

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Manitoba Conservation and Water
Stewardship, Parks and Natural Areas
PROPOSAL NAME: Brereton Lake Campground – Onsite
Wastewater Treatment and Disposal System
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Waste Treatment–Sewage Treatment Plant
CLIENT FILE NO.: 5618.00

OVERVIEW:

On November 5, 2012 the Department received a Proposal from J.R. Cousin Consultants Ltd. on behalf of Manitoba Conservation and Water Stewardship, Parks and Natural Areas Branch pursuant to *The Environment Act* for the construction and operation of a new onsite wastewater treatment and disposal system located in NW 8-11-15 EPM within the Whiteshell Provincial Park to service the Brereton Lake campground and resort. The proposed wastewater treatment system will consist of a biofiltration treatment unit with UV disinfection, chemical dosing with phosphorus reduction, and discharge to a dispersal bed with leaching to a natural wetland. Treated effluent would be discharged during the operating season from May to September into the dispersal bed located adjacent to the natural wetland. The existing onsite septic tanks and disposal fields would be decommissioned.

On December 19, 2012 Manitoba Conservation and Water Stewardship placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Winnipeg Millennium Public Library, the Manitoba Eco-Network, and the Brokenhead Regional Library. Copies of the Proposal were also provided to the Canadian Environmental Assessment Agency (CEEA) and the Technical Advisory Committee (TAC) members. The Department placed public notification of the Proposal in the Beausejour Clipper on Monday, January 7, 2013. The newspaper and TAC notifications invited responses until February 4, 2013.

On February 15, 2013, Manitoba Conservation and Water Stewardship forwarded requests for additional information from the TAC to the proponent's consultant. On March 12, 2013, the consultant submitted responses to the comments and requests from the TAC.

On March 21, 2013, the consultant's responses were distributed to the participating TAC for review and comment.

All additional information necessary for the review was placed in the Public Registries.

COMMENTS FROM THE PUBLIC:

No comments were received from the public.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE (TAC):

Manitoba Innovation, Energy and Mines– Mines Branch (December 18, 2012)

- *No concerns*

Manitoba Conservation and Water Stewardship - Lands Branch and the Sustainable Resource and Policy Management Branch (February 4, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship – Wildlife Branch (December 17, 2012)

- *No concerns*

Manitoba Conservation and Water Stewardship – Environmental Programs and Strategies Branch- Air Quality Section (February 4, 2013)

- *No concerns*

Manitoba Conservation and Water Stewardship - Water Use Licensing (December 31, 2012)

- *No concerns*

Manitoba Conservation and Water Stewardship – Office of Drinking Water (February 1, 2013)

- *The EAP notes the domestic water system at the campground is obsolete and inadequate in that it used surface water from the lake with no filtration. This water system has been under a boil water advisory (BWA) for a number of years.*
- *The Report notes that, when a new domestic water system is designed, the raw water source will probably be a groundwater well. It notes that available information indicates a well would be developed into “deep layers of peat and clay” and will probably not be considered groundwater under direct influence of surface water (GUDI). It also notes the probable location of the new well will be approximately 180 meters away from the treated effluent discharge bed, which is further than the minimum setback guideline of 15 meters from a well or spring noted as being part of Manitoba Regulation 83/2003. The Report also notes that, before a new domestic water system can be constructed, a Permit to Construct will need to be issued by Office of Drinking Water (ODW).*

- *The Report states the treatment process will include primary treatment and secondary treatment (chemical addition) for reduction of phosphorus and non-chemical (ultraviolet) disinfection before being discharged to the disposal mound and wetland and that this treatment will produce treated effluent meeting or exceeding Manitoba Guidelines for Surface Water Quality.*
- *The Report notes that, based upon readily available information, the proposed sewage treatment and disposal system is anticipated to have minimum impact upon surface or groundwater in the area.*
- *I can confirm that a Permit to Construct will need to be issued by ODW before a new domestic water system or major modifications to the existing Park water system can be constructed. The permit application package will need to include a professional evaluation of the risk of the raw water source (well or surface water) being impacted by effluent from the on-site wastewater disposal system.*

Proponent Response (March 12, 2013)

- An evaluation of the potential raw water source will be completed as part of the permit application, and will include an evaluation of impacts from any nearby effluent sources. From a recent study conducted, it was determined that the water well site described in the EAP is unsuitable for use as a campground raw water source and currently another well location (South Beach well, 2 km south of Brereton Lake Campground at NW 31-10-15 E) is being assessed for use as a future well water source.

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Office of Drinking Water.

Manitoba Conservation and Water Stewardship, Fisheries Science and Fish Culture Section, Fisheries Branch (February 01, 2013)

- *Fisheries Branch has reviewed this proposal to construct a new wastewater treatment system and disposal field to service the Brereton Lake campground and resort. The wastewater system will include biofiltration with UV disinfection and chemical dosing for phosphorous reduction. The treated effluent will be piped to a dispersal bed, filtered through sand for additional polishing and leach into the adjacent wetland to the south and east. The purpose of the dispersal bed is to diffuse the treated effluent into the wetland. Due to the high groundwater table at the proposed dispersal bed location the base of the bed will need to be raised above the ground to ensure the effluent is disposed down through the sand layer. During the non-operational season (Oct to April) the resort will use holding tanks.*

- *It appears from the information provided that the treated effluent stream follows a wetland complex. Typically as long as the effluent meets or exceeds Manitoba Water Quality Standards, Objectives and Guidelines and appropriate mitigation measures are implemented (implement erosion and sediment control measures during and after construction until the site has stabilized, fuelling away from any surface water body, etc) during construction and operation, any potential fisheries concerns should be addressed.*
- *The proponent indicates using chemical dosing to reduce phosphorous. Do you know is that chemical alum and in this case is the expectation that the effluent will meet the 1.0 mg/l prior to being discharged or is there the expectation that dispersal through the bed and wetland will be needed to meet that limit? Also there seems to be an increase in the use of alum alone or in combination with other nutrient management strategies to meet the phosphorous limit. Is it possible to start requesting more information on the use and effect of alum as part of the EA submission?*

Proponent Response (March 12, 2013)

- The base of the dispersal bed will be raised above the ground to ensure effluent will disperse down through the sand layer.
- The proponent will be made aware of the above comments.
- The reduction of phosphorus in the treatment system will occur through the use of chemical dosing with alum in the treatment system. Phosphorus reduction will occur prior to treated effluent reaching the dispersal bed.

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Fisheries Branch.

Manitoba Infrastructure and Transportation– Highway Planning and Design Branch, Environmental Services Section (January 16, 2013)

- *It appears that part of the underground piping falls within the right-of-way and controlled area of PR 307. An underground agreement will be required from MIT. For more information and permitting requirements, please contact*

*Mr. Gary Toews
Technical Support Services
Technician
Gary.Toews@gov.mb.ca
(204) 346-6288*

- *A permit from MIT is also required for any construction or installation within 125 ft from the edge of the road's right-of-way, as well as any plantings within 50 ft from the edge of the right-of-way. For more information and permitting requirements, please contact*

Mr. Jean-Camille Boily

Drafting and Permit

Technician

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mb.ca (204) 346-7361

Proponent Response (March 12, 2013)

- An agreement with MIT will be reached prior to any construction occurring at the site.
- A permit from MIT will be obtained prior to construction occurring at the site.

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Highway Planning and Design Branch.

Manitoba Conservation and Water Stewardship – Environmental Compliance and Enforcement – Eastern Region (January 18, 2013)

- *Page 1-1 states the development is for White Lake Campground. Enforcement and Compliance understands this should be Brereton Lake Campground.*
- *The Introduction and Background sections claim the resort uses the campground system in the summer months. However Enforcement and Compliance understands the resort uses a combination of the campground system as well as holding tanks.*
- *Enforcement and Compliance seeks clarification if pipes will be cleaned out at the end of the season to prevent damage due to freezing?*
- *The dispersal bed is in close proximity to the wetland. There may be risk of the dispersal bed becoming saturated, compromising its function, and polluting the environment.*
- *Page 2-13 mentions a grey water pit. A grey water pit was not described as part of the current wastewater treatment system. What part of the campground/resort is currently being serviced by the grey water pit? As per Section 15(1) of the Onsite Wastewater Management Systems Regulation (83/2003), buildings with pressurized water cannot use grey water pits. Therefore, this grey water pit will have to be decommissioned with the other tanks and fields once the new system is commissioned.*

- *Total coliforms were not included in the effluent quality parameters (page 2-15,16). This is a common parameter that is evaluated for lagoon discharges to the environment.*
 - *The proposal states the resort will continue to use holding tanks during the non-operating season. If these tanks are connected to the new system, any flow into the new system from these tanks will need to stop during the non-operating season. Procedures for this were not detailed in the proposal.*
 - *It is unclear as to what changes will occur with the wastewater infrastructure at the resort. Currently, the resort has eight (8) holding tanks:*
 - *Two (2) for the restaurant*
 - *Six (6) for cabins*
- Also, 6 seasonal cabins have 4” lines that feed directly into the current campground system. How will this resort system be altered to connect it to the proposed development?*
- *Where will the force main cross Hwy 307? What impact will this have on the roadway?*
 - *The map titled “Location of existing piping and wastewater treatment system” shows only two holding tanks associated with the resort. There are a total of eight (8) holding tanks at the resort. Two (2) are near the restaurant, as shown in the map. There are six (6) holding tanks that service cottages that belong to the resort. These should be reflected on the map.*

Proponent Response (March 12, 2013)

- From discussions with the Resort Owner, the resort does utilize a combination of the campground water and sewer system, as well as water and sewage holding tanks.
- Pumpout standpipes will be installed in the sewer forcemain and discharge piping lines for pumping out liquid as part of the seasonal shutdown in the fall, to prevent freezing and damage to the piping. Blowouts will be installed in the water main and service lines to blow water out of the lines as part of the seasonal shutdown in the fall, to prevent freezing and damage to the piping.
- The dispersal bed is not intended to be used for any wastewater treatment. It is as stated, a "dispersal bed" which will be used to disperse the treated effluent over a larger area than a discharge pipe directly into the wetland. Any additional effluent polishing that the dispersal bed may provide is only considered as incidental. As stated, the dispersal bed will allow for a slow release of treated effluent into the surrounding wetland area. It is intended that the dispersal bed will become saturated, however the effluent reaching the dispersal bed will be treated to requirements of the Manitoba Water Quality Standards, Objectives and Guidelines, and the Environmental Licence for surface discharge, which minimizes the risk of surface water contamination in the wetland.

- The grey water dumping areas at the campground are not separate pits, they are simply access ports into the existing septic tanks on the campground for the public to utilize. The existing septic tanks and holding tanks throughout the campground will eventually be decommissioned and replaced as part of the overall project upgrade.
- The wastewater treatment system will be designed to meet the requirements of the environmental licence as issued by Manitoba Conservation. Total Coliforms are not a parameter included in the Manitoba Water Quality Standards, Objectives and Guidelines for surface discharge of wastewater effluent, which was referenced in the EAP submission.
- The resort owner is aware that the campground wastewater treatment system will continue to operate only during the operating season and that during the non-operating season they will stop flow into the campground system and continue to utilize private holding tanks.
- The resort wastewater infrastructure and connection into the campground system is beyond the scope of the project, as the existing campground wastewater system will simply redirect the wastewater to the new wastewater treatment system. However, the wastewater treatment system has been sized to accommodate the flows from the resort, should they decide to connect to the campground system entirely in the future.
- The location of the proposed forcemain crossing will be determined during the design phase of the project, based on depth to refusal and required location of access route. All attempts will be made to ensure the pipe crossing will occur through directional drilling and that impacts to PR 307 will be minimal.
- The specific locations of the resort holding tanks are beyond the scope of this project and will not be the responsibility of Parks Branch as this project progresses. Should the resort owner decide to alter the infrastructure on the resort property which affects the campground wastewater or water system, approval from Parks Branch will be required.

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Environmental Compliance and Enforcement.

Manitoba Conservation and Water Stewardship – Water Science and Management Branch – Water Quality Management Section (January 14, 2013)

- *The following effluent standards should be in place for Brereton Lake Campground. as per the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011).*

- *BOD₅ 25 mg/L*
 - *Total suspended solids 25 mg/L*
 - *Fecal Coliforms or Escherichia coli 200 MPN / 100mL*
 - *Total Phosphorus 1 mg/L*
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- *Can the proponent discuss a proposed method of sludge disposal?*

 - *Maps from detailed report D40_Whiteshell (1:20,000 survey) indicate the proposed system located on NW 8-11-15e is a nutrient management zone N4. Under 14(1) of the Nutrient Management Regulation (62/2008) this wastewater system cannot be located in a Zone N4. The proponent should obtain services of pedologist. Following is the most recent listing of pedologists. If the pedologist reports the site is confirmed to be a Zone N4 and the Proponent still wants to locate wastewater treatment and disposal system in this location, Proponent will need to apply in writing to Nicole Armstrong, Director of the Water Science and Management Branch, 160-123 Main Street, Winnipeg, Manitoba, R3C 1A5 for authorization.*

Pedologists

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- *The Water Quality Management Section encourages interpretive walking trails for the public with signage to educate the public on wastewater treatment and the importance of wetlands in maintaining ecological processes and biological diversity.*
- *The Water Quality Management Section is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water. Therefore it is recommended that the license require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director.*

Proponent Response (March 12, 2013)

- As described in Section 2.6.8 of the EAP submission, the system will be designed to meet the above effluent quality standards.
- When necessary the proponent will arrange to have the septic tanks in the treatment system pumped out and hauled to a licenced wastewater treatment facility. This will remove any buildup of septic sludge in the system.
- The proponent will apply for authorization to install a wastewater treatment and disposal system in the proposed location, which is indicated by soils mapping to be located in nutrient management zone N4. The majority of the campground and surrounding landscape consists of shallow bedrock and organic soils, therefore the siting of the treatment system and dispersal bed is limited to land in nutrient management zone N4. As the system will be replacing an aging septic field, the upgrade would significantly reduce nutrient discharge into the environment.

- The proponent will be made aware of the above comments.
- The proponent will be made aware of the request to participate in any future watershed based management study, plan and/or nutrient reduction program, as approved by the Director".

Disposition:

- After receiving the additional information from the proponent, no further comments were received from Water Science and Management Branch – Water Quality Management Section.
- Proponent has already submitted an approval letter dated April 25, 2013 under subsection 14(3) of the Nutrient Management Regulation from the Director of the Water Science and Management Branch.

COMMENTS FROM FEDERAL REPRESENTATION:

Canadian Environmental Assessment Agency (CEEA) (December 21, 2012)

- *Based on the information provided by Manitoba Conservation and Water Stewardship, the project referred to above does not appear to meet the definition of a “designated project” under CEEA 2012.*
- *Please note that the proponent is responsible for confirming its federal regulatory responsibilities in developing its project, including confirming whether its proposal is described on the Regulations Designating Physical Activities under CEEA 2012. Please advise the proponent to review the regulations (<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2012-147/index.html>) and contact the Canadian Environmental Assessment Agency if its proposal meets the definition of a designated project.*
- *As the Agency will only be involved in the review of designated projects, no formal federal coordination exercise has been undertaken for this file. However, the Agency has copied The Department of Fisheries and Oceans, and Environment Canada on this correspondence for information purposes.*

PUBLIC HEARING:

- A public hearing is not recommended because no comments were received from the public.

CROWN-ABORIGINAL CONSULTATION:

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with First Nations, Métis communities and other Aboriginal communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or Aboriginal right of that First Nation, Métis community or other Aboriginal community.

It has been determined that Crown-Aboriginal consultation is not required as there is no aboriginal community nearby the proposed project. The project is not expected to affect the exercise of an aboriginal or treaty right.

RECOMMENDATION:

The Proponent should be issued a Licence for the construction and operation of an Onsite Wastewater Management System in accordance with the specifications, limits, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Approvals Branch until all inspections have been completed and the facility is fully commissioned in accordance with the licence.

PREPARED BY:

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April 29, 2013

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