

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Decker Holding Co. Ltd
PROPOSAL NAME: Decker Colony Wastewater Treatment Lagoon
CLASS OF DEVELOPMENT: 2
TYPE OF DEVELOPMENT: Wastewater Treatment Lagoon
CLIENT FILE NO.: 5341.00

OVERVIEW:

On August 29, 2007, the Department received an Environment Act Proposal (EAP) from Decker Holding Co. Ltd. for the construction and operation of a wastewater treatment lagoon in N ½ 25-15-25 WPM in the Municipality of Prairie View (previously known as the Rural Municipality of Miniota) to service the Decker Colony farmsite located in Section 25-15-25 WPM. An existing wastewater treatment lagoon in this section that previously serviced the Decker Colony farmsite will be decommissioned once the new wastewater treatment lagoon is commissioned. Decommissioning of the existing wastewater treatment lagoon will include removal of accumulated sludge and transferring the sludge to the proposed wastewater treatment lagoon once it is approved for operation. Treated wastewater from the new wastewater treatment lagoon will be discharged by means of pipe into the Arrow River between June 15th and November 1st of any year.

The Department, on May 6, 2008, placed copies of the EAP report in the Public Registries located at 123 Main St. (Union Station), the Winnipeg Millennium Public Library, the Manitoba Eco-Network and the Border Regional Library. Copies of the EAP were also provided to the Canadian Environmental Assessment Agency (CEAA) and to the Technical Advisory Committee (TAC) members. The Department placed public notifications of the EAP in the Crossroads, This Week on Saturday, May 10, 2008. The newspaper and TAC notifications invited responses until June 12, 2008.

On October 14, 2008 and November 20, 2008, Manitoba Conservation and Water Stewardship forwarded requests for additional information from TAC to the proponent's consultant and sent copies of TAC correspondences to the Public Registries. Response to the requests was received from the proponent on March 25, 2009. On May 12, 2009, more information was requested from the proponent's consultant. Additional response to the request was received from the proponent on July 11, 2012 and was then redistributed to the Participating TAC for review and comment on August 24, 2012.

COMMENTS FROM THE PUBLIC:

Manitoba Conservation District Association (MCDA)

June 12, 2008

MCDA wants to bring to the attention of the Environmental Assessment branch concerns with the whole issue of human waste discharge into our rivers, streams and lakes. The recent notice from Decker has caused an extreme amount of opposition to the Decker Colony being allowed to

dump human waste into streams, rivers and lakes, but our question to the Environmental Assessment Branch is: What alternative is there for an organization, community like Decker Colony to do with their human waste regulation that currently exist in the province?

We would like to bring to your attention the fact that:

- We realize, unlike manure from livestock/animal operations, human waste is not allowed to be spread as waste on land.*
- We as Conservation Districts do not agree that lagoons (which many of our towns, villages and cities currently operate within) should be allowed to discharge into our streams, rivers, lakes and watersheds. However, at this time there is no regulation as to the control of human waste discharge into our streams, rivers, and lakes. In times of extreme rain storms, many of our larger centers dump raw sewage into Manitoba rivers. This is an extremely dangerous practice in the light of the issue of Lake Winnipeg. The City of Winnipeg was responsible for dumping sewage into the Assiniboine and Red Rivers approximately 13 times last year, due to excessive rain storms.*
- Many of our villages, towns, and cities have sewer systems that are hooked to storm sewers and thus the dumping/releasing of raw sewage occurs. We believe that until there are two separate systems available or set up to alleviate this practice; the releasing of human waste will continue with much detriment to streams, rivers, lakes and the whole of the watersheds in our province.*

Current legislations does not allow for the spreading of human waste on the land, if the Decker Colony is not allowed to build a lagoon – What is the Colony to do?

We therefore strongly encourage the Province of Manitoba to address this abnormality and irregularity in human waste disposal that seems to exist at this time in our province. We recommend that through a consultative, interactive process that the Province work with municipalities, Hutterite colonies such as the Decker Colony, Conservation Districts and other organizations, business and industry in dealing with a more environmentally progressive way of the discharge of human waste into our rivers, streams and lakes. The problems of Lake Winnipeg will continue as long as this type of waste disposal is allowed.

Proponent Responses – July 12, 2012:

The concerns shown in letter are general discussions about or requests to provincial environment legislation on domestic wastes. Commenting on provincial legislative issues is out of the scope of the EAP.

Disposition:

- The draft Environment Act Licence contains clauses that require the treated wastewater to be treated in accordance with the requirements identified in the Manitoba Water Quality Standards, Objectives and Guidelines.
- The draft Environment Act Licence contains a clause that requires that the proponent actively participate in any future watershed-based management study, plan/or nutrient

reduction program, approved by the Director, for the Arrow River and/or associated waterways and watersheds.

- The draft Environment Act Licence contains Clauses that require the Licencee to construct and operate the wastewater treatment lagoon in such a manner as to prevent the disruption of natural wildlife and fish habitats.
- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for standard lagoons in Manitoba.

Shoal Lake Enhancement Corporation

June 05, 2008

The Shoal Lake Enhancement Corporation is against the proposal of Decker Holding Co. Ltd. for the following reasons:

- *The discharge is into the Arrow River a seasonal flowing river.*
- *The Federal, Provincial and Local Governments are attempting to discourage this type of discharge to save our rivers from contamination.*
- *The Arrow River flow into the Assiniboine, the Red River & into Lake Winnipeg.*
- *Lake Winnipeg is already experiencing Nutrient build up problems, with multi-millions of dollars being spent to correct the problem.*
- *Additional nutrient discharge into Arrow River will affect the quality of river water for the cities of Brandon, Portage La Prairie and Winnipeg.*

We therefore request an alternate location for discharge that will be contained on their own property and not into a flowing waterway. There are alternate methods of mechanically treating this wastewater available, it could be used for crop irrigation and any solids could be used on fields as earth replacement.

Proponent Responses – July 12, 2012:

The Environment Act Proposal (EAP) was filed in accordance with the Manitoba Environment Act (C.C.S.M. c. E125) and the lagoon was designed in compliance with the Design Objectives for Standard Sewage Lagoon. Discussing governments attempting and environmental science are out the scope of this EAP

Disposition:

- The draft Environment Act Licence contains a clause that requires that the proponent actively participate in any future watershed-based management study, plan/or nutrient reduction program, approved by the Director, for the Arrow River and/or associated waterways and watersheds.

- The draft Environment Act Licence contains Clauses that require the Licencee to construct and operate the wastewater treatment lagoon in such a manner as to prevent the disruption of natural wildlife and fish habitats.
- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for standard lagoons in Manitoba.
- Wastewater effluent is regulated by both provincial and federal regulations. Any facility discharging wastewater effluent shall comply and must meet the requirements of the regulations.
- Discharged effluent must meet the required total phosphorus as required by the *Manitoba Water Quality Standards, Objectives and Guidelines Regulation (MR 196/2011)* under *The Water Protection Act*.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Intergovernmental Affairs – Community Planning Services

- *No concerns.*

Manitoba Conservation and Water Stewardship – Climate Change and Green Strategy Initiatives Branch

- *No concerns.*

Manitoba Conservation and Water Stewardship – Historic Resources Branch

- *No concerns.*

Manitoba Conservation and Water Stewardship – Parks and Natural Areas Branch

- *No concerns.*

Manitoba Conservation and Water Stewardship – Sustainable Resources & Policy Management Branch

- *No concerns.*

Manitoba Infrastructure and Transportation – Environmental Services

- *No concerns.*

Manitoba Agriculture Food and Rural Initiatives – Land Use Planning and Policy Branch

May 13, 2008

- *It is not clear in the text of the report that the intent is to install a new lift station and pressure pipeline to the proposed lagoon and that the pressure pipeline will cross the Arrow River. There appears to be no discussion as to methodologies for installing this pipeline as well as mitigative measures and impact potential in crossing the River.*

Proponent Responses – July 12, 2012:

- High Density Polyethylene (HDPE) pipe (Polytubes SDR 17 or equivalent) will be installed by directional drilling when the proposed pressure pipeline crosses Arrow Creek. The lubricant and seal used will be Quick Gel. The minimum burial of the pipe will be two (2) metres below the bed of the creek.
- All of the work of the proposed development will be conducted in accordance with Manitoba Stream Crossing Guidelines for the Protection of Fish and Habitats and the requirements listed in the letter from Jeff Moyer Fisheries and Oceans Canada, to Decker Holding Co. Ltd. dated June 5, 2008.

Disposition:

- Wastewater collection system works shall require a separate application for a Certificate of Approval under *The Public Health Act* respecting *Waterworks, Sewerage and Sewage Disposal Regulation*.

Manitoba Health

June 09, 2008

- *Please ensure containment design (in this case a clay liner) provides the best possible groundwater protection for the area.*
- *The proposal identifies a dugout as the water supply for the colony. Please consider monitoring for groundwater contamination by regular sampling of water supply.*
- *Please consider leachate monitoring.*
- *Please ensure:*
 - *prevention of pollutants or contaminated wastewaters from entering*
 - *surface and/or groundwater systems*
 - *odour control and monitoring*
 - *effluent discharge as per regulation*
- *The need for fencing, gates and warning signs should be included in the licence to ensure public safety, in case of unsupervised public access to the development*

Proponent Responses – July 12, 2012:

- **Groundwater Protection** – One meter of clay liner will be installed. The hydraulic conductivity in the clay liner will meet the regulatory requirement of not less than 1×10^{-7} metres per second.
- **Water Supply Monitoring** – Decker Holding Co. has been monitoring their water supply by sampling and testing every other week. The proposed lagoon is located 260 metres downstream. The proposed lagoon and the dugout are separated by the Arrow River.

- **Leachate Monitoring** – We do not suggest leachate monitoring facilities for this proposed lagoon. However, if the Director requires monitoring systems Decker Holding Co. will install monitoring system.
- **Dr. Weiss raised concerns:**
 - a) The proposed lagoon will ensure the prevention of pollutants or contaminated wastewater from entering surface and/or groundwater systems
 - b) Odour control is discussed in our proposal Section 7.2.
 - c) Effluent discharge is discussed in our proposal Section 7.1.
- **Fencing, gates and warning signs** – Decker Holding Co. will follow all instructions and meet all requirements listed in the license.

Disposition:

- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for standard lagoons in Manitoba.

Manitoba Conservation and Water Stewardship – Environmental Compliance and Enforcement Branch

June 18, 2008

- *Testing for lagoon discharge has typically included Total Coliforms. It is not included in the proposal. This should be included in the license*
- *Licensing and Assessment Branch or Water Stewardship should make the recommendation/decision regarding if the water softening system should be changed*
- *Regarding the proposed operational method of discharge, #4 – after the lagoon is discharged; the discharge valve must be closed before equalizing the cells.*
- *If the lagoon fails to meet the required standards for discharge and a discharge is needed, the operator should contact Regional Operations. Chlorination should not be attempted without contacting an Environment Officer first.*
- *It has beneficial in the past for Colonies to delegate an individual as the person in charge of the lagoon. If this hasn't been done we should recommend that it be.*

Proponent Responses – July 12, 2012:

- Testing Total Coliforms – Decker Holding Co. will conduct all tests required by the licence
- Softening System – Decker Holding Co. will obey the Director's decision about softening issue
- Discharge Valve – Decker Holding Co. will close the discharge valve after the lagoon is discharged

- Disinfection – If chlorine is used as disinfecting agent, Decker Holding Co. will:
 - a) notify the Director in advance;
 - b) dechlorinate effluent prior to discharge;
 - c) obtain grab samples prior to and daily during the discharge period and have them analyzed for total residual chlorine; and
 - d) not discharge effluent where the concentration of the total residual chlorine is in excess of 0.02 milligrams per litre.
- Mr. Phillip Waldner is the designated lagoon operator.

Disposition:

- Water Stewardship Division indicated that a water softening system using potassium chloride should be implemented. The proponent has consented to change their water softening system from NaCl ion-exchange to KCl ion-exchange if required.
- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for standard lagoons in Manitoba.

Manitoba Conservation and Water Stewardship – Water Stewardship Division (Planning and Coordinating Branch)

June 12, 2008

- *The Water Rights Act indicates that no person shall control water or construct, establish or maintain any “water control works” unless he or she holds a valid licence to do so. “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 the proposal in question advocates any of these activities, application for a Water Rights Licence to Construct Water Control Works is required.*
- *The Lake Winnipeg Stewardship Board has recommended that all small wastewater treatment facilities, including municipal lagoons, should meet a phosphorus limit of 1.0 mg/L. The proposed phosphorus limit of 1.0 mg/L is consistent with efforts underway across Manitoba and in upstream jurisdictions to reduce nutrient loads to Lake Winnipeg and its watershed. It is desirable to recycle these nutrients on land, rather than releasing them to waterways. In the Lake Winnipeg Stewardship Board’s December 2006 report to the Minister of Water Stewardship, the Board provides several strategies on how nutrient reduction could be achieved for small wastewater treatment facilities (see recommendations 14-20). This proposal to discharge effluent to the Arrow River rather than retain these nutrients on land—a current effort—will move the efforts to reduce nutrient loading to the Assiniboine River and Lake Winnipeg in the wrong direction.*

- *While the Departmental data system only indicates the presence of fatheads and sticklebacks in the Arrow River, as it is a tributary to the Assiniboine River, it could provide seasonal habitat for a number of species.*
- *The Department requests more information on the installation method for the proposed effluent pressure pipeline. The Department recommends to install this pipeline with directional drilling. If directional drilling is not possible and the pipeline is to be “trenched in,” the Department recommends the proponent to discuss the crossing location with the regional biologist in Brandon (Mr. Bruno Bruederlin; telephone number: 726-6452). The pipeline installation work should be conducted in dry conditions and/or with appropriate isolation techniques. The pipeline installation work should be implemented with appropriate erosion and sediment control measures until the site has stabilized and annual monitoring of the site should be conducted. The proposed crossing method should adhere to an Operational Statement of the Department of Fisheries and Oceans Canada or be reviewed by the Department of Fisheries and Oceans Canada.*
- *The proposal provides no estimate of nutrient loading from this facility, nor any nutrient mitigation strategies. In addition, consideration of the risk of pathogen transfer from the chicken abattoir should be considered in the treatment design for this facility.*
- *The Department requests to include the following requirements in an Environment Act Licence:*
 - *Develop and implement a nutrient management plan, including either effluent irrigation or another strategy to reduce loading of nutrients from this facility.*
 - *Implement a water softening system using potassium chloride.*
 - *Further, the Environment Act Proposal indicates the use of sodium chloride to treat water, and consequently the effluent quality has a high Sodium Adsorption Ratio which may impact downstream irrigation users.*
 - *Establish and retain a vegetated riparian area with a width of at least 30 metres, with undisturbed native vegetation, from the high water mark adjacent to the Arrow River and between the lagoon:*
 - *A purpose of a vegetated riparian area is to establish a functioning riparian area of undisturbed native vegetation which helps stabilize banks, provides aquatic and wildlife habitat and protects water quality. In circumstances where native vegetation is limited or absent, re-establishment of this vegetation should occur through natural succession or assisted through planting of vegetation native to the area.*
 - *Alteration within this vegetated riparian area is limited to a maximum of 25 % of the shoreline length (for example: 25 metres per 100 metres of shoreline length) of each lot for a boat house, path, dock, etc.;*
 - *Alteration within this vegetated riparian area (including the removal of near shore or stream aquatic habitat) shall not occur unless an activity conforms to a Department of Fisheries and Oceans Canada Operational Statement or an activity is reviewed by the Department of Fisheries and Oceans Canada.*

Proponent Responses – July 28, 2009:

- **water rights licence** – If discharging lagoon effluent is classified as “water control works” by Manitoba Conservation and Water Stewardship, an application for a water rights licence to construct water control works will be filed with Manitoba Conservation and Water Stewardship.
- **phosphorus discharge limit** – This EAP is filed in accordance with the Manitoba Environment Act (C.C.S.M. c. E125). The director will specify discharge effluent limits in the licence. Decker Holding Co. will follow the terms, conditions, specifications and limits listed in the licence.
- **phosphorus discharge limit** – All of the work of the proposed development will be conducted in accordance with “Manitoba Stream Crossing Guidelines for the Protection of Fish and Habitat” and the requirements listed in the letter from Mr. Jeff Moyer, Fisheries and Oceans Canada, to Decker Holding Co. Ltd. dated June 5, 2008. Mr. Jeff Moyer, a fish habitat biologist, concluded in his letter that “Provided that the additional mitigation measures described above are incorporated into your plans, DFO has concluded that your proposal is not likely to result in impacts to fish and fish habitat.”
- **pipeline installation** – High Density Polyethylene (HDPE) pipe (Polytubes SDR 17 or equivalent) will be installed by directional drilling when the proposed pressure pipeline crosses Arrow Creek. The lubricant and seal used will be Quick Gel. The minimum burial of the pipe will be two (2) metres below the bed of the creek.

All of the work of the proposed development will be conducted in accordance with “Manitoba Stream Crossing Guidelines for the Protection of Fish and Habitat” and the requirements listed in the letter from Jeff Moyer, Fisheries and Oceans Canada, to Decker Holding Co. Ltd. dated June 5, 2008.

- **nutrient loading and requested requirements in the licence** – Decker Holding Co. Ltd. will meet all specifications, terms, limits and conditions listed in the licence.

Disposition:

- Discharged effluent must meet the required total phosphorus limit as required by the *Manitoba Water Quality Standards, Objectives and Guidelines Regulation (MR 196/2011)* under *The Water Protection Act*.
- The draft Licence includes a clause that requires the Licencee not to discharge effluent from the wastewater treatment lagoon where the total phosphorus content of the effluent is in excess of one milligram per litre.
- Comment on the water softening system is discussed in the proposal. The proponent is agreeing to use KCl (potash) type ion exchange system if required.
- Wastewater collection system works shall require a separate application for a Certificate of Approval under *The Public Health Act* respecting *Waterworks, Sewerage and Sewage Disposal Regulation*.

- Limits, terms and conditions of the draft Environment Act Licence provide operating criteria regarding organic load, odours, containment and quality of treated wastewater that are conventional for standard lagoons in Manitoba.

COMMENTS FROM FEDERAL REPRESENTATION:

Canadian Environmental Assessment Agency

- *A survey of federal departments with respect to the project proposal was completed and project information that was provided was reviewed by all federal departments with a potential interest. Based on the responses to the CEAA survey, application of The Canadian Environmental Assessment Act (the Act) with respect to this proposal is uncertain, pending the provision of further information to Transport Canada.*
 - *Fisheries and Oceans Canada (DFO) and Health Canada (HC) would be able to provide specialist advice if requested. DFO in addition provided a copy of a letter of advice with respect to this project, including a reference to its Operational Policy Statement on Directional Drilling.*
 - *Environment Canada (EC) provided a copy of a letter of advice with respect to the project.*
 - *Transportation Canada (TC) provided a copy of a letter requesting for additional information with regards to the project application.*

Proponent Responses – July 12, 2009:

Response to DFO:

- The construction and operation of the proposed lagoon will strictly stick to the Environment Act Proposal accepted by Manitoba Conservation and in compliance with the licence issued by Manitoba Conservation.
- The ten additional mitigation measures recommended in the letter will be forwarded to the contractors and will be followed in the construction to ensure resulting in no impacts on fish and fish habitat.
- High Pressure Directional Drilling Operational Statement will be followed in cross river pipe installation.

Response to EC:

- **Pipeline installation methodology** – High Density Polyethylene (HDPE) pipe (Polytubes SDR 17 or equivalent) will be installed by directional drilling when the proposed pressure pipeline crosses Arrow River. The lubricant and seal used will be Quick Gel. The minimum burial of the pipe will be two (2) metres below the bed of the river.
- **Impact on fish and fish inhabit** – All of the work of the proposed development will be conducted in accordance with “Manitoba Stream Crossing Guidelines for the Protection of Fish and Habitat” and the requirements listed in the letter from Mr. Jeff Moyer, Fisheries and Oceans Canada, to Decker Holding Co. Ltd. dated June 5, 2008. Mr. Jeff Moyer, a fish

habitat biologist, concluded in his letter that “Provided that the additional mitigation measures described above are incorporated into your plans, DFO has concluded that your proposal is not likely to result in impacts to fish and fish habitat.”

- **Quality assurance of pipeline installation and monitoring of leakage** - The whole pipeline will be pressure tested at 100 psi, which is approximately 6.5 times of the maximum working pressure

In order to assess leakage, a pressure gauge will be installed at the gate valve at the proposed pump station. When the pumping is finished, the valve will be closed and an initial gauge reading will be recorded. A final gauge reading will be taken after 6 hours. No change in reading should have occurred. This check will be conducted twice a year in April and in October respectively. The gauge will be removed between checks to prevent gauge damage.

Response to TC:

- **Location of the proposed pressure pipeline across Arrow River** – The proposed pipeline will cross Arrow River at latitude of 50°18’47”N and longitude of 100°47’47”W. A map of the location is attached.
- **Characteristics of the waterways** – Arrow River is a narrow (5 feet measured on Jan 10th, 2006 and 15 feet measured on April 12, 2012) and shallow (approximately 2 feet measured on April 12, 2012) seasonal watercourse. The length of Arrow River is approximately 100 kilometres. No natural and man-made obstructions were observed during the site visit. A culvert of 78 inches in diameter is located approximately 800 meters upstream and three culverts of 48 inches in diameter is located approximately 1,000 meters downstream.

There is no sign appearing that Arrow River is a navigable waterway.

- **Proposed work crossing Arrow River** – An HDPE pipe line is to be installed beneath the river. The pipe is to be installed by high pressure directional drilling. The drilling is to be conducted at 2 metres beneath the river bed. It will not disturb the flow of the river.
- **Details regarding proposed construction methods** – No temporary bridges or cofferdams are to be built.
- **Proposed construction schedule** – As soon as a licence is obtained, the construction is scheduled in any year between June and October.

PUBLIC HEARING:

A public hearing has not been requested.

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.

This development is a small wastewater treatment lagoon located on private land that is replacing an existing facility. The project would not create land use changes or affect resource use on First Nation land. Therefore, it is concluded that Crown-Aboriginal consultation is not required for the project.

RECOMMENDATION:

All comments received in the proposal that required follow-up have been addressed as licence conditions and additional information. The Proponent should be issued a Licence for the construction and operation of the wastewater treatment lagoon in accordance with the specifications, limits, terms and condition of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Approvals Branch until the liner testing has been completed and the development is commissioned.

PREPARED BY:

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September 11, 2015

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