



Canadian Environmental
Assessment Agency

Prairie and Northern Region
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Agence canadienne
d'évaluation environnementale

Bureau régional des Prairies et du Nord
Place du Canada
9700, avenue Jasper, bureau 1145
Edmonton (Alberta) T5J 4C3

May 13, 2015

Pamela Hainsworth
Municipality of Deloraine-Winchester
129 Broadway Street North
Box 387, Deloraine, Manitoba R0M 0M0
pamela@delowin.ca

Lloyd Leganchuk
Municipality of Boissevain-Morton
420 South Railway Street
Box 490, Boissevain, Manitoba R0K 0E0
admin@boissevain.ca

Subject: Application of the *Canadian Environmental Assessment Act, 2012* to the Whitewater Lake Management Project

Dear Ms. Hainsworth and Mr. Leganchuk,

The Canadian Environmental Assessment Agency (the Agency) has reviewed the Environment Act Proposal for the Whitewater Lake Management Project (the Project) submitted by Kontzamanis Graumann Smith MacMillan Inc. (KGS Group), on behalf of the RM of Deloraine-Winchester, to the Manitoba Environmental Approvals Branch on March 23, 2016.

Based on the information presented in the Environment Act Proposal the Agency has determined that the Project is a designated activity pursuant to section 6 of the *Regulations Designating Physical Activities* (the Regulations) under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012).


6. The construction, operation, decommissioning and abandonment of a new structure for the diversion of 10 000 000 m³/year or more of water from a natural waterbody to another natural waterbody.

The Agency has made its determination based on the proposed diversion volume exceeding the thresholds of 10 000 000 m³/year.

Under CEAA 2012, a federal environmental assessment may be required for designated projects. Proponents of designated projects are required to submit a Project Description to the Agency, to inform the Agency's determination of whether an environmental assessment under CEAA 2012 is required. The information requirements for Project Descriptions are stipulated in the *Prescribed Information for the Description of a Designated Project Regulations*. Additional guidance is presented in the *Guide to Preparing a Description of a Designated Project under CEAA 2012*, available on the Agency's website, www.ceaa-acee.gc.ca.

Anna Kessler is the Agency project manager assigned to this file. If you have any questions, please contact Anna at 780-495-2479 or anna.kessler@ceaa-acee.gc.ca.

Sincerely,



for: Shauna Sigurdson
Regional Director, Prairie and Northern Region

Cc: Bruce Webb, Manitoba Department of Sustainable Development, Environmental Approvals Branch
Gord Weidenhamer, Head of Council, Municipality of Deloraine-Winchester, gord@delowin.ca



Webb, Bruce (CWS)

From: Fagan, Paul (CWS)
Sent: May-03-16 3:09 PM
To: Webb, Bruce (CWS) BW
Subject: Fw: Request for review/comment - RM Deloraine-Winchester - Whitewater Lake Mod EAP -
File: 5822.00

Manitoba Conservation and Water Stewardship -- Environmental Compliance and Enforcement has reviewed the aforementioned Environmental Act Proposal and has no concerns at this time.

If you have any questions please feel free to contact me.

Paul Fagan B.Sc.

Environment Officer - Western
Manitoba Conservation and Water Stewardship - Environmental
Compliance and Enforcement
1129 Queens Ave.
Brandon, MB. R7A 1L9
(204) 726-6167
<mailto:Paul.Fagan@gov.mb.ca>

DATE: 20 May, 2016

TO: Bruce Webb *BW*
Environmental Approvals
Manitoba Sustainable Development
160-123 Main Street, Winnipeg

FROM: Muntaseer Ibn Azkar
Climate Change and Air Quality
Manitoba Sustainable Development
160-123 Main Street, Winnipeg

**SUBJECT: Municipality of Deloraine-Winchester – Whitewater Lake Management
Project (File 5822.00)**

Air Quality Section has reviewed the above proposal and provides the following comments:

- The proposal is not expected to have any significant impact on air quality.

Webb, Bruce (CWS)

Subject: FW: Request for review/comment - RM Deloraine-Winchester - Whitewater Lake Mod EAP - File: 5822.00 Due May 20

From: Harms, Jenny (CWS)
Sent: May-16-16 1:25 PM *BW*
To: Webb, Bruce (CWS)
Subject: RE: Request for review/comment - RM Deloraine-Winchester - Whitewater Lake Mod EAP - File: 5822.00 Due May 20

Parks and Protected Spaced Branch has reviewed Request for review/comment - RM Deloraine-Winchester - Whitewater Lake Mod EAP - File: 5822.00 and offers the following comments:

Under section 2.4 Land Use Designation and Zoning, Whitewater Lake WMA is described as protected "from mining, logging and hydro-electric development and all other sectors except petroleum." Please note that the western and eastern portions of the WMA as described in Use of wildlife Lands Regulation 77/99 under The Wildlife Act are protected from oil and gas exploration and extraction.

Protected areas are set aside to maintain functioning natural ecosystems and protect biodiversity. This means natural process such as flood and drought cycles are intended to continue without interference. To maintain as much of this natural process as is possible, the proposed controlled draw-down of Whitewater Lake **shoud not** extend beyond the outer boundary of the WMA as shown on Director of Surveys plan 19675a. The WMA boundary appears to be at a higher level than the propose 496.20m draw-down level.

The Branch recommends that both the WMA and protected WMA boundaries be included on the map Figure 1, and other proposal maps as applicable. These boundaries are available for free download from the Manitoba Land Initiative website at: <http://mli2.gov.mb.ca/>

Thank-you,

Jenny Harms
Protected Areas Specialist
Cel: 204.945.4363



DATE: May 20, 2016

TO: Winifred
Frais

BW

FROM:

Myles Kopytko
Regional Land Manager
Sustainable Development
1129 Queens Avenue

PHONE NO: 761-7538

FAX NO: 726-6301

EMAIL: Myles.Kopytko@gov.mb.ca

SUBJECT: Whitewater Lake Management - Environment Act Proposal – IRMT Review

The Integrated Resource Management Team has reviewed the proposal submitted by KMG Consultants on behalf of their clients, municipalities of Morton and Winchester.

IRMT recommendation is to **not support** the proposal and the subsequent issuance of an Environment Act licence.

Summary of the responses from the Western Region IRMT are as follows:

IRMT Response with respect to Water Management referencing Manitoba Water Management Strategy and Information derived from other reports.

Please note Water Management, Drainage and Water Control Licensing Section are providing separate Branch Level Response

Allowing the drainage of a terminal basin like Whitewater Lake contradicts *Manitoba's Surface Water Management Strategy*, which does not support the installation of drainage infrastructure on terminal basins:

- Page 11: "Terminal basins are unique systems that must be protected and therefore, engineered outlets should be an option of last resort, as drainage of these basins can have significant negative impacts."
- Page 13: "**Action 13 Protect Terminal Basins** - Protect terminal basins to ensure that the ecological value and natural ecosystem function of these unique ecosystems is maintained first and foremost. Installing drainage infrastructure on terminal basins is not generally supported and will only occur to protect human health, or prevent dislocation of primary residences. In such cases mitigative measures would be required in other areas of the watershed to compensate for the loss of ecological value."

Whitewater Lake is a terminal basin making it very reactive and sensitive to land use changes, drainage, and runoff from large precipitation events from the surrounding upland agricultural area.

Introduction 1.0 from Proposal

“The project will consist of gated culverts to control the outflow of water from Whitewater Lake through diversion channels to discharge water north to Elgin Creek and west to Medora Creek.”

The Western IRMT does not support water management through a gated culvert. This approach will only allow opportunities for tampering to manipulate water levels beyond what the proposal is indicating. It has been noted that this practice is commonplace in some areas where similar style structures are located.

Using the channel capacity outlined in proposal and the amount of water to be removed, it is estimated that the desired level could not be achieved in one season of operation (in the permit time frame), rather over a 2 + years timeframe. This would provide further challenges to those downstream landowners who cross the creeks during normal farming operations. More information is required to determine the extent of flows on the Medora and Elgin Creeks and potential impacts around flooding.

Water Quality- no IRMT representative, but concerns from IRMT

Section 4.4 under Surface Water -The Whitewater proposal references water quality with respect to potential impacts associated with the development of the project only.

“The water in Whitewater Lake is very saline. This is because it is a landlocked or terminal basin. Surface waters from the surrounding land drain to the lake where the water evaporates or seeps into the ground, having no access to discharge into the regional river system. The average annual inflow to Whitewater Lake has been estimated to be about 25,000 dam³ (20,000 acre-feet) per year (Report of Measures for Controlling High Levels on Whitewater Lake, 1977). Although the water quality of the contributing streams is fairly good, the minerals in the river water accumulate in Whitewater Lake as evaporation of pure water results in a gradual increase in salinity of the lake water. This process has been continuing for centuries, so that the salinity of Whitewater Lake is now higher than that of sea water. The lake as a source of water has limited applications due to the poor quality. However, the lake serves as very good habitat for birds and water fowl (Genivar Report, 2008)”

“Groundwater is relatively close to the soil surface and is much more saline than the surface water. Problems with salinity are aggravated by cultivation, which lowers the organic content of the soil and brings salts to the surface (Topping, 2011)”

Further information is required to understand impacts associated with water quality downstream:

- impacts of salinity to vegetation, aquatic species and fisheries resources that exist in the Medora and Elgin Creek systems.
- impacts on agricultural activity within the Medora Creek itself
- impacts associated with the introduction of this flow into Elgin Creek Reservoir

Fish and Fish Habitat – further regional IRMT response expected.

Section 4.5 of Proposal -The proposal discusses the immediate implications to a fisheries resource within Whitewater Lake, which is minimal due to highly saline conditions that exist there.

Concerns have been raised around the lack of information regarding the impact of water quality and potential impacts on aquatic ecosystems in the Elgin Creek Reservoir and the Souris River – specifically related to fisheries.

The proposal discusses impacts and possible mitigation for the immediate construction area of the project, but there is little or no information on the potential long-term impacts of water quality to the Elgin Reservoir which is a stocked fishery that also serves as a water supply for the community.

Wildlife - Regional and Branch Response – IRMT supports this response

This project proposes to “lower the water level of the lake”, which is in direct violation of *The Wildlife Act*. Under Section 45(1, b, iii) of the *Use of Wildlife Lands Regulation*, no person shall engage in any “activity that significantly and adversely affects habitat” within Whitewater Lake Wildlife Management Area.

The proposed project will impact wildlife and habitat in the following ways:

- Draining the lake and maintaining low water levels will interrupt the natural fluctuation of water that makes this ecosystem so productive.
- Connecting Whitewater Lake to Medora and Elgin Creeks and the greater Souris River watershed will enable the movement of fishes and aquatic invasive species into an ecosystem that is currently void of such organisms.
- The lake is historically subject to botulism outbreaks, and maintained low water levels, paired with prolonged periods of drought could result in a greater frequency of outbreaks, severely impacting local waterbird populations.
- The lake is designated as an Important Bird Area (IBA) providing habitat for globally significant numbers of nesting Franklin’s gull and staging snow geese; provincially-unique nesting habitat white-faced ibis, cattle egret, snowy egret, and great egret (all considered provincially rare by Manitoba’s Conservation Data Centre); and nesting and staging habitat for large concentrations of various other waterbird species.
- Lowering of the spill elevation of the lake will decrease the drought resistance of the basin, increasing the likelihood that the basin will dry out as it did in the late 1980’s.

The area is of recreational importance, specifically for wildlife viewing (largely birds) and waterfowl hunting. This project would impact recreational value of the area by decreasing the productivity of the area for birds, thus decreasing recreational opportunities for wildlife viewing and hunting.

Nowhere else in the province is a municipality or other proponent permitted to directly regulate water levels within a Wildlife Management Area.

Lands

As per excerpt from Section 2.3 - During high water conditions the lake overflows onto the flat terrain surrounding the lake (Appendix A, Photo 1) which is predominantly used for agricultural production and cultivation of canola, corn, wheat, oats, barley, soy bean and sunflower (Photo 2). During normal years the lake covers 6,070 hectares, but can be as high as 10,320 hectares (and two metres deep) during years with increased runoff. Prior to the most current wet cycle that started in 2011, the lake experienced extremely high water levels between the years 1973 and 1976 (3) and on May 5, 1976 the previous record high water level of 497.559 m was recorded with the lake expanding to an estimated 14,000 ha (4).

For reference, the level of 497.559 meters is the equivalent of 1632 ft. In 2011, the Department of Conservation and Water Stewardship prepared a report and produced a map with respect agricultural soil capability and impacted lands around Whitewater Lake in the wake of the Flooding in 2011. The mapping identified that, at the 1632 level, the lake occupied 30,693 acres. Of those 30,693 acres, 20,812 acres (67.8%) were Crown Land and 9,881.2 acres were private land (approximately 32%). Further, of the 30,693 acres, the majority were identified as Canada Land Inventory (CLI) Agricultural Capability class 5 soils (28,941 acres or 94 %). CLI class 5 lands are defined as “soils that have very severe limitations that restrict their capability to producing perennial forage crops”. These lands are not said to be suitable for annual cropping. There was 1,752 acres (6 %) of lands identified as Class 2, 3 or 4 Agricultural Capability.

There are 108 parcels of coded Crown Land located around Whitewater Lake. Approximately 10,300 acres (94%) are under a Wildlife Management Area designation, administered under the Wildlife Act. There are 676 acres (9 parcels - 6 %) that have a long term agricultural lease. One parcel (160 acres) has an annual agriculture lease.

Based on the assessment of a flood level of 497.559m or 1632 ft, the amount of productive agricultural lands is low (6%), and crown lands that are dedicated to an agricultural lease is small enough that lost agricultural productivity should not be used for justification for support of the proposal.

Other identified concerns:

Along approximately 28 miles of Medora Creek, agricultural production takes place in the creek floodplain. The proposal does not discuss implications to downstream users, including access to fields and potential need for installation of field crossings.

It has been noted that the legal descriptions for the project proposal footprint have been incorrectly identified and provided to the Heritage Resource office for review of potential impacts to heritage resources.

Cost Benefit

The establishment of outlet channels and control gates proposed are estimated to cost approximately \$ 2.5 million, without any discussion of mitigation, compensation, or land expropriation costs. There has been no cost- benefit analysis developed as part of this proposal. Previous Reports concluded that lowering of Whitewater would not provide a cost-benefit ratio greater than .10. At that level, it is questionable that any support should be provided from the Provincial Government.

Should you have any questions or comments, please don't hesitate to contact me at (204) 761-7538 or Myles.Kopytko@gov.mb.ca.

Sincerely,
Myles Kopytko
Regional Land Manager – Western Region
IRMT Secretariat

c.c. P. Stonehouse

Webb, Bruce (CWS)

From: Stibbard, James (CWS)
Sent: May-16-16 2:36 PM
To: Webb, Bruce (CWS)
Subject: Re: 5822.00 Whitelwater Lake Controls EAP Review

BW

Mr. Webb,

Office of drinking Water has no concerns with this EAP or the proposed works respecting drinking water quality or safety

If you have any questions, please call.

Regards,

James Stibbard P. Eng.

Approvals Engineer

Office of Drinking Water

1007 Century Street

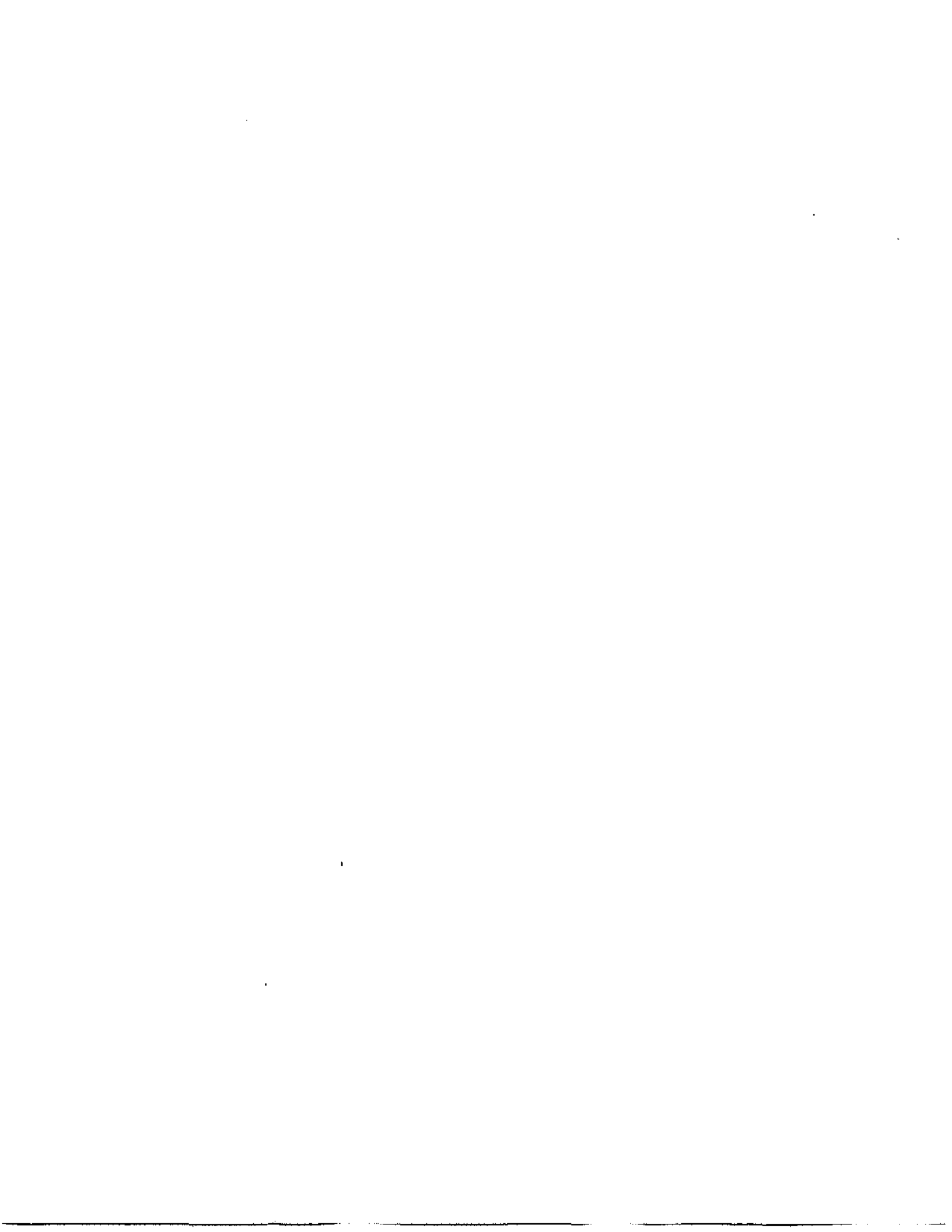
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phone: (204) 945-5949

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email: James.Stibbard@gov.mb.ca

website: www.manitoba.ca/drinkingwater



Memorandum

Date: April 26, 2016

To: Bruce Webb *BW*
Environmental Approvals Branch
123 Main Street, Suite 160
Winnipeg MB R3C 1A5

From: Kevin Jacobs M.Sc.
Water Quality Management Section
Manitoba Conservation and Water
Stewardship
200 Saulteaux Cres.
Winnipeg MB R3J 3W3

Email: Kevin.jacobs@gov.mb.ca

Phone: 945 4304

Fax: 948-2357

Subject: File 5822.00 - RM of Deloraine - Winchester- Whitewater Lake Management Project

The above noted proposal has been reviewed by the Water Quality Management Section of Manitoba Conservation and Water Stewardship.

It is noted

“The project involves the construction of two outlet channels from the lake. The west channel would discharge to the west branch of Medora Creek and the north channel would discharge to Elgin Creek. Both channels would be constructed mainly on road allowances, and would be gated to control flows. Both channels would be operated only between May 15 and October 31, and only when downstream flows were low. The outlets would be operated to maintain a target level on Whitewater Lake of 496.2 metres (1628.0 feet) above sea level. This level is 1.8 m below the 2013 peak level of the lake, and 1.3 m above the bottom of the lake”

While it is realized that some uncontrolled overflows have occurred and one can sympathize with the current situation, what is absent from the proposal is an assessment on the water quality of Whitewater Lake and how the discharge might affect Medora and Elgin Creeks, and the Souris River. Should the water quality be satisfactory in Whitewater Lake compared to the receiving water, modeling of drainage volumes and quality compared to the receiving basin might help inform recommendations on the timing and velocity of discharge. The proposal indicates the lake can be saline and does not support fish. What would for example be the effect of that saline water on the biota downstream waterbodies during low flow conditions or on sensitive life-stages?

While controlled lowering of the lake is proposed in the short term to prevent property damage, a long term solution to chronic flooding includes increased upstream storage and wetland retention and/or restoration. While the current project is designed to alleviate recent flooding it is reported that the lake has been dry on numerous occasions. It is conceivable that future discussions might involve methods to replenish water levels in the lake during periods with dryer climatic conditions.

Thank you for the opportunity to comment on this proposal.

Kevin Jacobs M.Sc.
Water Quality Management Section
