

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Town of Pilot Mound
PROPOSAL NAME: Town of Pilot Mound Water Treatment Plant Upgrade

CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Transportation and Transmission - Pipelines

CLIENT FILE NO.: 5687.00

OVERVIEW:

The Proposal was received on November 18, 2013. It was dated November 12, 2013. The advertisement of the proposal was as follows:

“The Manitoba Water Services Board has filed an Environment Act Proposal on behalf of the Town of Pilot Mound for the construction and operation of an upgraded water supply system for Pilot Mound. The project involves the construction of two wells in the Glenora Aquifer in NW 20-3-12W (one production well and one future standby well), a new raw water pipeline from the wells to Pilot Mound following road allowances, and an upgraded water treatment plant using reverse osmosis, with a 10% bypass through a sand filter. Reject water from the reverse osmosis system would be discharged to existing holding ponds at the water treatment plant and then to the Goudney Reservoir through the existing pipeline between the reservoir and the water treatment plant. The new plant would have a raw water capacity of 6.9 litres per second, and a treated water capacity of 5.5 litres per second. Construction of the upgrades would take place in 2014-2015 subject to the availability of funding.”

The Proposal was advertised in the Pilot Mound Sentinel Courier on Tuesday, December 10, 2013. It was placed in the online public registry, the Legislative Library and the Millennium Public Library (Winnipeg) public registries. The Proposal was distributed to TAC members on December 6, 2013. The closing date for comments from members of the public and TAC members was January 10, 2014.

COMMENTS FROM THE PUBLIC

No public comments received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE

Manitoba Conservation and Water Stewardship – Environmental Compliance and Enforcement Branch

Storage of petroleum products must comply with the Petroleum Products and Allied Products Regulation MR 188/2001.

Disposition:

This comment can be addressed as a licence condition.

Manitoba Conservation and Water Stewardship – Protected Areas Initiative and Lands Branch

No concerns, and it is noted that this project does not impact Crown lands.

Manitoba Conservation and Water Stewardship – Parks and Protected Spaces Branch

No comments to offer as the project does not impact any parks or ecological reserves.

Manitoba Conservation and Water Stewardship – Wildlife Branch

No concerns.

Manitoba Conservation and Water Stewardship – Water Science and Management Branch, Water Quality Management Section

- The proponent states on page 27 of the Proposal that they will conduct long term monitoring of the Goudney Reservoir to verify impacts on water quality. Can the proponent provide information on the monitoring program? (location, parameters, frequency).
- The parameters in Table 3.2.2 of the proposal appear to describe the expected concentrations in the flow from Goudney Reservoir. Applicable parameters are within Tier III guidelines of the *Manitoba Water Quality Standards, Objectives, and Guidelines*. (196/2011).
- Page 13 of the proposal states ‘The discharge from the existing plant to the lime sludge ponds will be repurposed to accept membrane reject water, and the existing raw water line will be reversed for the discharge of membrane reject.’ On page 15 the proponent states ‘It is proposed that membrane concentrate be discharged to the Goudney reservoir through the existing raw

water intake and pipeline.’ Can the proponent confirm that the sludge ponds will be repurposed?

- 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 licence require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director.

Disposition:

Two of these comments can be addressed as licence conditions. It is appropriate to specify Goudney Reservoir water quality monitoring program details as a licence condition, and participation in future watershed management studies can also be required. It has been confirmed that the existing sludge ponds will be used to settle reject water before it is discharged to the Goudney Reservoir.

Manitoba Conservation and Water Stewardship – Water Science and Management Branch, Groundwater Management Section

1. The groundwater supply well is located in Glenora Aquifer which is about 16 km west of Pilot Mound, are there any conflicts between Pilot Mound water requirement and local long term requirements?
2. Based on site visiting, to the north of the pumping well is the Marringhurst Creek, to the SE is an active sand and gravel pit. After long term pumping, will the surface water and/or the open pit have any impact on water quality? If yes, how to monitor and mitigate the impact?
3. Glenora Aquifer is an unconfined aquifer, the advantage is that the recharge rate is high, more groundwater can be used; the disadvantage is that it is vulnerable to contamination, are there any plans to manage the capture zone of pumping well to prevent potential contamination?

Disposition:

Water allocation is done through *The Water Rights Act*, using the first in time – first in right principle. The Town has applied for an allocation of water from the aquifer under *The Water Rights Act*, and its application will be junior to existing irrigation licences in the area. Future applications will in turn be junior to the Town’s application. It is not anticipated that future consumptive uses other than irrigation are likely from this water source.

The well location is considered to be GUDI (groundwater under the direct influence of surface water) and as such can be assumed to be affected by surface water quality changes, including contamination. Water quality changes in the project’s raw water will be monitored through regular sampling required by *The Drinking Water Safety*

Act, and mitigation measures may be implemented if necessary. Mitigation measures could include adjusting the water treatment process and/or redistributing raw water pumping between the project's two wells.

Manitoba Conservation and Water Stewardship – Fisheries Branch

Fisheries Branch has reviewed this proposal to construct a new raw water supply with a groundwater well within the Glenora aquifer at NW 20-3-12 W. The proponent indicates the wells are GUDI wells. A 16.3 km 200 mm raw water pipeline will deliver water to the water treatment plant which will have a Reverse Osmosis membrane unit installed. The total raw water demand for the town is ~ 6.0 L/s with a 20 year projected treated water demand of 5.5 L/s. There will be ~20% reject from the water treatment system which will be directed to the Goudney reservoir (1.2 L/s) through the existing raw water line. Goudney reservoir discharges to Pilot Creek. The proponent indicates that the *concentrate will undergo significant mixing prior to entering Pilot Creek and the contributions at low flow have an almost unnoticeable influence and in certain minerals improve the overall water quality*. The proponent indicates there will be 1 river crossing involved with the new raw water pipeline. They indicate that all pipeline crossings, with the exception of dry intermittent drains, will be directionally drilled. Directional drill holes will be outside of the riparian areas. Intermittent drains will be open cut according to DFO's Operational Statement.

Fisheries Branch has some concerns with certain components of the proposed activities which for the most part can be addressed through the mitigation measures identified in the proposal and/or through the inclusion of a number of standard clauses (e.g. Draft EAL Pembina and Manitou re: construction -general and pipeline) . In terms of the reject water being directed back to Goudney Reservoir, the proponent has indicated that effects on Pilot Creek will be minimal as the concentrate will undergo significant mixing in the reservoir. Our concern is not just downstream effects within Pilot Creek but within Goudney Reservoir. This reservoir has been stocked with walleye fry nine times since 2001 the last time being 2011. While we defer recommendations on water quality parameters and monitoring to our colleagues in Water Science Management we would be supportive of a monitoring clause.

Finally the proponent has indicated that these are GUDI wells. It does not appear that they have completed some of the testing. We would be most interested in knowing the extent of the drawdown cone and if the groundwater contributes base flow to any of the creeks and/or river. While we defer to the expertise of our colleagues in Water Branch we would have concerns with this proposal if there is the potential to impact flows, particularly during drought events. Is it possible to include a clause that requires the proponent to monitor surface water flows or the need to monitor if this is determined to be an issue?

Regional Fisheries Comments: An aeration system was installed in Goudney Reservoir in 1984 to establish a fishery in the local area and to improve the raw water for their water treatment plant. The aeration system has operated ever since and is stocked annually with

walleye fry since 1984, depending on availability. What is the chemical makeup of the wash water that will be discharged into the reservoir?

It is interesting to see Pilot Mound going to ground water wells that far away as this was a major reason why aeration was put into Goudney Reservoir because the cost was exponentially cheaper than ground water.

Disposition:

Water quality monitoring on the Goudney Reservoir can be addressed through a licence condition. With respect to the effect of groundwater withdrawals on the base flows of surface waterways in the well area, the project wells will be designed and operated to avoid effects on other users and on base flow, as a Water Rights Act requirement.

Manitoba Conservation and Water Stewardship – Office of Drinking Water

I reviewed the above noted EAP. Since it involves a major upgrading of the water treatment plant and process, the Town of Pilot Mound will have to obtain a *Permit to Construct or Alter a Public Water System* from Office of Drinking Water before beginning construction of the work. Beyond this point, I have no other concerns with the EAP or proposed work.

Disposition:

This information was provided to the consultant for the project and can be addressed in a licence condition.

Manitoba Conservation and Water Stewardship – Water Use Licensing Section

The Water Use Licensing Section (WULS) can confirm that the Town of Pilot Mound has applied for a water rights licence under The Water Rights Act to divert water from the Glenora Aquifer to supply water to the Town.

Manitoba Infrastructure and Transportation - Highway Planning and Design Branch, Environmental Services Section

MIT has reviewed the Environment Act Proposal for the upgrading of the water treatment plant in the Town of Pilot Mound and we have the following comments:

- The proponent should be informed that, under the Highways and Transportation Act, any new, modified or relocated access connection onto a PR will require a permit from Manitoba Infrastructure and Transportation. A permit may also be required for any construction (above or below ground level) within 38.1 m (125 ft), for any plantings within 15.2 m (50 ft) from the edge of the right of way of PR 253, or discharge of water or other liquid materials into the ditch of PR 253.

- An underground utility agreement will be required for the proposed water pipelines that will go along, across or under PR 253.
- Permit applications and underground utility agreements can be obtained by contacting Ashley Beck at (204) 726-7000 or by email at Ashley.Beck@gov.mb.ca.

Disposition:

This information was provided to the consultant for the project.

ADDITIONAL INFORMATION

Additional information is not required to address Technical Advisory Committee comments.

PUBLIC HEARING

As no public comments requesting a hearing were filed, a public hearing is not recommended.

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.

The proposal involves the installation of two wells in the Glenora Aquifer, approximately 14.5 km of buried pipeline on road allowances in an agricultural area between the wells and the water treatment plant, and the conversion of the water treatment plant to a reverse osmosis treatment process. Settled reject water from the treatment process is anticipated to contain elevated concentrations of parameters removed from the raw water, primarily total dissolved solids. This wastewater stream would be discharged to the Goudney Reservoir on Pilot Creek, a tributary of the Pembina River. None of the construction or operational activities associated with the project are anticipated to have a discernable effect on resources, including groundwater availability or surface water quality. Since resource use is not affected by the project, it is concluded that Crown-Aboriginal consultation is not required for the project.

RECOMMENDATION

It is recommended that the Development be licensed under *The Environment Act* subject to the limits, terms and conditions as described on the attached draft Environment Act Licence. It is further recommended that enforcement of the Licence be assigned to the Central Regional office of the Environmental Compliance and Enforcement Branch.

PREPARED BY:

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