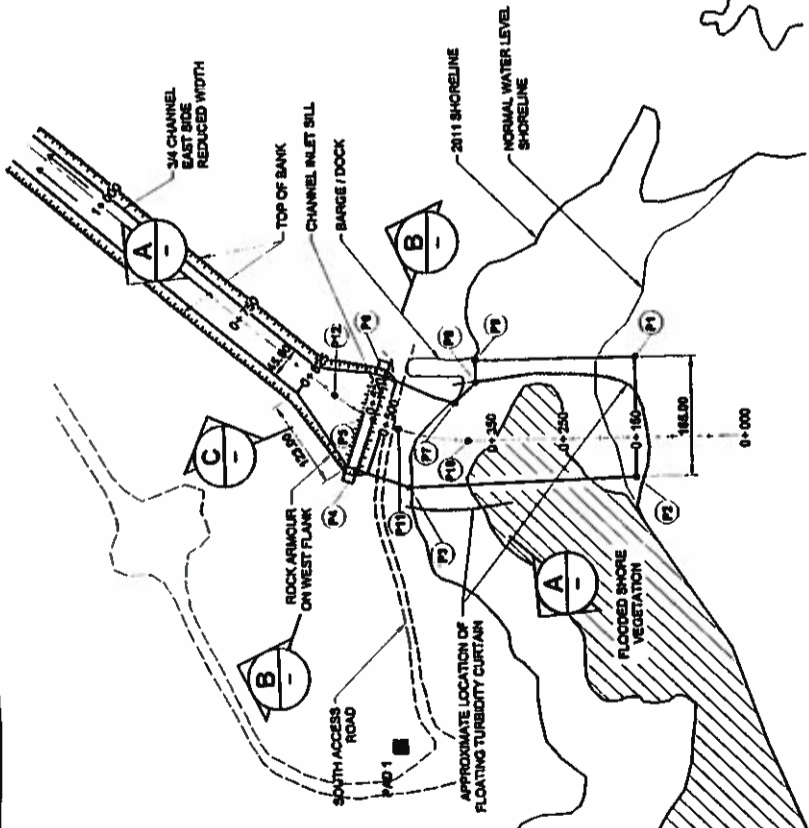
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OCT 28 2011
Page 3 of 9
By J. Horstenson
NWP Program



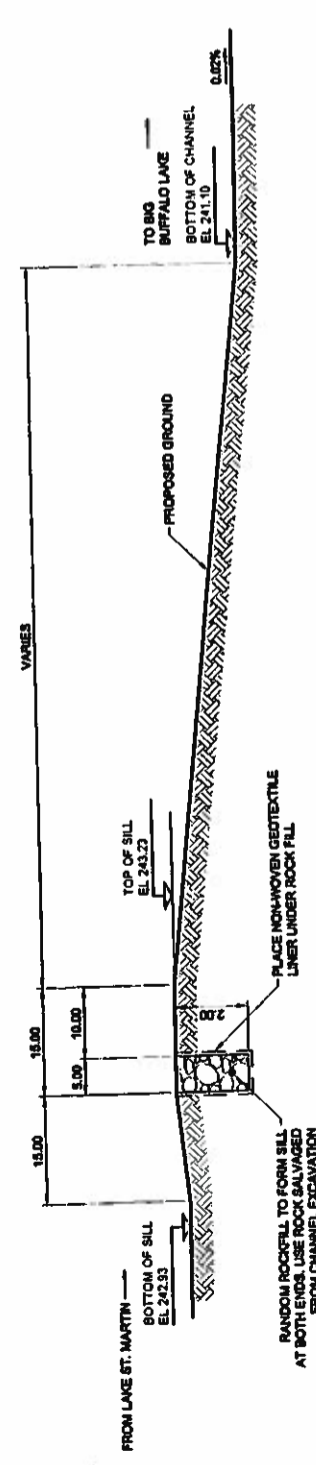
DETAIL
1
SCALE 1:500
0 50 100 150

FIGURE 4

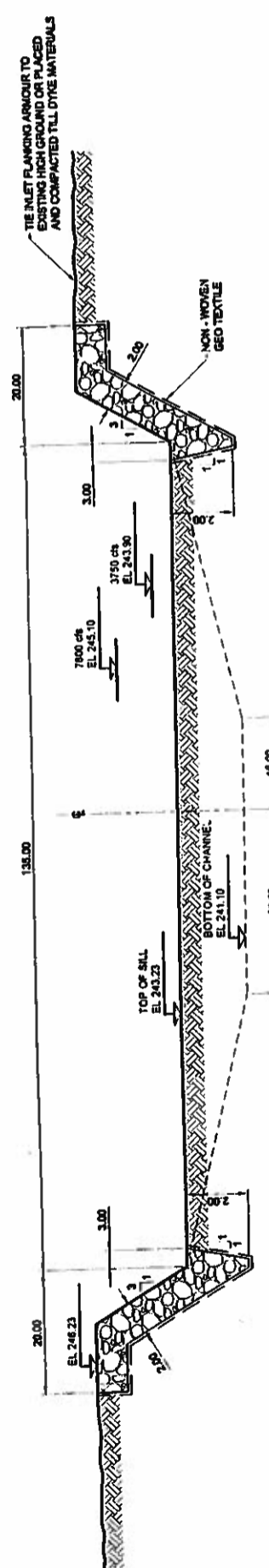
COORDINATE LAYOUT TABLE		
POINT	NORTHING	EASTING
1	573028.609	553205.767
2	573029.322	553205.024
3	573040.153	553247.900
4	5730478.150	553274.618
5	5730653.680	553344.569
6	5730633.271	553401.572
7	5730638.122	553382.354
8	5730609.339	553390.904
9	5730622.699	553311.011
10	5730619.659	553328.894
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12	5730706.111	553378.457



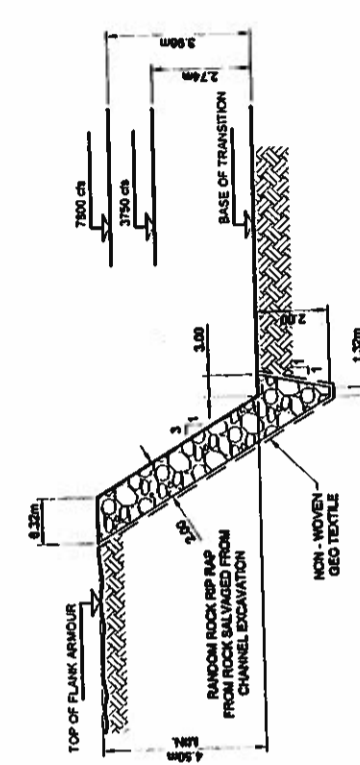
DETAIL 1
SCALE: 1:500
VARIES



PROFILE A-A
SCALE: 1:100
CHANNEL INLET SILL



SECTION B-B
SCALE: 1:100
CHANNEL INLET SILL



SECTION C-C
SCALE: 1:100
CHANNEL INLET SILL

REVIEWED
OCT 28 2011
Page 4 of 7
By: J. Heston
NWP Program

PRELIMINARY
NOT FOR CONSTRUCTION
Date: 2011/10/13

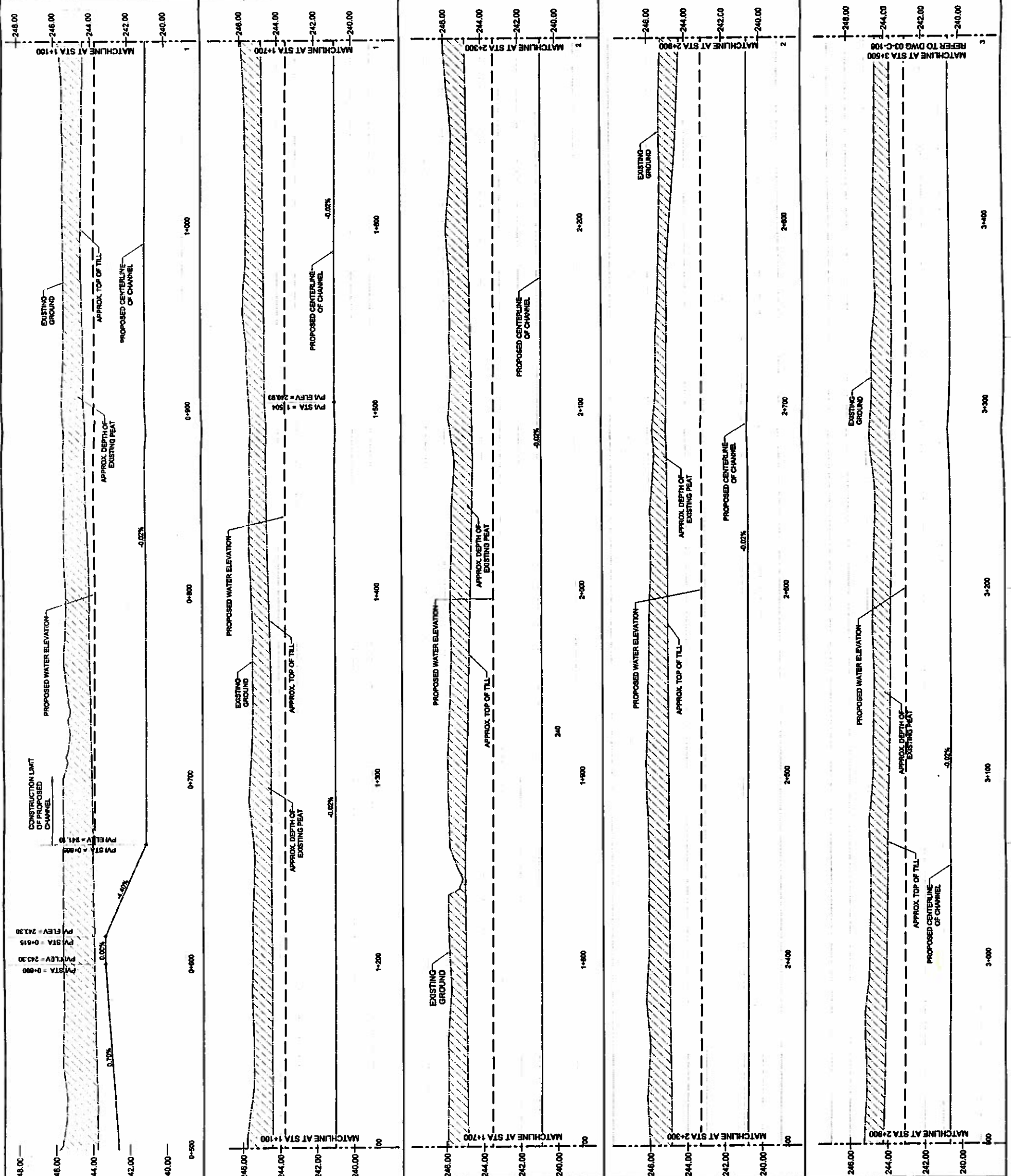


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AECOM

Lake Manitoba and Lake St. Martin Emergency Channel
Emergency Outlet Channel - Lake St. Martin to Big Buffalo Lake
INLET CONTROL SECTIONS AND DETAILS (3/4 CHANNEL)

PROJECT NUMBER	80212781	DRAWING NUMBER	03-C-401	ISSUE/REVISION	0A
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HYDRAULIC PARAMETERS:
 BASE = 147.6 ft
 SIDE SLOPE = 3:1
 ROUGHNESS COEFFICIENT n = 0.035
 AVERAGE CHANNEL VELOCITY = 2.74 ft/s
 FLOW = 3750 cfs

REVIEWED
PRELIMINARY
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Date: 2011 OCT 28 2011
 Page 5 of 9

By: *D. J. Hurstensen*
 NWP Program

PROFILE



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AECOM

Lake Manitoba and Lake St. Martin Emergency Channel
 Emergency Outlet Channel - Lake St. Martin to Big Buffalo Lake
PROPOSED CHANNEL AND ASSOCIATED WORKS
 PROFILE STA. 0+665 TO STA. 3+500
 PROJECT NUMBER: 60212781
 DRAWING NUMBER: 03-C-107
 ISSUE/REVISION: 0A

HYDRAULIC PARAMETERS:
 BASE = 147.6 R
 SIDE SLOPE = 3:1
 ROUGHNESS COEFFICIENT n = 0.035
 AVERAGE CHANNEL VELOCITY = 2.74 m/s
 FLOW = 3750 cfs

REVIEWED

OCT 28 2011

Page 6 of 9
 By: *D. Juvonen*
 NWP Program

PRELIMINARY
 NOT FOR CONSTRUCTION
 Date: 2011/09/19

PROFILE
 SCALE: H: 1:1000 V: 1:100

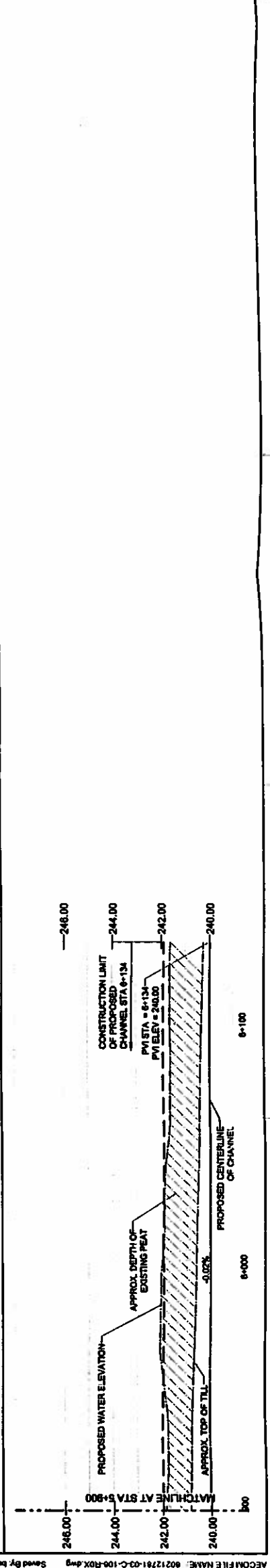
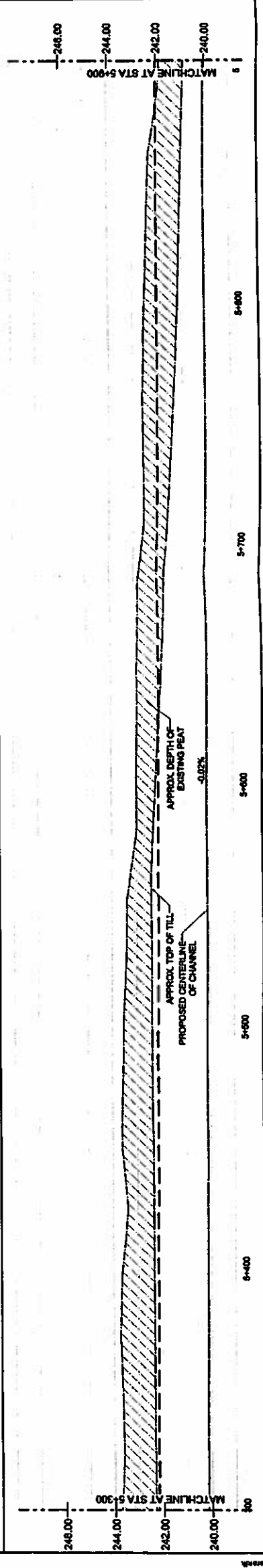
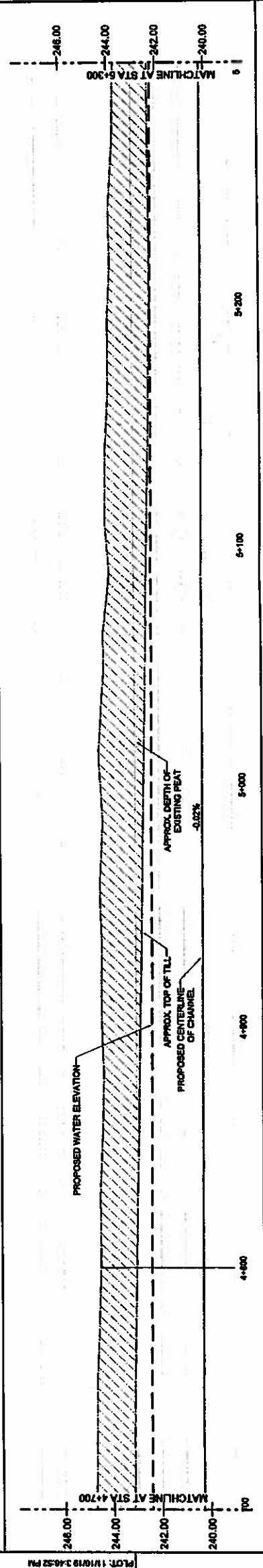
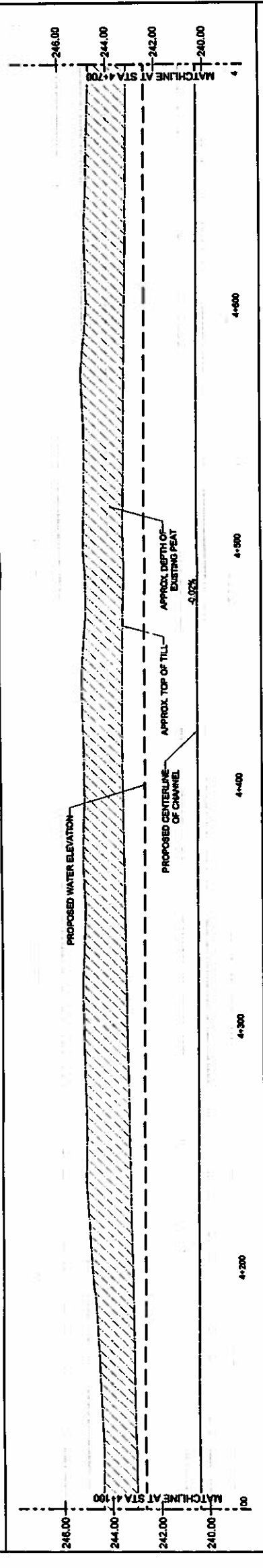
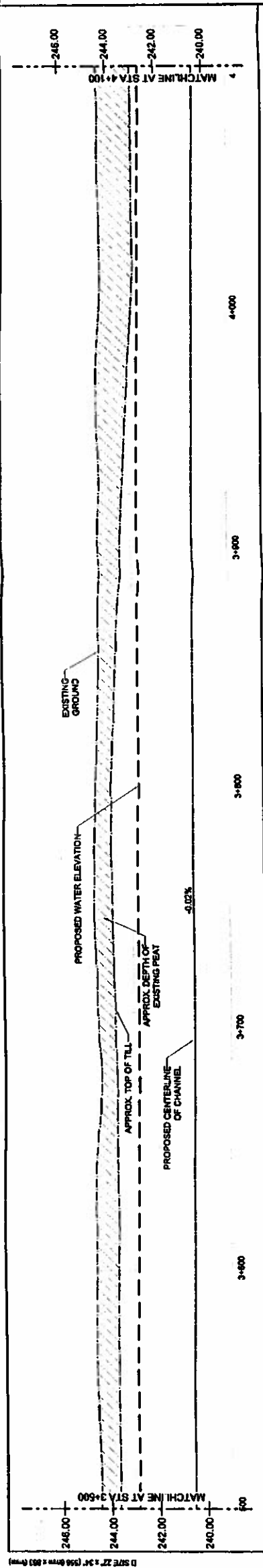


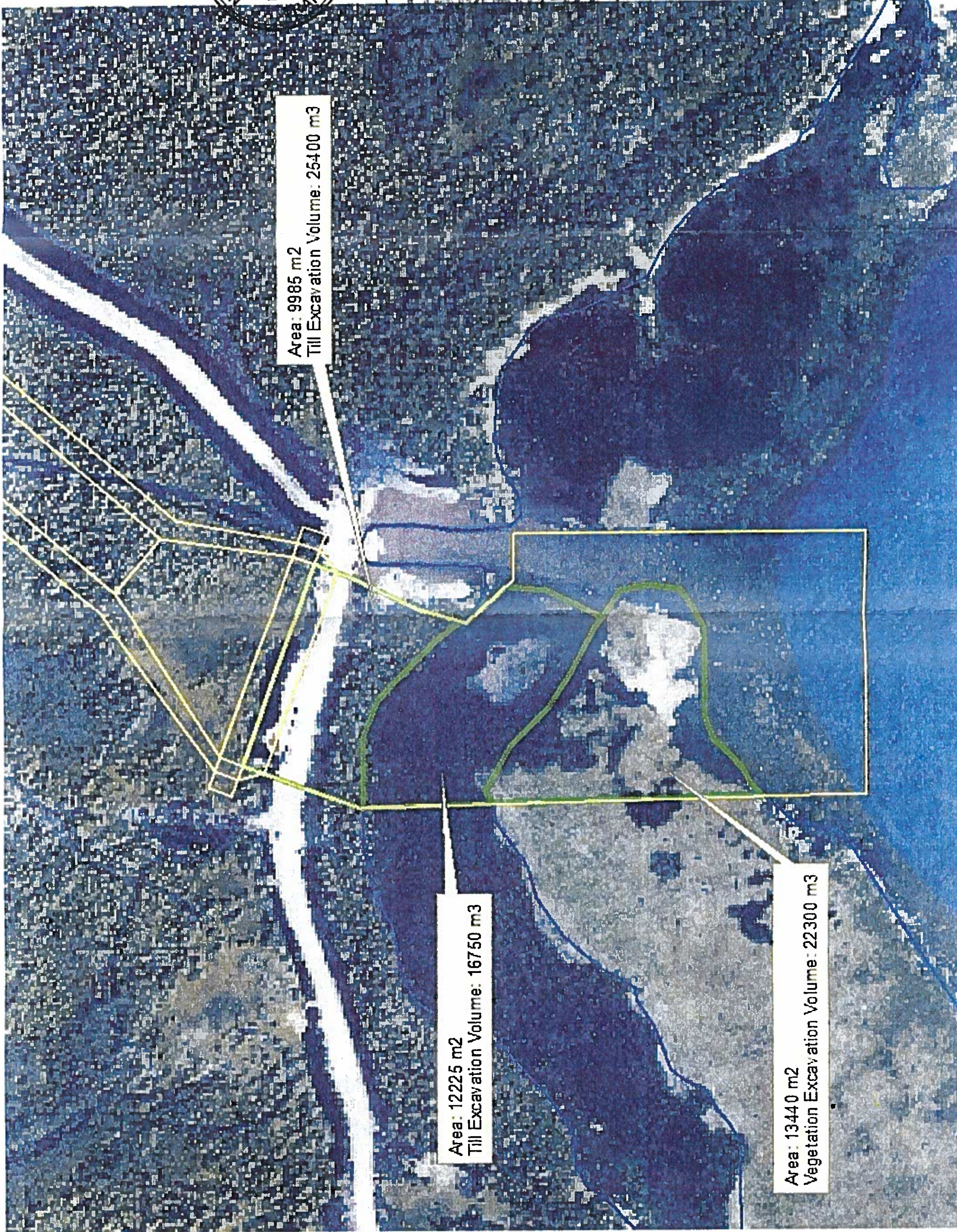
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AECOM

Lake Manitoba and Lake St. Martin Emergency Channel
 Emergency Outlet Channel - Lake St. Martin to Big Buffalo Lake
PROPOSED CHANNEL AND ASSOCIATED WORKS
 PROFILE STA. 3+500 TO STA. 6+134

PROJECT NUMBER: 60212781
 DRAWING NUMBER: 03-C-108
 ISSUE/REVISION: 0A

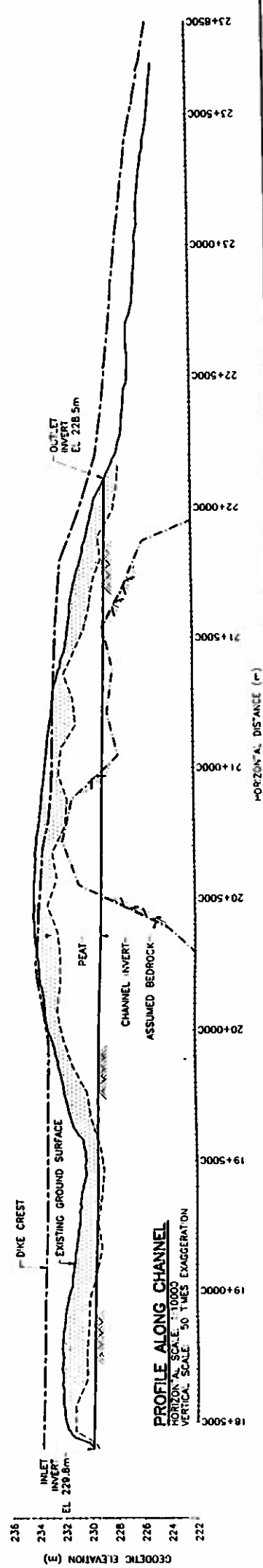
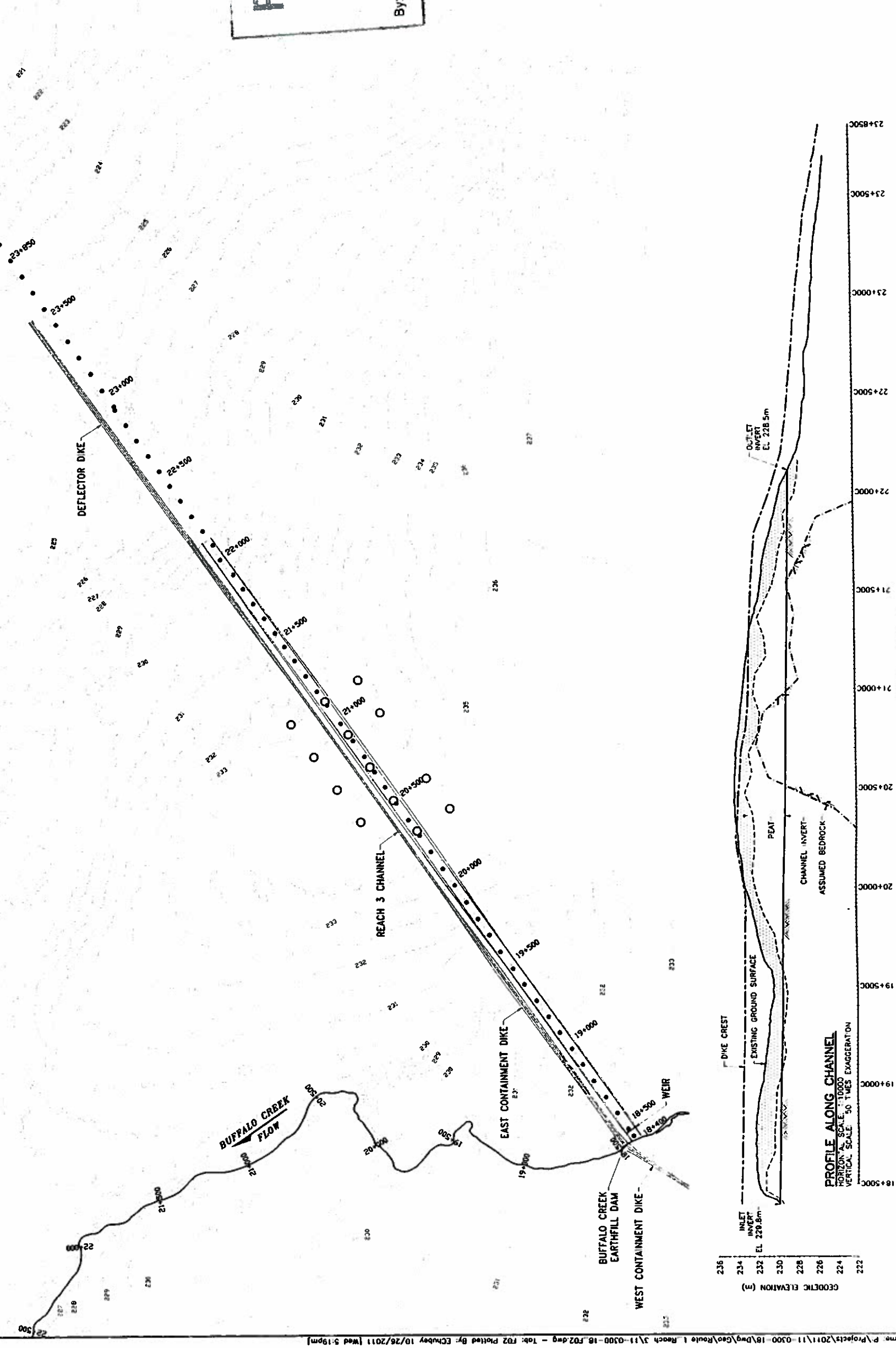




Area: 9985 m²
Till Excavation Volume: 25400 m³

Area: 12225 m²
Till Excavation Volume: 16750 m³

Area: 13440 m²
Vegetation Excavation Volume: 22300 m³



LEGEND:

- PEAT PROBE
- HAND AUGER



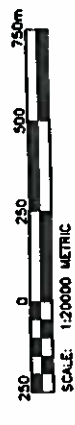
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OCT 31 2011
 Page 8 of 9
 By: *J. Heustensen*
 NWP Program

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A 11/10/26	ISSUED FOR INFORMATION (PRE-BID)	TNG	BY

KGS GROUP

CONSULTING ENGINEERS

INFRASTRUCTURE AND TRANSPORTATION

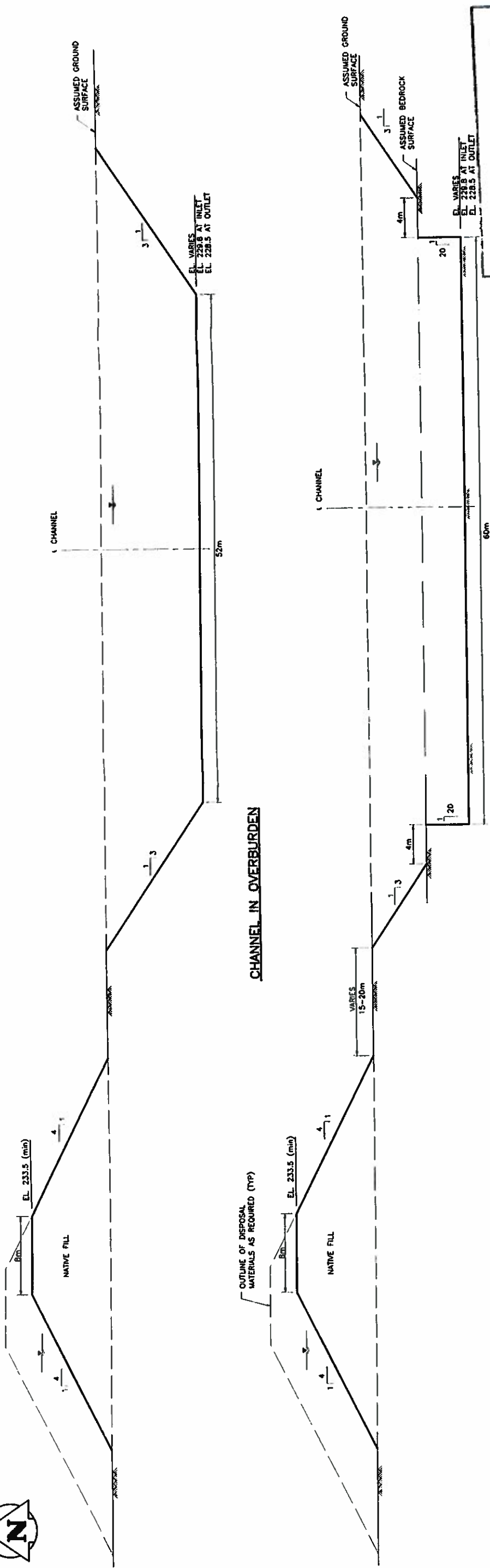
LAKE MANITOBA AND LAKE ST. MARTIN
 EMERGENCY CHANNELS
 ROUTE 1 - REACH 3
 CONCEPTUAL CHANNEL AND DIKE
 PLAN AND PROFILE

REVISIONS / ISSUE	FIGURE PB-02
	A

11-0300-18

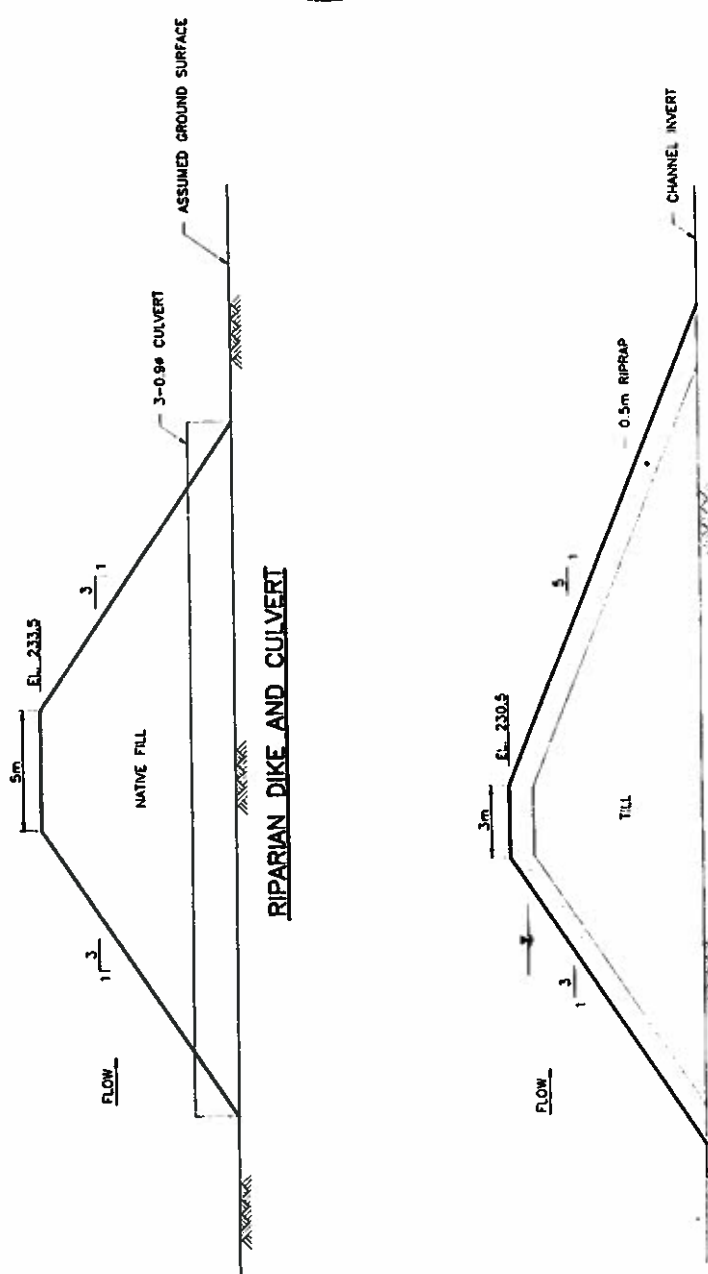
FIGURE PB-02

A

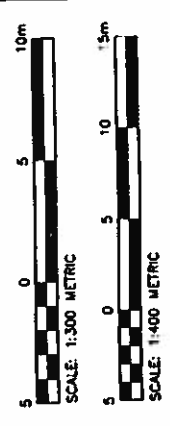


CHANNEL IN OVERBURDEN

CHANNEL THROUGH BEDROCK



REVIEWED
 OCT 31 2011
 Page 9 of 9
 By *A. Mortenson*
 NWP Program



NO.	DATE	ISSUED FOR INFORMATION (PRE-BID)	BY
REVISIONS / ISSUE			
INFRASTRUCTURE AND TRANSPORTATION LAKE MANITOBA AND LAKE ST. MARTIN EMERGENCY CHANNELS ROUTE L - REACH 3 CONCEPTUAL CHANNEL AND DIKE TYPICAL SECTIONS			

DRAFT

PRELIMINARY
 NOT TO BE USED FOR CONSTRUCTION

11-0300-18 FIGURE PB-03 A



200 – 365 Hargrave Street
Winnipeg MB R3B 3A3

OCT 25 2011

Our file Notre référence
WIN-E 4320-1-FWCS
CIDM # 963376

Mr. Dan McNaughton
Regional Director, Prairie Region
Canadian Environmental Assessment Agency
Suite 101 – 167 Lombard Avenue
Winnipeg MB R3B 0T6

Dear Mr. McNaughton:

Re: Exclusion for Manitoba flood relief channel project

This advises that Aboriginal Affairs and Northern Development Canada has determined that it is appropriate to grant an exclusion under paragraph 7(1)(c) of the *Canadian Environmental Assessment Act* from federal environmental assessment requirements that would otherwise be imposed upon the construction and operation of the Manitoba flood relief channel from Lake St. Martin to Lake Winnipeg. This determination is in response to the August 10, 2011 request from Manitoba Minister Steve Ashton to the Honourable John Duncan, Minister of Aboriginal Affairs and Northern Development Canada, concerning the flood relief project.

The Government of Manitoba has started construction of the flood relief channel and its related works, including the operation of the Fairford River Water Control Structure, to address the unprecedented flooding in 2011 that continues in the Lake Manitoba and Lake St. Martin watersheds. That flooding has caused significant damage to land, property and livelihoods throughout the two watersheds. The communities of the Pinaymootang, Little Saskatchewan and Lake St. Martin First Nations around Lake St. Martin, and downstream at the Dauphin River First Nation have been affected by this unprecedented flooding – effects upon both people and property.

The information upon which this decision is based is drawn from the following project information provided by the Government of Manitoba: the July 2011 report from the KGS Group and AECOM concerning “Analysis of Options for Emergency Reduction of Lake Manitoba and Lake St. Martin Levels”; the September 16, 2011 presentation from AECOM concerning “Lake Manitoba Emergency Flood Relief/Lake St. Martin Outlet”; and project descriptions contained in correspondence of October 12, 2011 and October 13, 2011 from

Manitoba Infrastructure and Transportation to the Prairie Region Office of the Canadian Environmental Assessment Agency. It is our considered view that absent the construction and effective operation of the flood relief channel (as described in the correspondence of October 12, 2011), the level of Lake St. Martin will not be reduced sufficiently to avoid further and potentially more damaging flooding to these communities over the winter and into the spring of 2012. In addition, the construction of the second channel described in the correspondence of October 13, 2011 as Reach 3, must be allowed to proceed in order to reduce the flooding risk to the Dauphin River First Nation.

It is our determination that in accordance with paragraph 7(1)(c) of the *Canadian Environmental Assessment Act* that an assessment of the project is not required as the project is being carried out "in response to an emergency and carrying out the project forthwith is in the interest of preventing damage to property or the environment or is in the interest of public health or safety." While no environmental assessment of the project will be required, such other project related authorizations that the Government of Manitoba will require under the *Indian Act* are still necessary.

Should you have any question in regard to the exclusion, please do not hesitate to contact me at 204-983-2474.

Sincerely,



Anna Fontaine
Regional Director General
Manitoba Region

cc. Margaret Keast, Fisheries and Oceans Canada
Harvey Nikkel, Transport Canada



Fisheries and Oceans
Canada

Pêches et Océans
Canada

302 Main St. South
Dauphin, MB
R7N 1K7

302, rue Main sud
Dauphin, MB
R7N 1K7

October 28, 2011

Our file *Notre référence*
11-HCAA-CA1-01585

Manitoba Infrastructure & Transportation
Attn: Eric Christiansen
Director of Highway Planning & Design
1420 – 215 Garry Street
Winnipeg, MB
R3C 3P3

***Re: FISHERIES ACT AUTHORIZATION FOR THE CONSTRUCTION AND OPERATION OF THE
LAKE ST. MARTIN EMERGENCY FLOOD RELIEF CHANNEL***

The harmful alteration, disruption or destruction of fish habitat, as well as the destruction of fish by means other than fishing arising from the construction and operation of the Lake St. Martin Emergency Flood Relief Channel is hereby authorized pursuant to Subsection 35(2) and Section 32 of the *Fisheries Act*. This Authorization shall be conditional upon implementation of measures specified on the attached document. The Authorization should be held on site and work crews should be made familiar with the conditions.

Failure to comply with any of the conditions specified on the attached Authorization may result in a contravention of Section 35 or 32 of the *Fisheries Act*. Please be advised that this Authorization does not imply authorization of these undertakings in accordance with any section of the *Fisheries Act* other than Section 35 and 32, nor should it be taken as approval of the undertakings in accordance with any other federal, provincial or municipal legislation.

If you require additional information or clarification, please contact Ms. Margaret Keast at (204) 984-1334.

Sincerely,

Dave Burden
A/Regional Director General
Central and Arctic Region
Fisheries and Oceans Canada

cc: D. Chudobiak (DFO, Winnipeg)
 S. Clifford (DFO, Dauphin)
 J. Dahl (DFO, Winnipeg)
 M. Keast (DFO, Winnipeg)
 G. Klein (MB Water Stewardship, Gimli)
 J. Long (MB Water Stewardship, Winnipeg)
 D. Williamson (MB Water Stewardship, Winnipeg)



FISHERIES ACT AUTHORIZATION

Authorization issued to:

Manitoba Infrastructure and Transportation (*hereafter referred to as the "Proponent"*)
14th Floor
215 Garry Street
Winnipeg, Manitoba
R3C 3Z1

(204) 945-0236

Location of Proposed Development

Nearest community (city, town, village): Gypsumville
Municipality, district, township, county: Division No. 19, Unorganized
Province: Manitoba
Name of watercourse, water body: Lake St. Martin, Lake Winnipeg (Sturgeon Bay), Big Buffalo Lake, Buffalo Creek and the Dauphin River.
Longitude and latitude: This is a linear project connecting the following two locations from Lake St. Martin: Longitude 98°14'17", Latitude 51°48'06" to Big Buffalo Lake: Longitude 98°10'08", Latitude 51°51'01"

Valid Authorization Period for Impacts to Fish and Fish Habitat

The valid period of this authorization for the harmful alteration, disruption or destruction of fish habitat pursuant to subsection 35(2) and the destruction of fish by means other than fishing pursuant to section 32 includes:

From	To
Date of issuance:	November 30, 2012

The valid authorization periods for other conditions of this Authorization are set out below as **Conditions of Authorization**.

Description of Proposed Development

The proposed development impacting on fish and fish habitat involves the construction and one-time operation of the Lake St. Martin Emergency Flood Relief Channel (see map in Appendix I). This channel is a temporary structure intended to deal with the emergency flood situation on Lake Manitoba and Lake St. Martin. The channel begins at the northeast shore of the north basin of Lake St. Martin and continues for approximately 6 km to the northeast, terminating 1.5 km south of Big Buffalo Lake. Water will exit into a bog surrounding the lake and then flow down Buffalo Creek emptying into the Dauphin River approximately 3.8 km upstream of Lake Winnipeg. No excavation is planned for Buffalo Creek.

The channel has been designed with a 45 metre wide base, 3:1 side slopes and a depth of approximately 7.5 meters. The upstream and downstream channel inverts will be 241.1 and 240.0 metres above sea level respectively, with expected water velocities in the range of 0.7 to 1.0 metres per second. The inlet to the channel consists of an earthen sill approximately 180 metres wide and set at an elevation of 243.3 metres above sea level. Geotextile fabric and riprap will be installed on the sill and water will flow over the sill and into the channel at a design capacity of 106 cubic metres per second, with initial flows expected to be higher. The foreshore area of the inlet will be dredged to an elevation of 242.93 metres above sea level in order to facilitate flows from Lake St. Martin into the channel. Once completed, the channel will be operated until water levels in Lake St. Martin reach desired levels.

Description of Authorized Impacts to Fish and Fish Habitat

Authorized impacts to fish and fish habitat resulting from the works, undertakings, operations or activities associated with the proposed development described above include:

Impacts to Fish Habitat, Subsection 35(2):

- Destruction of approximately 180 linear metres of natural shoreline habitat in Lake St. Martin resulting from the breach of the natural shoreline to construct the inlet of the diversion channel.
- Harmful alteration, disruption or destruction (HADD) of fish habitat resulting from an increase in the magnitude of flows along the diversion route, including:
 - HADD of fish habitat in Buffalo Creek (approx. 1 square kilometre) and in the Dauphin River downstream of its confluence with Buffalo Creek (approx. 0.5 square kilometres) includes:
 - Harmful alteration of: the existing substrate composition (including food sources found within the substrate), existing geometry and cross-sectional morphometry, riparian and in-stream vegetation and cover attributes.
 - Disruption of access to food sources, access to overwintering habitat in Buffalo Lake, and to the availability (re-distribution) of food sources along the diversion route.
 - Disruption of access to spawning grounds within Buffalo Creek, as well as upstream in the Dauphin River.

- Disruption of access to overwintering habitat in Big Buffalo Lake by resident fish species in Buffalo Creek attempting to access the lake.
- Harmful alteration and/or disruption of nursery, rearing and spawning habitat for whitefish and walleye along Buffalo Creek and the Dauphin River during the operation of the diversion channel.
- HADD of fish habitat in Big Buffalo Lake (approx. 0.6 square kilometres) includes:
 - Disruption of the availability of and access to food sources.
 - Disruption of spawning, nursery and rearing habitat within Big Buffalo Lake.
- HADD of fish habitat in Sturgeon Bay (approx. 20 square kilometres) includes:
 - Harmful alteration, disruption and/or destruction to whitefish and walleye spawning grounds located at the mouth of the Dauphin River and along the south-western shoreline extending to Willow Point.
 - Harmful alteration and disruption to food sources within Sturgeon Bay – including the re-distribution of fish and the ability to forage for both benthic and pelagic food sources.
 - Disruption to migration patterns of fishes attempting to migrate upstream of Sturgeon Bay to access spawning, nursery, rearing, or feeding habitat within the Dauphin River and/or Buffalo Creek.

Destruction of Fish, Section 32:

- The destruction of fish hereby authorized includes the incidental mortality which is likely to occur due to the operation of the diversion channel and due to the termination of flow within the diversion route once water levels in Lake St. Martin reach desired levels.

Conditions of Authorization

1. Conditions that relate to the **Proponent's Plan**:

- 1.1 The conditions of this Authorization notwithstanding, should the above authorized impacts to fish and fish habitat in the opinion of the Fisheries and Oceans Canada (DFO) be greater than previously contemplated by all parties, then DFO may suspend any works, undertakings, activities and/or operations associated with the proposed development, to avoid or mitigate adverse impacts to fish and fish habitat. DFO may also direct the Proponent and its agents, and contractors, to carry out at the Proponent's expense any modifications, works or activities deemed necessary by DFO to avoid or mitigate further adverse impacts to fish and fish habitat. In circumstances where DFO is of the view that greater impacts may occur than were contemplated by the parties, DFO may also modify or rescind this Authorization. If the Authorization is to be changed the Proponent will be given an opportunity to discuss any proposed modifications or rescission.

- 1.2 The Proponent confirms that all plans and specifications relating to this Authorization have been duly prepared and reviewed by appropriate professionals working on behalf of the Proponent and acknowledges that they are solely responsible for all design, safety and workmanship aspects of all the works associated with this Authorization.
- 1.3 The works, undertakings, activities and operations must comply with the means and conditions as identified within this Authorization. Impacts to fish and fish habitat other than that specifically identified within this Authorization are not permitted.
- 1.4 Works will be conducted as outlined in the following reports:
 - 1.4.1 “Application for Authorization”, submitted October 14, 2011 by Eric Christiansen on behalf of Manitoba Infrastructure and Transportation (MIT).
 - 1.4.2 Letter detailing project description, dated October 13, 2011, Subject: “Lake St. Martin Emergency Channel Project”, submitted to DFO by Eric Christiansen on behalf of MIT.
 - 1.4.3 Memorandum: “MIT Standard Environmental Mitigation Measures – Lake St. Martin Emergency Outlet” from Eric Christiansen to Ron Weatherburn, September 3, 2011.
 - 1.4.4 Memorandum: “Lake St. Martin Emergency Diversion Channel – Channel Inlet Dredging Plan” including environmental mitigation measures and the preparation of an Environmental Management Plan,, prepared by AECOM, dated September 29, 2011 and submitted to DFO by Dave Block on behalf of MIT (see Appendix III).
 - 1.4.5 Fish Habitat Monitoring Plan titled: “Emergency Reduction of Lake Manitoba and Lake St. Martin Water Levels: Baseline Data Collection and Monitoring Plan for DFO”, prepared by North/South Consultants Inc., dated September 2011 and submitted by Dave Block, MIT on October 6, 2011.
2. Conditions that relate to the **mitigation** of potential impacts to fish and fish habitat:
 - 2.1 The Proponent shall implement MIT’s Standard Environmental Mitigation Measures as per section 1.4.3 of this Authorization (see Appendix II).
 - 2.2 The Proponent shall implement the Environmental Management Plan and the environmental mitigation measures as outlined in sections 1 and 3 of the memorandum cited in section 1.4.4 of this Authorization (see Appendix III).
3. Conditions that relate to monitoring and reporting of Authorization conditions:
 - 3.1 The Proponent shall undertake monitoring of the project and report to DFO by November 1, 2012, and by November 1, 2013 (the year following operation of the channel) whether works, undertakings, activities or operations for the mitigation of potential impacts to fish and fish habitat were conducted according to the conditions of this Authorization, by:

- 3.1.1 Providing dated photographs and detailed inspection reports to demonstrate effective implementation and functioning of mitigation works, undertakings, activities or operations as described above as mitigation conditions.
 - 3.1.2 Undertaking monitoring and reporting to DFO on fish entrapment and mortality observed during periodic inspections once outflows from Lake St. Martin to the channel have ceased. In addition, the Proponent shall provide details of any preventive or contingency measures that were followed to prevent fish mortality.
 - 3.1.3 Providing details of any contingency measures that were followed to prevent impacts greater than allowed by this Authorization in the event that mitigation measures did not function as described in the Proponent Plan (section 1.4.3 and 1.4.4).
 - 3.1.4 Undertaking the monitoring program as outlined in section 1.4.5 of this Authorization. Monitoring plans may require adaptive management and/or adjustments. Additional monitoring measures may be required by DFO as this project continues to develop.
4. Conditions that relate to the **compensation** for the harmful alteration, disruption or destruction (HADD) of approximately 22 square kilometres of fish habitat and for the destruction of fish:
- 4.1 Habitat compensation works for this Authorization will be deferred.
 - 4.2 The Proponent shall develop a plan to compensate for the HADD of fish habitat and destruction of fish resulting from the project which shall be submitted to DFO for review and approval no later than February 28, 2013. The compensation plan shall address impacts to fish and fish habitat as verified through the results of the monitoring plan (including estimates of HADD and fish kills) as outlined in the Monitoring Plan (section 1.4.5) and by section 3.1.2 of this Authorization. The compensation plan shall include a description of the proposed compensation project, a schedule for project implementation and plans for monitoring the effectiveness of the project, including criteria for evaluating the success of the compensation works.
 - 4.3 Compensation works shall be scheduled in consultation with DFO with completion by November 1, 2014.
5. Conditions that relate to monitoring and reporting of habitat **compensation** (described above):
- 5.1 The Proponent shall provide the results of the Monitoring Plan (as per section 4.2) according to the approved schedule below.
 - 5.1.1 . Habitat compensation monitoring reports shall be submitted to DFO on or before December 31 of 2013 and 2014 (for the two years of compensation construction activity), and submitted each subsequent year for a *minimum* of two years of post-construction monitoring (by Dec. 31, 2015 and 2016). Depending on details of the

compensation plan and monitoring results, DFO may require an extension of the duration of monitoring and submission of reports.

- 5.2 The Proponent shall report to DFO that the habitat compensation works were conducted according to the conditions of this Authorization by providing the following:
- 5.2.1 Detailed reports of monitoring activities (as outlined in section 4.2) undertaken as per the compensation plan.
 - 5.2.2 A series of labelled photographs depicting the habitat compensation works taken from the same vantage points, direction and angle of view to document the progress of the habitat compensation works and to facilitate accurate comparisons.
 - 5.2.3 Details of any contingency measures that were followed while executing the Monitoring Plan.
- 5.3 If for any reason the compensation project cannot be carried out to completion or if monitoring of the compensation project indicates that the project is not successful in achieving its objectives, the Proponent will make such changes or additions as are necessary or will propose and carry out an alternate project to ensure that the compensation project adequately compensates for the HADD of fish habitat and destruction of fish caused by the Lake St. Martin Emergency Flood Relief Channel.
- 5.4 In the event that changes or additions to the compensation project are necessary, such changes or additions will be submitted to DFO for review and approval prior to implementation and in the event that the original compensation project cannot be completed, an alternate proposal shall be submitted to DFO for review and approval prior to commencement.
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Authorization Limitations and Application Conditions

The holder of this authorization is hereby authorized under the authority of subsection 35(2) and Section 32 of the Fisheries Act, R.S.C., 1985, c.F. 14 to carry out the works, undertakings, activities and/or operations as described herein. This authorization is valid only with respect to fish and fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

This Authorization does not permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish except under conditions that can only be authorized by regulations made by Governor in Council.

At the date of issuance of this Authorization, no aquatic SARA listed species were identified. In the event that a SARA listed species is identified or an aquatic species becomes listed under SARA, this authorization does not permit harm, harassment or killing of any species at risk (SARA section 32), the damage or destruction of residence (SARA section 33) or the destruction of critical habitat (SARA section 58).

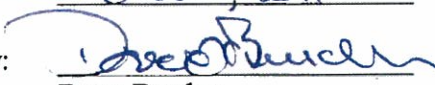
Failure to comply with any condition of this authorization may result in charges being laid under the Fisheries Act.

This authorization should be held on site and work crews should be made familiar with the conditions attached.

The Proponent shall advise DFO in advance if the ownership or responsibility for the conditions of this authorization changes.

Date of Issuance: 28 Oct, 2011

Approved by:


Dave Burden
A/Regional Director General
Central & Arctic Region
Fisheries and Oceans Canada



FISHERIES ACT AUTHORIZATION

AMENDMENT

Authorization issued to:

Manitoba Infrastructure and Transportation (*hereafter referred to as the "Proponent"*)
14th Floor
215 Garry Street
Winnipeg, Manitoba
R3C 3Z1

(204) 945-0236

Location of Proposed Development

Nearest community (city, town, village): Gypsumville
Municipality, district, township, county: Division No. 19, Unorganized
Province: Manitoba
Name of watercourse, water body: Lake St. Martin, Lake Winnipeg (Sturgeon Bay), Big Buffalo Lake, Buffalo Creek and the Dauphin River.
Longitude and latitude: This is a linear project connecting the following two locations from Lake St. Martin: Longitude 98°14'17", Latitude 51°48'06" to Big Buffalo Lake: Longitude 98°10'08", Latitude 51°51'01"

Valid Authorization Period for Impacts to Fish and Fish Habitat

The valid period of this authorization for the harmful alteration, disruption or destruction of fish habitat pursuant to subsection 35(2) and the destruction of fish by means other than fishing pursuant to section 32 includes:

From	To
Date of issuance:	December 31, 2012

The valid authorization periods for other conditions of this Authorization are set out below as **Conditions of Authorization**.

Description of Proposed Development

The proposed development impacting on fish and fish habitat involves the construction and one-time operation of the Lake St. Martin Emergency Flood Relief Channel (see map in Appendix I). This channel is a temporary structure intended to deal with the emergency flood situation on Lake Manitoba and Lake St. Martin. The channel begins at the northeast shore of the north basin of Lake St. Martin and continues for approximately 6 km to the northeast, terminating 1.5 km south of Big Buffalo Lake. Water will exit into a bog surrounding the lake and then flow down Buffalo Creek emptying into the Dauphin River approximately 3.8 km upstream of Lake Winnipeg. No excavation is planned for Buffalo Creek.

The channel has been designed with a 45 metre wide base, 3:1 side slopes and a depth of approximately 7.5 metres. The upstream and downstream channel inverts will be 241.1 and 240.0 metres above sea level respectively, with expected water velocities in the range of 0.7 to 1.0 metres per second. The inlet to the channel consists of an earthen sill approximately 180 metres wide and set at an elevation of 243.3 metres above sea level. Geotextile fabric and riprap will be installed on the sill and water will flow over the sill and into the channel at a design capacity of 106 cubic metres per second, with initial flows expected to be higher. The foreshore area of the inlet will be dredged to an elevation of 242.93 metres above sea level in order to facilitate flows from Lake St. Martin into the channel. Once completed, the channel will be operated until water levels in Lake St. Martin reach desired levels.

Description of Authorized Impacts to Fish and Fish Habitat

Authorized impacts to fish and fish habitat resulting from the works, undertakings, operations or activities associated with the proposed development described above include:

Impacts to Fish Habitat, Subsection 35(2):

- Destruction of approximately 180 linear metres of natural shoreline habitat in Lake St. Martin resulting from the breach of the natural shoreline to construct the inlet of the diversion channel.
- Harmful alteration, disruption or destruction (HADD) of fish habitat resulting from an increase in the magnitude of flows along the diversion route, including:
 - HADD of fish habitat in Buffalo Creek (approx. 1 square kilometre) and in the Dauphin River downstream of its confluence with Buffalo Creek (approx. 0.5 square kilometres) includes:
 - Harmful alteration of: the existing substrate composition (including food sources found within the substrate), existing geometry and cross-sectional morphometry, riparian and in-stream vegetation and cover attributes.
 - Disruption of access to food sources, access to overwintering habitat in Buffalo Lake, and to the availability (re-distribution) of food sources along the diversion route.
 - Disruption of access to spawning grounds within Buffalo Creek, as well as upstream in the Dauphin River.

- Disruption of access to overwintering habitat in Big Buffalo Lake by resident fish species in Buffalo Creek attempting to access the lake.
- Harmful alteration and/or disruption of nursery, rearing and spawning habitat for whitefish and walleye along Buffalo Creek and the Dauphin River during the operation of the diversion channel.
- HADD of fish habitat in Big Buffalo Lake (approx. 0.6 square kilometres) includes:
 - Disruption of the availability of and access to food sources.
 - Disruption of spawning, nursery and rearing habitat within Big Buffalo Lake.
- HADD of fish habitat in Sturgeon Bay (approx. 20 square kilometres) includes:
 - Harmful alteration, disruption and/or destruction to whitefish and walleye spawning grounds located at the mouth of the Dauphin River and along the south-western shoreline extending to Willow Point.
 - Harmful alteration and disruption to food sources within Sturgeon Bay – including the re-distribution of fish and the ability to forage for both benthic and pelagic food sources.
 - Disruption to migration patterns of fishes attempting to migrate upstream of Sturgeon Bay to access spawning, nursery, rearing, or feeding habitat within the Dauphin River and/or Buffalo Creek.

Destruction of Fish, Section 32:

- The destruction of fish hereby authorized includes the incidental mortality which is likely to occur due to the operation of the diversion channel and due to the termination of flow within the diversion route once water levels in Lake St. Martin reach desired levels.

Conditions of Authorization

1. Conditions that relate to the **Proponent's Plan**:

- 1.1 The conditions of this Authorization notwithstanding, should the above authorized impacts to fish and fish habitat in the opinion of the Fisheries and Oceans Canada (DFO) be greater than previously contemplated by all parties, then DFO may suspend any works, undertakings, activities and/or operations associated with the proposed development, to avoid or mitigate adverse impacts to fish and fish habitat. DFO may also direct the Proponent and its agents, and contractors, to carry out at the Proponent's expense any modifications, works or activities deemed necessary by DFO to avoid or mitigate further adverse impacts to fish and fish habitat. In circumstances where DFO is of the view that greater impacts may occur than were contemplated by the parties, DFO may also modify or rescind this Authorization. If the Authorization is to be changed the Proponent will be given an opportunity to discuss any proposed modifications or rescission.
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- 1.2 The Proponent confirms that all plans and specifications relating to this Authorization have been duly prepared and reviewed by appropriate professionals working on behalf of the Proponent and acknowledges that they are solely responsible for all design, safety and workmanship aspects of all the works associated with this Authorization.
 - 1.3 The works, undertakings, activities and operations must comply with the means and conditions as identified within this Authorization. Impacts to fish and fish habitat other than that specifically identified within this Authorization are not permitted.
 - 1.4 Works will be conducted as outlined in the following reports:
 - 1.4.1 “Application for Authorization”, submitted October 14, 2011 by Eric Christiansen on behalf of Manitoba Infrastructure and Transportation (MIT).
 - 1.4.2 Letter detailing project description, dated October 13, 2011, Subject: “Lake St. Martin Emergency Channel Project”, submitted to DFO by Eric Christiansen on behalf of MIT.
 - 1.4.3 Memorandum: “MIT Standard Environmental Mitigation Measures – Lake St. Martin Emergency Outlet” from Eric Christiansen to Ron Weatherburn, September 3, 2011.
 - 1.4.4 Memorandum: “Lake St. Martin Emergency Diversion Channel – Channel Inlet Dredging Plan” including environmental mitigation measures and the preparation of an Environmental Management Plan, prepared by AECOM, dated September 29, 2011 and submitted to DFO by Dave Block on behalf of MIT (see Appendix III).
 - 1.4.5 Fish Habitat Monitoring Plan titled: “Emergency Reduction of Lake Manitoba and Lake St. Martin Water Levels: Baseline Data Collection and Monitoring Plan for DFO”, prepared by North/South Consultants Inc., dated September 2011 and submitted by Dave Block, MIT on October 6, 2011.
 - 1.4.6 Updated draft monitoring work plan titled: “Work Plan for Aquatic Environmental Monitoring to August 2012”, prepared by North/South Consultants Inc., dated December 2011 and submitted by Mike Foth, MIT, on February 17, 2012.
 2. Conditions that relate to the **mitigation** of potential impacts to fish and fish habitat:
 - 2.1 The Proponent shall implement MIT’s Standard Environmental Mitigation Measures as per section 1.4.3 of this Authorization (see Appendix II).
 - 2.2 The Proponent shall implement the Environmental Management Plan and the environmental mitigation measures as outlined in sections 1 and 3 of the memorandum cited in section 1.4.4 of this Authorization (see Appendix III).
 3. Conditions that relate to monitoring and reporting of Authorization conditions:
 - 3.1 The Proponent shall undertake monitoring of the project and report to DFO whether works,
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undertakings, activities or operations for the mitigation of potential impacts to fish and fish habitat were conducted according to the conditions of this Authorization, as well as to determine project-related impacts, by:

- 3.1.1 Providing dated photographs and detailed inspection reports to demonstrate effective implementation and functioning of mitigation works, undertakings, activities or operations as described above as mitigation conditions.
 - 3.1.2 Undertaking monitoring and reporting to DFO on fish entrapment and mortality observed during periodic inspections once outflows from Lake St. Martin to the channel have ceased. In addition, the Proponent shall provide details of any preventive or contingency measures that were followed to prevent fish mortality.
 - 3.1.3 Providing details of any contingency measures that were followed to prevent impacts greater than allowed by this Authorization in the event that mitigation measures did not function as described in the Proponent Plan (section 1.4.3 and 1.4.4).
 - 3.1.4 Undertaking the monitoring program as outlined in section 1.4.5 and 1.4.6 of this Authorization. Monitoring plans may require adaptive management and/or adjustments. Additional monitoring measures may be required by DFO as this project continues to develop. In the event that monitoring plans change or are updated to better reflect current knowledge and understanding, the Proponent shall submit a copy of the revised monitoring plan to DFO for review and approval.
 - 3.1.5 Summary status reports shall be submitted to DFO annually by December 31 of each year of monitoring (2012, 2013 and 2014) to inform DFO of the progress of monitoring activities. If necessary, DFO may request status updates bi-annually or quarterly.
 - 3.1.6 A final, formal monitoring report shall be submitted to DFO by May 31, 2015. This report shall provide details of all monitoring activities, analysis and results, as well as a detailed statement of any impacts to fish and fish habitat that resulted from the construction and operation of the flood relief channel.
4. Conditions that relate to the **compensation** for the harmful alteration, disruption or destruction (HADD) of approximately 22 square kilometres of fish habitat and for the destruction of fish:
 - 4.1 Habitat compensation works for this Authorization will be deferred.
 - 4.2 The Proponent shall develop a compensation plan for the HADD of fish habitat and destruction of fish resulting from the project, which shall be submitted to DFO for review and approval by May 31, 2015. The compensation plan shall address impacts to fish and fish habitat as verified through the results of the monitoring plan (including estimates of HADD and fish kills) as outlined in the Monitoring Plan (section 1.4.5 and 1.4.6, or as modified under section 3.1.4) and by section 3.1.2 of this Authorization. The compensation
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plan shall include a description of the proposed compensation project, a schedule for project implementation and plans for monitoring the effectiveness of the project, including criteria for evaluating the success of the compensation works.

- 4.3 Compensation works shall be scheduled in consultation with DFO. Implementation will commence in the fall/winter of 2015, with completion in 2016. In the event that compensation works cannot be completed in the proposed timeframe, a revised schedule for the work shall be submitted to DFO.
 5. Conditions that relate to monitoring and reporting of habitat **compensation** (described above):
 - 5.1 The proponent shall conduct effectiveness monitoring of compensation works according to the approved schedule below:
 - 5.1.1 . Habitat compensation monitoring reports shall be submitted to DFO by December 31, 2016 following the completion of compensation works, as well as for two additional years (December 31 of 2017 and 2018) for effectiveness monitoring. Depending on details of the compensation plan and monitoring results, DFO may require an extension of the duration of monitoring and submission of reports beyond 2018.
 - 5.2 The Proponent shall report to DFO that the habitat compensation works were conducted according to the conditions of this Authorization by providing the following:
 - 5.2.1 Detailed reports of monitoring activities (as outlined in section 4.2) undertaken as per the compensation plan.
 - 5.2.2 A series of labelled photographs depicting the habitat compensation works taken from the same vantage points, direction and angle of view to document the progress of the habitat compensation works and to facilitate accurate comparisons.
 - 5.2.3 Details of any contingency measures that were followed while executing the Monitoring Plan.
 - 5.3 If for any reason the compensation project cannot be carried out to completion or if monitoring of the compensation project indicates that the project is not successful in achieving its objectives, the Proponent will make such changes or additions as are necessary or will propose and carry out an alternate project to ensure that the compensation project adequately compensates for the HADD of fish habitat and destruction of fish caused by the Lake St. Martin Emergency Flood Relief Channel.
 - 5.4 In the event that changes or additions to the compensation project are necessary, such changes or additions will be submitted to DFO for review and approval prior to implementation and in the event that the original compensation project cannot be completed, an alternate proposal shall be submitted to DFO for review and approval prior to commencement.
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Authorization Limitations and Application Conditions

The holder of this authorization is hereby authorized under the authority of subsection 35(2) and Section 32 of the Fisheries Act, R.S.C., 1985, c.F. 14 to carry out the works, undertakings, activities and/or operations as described herein. This authorization is valid only with respect to fish and fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

This Authorization does ***not*** permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish except under conditions that can only be authorized by regulations made by Governor in Council.

At the date of issuance of this Authorization, no aquatic SARA listed species were identified. In the event that a SARA listed species is identified or an aquatic species becomes listed under SARA, this authorization does not permit harm, harassment or killing of any species at risk (SARA section 32), the damage or destruction of residence (SARA section 33) or the destruction of critical habitat (SARA section 58).

Failure to comply with any condition of this authorization may result in charges being laid under the Fisheries Act.

This authorization should be held on site and work crews should be made familiar with the conditions attached.

The Proponent shall advise DFO in advance if the ownership or responsibility for the conditions of this authorization changes.

Date of Issuance: June 14, 2012

Approved by:



Brad Parker
Director, Prairies Area
Central & Arctic Region
Fisheries and Oceans Canada



FISHERIES ACT 35 (2)(b)AUTHORIZATION

Authorization issued to:

Manitoba Infrastructure and Transportation (hereafter referred to as the "Proponent")
Attention to: Eric Christiansen
1420 – 215 Garry Street, Winnipeg, Manitoba, R3C 3P3

Location of Proposed Project

Nearest community (city, town, village): Gypsumville
Municipality, district, township, county: Division # 19 Unorganized
Province: Manitoba
Name of watercourse, water body: Lake St. Martin, Lake Winnipeg (Sturgeon Bay), Big Buffalo Lake, Buffalo Creek, Dauphin River
Longitude and latitude: Lake St. Martin (98° 14' 17", 51° 48' 06") to Big Buffalo Lake (98° 10' 08", 51° 51' 01")

Description of Proposed Project

The proposed project of which the work, undertaking or activity authorized is a part involves:

Operation of the approximately 6 km constructed Lake St. Martin Emergency Outlet Channel (Channel) by removing the current berm at the inlet to the Channel at Lake St. Martin and subsequent diversion of water from Lake St. Martin through Big Buffalo Lake to Buffalo Creek to the Dauphin River and into Lake Winnipeg. The project is proposed as flood mitigation.

Description of Authorized work(s), undertaking(s) or activity(ies) likely to result in serious harm to Fish

The works, undertakings, or activities associated with the proposed project described above, that are likely to result in serious harm to fish, are:

Removal of the current berm at the inlet of Lake St. Martin to reactivate the Channel , operation of the Channel with associated overland flooding and inundation of downstream waterbodies commencing on or about June 26, 2014 to approximately summer 2015, and closure of the Channel with the potential for fish stranding.

The serious harm to fish likely to result from the proposed work, undertaking, or activity, and covered by this authorization includes:

- Destruction and permanent alteration of fish habitat in Buffalo Creek (approx. 1 square kilometre) and in the Dauphin River downstream of its confluence with Buffalo Creek (approx. 0.5 square kilometres) resulting from an increase in the magnitude of flows along the diversion route, including:
 - Permanent alteration of the existing substrate composition (including food sources found within the substrate), existing geometry and cross-sectional morphometry, riparian and in-stream vegetation and cover attributes.
 - Permanent alteration of access to food sources, access to overwintering habitat in Buffalo Lake, and to the availability (re-distribution) of food sources along the diversion route.
 - Permanent alteration of access to spawning grounds within Buffalo Creek, as well as upstream in the Dauphin River.
 - Permanent alteration of access to overwintering habitat in Big Buffalo Lake by resident fish species in Buffalo Creek attempting to access the lake.
 - Permanent alteration of nursery, rearing and spawning habitat for whitefish and walleye along Buffalo Creek and the Dauphin River during the operation of the diversion channel.

 - Destruction and permanent alteration of fish habitat in Big Buffalo Lake (approx. 0.6 square kilometres) including:
 - Permanent alteration of availability of and access to food sources.
 - Permanent alteration of spawning, nursery and rearing habitat within Big Buffalo Lake.

 - Destruction and permanent alteration of fish habitat in Sturgeon Bay (approx. 20 square kilometres) includes:
 - Permanent alteration, and/or destruction to whitefish and walleye spawning grounds located at the mouth of the Dauphin River and along the southwestern shoreline extending to Willow Point.
 - Permanent alteration to food sources within Sturgeon Bay including the re-distribution of fish and the ability to forage for both benthic and pelagic food sources.
 - Permanent alteration to migration patterns of fishes attempting to migrate upstream of Sturgeon Bay to access spawning, nursery, rearing, or feeding habitat within Lake St. Martin, the Dauphin River and/or Buffalo Creek.

 - Death of fish due to stranding following reduction and/or termination of flows within the diversion route once water levels in Lake St. Martin reach desired levels.
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Conditions of Authorization

The above described work, undertaking or activity that is likely to result in serious harm to fish must be carried on in accordance with the following conditions.

1. Conditions that relate to the period during which the work, undertaking or activity that will result in serious harm to fish can be carried on:

The work, undertaking or activity that results in serious harm to fish is authorized to be carried on during the following period:

From	To
Date of issuance	August 31, 2015

If the Proponent cannot complete the work, undertaking or activity during this period, Fisheries and Oceans Canada (DFO) must be notified. DFO may, where it considers appropriate, provide in writing notice that the period to carry on the work, undertaking or activity has been extended.

The period during which other conditions of this authorization must be complied with are provided in their respective sections below.

2. Conditions that relate to measures and standards to avoid and mitigate serious harm to fish:

- 2.1 Minimizing sediment mobilization in the Channel and erosion of the banks by controlled water release.
- 2.2 All spoil materials and excavated debris from the project shall be properly disposed of above the high water mark such that it does not enter any fish- frequented waters.
- 2.3 When the Channel is operated it shall remain open from September 15 to June 15 during fish migration, spawning, hatching and rearing periods.
- 2.4 When the Channel is to be closed fish in the Channel shall be safely relocated to an area containing sufficient flow, oxygen levels, and cover. Fish recovery shall include effective capture and handling procedures designed to minimize mortality. A qualified environmental professional shall be onsite to ensure fish recovery is conducted effectively.
- 2.5 Upon completion of fish recovery in the Channel, appropriate measures shall be put in place to prevent fish from re-entering the Channel.
- 2.6 Contingency measures shall be put in place if monitoring required in condition 3 below indicates that the measures and standards to avoid and mitigate serious harm to fish are not successful. Additional measures to avoid and mitigate serious harm will be developed and subject to DFO approval prior to works recommencing.

3. Conditions that relate to monitoring and reporting of measures and standards to avoid and mitigate serious harm to fish:

- 3.1 The Proponent shall undertake monitoring and report to DFO, by November 30, 2015 whether measures and standards to avoid and mitigate serious harm to fish were conducted according to the conditions of this Authorization, by:
- 3.1.1 Providing a description of measures and standards implemented to avoid and mitigate serious harm to fish according to the conditions of this Authorization, and the level of effectiveness of the measures at avoiding and mitigating serious harm to fish.
 - 3.1.2 Providing, where appropriate, dated photographs and inspection reports to demonstrate effective implementation and functioning of mitigation measures and standards.
 - 3.1.3 Providing details of any contingency measures that were followed, to prevent impacts greater than those covered by this authorization in the event that mitigation measures did not function as described.
 - 3.1.4 Providing the total number of fish recovered, including species and life stage.
 - 3.1.5 Providing the total number of fish mortalities during fish recovery efforts, and observed in the Channel and downstream.
 - 3.1.6 Providing an analysis of sediment mobilization and deposition as determined through implementing the Proponent's Operation Monitoring Plan.

4. Conditions that relate to the offsetting for the serious harm to fish likely to result from the authorized work, undertaking or activity:

- 4.1 The Proponent shall quantify the extent of serious harm resulting from the project and develop an offsetting plan to ensure the sustainability and ongoing productivity of the commercial, recreational and Aboriginal fishery of Lake St. Martin, the Dauphin River and Lake Winnipeg (Sturgeon Bay).
- 4.1.1 This offsetting plan shall be developed as an addendum to the offsetting plan under development (Authorization 11-HCAA-CA1-01585-A1) and due to DFO by May 31, 2015 and shall consider additional measures to address serious harm to fish identified as per condition 4.1.
 - 4.1.2 The addendum in condition 4.1.1 shall be updated to include any further serious harm identified through monitoring during operations, and post-closure of the Channel and provided to DFO by November 30, 2015.
 - 4.1.3 The Proponent shall demonstrate how the offsetting measures address Provincial Fisheries Management Objectives and concerns regarding impacts to fish and fish habitat raised by affected First Nations communities.
- 4.2 If the results of monitoring as required in condition 5 indicate that the offsetting measures are not completed and/or are not functioning according to the approved offsetting plan, the Proponent shall give written notice to DFO and put in place contingency measures and associated monitoring measures, as contained within their approved offsetting plan, to ensure the offsetting is completed and/or functioning as required by this authorization.
- 4.3 Offsetting measures shall be left undisturbed, and the Proponent shall not carry on any work,
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undertaking or activity that will adversely disturb or impact the offsetting measures.

5. Conditions that relate to monitoring and reporting of offsetting measures (described above in section 4):

5.1 The Proponent shall conduct monitoring as per the approved offsetting plan.

5.2 The Proponent shall report to DFO that the offsetting works were conducted as per the schedule in the approved offsetting plan and according to the conditions of this Authorization:

Authorization Limitations and Application Conditions

The Proponent is solely responsible for plans and specifications relating to this Authorization and for all design, safety and workmanship aspects of all the works associated with this Authorization.

The holder of this authorization is hereby authorized under the authority of paragraph 35(2)(b) of the Fisheries Act, R.S.C., 1985, c.F. 14 to carry on the works, undertakings and/or activities that are likely to result in serious harm to fish as described herein. This authorization does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

This Authorization does not permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish unless authorized by regulations made by Governor in Council.


At the date of issuance of this Authorization, no individuals of aquatic species listed under the *Species at Risk Act* (SARA) were identified in the vicinity of the authorized works, undertakings or activities. In the event that any such individuals are identified in this area, or in the event that an aquatic species found in this same area is listed under the SARA after this Authorization is issued, this Authorization does not permit the killing, harming, capture or taking of individuals of any such species (section 32 of the SARA), or the damage or destruction of residence of individuals of such species (s. 33 of the SARA) or the destruction of the critical habitat of any such species (s. 58 of the SARA).

The failure to comply with any condition of this authorization constitutes an offence under paragraph 40(3)(a) of the *Fisheries Act* and may result in charges being laid under the *Fisheries Act*.

This authorization must be held on site and work crews must be made familiar with the conditions attached.

This authorization cannot be transferred or assigned to another party. If the work(s), undertaking(s) or activity(ies) authorized to be conducted pursuant to this authorization are expected to be sold or transferred, or other circumstances arise that are expected to result in a new Proponent taking over the work(s), undertaking(s) or activity(ies), the Proponent named in this authorization shall advise DFO in advance.

Date of Issuance: JUN 18 2014

Approved by: 
David Burden
Regional Director General
Central & Arctic Region
Fisheries and Oceans Canada
