SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT:	**Youth for Christ/Winnipeg Inc.**
PROPOSAL NAME:	**Camp Cedarwood Wastewater Management Facility**
CLASS OF DEVELOPMENT:	**2**
TYPE OF DEVELOPMENT:	**Sewage Treatment Plant**
CLIENT FILE NO.:	**5465.00**

OVERVIEW:

On May 12, 2010 the Department received an Environment Act Proposal (EAP) on behalf of Youth for Christ/Winnipeg Inc. for the construction and operation of an onsite wastewater management system to serve an existing development known as Camp Cedarwood. The proposed system would be located at Camp Cedarwood that is located on parts of SE and NE 6-16-13EPM in the Rural Municipality of Alexander. Wastewater effluent will be disposed of on site through the use of disposal fields. Periodic removal of solids from septic tanks will be by registered sewage haulers who will take such solids to licenced or permitted disposal facilities.

The Department, on June 9, 2010, placed copies of the EAP report in the Public Registries located at 123 Main St. (Union Station); the Millennium Public Library, Manitoba Eco-Network and the Brokenhead River Regional Library and provided copies of the EAP report to the Canadian Environmental Assessment Agency and TAC members. As well, the Department placed public notifications of the EAP in the Lac du Bonnet Leader on Friday, June 11, 2010. The newspaper and TAC notifications invited responses until July 12, 2010.

On August 9, 2010, comments and requests for additional information resulting from the initial review period of the EAP were forwarded to the proponent for response. On April 6, 2011 Manitoba Conservation distributed the proponent's March 10, 2011 response package to the participating public and TAC.

On June 27, 2011, supplementary comments and requests for additional information resulting from the secondary review period of the EAP were forwarded to the proponent for response. At that time the proponent was informed that a public forum was required to be planned during the summer period such that a facilitated meeting could occur as a component of the EAP review.

Rather than immediately generating specific responses to the supplementary comments and requests for additional information, on September 17, 2011 the proponent held a facilitated public information meeting at Camp Cedarwood such that information could be presented directly and effectively to the participating public and immediate exchanges of comments and information could occur. The facilitator prepared a summary of the meeting, entitled "Report on the Public Information Meeting". The report was dated September 26, 2011 and categorized the comments and concerns in four categories of concern including fairness, design, monitoring, and failure.

During this intervening period, the Rural Municipality of Lac du Bonnet submitted an October 12, 2011 letter correspondences to the Environmental Approvals Branch that conveyed 217 names, addresses and signatures of people from the area who oppose the proposal.

In a November 1, 2011 letter the proponent was requested to provide responses to the matters presented in the four categories and provide specific responses to the requests for additional information from the TAC and public as presented in the June 27, 2011 letter from Manitoba Conservation.

In a March 16, 2012 letter the proponent provided responses to the results of the public information meeting and the TAC and public requests. The responses were distributed to the participating public and TAC in a May 17, 2012 letter.

The public submitted several comments, questions and concerns in reaction to the proponent's responses to the information meeting and the TAC and public requests.

COMMENTS FROM THE PUBLIC:

Many comments were submitted by the public during the review period, including the Rural Municipality of Lac du Bonnet's. May 18, 2011 Resolution No. 219 conveying their objections to the proposed wastewater management system. The Rural Municipality of Alexander also submitted correspondence suggesting that this proposal should not be approved.

Overall, sSignificant public and local government opposition was conveyed relative to:

1. the required use of holding tanks by individual residential lots;
2. the potential for negative environmental and public health impacts that could result from its operation;
3. the apparent lack of consideration given to alternative options such as a sewage treatment plant;
4. the potential for failure of the Development as the result of weather events or through hydraulic overload; and
5. the proximity of the proposed Development to Pinawa Bay and the size of the property available.;

During the initial period of the EAP review, the public made seven requests for a public hearing and six requests for a public meeting. When the initial requests for additional

information were forwarded to the proponent, it was suggested by Manitoba Conservation and Water Stewardship that they should organize a facilitated public meeting.

A facilitated public meeting was held on September 17, 2011. The associated comments and concerns of the public can be summarized as presented in the September 26, 2011 report, "Report on the Public Information Meeting – Camp Cedarwood Proposed On-Site Waste Management", prepared by John McNairnay and Alexis Miller.

The report categorized the comments and concerns into four categories of concern including:

1. Fairness: The camp should not be treated any differently than private home and cottage owners who are not allowed to have septic fields.;
2. Design: Has the proposed system been designed to accommodate all factors that may impact its use, including growth of the camp and very wet years?;
3. Monitoring: Who will be responsible for monitoring the system and ensuring that it is operated properly in the future?; and
4. Failure: What if things don't go as planned and the system fails?

The Rural Municipality of Lac du Bonnet submitted an October 12, 2011 letter and an October 12, 2011 email to the Environmental Approvals Branch that conveyed a total of 108 217 [SBR1]names, addresses and signatures of people from the area who oppose the proposal. Amongst other general comments, the petition package stated 'Any type of untreated effluent being placed in or on the ground as proposed by this plan could have severe detrimental effects on the Pinawa Bay, and subsequently the Lee River and bodies of water downstream. Any such proposal must be rejected by the Manitoba Government Department of Conservation as it has been by the Councils of the RM of Alexander and Lac du Bonnet. The Cedarwood group must be advised that they are required to remain with the use of holding tanks and removal by Septic Truck Services or install a Wastewater Treatment Plant, that is "installed, operated and maintained in accordance with Province of Manitoba Wastewater Treatment Legislation and Regulations". This would ensure that effluent is monitored and tested and meets Provincial standards before being discharged to the environment.'

On March 29, 2012 the Environmental Approvals Branch received the proponent's responses to the areas of concern summarized from the facilitated public meeting as well as to the most recent comments and requests for additional information from the TAC.

In this response, the proponent included discussion directed to the R.M.s of Lac du Bonnet and Alexander as well as the general public regarding consideration of alternatives including continuing use of holding tanks with hauling to municipal treatment facilities as well as self-contained secondary and mechanical wastewater treatment plants, including the BioCompact wastewater treatment system. These responses pointed to the idea that the proposed system was selected for its expected effectiveness and reliability coupled with cost efficiency and practical level of daily required attention. A response to the Lorell Cottage Owners Association identified that a water conservation program has been implemented but the camp still generates about one-13,620 litre (3000 gallon) truckload of wastewater per day. Other public issues presented relate to uncertainties involved with operating such a proposed system, such as; potentially compromising the

environment, deviating from regulations, setting a dangerous precedent, adherence to operating and monitoring requirements.

In general, the proponent's responses reflected on the ideas that:

- any authorization of the proposed Development should not be considered unfair;
- the Development's design is engineered, includes factors of safety, and is compliant with regulatory requirements;
- the Development would be monitored in accordance with requirements of any Environment Act Licence that may be issued; and
- risk of consequences of failure of the Development have been considered as important aspects in its design.

The summary and responses were distributed to the public and participating TAC on May 17, 2012.
There were no new comments or requests for additional information.[SBR2]

The public submitted several supplementary comments, questions and concerns in reaction to the proponent's responses to the information meeting and the TAC and public requests. These supplementary comments, questions and concerns relate to site characteristics, operation, monitoring and reporting requirements for the wastewater management system, and the concept of adding a secondary containment dyke between the engineered wastewater disposal fields and Pinawa Bay.

On June 5, 2012 the Rural Municipality of Lac du Bonnet passed Resolution No. 313, maintaining their objection to the proposed wastewater management system.

See Appendix A

Disposition:[SBR3]

- The quantity of undeveloped land that is somewhat removed from areas frequented by guests available at Camp Cedarwood makes it possible for the proposed Development to be accommodated whereas surrounding individual lot sizes for private homes and cottages do not have adequate quantities of land available for this type of application.
- In consideration of the idea that Camp Cedarwood has no specific plans for expansion, the design of the proposed Development conforms to related provincial and other criteria and includes several safety factors including the following:;
  - proposing fully above-ground sand filter mound systems (where modified trench type or total area type of disposal fields may have been acceptable);
  - designing for peak water use at maximum occupancy (14,850 litres per day and already includes a safety factor) plus an additional 1000 litres per day (about 6% of total); and
  - the addition of a secondary containment dyke between the mounds.; and

- The draft Environment Act Licence includes clauses applied to other similar developments in Manitoba as well as clauses specific to the four categories of public concern as follows:
  - Fairness – All Clauses;
  - Design – Clauses 5, 6, 9 – 11, 14 – 16, , 19 – 23, 28, and 31;
  - Monitoring – Clauses 1 – 3, 7 – 18, and 22 – 30; and
  - Failure – Clauses 1 – 5, 7 – 13, 16, 19 – 27, 29, and 30.
- The draft Environment Act Licence requires that the wastewater management facility be constructed, operated and maintained in accordance with specific limits, terms and conditions as well as monitoring and reporting requirements that are consistent with associated provincial regulations and are similar to those applied to sewage treatment plants and wastewater treatment lagoons in Manitoba.
- The draft Environment Act Licence contains a clause that requires the licensee obtain and maintain classification of the Development pursuant to *Manitoba Regulation 77/2003* respecting *Water and Wastewater Facility Operators* or any future amendment thereof and maintain compliance with all requirements of the regulation including, but not limited to, the preparation and maintenance of a Table of Organization, Emergency Response Plan and Standard Operating Procedures.
- The draft Environment Act Licence contains a clause that requires the Licencee to carry out the operation of the Development with individuals properly certified to do so pursuant to *Manitoba Regulation 77/2003* respecting *Water and Wastewater Facility Operators* or any future amendment thereof.
- The draft Environment Act Licence contains a clause that requires the Licencee to install, operate and maintain the Development such that freezing of the effluent in the pipes is prevented.
- The draft Environment Act Licence contains a clause that requires the Licencee to install, operate and maintain the engineered wastewater effluent disposal fields of the Development such that effluent is discharged through the disposal fields with no surface breakout.
- The draft Environment Act Licence contains a clause that requires the Licencee to not spill, or allow to be spilled, wastewater and/or sludge in the areas around the Development.
- The draft Environment Act Licence contains a clause that requires the Licencee to undertake a regular program of maintenance for the Development, including inspections to ensure that all tanks are watertight.
- The draft Environment Act Licence contains a clause that requires the Licencee to install and maintain a security fence around all components of the Development that are not buried or enclosed within secured buildings.
- The draft Environment Act Licence contains a clause that requires the Licencee to install and maintain lockable access covers for the septic tank access points that shall remain locked at all times that access to the septic tanks is not required for normal operation or servicing of the septic tank components of the system.

- The draft Environment Act Licence requires that, within three months of the date of Licence, an engineered groundwater monitoring plan relating to the engineered wastewater effluent disposal fields be submitted to the Director for approval.
- The draft Environment Act Licence requires that, within three months of the date of the Licence, a surface water quality monitoring program for the Lee River and Pinawa Bay that includes monitoring for nitrate – nitrite, total phosphorous, ammonia, Total Kjeldhal Nitrogen, 5-day BOD, total coliform, and, fecal coliform for at least the first six seasons of operation be submitted to the Director for approval.
- The draft Environment Act Licence contains a clause that requires that the proponent will actively participate in any current or future watershed-based management study, plan and/or nutrient reduction program, approved by the Director, for the Winnipeg River and associated waterways and watersheds.

  The draft Environment Act Licence contains clauses that identify limits, terms and conditions as well as monitoring and reporting requirements that are enforceable by Manitoba Conservation and Water Stewardship Environment Officers.

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- The draft Environment Act Licence contains a clause that requires the Licencee, , in the case of physical or mechanical equipment breakdown or process upset where such breakdown or process upset results or may result in the release of a pollutant in an amount or concentration, or at a level or rate of release, that causes or may cause a significant adverse effect, immediately report the event by calling 204-944-4888 (toll-free 1-855-944-4888). The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event. In addition, the Licencee shall, following the reporting of such an event;
  a) identify the repairs required to the mechanical equipment;
  b) undertake all repairs to minimize unauthorized discharges of a pollutant;
  c) complete the repairs in accordance with any written instructions of the Director; and
  d) submit a report to the Director about the causes of breakdown and measures taken, within one week of the repairs being done.
- in the event of a release, spill, leak, or discharge of a pollutant or contaminant in an amount or concentration, or at a level or rate of release, that exceeds the limit that is expressly provided under this Act, another Act of the Legislature, or an Act of Parliament, or in a regulation, licence, permit, order, instruction, directive or other approval or authorization issued or made under one of those Acts, immediately report the release, spill, leak, or discharge. The report shall indicate the nature of the release, leak, or discharge, the time and estimated duration of the event and the reason for the release, spill, leak, or discharge.
- The draft Environment Act Licence contains a Review and Revocation section that identifies that non-compliance may result in review and/or revocation of the licence which could ultimately cause the licencee to have to permanently or temporarily cease operation of the Development and, potentially, the camp.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Conservation and Water Stewardship – Environmental Operations

July 16, 2010

- *Pages 6 & 7: The Proposal describes how settleable solids will be managed but does not address the fats and greases generated by the Lodge's food service facility. The proponent should describe the measures that will be taken to prevent fats and greases from being directed to the treatment mound.*
- *Pages 7 & 8: The assessment of the depth of the high water table is based on an observation made during the trenching for the installation of pipelines. The proposal does not specify the time of year in which the observation was made, or the proximity of the trenches to the proposed treatment mound other than "in the vicinity of the site". Further information is requested regarding the depth of the high water table at the proposed location for the treatment mound.*
- *The hydro-geological data provided by the proponent is limited to observations made while trenching in pipelines and analysis results of soil samples collected from three shallow test holes (depth of 0.6 metres). Due to the size of the proposed onsite treatment mound system, it is recommended that the proponent conduct a more extensive hydro-geological investigation to assess soils at greater depths and to confirm the depth of the high water table at the proposed location for the treatment mound system.*

[SBR4]

Proponent's Response – March 10, 2011

- It was initially expected that the three-step settling tank would effectively remove the fats and greases from the wastewater. Upon reconsideration of this issue, it is considered prudent to remove the food preparation stream of wastewater from the mainstream of wastewater until after the fat, oil and grease is separated. The wastewater from the kitchen area will therefore be channeled through a two chamber 3400 litre grease interceptor before it enters the main wastewater drain from the Lodge building. This is reflected in the revised EAP which is attached.

- A test hole was drilled on November 2, 2010 at the location of the proposed sand treatment mound for the Lodge OWMS. The soil was tested (results attached in the revised EAP report) and confirmed to have the same effluent application rate (per Manitoba Regulation 83/2003) as the previously conducted tests on the same site. Further, the test hole was extended to a depth of two metres and was dry to the bottom on completion, the latter notwithstanding that the area had been subject to high precipitation during 2010, including fairly heavy snowfall a few days prior to the test and snowmelt water still lingering in the upper horizon of the forest floor. The rest corroborates the hydro-geological data from excavations made earlier in the area of the proposed sand treatment mound.

Disposition:

- The draft Environment Act Licence contains a clause that requires that the Licencee install, operate and maintain fat, oil and grease interceptors as components of the

Development to prevent conveyance of fat, oil and grease to the engineered wastewater effluent disposal fields.

- The proponent completed supplementary site investigations and modified the designs of the Development and indicates that all designs exceed minimum requirements identified in associated regulations and guidelines.

Conservation and Water Stewardship – Environmental Services

July 14, 2010

- *Consider requiring that the proponent identify the calculations used to size the sand layer and mound base area or berm dimensions for the proposed sand treatment mounds, and provide a plan view cross section diagram indicating the height of the proposed system(s), the materials used and the berm dimensions.*
- *Page 10, Section 3: Chambers – the proposal indicates a 0.075m (3") space from the edge of the chamber to the edge of the sand layer. Standard of practice requires a minimum space of 0.15m (6") from the edge of the chamber to the edge of the sand layer.*
- *Page 14, Section 5: Cover Material – the proposal indicates that the chambers and sand filter material will be covered with native soil material. Standard of practice requires that the berms and fill cover material be composed of a loamy sand/sandy loam material to allow for wicking. It is also acceptable to use ASTM C33 sand. Native soil material is not recommended for this layer.*

Proponent's Response – March 10, 2011

- The revised report provides more details as to the resources, rationale and calculations used in determining the configuration and size of the proposed sand treatment mounds. It also reflects recent revisions to some of the resource manuals as well as data from an actual working system which is operating successfully. The result is a sand filter with a depth of 0.6 metres (rather than the minimum 0.3 metres). Since this has been shown to provide effective secondary treatment and filtration, the design area (which by virtue of the new calculations was enlarged from the previous report) has been adjusted downwards again as suggested in Regulation 83/2003 (Schedule A, Clause 2.7). On the other hand, the footprint of the sand filter portion of the disposal field has been used as the design footprint. The sandy-loam berm covering the sand filter provides additional application area so that the proposed overall sand filter mound footprint is now 42.5% greater than that in the original EAP submission. And the sand filter has been reconfigured to make it longer and narrower, thus providing a more effective distribution of treated effluent into the soil along the furthest boundary of the site from the water's edge. This provides a more effective uptake of moisture by the turf and forest cover separating the disposal field from the bay.
- This has been done and is reflected in the more detailed drawings provided.
- The design has been changed to accommodate this request. The material needs to be imported in any case and will be tested for particle size to make sure it conforms to the requested standard.

May 9, 2011

- *Upon review of the above application the following are submitted for your consideration:*
    1. *Recommend that the tank manhole and other accesses to the wastewater treatment components are raised slightly above grade to prevent surface water from entering the system and that the lids are secured to prevent unauthorized removal.*
    2. *Recommend that a license clause is included to ensure that the work permit as required in the lease under 4(2) is obtained prior to work on the site commencing.*
    3. *Recommend that notification to the designated environment officer is required prior to covering of the disposal field similar to clause 10 of MR83/2003.*
        - *No person shall cover an onsite wastewater management system, in a manner that obscures it from view or interferes with the inspection of the system, without authorization from an environment officer.*
    4. *Request information on the slope (ie %) for the proposed location of the lodge sand treatment mound in C03, and confirmation that the slope of the land has been taken into account in the calculation of the loading rates due to the drainage (depending upon the grade).*
    5. *Recommend a license clause similar to the following be included:*
        - *The licencee shall implement an ongoing monitoring and maintenance program by a qualified service provider with inspections semi-annually at minimum.*
    6. *Recommend that the records of the monitoring and maintenance program be made available to an EO upon request.*
    7. *Recommend record drawings be required for the OWMS*

<u>Proponent's Response – March 16, 2012</u>

- The applicant concurs with those recommendations and will comply with all of them whether or not they are specifically noted in the licence. Items 4 of this email requests information on the slope of the site for the lodge sand treatment mound and whether the slope has been taken into consideration in the design. The slope of the site is generally about 4% , sloping downward from east to west. It levels out somewhat at the west end and into the wooded area between the site and the lake. The slope has been considered in the undertaking the design. The effluent application plane in the upper zones of the proposed sand treatment mound is about 0.5m above the natural ground at the extreme eastern edge of the mound. The lateral movement, commonly referred to as linear loading, of the effluent in the sand of the mound will extend horizontally to the outer surface of the sand as well the loamy-sand berm. This has been tested and demonstrated using ASTM grade C-33 sand for purposes of the design of this project. And gravity will ensure that the entire footprint of the field will be in play as to infiltration of the treated effluent into the underlying soil.

Disposition:

- The draft Environment Act Licence contains a clause that requires that the Licencee undertake a regular program of maintenance for the Development, including inspections to ensure that all tanks are watertight.

- The proponent concurred with the recommendations and will comply with all of them whether or not they are in licence.

Conservation and Water Stewardship – Water Stewardship Division

July 12, 2010

- *Manitoba Water Stewardship requests the proponent to provide feedback to the following:*
  - *Due to the variable flow and the peak flow occurring in the summer months, what safety measures will the proponent implement to ensure the wastewater system does not overload?*
  - *If the system does overload, what contingency plans will the proponent implement?*
  - *Manitoba winters are very cold. The proponent will need to take measures to ensure the system and pipes do not freeze. Can the proponent describe all precautions that will be implemented to insulate against freezing and other relevant details?*
  - *Can the proponent provide a mapped location of the wastewater system relative to the ¼ section boundary, PTH 313, and the water boundary? This is helpful in determining the Class of soil upon which the proposed system would be situated.*

- *Manitoba Water Stewardship submits the following comments:*
  - *The Manitoba Department of Water Stewardship is mandated to ensure the sustainable development of Manitoba's water resources. Manitoba Water Stewardship is committed to the goals of: protecting aquatic ecosystem health; ensuring drinking water is safe and clean for human health; managing water-related risks for human security; and stewarding the societal and economic values of our waterways, lakes and wetlands; for the best water for all life and lasting prosperity. Manitoba Water Stewardship achieves these goals, in part, through administering legislation, including The Water Protection Act, The Water Rights Act, and The Water Power Act.*
  - *The Water Rights Act requires a person to obtain a valid licence to control water or construct, establish or maintain any "water control works." "Water control works" are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If a proposal advocates any of the aforementioned activities, a person is required to submit an application for a Water Rights Licence to Construct Water Control Works. A person may contact the following Water Resource Officer to obtain an application and/or obtain information.*

- *A contact person is Mr. Geoff Reimer C.E.T., Senior Water Resource Officer, Water Control Works and Drainage Licensing, Manitoba Water Stewardship, Box 4558, Stonewall, Manitoba R0C 2Z0, telephone: (204) 467-4450, email: geoff.reimer@gov.mb.ca.*

- *The proponent needs to be informed that if the proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.*

Proponent's Response – March 10, 2011

Firstly, the requirement of Manitoba Regulation 83/2003 in this type of OWMS is for a primary settling tank (commonly referred to as a septic tank) which has a capacity of 140% of the total daily sewage flow (or 2250 litres, whichever is greater). The minimum retention time in the settling tank is therefore about 30 to 34 hours. Compared to primary sedimentation in a mechanical sewage treatment plant, where on to two hours retention is more common, this provides more than ample safety allowance for peak flows. The existing tanks provide a capacity of about 146% of the peak daily flow.

The soil tests taken in accordance with a Director Variance to Manitoba Regulation 83/2003 indicate that the site is capable of assimilating a minimum wastewater application of 8.31 litres per square metre of disposal area per day and a maximum of 10.76 litres per square metre per day. The former, more conservative application rate has been used for the entire area in this design. The formula for determining the base area of a total area field has a safety factor of 1.5 where chamber treatment systems are used, as is the case here. That applies where the application of effluent from the septic tank is applied directly to the native soil. In this project, a sand treatment mound is provided on top of the native soil. The wastewater from the septic tank is applied into the chambers and infiltrates the sand (which must meet the A.S.T.M. C-33 gradation requirement per Manitoba Conservation standards of practice). The sand with a minimum of 0.6 m of thickness under the chambers provides a medium for biological treatment and filtration of the wastewater. Most of the liquid will travel much more than the 0.6 metre distance as it spreads laterally throughout the sand body to the native soil underneath and surrounding the sand filter. Since it will be treated effluent that actually infiltrates the native soil, the footprint is reduced by a factor of 25% to allow for the absence of a biomat at the native soil interface as would be the case without the sand filter. On the other hand, the footprint of the sandy loam/loamy sand berm which covers the sand filter adds an additional footprint area in which infiltration occurs into the native soil. The net result is a 42.5% increase in the overall footprint area from that in the original EAP report. Additionally, the site is surrounded by mature trees. A mature tree may cause upwards of 1000 litres of evapo-transpiration in a single day in the summer, several hundred litres per day as early as April and again in the fall. Coniferous trees as active even in the winter. The presence of trees accounts for the dry condition of the subsoil to a depth of greater than two metres even after the wet summer and fall of 2010 in the area of Camp Cedarwood. Along with the other measures indicated above, the trees add to the safety measures against overloading of the onsite effluent disposal system.

The contingency plan for potential overloading is, firstly, that the sand filter mounds will include monitoring tubes to indicate the water level in the mound. The regular monitoring

of the water level in these tubes will provide an early warning (weeks ahead) of any problem that might be developing in the sand mounds. That would then permit the operator to divert the wastewater from the system by hauling it to another licenced treatment system in the area. It is not expected that this will be required, given the conservative design of the system. The monitoring tubes are primarily intended to provide data to manage and optimize the filter mounds and for future reference in the operation of the system.

The settling tanks are installed below ground so as to be protected from freezing. They have been in service for some time without problems, and that is with regular access for pumping to sewage hauler trucks. The pipelines to the proposed disposal field are installed at an estimated 2.4 metres below ground, typically below the depth of frost penetration. The distribution valve chamber is proposed to be installed in the upper 1.2 metres of the sand filter mound. This is normally in the frost zone of natural soil during local winters. Firstly, the valve chamber will be insulated with 50 mm thickness of polystyrene insulation. And it is not normally accessed in the winter as it does not require routine servicing. Secondly, heat is constantly being added to the system by the delivery of wastewater from the tanks. The entire sand filter system, like any soil-based disposal field is a heat sink for the wastewater management system. With the minimum soil cover as required by the standards of practice which Manitoba Conservation has included in the variance to the Regulation, fields operate successfully under Manitoba winter conditions. Additionally, the location of the proposed sand filter mounds is in a sheltered area with no vehicular or pedestrian traffic. Snow cover will provide additional insulation.

The comments of Manitoba Water Stewardship relative to the various Acts administered by the Department are noted. OWMS are not considered to be "water control works" as defined under the Water Rights Act. The OWMS as designed proposes to uphold all the requirements of the Water Protection Act. The Water Power Act is not considered to be applicable to any part of the proposed system.

<u>April 29, 2011</u>

- *Manitoba Water Stewardship recommends an Environment Act Licence to include the following requirements:*
  - *The Licencee shall actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director, Water Science and Management Branch, Manitoba Water Stewardship.*
    - *Note: Manitoba Water Stewardship is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water.*
  - *The Licencee shall develop and implement a water quality monitoring program that includes monitoring the following parameters during the first six seasons of operation:*
    - *Nitrate – Nitrite;*
    - *Total Phosphorous;*
    - *Ammonia;*

- *Total Kjeldhal Nitrogen;*
- *BOD 5-day;*
- *Total Coliform; and,*
- *Fecal Coliform.*

Proponent's Response – March 16, 2012

Manitoba Water Stewardship recommends, firstly for an Environment Act Licence to include a clause requiring participation In any future watershed based management study, plan or nutrient reduction program. The applicant has no objection to this requirement. Secondly, it is recommended that a water quality monitoring program be implemented with testing of a series of parameters during the first six seasons of operation. The applicant does not object to such testing as part of the monitoring of the operation. But since there will be no surface discharge of effluent from this facility, it is not apparent where the sample for such monitoring should be taken. One possibility would be to install a monitoring well between each of the two proposed disposal fields and its respective secondary containment berm. Samples could be drawn from such monitoring well for periodic testing. The monitoring wells should be installed prior to the start of operations of the system and water samples tested for background levels of the subject parameters.

Disposition:

- The draft Environment Act Licence contains a clause that requires that the proponent will actively participate in any current or future watershed-based management study, plan and/or nutrient reduction program, approved by the Director, for the Winnipeg River and associated waterways and watersheds.
- The draft Environment Act Licence requires that, within three months of the date of Licence, an engineered groundwater monitoring plan relating to the engineered wastewater effluent disposal fields be submitted to the Director for approval.
- The draft Environment Act Licence requires that, within three months of the date of the Licence, a surface water quality monitoring program for the Lee River and Pinawa Bay that includes monitoring for nitrate – nitrite, total phosphorous, ammonia, Total Kjeldhal Nitrogen, 5-day BOD, total coliform, and, fecal coliform for at least the first six seasons of operation be submitted to the Director for approval.

COMMENTS FROM THE FEDERAL REPRESENTATION:

The application of the *Canadian Environmental Assessment Act (the Act)* will not be required for this project.

PUBLIC HEARING/MEETING:

The proponent held a facilitated public meeting on September 17, 2011 at Camp Cedarwood. The meeting was facilitated by John McNairnay and Alexis Miller. A

summary entitled "Report on the Public Information Meeting – Camp Cedarwood Proposed On-Site Waste Management" was submitted and summarized the comments and questions in four categories as follows:

1. Concerns about fairness: The camp should not be treated any differently than private home and cottage owners who are not allowed to have septic fields.
2. Concerns about design: Has the proposed system been designed to accommodate all factors that may impact its use, including growth of the camp and very wet years.
3. Concerns about monitoring: Who will be responsible for monitoring the system and ensuring that it is operated properly in the future?
4. Concerns about failure: What if things don't go as planned and the system fails?

In a March 16, 2012 letter to Manitoba Conservation, the proponent provided responses to the comments and questions as well as the public and TAC requests for additional information presented in Manitoba Conservation's June 27, 2011 letter to them. The responses were distributed to the participants as an attachment to a May 17, 2012 letter.

There were no supplementary requests for a public hearing or a public meeting.

[SBR5] CROWN-ABORIGINAL CONSULTATION

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with First Nations, Metis 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, Metis community or other Aboriginal community.

There is no aboriginal community nearby Camp Cedarwood and would be no infringement of aboriginal or treaty rights under Section 35 of the Constitution Act, 1982. Therefore, it is concluded that Crown-Aboriginal consultation is not required for the project.

RECOMMENDATION:

Issue an Environment Act Licence in accordance with the attached draft. Enforcement of the components of the Licence that relate to installation of the wastewater management system should be assigned to the Environmental Approvals Branch until satisfactory installation has been completed.

PREPARED BY:

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July 15September 4, 2013

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Appendix A
Licence No. 3063

COMMENTS FROM THE PUBLIC:

Following Public Advertisement:

Name	Date	Comment(s)
Cape Coppermine Landowners Association	10/08/02	- Expressing concerns over danger to the environment that far surpass financial concerns of the proponent including the potential for negative surface water impacts resulting from extreme weather and moisture conditions; and - Suggesting proposal requires local public hearing.
Mitchell, Mel and Barbara	10/08/01	- Expressing strong objection and suggesting that the proposed site is too small and close to Pinawa Bay to accommodate a septic field.
Malo, Levis and Luce	10/07/28	- Expressing worry about potential environmental effects of proposed septic field; and - Querying about the potential to have a public meeting.
Sebastian, Grant	10/07/28	- Expressing concern about potential surface water quality impacts; and - Opposing any project that risks surface water quality.
VanderZwan, Theo and Annette	10/07/28	- Suggesting septic field should not be allowed; and - Expressing concern about negative surface water quality impacts.
Anderson Drive Property Owners Association	10/07/27	- Expressing concern over potential disastrous consequences to the environment including surface water quality relative to recreation and personal home use resulting from overland flow from severe weather and poor site conditions. - Suggesting local public hearings are required such that all in the area can become aware of the proposal.
Simons, Jan	10/07/26	- Noting objection to the proposal and suggesting increased enforcement regarding illegally installed grey water discharge lines on properties.
Linklater, John S. & Margaret A.	10/07/26	- Expressing concerns regarding potential surface water quality impacts; and - Suggesting a sewage treatment plant as an alternative.
Cardinal, Vera – Councillor – Rural Municipality of Lac du Bonnet	10/07/26	- Expressing formal objections to proposal; - Suggesting that population size will generate quantity of wastewater that would be an environmental disaster waiting to happen; and - Expressing concerns over potential impacts of high

Name	Date	Comment(s)
		water table, increased rain events resulting in proposed development having negative effects on adjacent or associated waterways.
Zarecki, Cliff	10/07/26	- Expressing objection to the installation of a sewage lagoon system in such close proximity to Pinawa Bay.
Harlow, Bob and Loretta	10/07/26	- Expressing strong opposition to the proposed development due to potential for negative surface water and groundwater quality impacts
Stevenson, Donna	10/07/26	- Expressing opposition to the proposed development.
Gillies, Greg & Bev	10/07/26	- Expressing concerns over groundwater and surface water quality impacts; and - Indicating the need for a public hearing.
Funk, Ernie	10/07/26	- Expressing concerns over groundwater and surface water quality impacts.
Clegg, Randy	10/07/26	- Expressing opposition to the proposed development and concern over potential impacts on associated water bodies including Lake Winnipeg.
Stoesz, Lynne & Trudeau, Ray	10/07/26	- Expressing concern and objection to the proposed development citing potential for negative impacts on waterways.
Flather, Colleen	10/07/25	- Voicing objection to the proposed development citing close proximity to the waterway.
Laycock, Darryl & Kim	10/07/25	- Expressing objection to the proposed development identifying that they installed a holding tank system and citing the close proximity of the proposed development to the waterway.
Ostroman, J & A	10/07/25	- Suggesting the proposed development is a bad idea as it will destroy the water quality.
Gould, Allan Jr.	10/07/25	- Expressing the need for equality for developments; - Identifying concerns over site characteristics and potential for negative impacts on the public.
Sylvestre, Marc and Claire	10/07/25	- Expressing opposition to the proposed development.
Whiteside, Terry	10/07/24	- Objecting to the proposed development.
Whiteside, Pat	10/07/24	- Objecting to the proposed development citing concern for surface water quality and potential negative impacts of septic fields.
Hodge, Roland	10/07/24	- Expressing concern of potential negative soil and surface water impacts.
Hlady, Rick & Shauna	10/07/24	- Expressing formal objection.
Stevens, Mike & Krista	10/07/24	- Expressing opposition to the proposed development, citing environmental protection.
Woodworth, Len	10/07/24	- Objecting to the proposed development, citing environmental protection and suggesting alternatives

Name	Date	Comment(s)
		should be considered.
Kovari, Donna & Kelvin	10/07/24	- Expressing opposition to the proposed development, citing environmental protection; and - Suggesting a public hearing be held.
Stefaniuk, Michele Assistant CAO Rural Municipality of Alexander	10/07/14	- Requesting additional information regarding; site percolation testing and assessment of the results, standards for the percolation tests, site analysis respecting ability to handle volume of wastewater, results of any analyses respecting flow toward adjacent surface water or into any aquifer, proposed water protection actions, and what alternatives were considered.
Devigne, Robert	10/07/12	- Expressing opposition to the proposed development and suggesting that hauling to a licenced facility is the way to go; and - Requesting information on a public meeting relative to the proposal.
Slimmon, Earl and Maureen	10/07/12	- Expressing concern of potential impacts on surface water quality.
Lorell Cottage Owners Association	10/07/12	- Addendum to June 22, 2010 letter; - Expressing concerns regarding the potential lack of water conservation efforts by the proponent, lack of detail respecting site soils investigation efforts, potential for bias respecting soil sampling, potential surface water quality impacts, uncertainty respecting daily water consumption and associated measurements, lack of site geological study, and lack of percolation testing; and - Indicating opposition to the proposed development.
Lacroix, Guy & Agathe	10/07/12	- Expressing strong opposition to the proposed development; and - Suggesting either hauling off site or installing a sewage treatment plant as alternatives.
Trochim, Leonard & Reva	10/07/12	- Suggesting that the proposed development should not be allowed due to site characteristics and the potential for impact on nearby surface water; and - Querying about monitoring requirements if allowed to be installed.
Fisher, Norm a& Terry	10/07/11	- Expressing concern regarding proximity to surface water and the potential negative impacts on the surface water and area in general; and - Suggesting a public meeting must be held such that concerns can be discussed.
Russell, Bill	10/07/11	- Expressing concern over lack of a wastewater

Name	Date	Comment(s)
		assessment and it's characteristics; - Suggesting a sewage treatment plant would be a better choice; and - Expressing opposition to the proposed development due to insufficient data for the type of system.
Starr, Wendy and Bradley	10/07/11	- Expressing opposition to the proposed development citing potential for surface water quality impacts and the required application equivalent high standard of environmental control.
Hyslop, Daryll Roy, Mike and Nora Tschetter, Joe and Donna Beaudry, Norm and Carol Baseraba, Les and Sandy Prins, Poke and Giselle Gottfried, Doug and Barbara Roy, Derek and June Bretecher, Leo and Jean	10/07/10	- Objecting to the proposed development; - Expressing concern about potential surface water quality impacts and possible failure of various components of the wastewater management system; - Suggesting that other alternatives to current methods of managing wastewater related matters; and - Indicating that public hearings must be held.
Warszycki, John and Bonnie	10/07/09	- Expressing concern over deterioration of water quality, shoreline impacts, and potential failure of the wastewater management system; and - Requesting an opportunity to debate on the proposed development.
Harding, Larry & Marlyn	10/07/09	- Objecting to the proposed development; - Expressing concern about water quality impacts and the environment in general; and - Suggesting holding tanks should be used as area cottage owners must.
Bretcher, Joel President Hazelwood Cove Cottagers' Association	10/07/08	- Expressing strong opposition to the proposed development and concern about ecological risks including water contamination.
Roskam, Gerry Mascanow Drive Cottage Association	10/07/08	- Expressing opposition to the proposed development and concern about potential operation of the wastewater management system having impacts on water and other habitat; and - Indicating that a public process must be held.
Kinghorn, Mac	10/07/06	- Expressing disgust with the proposed development due to restrictions on septic field installation and use in the area and the potential for environmental impacts;

Name	Date	Comment(s)
		- Suggesting the proponent should be required to install a proper sewage treatment plant with associated disinfection; - Identifying that the proponent could purchase their own truck and haul their own waste; and - Requesting that the project not be allowed to proceed and that a public hearing be called prior to any approvals being given.
Fisher, Norm & Terry	10/07/02	- Objecting to the proposed development; - Identifying concern over water pollution; and - Requesting a public meeting.
Hlady, Rick & Shauna	10/07/01	- Objecting to the proposed development and suggesting that sewage will be pumped into the ground and in turn flow into the Lee River; and - Expressing concern over water pollution.
Tschetter, Donna CMMA Chief Administrative Officer Rural Municipality of Lac du Bonnet	10/06/30	- Stating the Council of the Rural Municipality of Lac du Bonnet formally objects to the proposed development; - Indicating that the proposed development is within close proximity to a very narrow water system on Pinawa Bay and would pose an environmental hazard to the ecosystem and area residents due to the areas dense population and use of the waterway for recreational activities; and - Asking that the proposed development not be approved.
crindall	10/06/25	- Advising that they are opposed to the proposed development.
Nemeth, Barb	10/06/24	- Stating her and her family's opposition to the proposed development; - Expressing concern over surface water and groundwater quality impacts; and - Questioning what the provincial government is going to do to police such a wastewater management system.
Knight, Jim President Lorell Cottage Owners Association	10/06/22	- Strongly protesting the proposed development; - Expressing concerns over proximity to a water system into which associated pollution will leach; and - Suggesting hauling from storage tanks can be cheaply done.
Roy, Derek	10/06/21	- Expressing opposition to the proposed development; - Identifying concerns of surface water and groundwater impacts; and - Suggesting the continued use of holding tanks.

Name	Date	Comment(s)
Kwakernaak, Jake	10/06/19	- Expressing concerns regarding proposed development's volume of effluent, site soil characteristics, effectiveness during rainy times, potential impact on lake; and - Urging not to licence the proposed development.

Following First Request For Additional Information:

Name	Date	Comment(s)
RM of Lac du Bonnet	11/04/11	- Requesting that a public hearing take place when all the cottagers are back for the summer; and - Presenting Resolution No. 219 wherein the RM Council resolved that they do not support the proposed development and that the use of either holding tanks or a self-contained sewage treatment plant be explored.
RM of Alexander	11/05/06	- Attempting to assist the proponent by providing background information on an alternative option.
Knight, Jim President Lorell Cottage Owners Association	11/04/26	- Identifying that not all of their previous comments and requests have been fully satisfied; - Suggesting that other options need to be investigated and conservation efforts undertaken to reduce hauling needs and reduce traffic concerns; and - Stating their strong opposition to the proposed development.
Starr, Wendy and Brad	11/04/23	- Indicating that their concerns are still as set out in their previous correspondence; - Identifying three issues including: no guarantee that the environment will not be compromised;
Mitchell, Mel & Barbara	11/04/21	- Indicating remaining cause for concern respecting the size of the operation, the amount of wastewater generated and the location relative to a recreational surface body of water; and - Suggesting a sewage treatment plant may be an acceptable option.
McKelvey, Bill President Anderson Drive Association	11/04/07	- Indicating no objection to Camp Cedarwood, however they are concerned for surface water quality; - Indicating that the previous document submitted relative to this EAP review was not satisfactory as it; indicated no additional percolation tests or directional flow analyses were done, did not adequately address the concerns about environmental hazards, compared the setback distance to that for a residential septic

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		field, presented expenses relative to other options as a reason why this option was proposed, and was unnecessarily and unacceptably inappropriate relative to the services of local septic trucking companies and lagoons; and - Asking that a public meeting be scheduled.
Clegg, Randy	11/04/07	- Expressing concern regarding surface water quality impacts and whether or not proposed operating and monitoring practices will adequately protect surface water quality; and - Suggesting that a Wastewater Treatment facility operated by a trained and certified operator would be an alternative to current holding tank and hauling operations.

Following Public Information Meeting:

Fisher, Norm	12/06/05	- Querying about soils investigations and the possibility that sand or silty sand lenses may exist, whether or not the designed system includes rest periods; proposed monitoring programs, if there will be any reports regarding monitoring and status of the proposed system, and the addition of the containment dyke.
RM of Lac du Bonnet	12/06/05	- Resolution No. 313 maintaining Council's objection to the proposed development.
McKelvey, Bill President Anderson Drive Association	12/05/25	- Commenting on the timing of the public meeting; - Expressing continued concerns over potential environmental impacts in the event of failure of the proposed development; and - Asking that the proposed development be rejected based on the potential for ecological disaster.
RM of Alexander	12/04/20	- Identifying continued opposition to the proposed development; and - Suggesting that the proposed development should not be approved.
RM of Lac du Bonnet	11/10/12	- Forwarding two sets of copies of petitions signed by persons opposed to the proposed development due to the potential for severe detrimental effects on Pinawa Bay, Lee River and downstream bodies of water. One set signed by 110 persons, the other by 107 persons.