Kustra, Ryan

From: Kustra, Ryan
Sent: Monday, January 24, 2011 11:23 AM
To: 'Boswick, Robert (CON)'
Cc: Beyak, Brian; George Rempel; Barnes, Nicholas; Jim Thomas (jthomas@htfc.mb.ca); John Whitaker; Manzer, Mark; Michael Lawrenchuk; William Kennedy
Subject: RE: Keeyask Construction Camp STP
Attachments: 11 01 24 rob boswick - response to request.doc

Rob,

Here is information from our engineering group.

From: Boswick, Robert (CON) [mailto:Robert.Boswick@gov.mb.ca]
Sent: Thursday, January 20, 2011 3:18 PM
To: Kustra, Ryan
Cc: Beyak, Brian; Braun, Tracey (CON); Dagdick, Elise (CON)
Subject: RE: Keeyask Construction Camp STP

Good afternoon Ryan,

As discussed this afternoon, it is required that Manitoba Hydro provide the five-day biochemical oxygen demand (BOD_5) on the proposed Keeyask construction camp STP over any 24-hour period. The response submitted earlier this week provides the five-day carbonaceous biochemical oxygen demand ($CBOD_5$).

Please discuss as necessary.

Robert Boswick, P.Eng.
Environmental Engineer
Manitoba Conservation
Suite 160, 123 Main Street
Winnipeg, Manitoba R3C 1A5
e-mail: robert.boswick@gov.mb.ca
Ph. (204) 945-6030
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FAX: (204) 945-5229

From: Kustra, Ryan [mailto:rkustra@hydro.mb.ca]
Sent: January-18-11 9:16 AM
To: Boswick, Robert (CON)
Cc: Beyak, Brian; Braun, Tracey (CON); Dagdick, Elise (CON); Barnes, Nicholas; jthomas@htfc.mb.ca; John Whitaker; Manzer, Mark; Michael Lawrenchuk; William Kennedy
Subject: RE: Keeyask Construction Camp STP

Rob,

Attached is the information that you were requesting. In providing this information, I'll give you a call to confirm that it meets your needs, and then will provide a formal response to your letter.

I should add Manitoba Hydro, on behalf of the partnership, intends to develop performance requirements that allow suppliers to submit a design that meets or exceeds those requirements. Since the development of these performance requirements and the design has not been completed some of the information provided such as the residuals management process cannot be fully defined at this time.
As we discussed, we anticipate that Manitoba Conservation will place conditions in the KIP licence, such that the Keeyask partnership will provide you with appropriate information for your review and approval prior to the construction of the wastewater treatment plant.

As a quick reminder, the Keeyask Infrastructure Project includes the construction of a mechanical wastewater treatment plant. While the KIP includes the construction of the plant, it does not include the operation of the plant. There will be no outflow connected to the river.

The operation of the plant and the connection of an outflow pipe with the river will be covered by the Keeyask Generation Project. That application will probably be made this year. We hope to start construction of the GS in 2014.

From: Boswick, Robert (CON) [mailto:Robert.Boswick@gov.mb.ca]
Sent: Tuesday, January 11, 2011 2:15 PM
To: Kustra, Ryan
Subject: Keeyask Construction Camp STP

Good afternoon Ryan,

Attached is a letter requesting additional information regarding the sewage treatment plant proposed for the Keeyask Generating Station construction camp.

Signed original to follow in mail.

Please discuss as necessary.

Robert Boswick, P.Eng.
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MANITOBA HYDRO

INTEROFFICE MEMORANDUM

2. What will be the max daily flow rate (cubic meters) and organic loading (kilograms of five-day biochemical oxygen demand) on the treatment plant over any 24hr period?

Parameter	Main Camp Phase I	Main Camp Phase II Peak
Population	500 person	2500 person (2000 estimated peak + 500 buffer)
Per capita flow	340 litres/capita	340 litres/capita
Total flow	170 cubic meters/day	850 cubic meters/day
Max day (peak factor of 2)	340 cubic meters/day	1700 cubic meters/day
Average per capita CBOD	80 grams/capita	80 grams/capita
Average CBOD Laod	40 kg/day	200 kg/day
Peak Organic load CBOD (peak factor 1.5)	60 kg/day	300 kg/day
AVERAGE PER CAPITA BOD_5 LOAD	**90 grams/capita**	**90 grams/capita**
AVERAGE BOD_5 LOAD	**45 kg/day**	**225 kg/day**
PEAK ORGANIC LOAD BOD_5 (peak factor of 2)	**90 kg/day**	**450 kg/day**