

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: City of Selkirk
PROPOSAL NAME: Selkirk Supplemental Groundwater Supply
CLASS OF DEVELOPMENT: Two
TYPE OF DEVELOPMENT: Water Development and Control
CLIENT FILE NO.: 5806.00

OVERVIEW

The Proposal was received on December 2, 2015. It was dated December 1, 2015. The advertisement of the Proposal was as follows:

“An Environment Act Proposal has been filed by the City of Selkirk for a supplemental groundwater supply for the City’s water treatment and distribution system. The proposal involves the development of two wells in NW 14-14-4E near the junction of McRae Road and Meadowdale Road in the Rural Municipality of St. Andrews, and a pipeline connection following road rights-of-way to the City’s water treatment plant. The new wells are proposed to supply up to 1,800 dam³ of water annually, capable of meeting all of the City’s estimated requirements. It is proposed to blend water from the existing and proposed supply wells, with 75% of the water initially supplied from the new wells, and the eventual proportion to be determined dependent on recovery in the existing wellfield. Construction of the supplemental supply system is proposed for 2016, with operation immediately following construction.”

The Proposal was advertised in the Selkirk Journal and the Selkirk Record on Thursday, December 17, 2015. It was placed in the online, Legislative Library, and Millennium Public Library (Winnipeg) public registries. It was distributed to TAC members on December 16, 2015. The closing date for comments from members of the public and TAC members was January 14, 2016.

COMMENTS FROM THE PUBLIC

No public comments were received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE

Manitoba Conservation and Water Stewardship – Climate Change and Air Quality Branch, Air Quality Section

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

Manitoba Conservation and Water Stewardship – Lands Branch

No concerns/comments.

Manitoba Conservation and Water Stewardship – Lands Branch, Land Management and Planning Section

No comment as no crown land is impacted by the proposal..

Manitoba Conservation and Water Stewardship – Parks and Protected Spaces Branch

No comments or concerns to offer as it does not affect any provincial parks, park reserves, ecological reserves, areas of special interest or proposed protected areas.

Manitoba Conservation and Water Stewardship – Wildlife and Fisheries Branch

No wildlife concerns.

Manitoba Conservation and Water Stewardship – Office of Drinking Water

Since the proposed work is an alteration to a raw water source for a public water system, the Owner will have to apply for and be issued a Permit to Construct or Alter a Public Water System from the Office of Drinking Water before construction of the work begins.

Apart from this point, ODW has no other concerns with the EAP or proposed development respecting drinking water quality or safety.

Disposition:

This information was provided to the proponent's consultant for information and can be addressed through a licence condition.

Manitoba Conservation and Water Stewardship – Water Science and Management Branch, Groundwater Management Section (received February 4, 2016)

In response to your request for comments on the EA Proposal – Supplemental Municipal Groundwater Supply Investigation for the City of Selkirk, File 5806.00, the Groundwater Management Section is pleased to provide the following:

- Regarding the Rockwood Sensitive Area where groundwater contaminated with trichloroethylene (TCE), a known carcinogen, is located. It was concluded in the

pumping test results that the area southwest of the pumping well had a higher transmissivity than other areas of the aquifer that were monitored. The prediction of long-term regional effects (page 64) states:

- The drawdown cone is expected to develop to the westerly towards the Stonewall Uplands area. The overall extent of fluctuation due to pumping is far less than the total annual static water level change in the area over the last 45 years.
 - As the flow is developing westerly, it is not expected that the issues in the Rockwood sensitive area will become an issue. In reviewing the potentiometric surface maps for the area, it can be seen that the flow from the Stonewall Uplands in the Stony Mountain area would be directed towards the Red River, and not towards the Selkirk area.
 - The hydraulic conditions on the site are challenging, with vastly different transmissive conditions present This will result in a more extensive but shallower drawdown cone developing to the west/southwest through the higher transmissive areas.
- However, in fact, in addition to migration of the TCE plume in the direction of the regional groundwater flow (to the east and south), TCE contamination has also been observed to be moving slowly towards the north/northeast of the contaminated site. The potential for the long-term migration towards the Selkirk area is unknown. Subsequently, the potential impact of the proposed pumping well on the Rockwood Sensitive Area contamination should be examined. It is recommended that a risk assessment of groundwater contamination be completed to determine any potential impact and the extent of those impacts that the pumping well might have on the migration of the TCE plume. The assessment should consider the heterogeneous nature of the fractured carbonate rock aquifer system. It should present the calculated long-term drawdown of a minimum of 30 years of pumping at projected rates and estimate the changes to the potentiometric surface and any changes to the estimated groundwater flow. Particle tracking should be used from the current contaminated area to estimate whether the drawdown from this development could potentially cause additional spread of the TCE plume and the impacts of that spread.
 - Additional monitoring between the pumping well and the northern / north-eastern most TCE contaminated groundwater should be installed to measure the drawdown in that area to ensure that the drawdown does not extend to the contaminated groundwater areas.

- Although the recorded water level variation is more than four metres in nearby monitoring wells any additional drawdown will be superimposed on natural water level variation potentially resulting in greater than normal water level variations.
 - The proponent should monitor the additional drawdown, especially during times of drought, and monitor the effect on other groundwater users in the area of the drawdown cone and be willing, as recommended in the report, to mitigate all problems that are caused by the drawdown.
- The positive recharge boundaries should be investigated to identify the potential of whether this is the result of induced recharge from surface waters and if so what impact that may have on other users of untreated water from the aquifer located between the pumping well and the areas of induced surface recharge. In particular the impacts of induced surface water recharge should be investigated during a drought condition scenario as to the potential effects on spring discharges and whether reversal of flow in springs may be possible.
 - Additional water quality monitoring should be established at suitable locations if the potential of induced surface water recharge is apparent or suspected.
- The proponent should elaborate whether the recovery portion of the test provided similar analytical results as the pumping portion of the test.
- The tritium results (4.8 to 5.8TU) signify that the water at the pumping well is modern and has been recharged in approximately the last 50 years. This indicates that the water potentially will be subject to anthropogenic contamination that may have entered the aquifer from modern activities.

Disposition:

Most of these comments can be addressed through licence conditions for monitoring and reporting. Additional information on the recovery portion of the well pumping test will be requested.

Manitoba Conservation and Water Stewardship – Water Use Licensing Section

The City of Selkirk applied to this section (WULS) for a Water Rights Licence. WULS issued the City with a Groundwater Exploration Permit to allow the City to explore for groundwater in their selected target area. One of the conditions of the Permit was that the City hire a consulting hydrogeologist and that an aquifer test be conducted by the consultant to evaluate both the sustainability of the any supply well completed for the project and to evaluate the degree of any third party impacts. The City has satisfied our requirements for a water rights licence which will be issued once the project has been built and commissioned.

Manitoba Conservation and Water Stewardship – Water Control Works and Drainage Licensing Section

No concerns.

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

MIT has reviewed the proposal under the *Environment Act* noted above and MIT's Eastern Region has the following comments/concerns:

- The report was unclear about the proposed route of the waterline and the figure showing the proposed route options was not in colour making it impossible to see the proposed routes.
- An underground agreement will be required for any lines crossing or within the Provincial Road rights-of-way. The proponent should forward to MIT copies of plans and a letter requesting permission to place any lines, or structures within or crossing Department's right-of-way or Controlled Areas. The drawings should be submitted for review and approval a minimum of 6 weeks prior to the beginning of construction.
- If the proponent is proposing any access connections to any highways or any structures within the Controlled Areas then, under *The Highways and Transportation Act* permits from MIT are required for:
 - o any new, modified or relocated access to a Provincial Road or Access Road;
 - o any structures (including advertising signs, wells, septic fields, etc.) on, under or above the ground within the 38.1 meter (125 ft) Controlled Area adjacent to Provincial Roads;
 - o discharging of water or other liquid materials into a ditch of a Limited Access Highway, Provincial Road or Access Road; and/or
 - o placing any trees or plantings within 15.2 metres (50 feet) of the edge of right-of-way of a Limited Access Highway, Provincial Road or Access Road.

For clarifications on these comments, please contact Joelle Coulombe, Regional Planning Technologist, at (204) 346-6294 or at Joelle.Coulombe@gov.mb.ca.

Disposition:

This information was provided to the proponent for information.

Medical Officer of Health - Interlake – Eastman Regional Health Authority

(received January 18, 2016)

I am concerned that the proposal has not addressed any possible impact on the TCE plume located in the Rockwood Sensitive Area. For example, will this cause any migration of the plume towards areas that so far have not been impacted by TCE.

I have attached relevant documents on this topic so you can get an idea of where the TCE is, and the impact it is having on residents.

I would request a scientific assessment of the impact of this potential project on the TCE plume, in consultation with the Groundwater section.

Disposition:

Additional commentary on this matter is provided in comments by the Groundwater Management Section. This comment can be addressed through licence conditions.

Canadian Environmental Assessment Agency

The proposed project is not a designated activity under the Regulations Designating Physical Activities (CEAA 2012), so the Agency will not be participating further in the review.

ADDITIONAL INFORMATION

No additional information was required to address Technical Advisory Committee comments on the project that were received by the deadline date for comments. Later additional information requested to address comments of the Groundwater Management Section will be obtained and provided to the Groundwater Management Section. Draft licence requirements for project monitoring and reporting were modified to reflect the advice of the Groundwater Management Section.

PUBLIC HEARING

No requests were received for a public hearing. Accordingly, a public hearing is not recommended.

CROWN-INDIGENOUS CONSULTATION

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with Indigenous communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of the Indigenous rights of that community.

The proposal involves the expansion of an existing groundwater supply system for municipal purposes in an agricultural area. Significant drawdown is not anticipated to affect other area groundwater users. Since resource use is not affected by the project, it is concluded that Crown-Indigenous consultation is not required for the project.

RECOMMENDATION

All comments received have been addressed through the provision of additional information to the proponent's consultant or through licence conditions. 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 Region of the Environmental Compliance and Enforcement Branch.

PREPARED BY:

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