From: +WPG574 - HRB Archaeology (SCH) <HRB.archaeology@gov.mb.ca>

Sent: July-05-19 12:44 PM

To: Dagdick, Elise (SD) <Elise.Dagdick@gov.mb.ca>

Subject: RE: Request for Review/Comment - Environment Act Proposal - Manitoba Infrastructure - Project 6 - File

5897.00 - Due July 2, 2019

Dear Elise,

HRB has one question for the proponent regarding the "Environmental Protection Procedures 13 Heritage Resources March 2018 Revision":

4.0 Procedures

.1 Specific areas where heritage or cultural resources of interest are suspected of being present such as along major waterways at crossings shall be inspected prior to the start of construction to confirm potential presence and extent.

HRB Question: who will be conducting this inspection?

For your records: HRB would like to acknowledge that heritage resource impact assessment work was conducted in 2016. HRB archaeologists were under the impression that all MESRA projects had been suspended and, therefore, had not formally issued a clearance/review letter for the project's heritage permit report that was submitted back in 2017. We will do so in short order.

Sincerely, Suyoko

Suyoko Anne Tsukamoto Impact Assessment Archaeologist Historic Resources Branch

From: Hastman, David (SD) Sent: June-27-19 10:25 AM

To: Dagdick, Elise (SD) <Elise.Dagdick@gov.mb.ca>

Subject: RE: Request for Review/Comment - Environment Act Proposal - Manitoba Infrastructure - Project 6 - File

5897.00 - Due July 2, 2019

Hi Elise:

The NE Region's IRMT were circulated (June 13-26th) for comments/concerns. No comments were received to report to you.

David Hastman

From: Epp, Jane (SD) Sent: June-26-19 10:16 AM

To: Dagdick, Elise (SD) < Elise.Dagdick@gov.mb.ca>

Subject: RE: Request for Review/Comment - Environment Act Proposal - Manitoba Infrastructure - Project 6 - File

5897.00 - Due July 2, 2019

Hello,

No forestry concerns. I would recommend that if at all possible any timber cleared should be made available for community use for firewood or other projects.

Lee Fedorchuk, Peatlands Specialist has provided the following in relation to wetlands in the proposed area:

Section 6.2.4.1.1 states that the all-season road could result in alteration of surface water drainage and flows. It is important to maintain hydrological connectivity of wetlands on either side of the proposed road. Although 58 smaller waterways and two larger waterways will be crossed, of which much of the surface water runs through, around 50-55% of the footprint of the project will be created through wetlands, of which the majority will be fen-bog complexes. Although written specifically for resource roads, where possible, the ideas presented within Ducks Unlimited's *Resource Roads and Wetlands: A guide for planning, construction and maintenance*, especially those ideas that discuss how to minimize the impacts to surface and sub-surface water flow, should be followed during the construction of the road.

In section 6.2.5.1.2, it states: "Only approximately 3.6 km² of the Project Footprint consists of wetland vegetation", yet Table 6.6 indicates the project footprint contains 16.6 km² of wetlands. How should these figures be interpreted?

Table 6.6: Area and Proportion of Wetland Types Among Vegetation Assessment Areas

Wetland Types	Project Footprint		Local Assessment Area		Regional Assessment Area	
	Area (km²)	%	Area (km²)	%	Area (km²)	%
Bog-fen complex, 30 to 70% wetland	15.6	55.3	156.0	54.9	646.4	45.2
Fen non-patterned, open-shrubby	1.0	3.7	1.6	0.6	12.3	0.9
Fen non-patterned, treed	-	-	11.4	4.0	45.0	3.1
Mineral soils, <30% wetland	11.6	41.0	115.1	40.5	726.9	50.8
Marsh	0.0	0.0	0.0	0.0	0.0	0.0
Patterned, open fen	0.0	0.0	0.0	0.0	0.0	0.0

Source: Szwaluk Environmental Consulting Ltd. et al. 2017b

Further, several of the soil depth plots indicated upwards of 2 or more meters of organic material, some of which may be even deeper, as there was permafrost present when the sampling occurred. This represents not an insignificant about of peat. Do the predicted effects on greenhouse gas emissions (section 6.2.1.2.1) take into account the disturbance of the carbon-rich soil? Also, to illustrate the importance of maintaining hydrological connectivity with respect to increasing greenhouse gas emissions, changes in the water table level on either side of the proposed road may have effects that extend beyond the project's footprint. If hydrological connectivity is not maintained, and it floods on one side of the road while drying on the other side of the road, on both sides you will have increased greenhouse gas

emissions: on the flooded side, you will have increases in methane release (25x CO2e); and on the drier side, you will have increases in CO2 release because aerobic bacteria will be able to breakdown the newly exposed organic soil. Because of this, if changes to water flow occur, the estimates for section 6.2.1.2.1 would be underestimated.

Timber not used in the development of road (i.e. corduroy) using DU wetland crossing BMP, should be offered to the community as firewood or for other use.

From: Isaac, Michael (HSAL) < Michael. Isaac@gov.mb.ca>

Sent: June-24-19 9:51 AM

To: Dagdick, Elise (SD) <Elise.Dagdick@gov.mb.ca>

Subject: Request for Review/Comment - Environment Act Proposal - Manitoba Infrastructure - Project 6 - File 5897.00 -

Due July 2, 2019

I have reviewed the material and have no further comments

Thanks

Michael Isaac, MD, MPH, FRCPC Medical Officer of Health Northern Health region

From: Fountain, Jeff (SD) <Jeff.Fountain@gov.mb.ca>

Sent: June-20-19 4:44 PM

To: Dagdick, Elise (SD) <Elise.Dagdick@gov.mb.ca>

Subject: Request for Review/Comment - Environment Act Proposal - Manitoba Infrastructure - Project 6 - File 5897.00 -

Due July 2, 2019

No concerns from ECE Northeast region

Jeff Fountain Regional Supervisor - Northeast Region Environmental Compliance and Enforcement Branch

From: Vitt, Cory (SD) <Cory.Vitt@gov.mb.ca>

Sent: June-10-19 9:12 AM

To: Dagdick, Elise (SD) <Elise.Dagdick@gov.mb.ca>

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5897.00 - Due July 2, 2019

No concerns.
Office of Drinking Water (ODW)

Cory Vitt, CMMA M.Eng. P.Eng. Approvals Engineer Office of Drinking Water Manitoba Sustainable Development

From: Kelly, Jason (SD) <Jason.Kelly@gov.mb.ca>

Sent: June-10-19 1:29 PM

To: Dagdick, Elise (SD) <Elise.Dagdick@gov.mb.ca>

Subject: RE: Request for Review/Comment - Environment Act Proposal - Manitoba Infrastructure - Project 6 - File

5897.00 - Due July 2, 2019

No comments or concerns from Parks and Protected Spaces.