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Staff Report

Applicant: Town of Hay River	
Location: Town of Hay River, NT	Application: MV2009L3-0005
Date Prepared: March 16, 2010	Meeting Date: March 25, 2010
Subject: Renewal of Type A Water Licence	

1. Purpose/Report Summary

To obtain direction from the Board on issues related to the Town of Hay River Water Licence (WL).

2. Background

- June 11, 2009 – WL Renewal Application submitted;
- July 3, 2009 – WL Renewal Application deemed incomplete;
- July 27, 2009 – supplemental information submitted;
- July 27, 2009 – WL Renewal Application deemed complete and sent out for review with a comment deadline of October 7, 2009. The draft Work Plan and the preliminary screening exemption matter was sent out for review with a comment deadline of August 12, 2009;
- August 12, 2009 – comment deadline on the draft Work Plan and preliminary screening exemption matter;
- October 7, 2009 – comment deadline on the WL Application;
- October 22, 2009 – Board approves draft Work Plan;
- November 5, 2009 – Board exempts WL Application from preliminary screening;
- November 13, 2009 – technical session held;
- November 23, 2009 – public hearing ad appears in News/North;
- December 2, 2009 – intervention due date;
- December 7, 2009 – Proponent response to interventions;
- December 20, 2009 – Town of Hay River requests public hearing cancellation;
- January 7, 2010 – update on file presented to the Board;

- January 11, 2010 – pre-hearing conference;
- January 26, 2010 – pre-hearing brief and public hearing held;
- January 27, 2010 – post-hearing debrief;
- February 17, 2010 – draft WL circulated for review and comment;
- March 9, 2010 - comment deadline for review of draft WL; and
- March 25, 2010 – draft WL presented to the Board.

3. Discussion

Staff received comments on the Draft WL from Indian and Northern Affairs Canada (INAC), The Town of Hay River (the Town), Government of the Northwest Territories Environment and Natural Resources (GNWT-ENR), and Environment Canada (EC).

This Water Licence for the Town of Hay River is being prepared in conjunction with the City of Yellowknife Water Licence. There are some outstanding common issues between the two on which staff require input and direction from the Board. These are discussed below followed by those issues specific to the Town of Hay River WL for which staff is also seeking input and direction from the Board.

Outstanding Issues Common to the Town Hay River and City of Yellowknife Water Licenses

Condition	Issues	Recommendation/ Request
<p>Conditions Applying to Water Use</p> <p>The water intake hose used on the water pumps shall be equipped with a screen with a mesh size and screen design sufficient to ensure no entrainment or impingement of fish, as outlined in <i>Fisheries and Oceans Canada Freshwater Intake End-of-Pipe Fish Screen Guideline</i> (1995) or subsequent approved editions.</p>	<p>INAC is of the opinion that this condition is not within the Board’s jurisdiction. Staff is seeking input from the Board on the inclusion of this condition in the Water Licence.</p>	<p>Staff recommends that this condition remain in the Water Licence.</p>

<p>Conditions Applying to Waste Disposal</p> <p>Acute Toxicity - Rainbow Trout: static pass/fail bioassay test whereby 70 % survival is considered a pass.</p>	<p>Environment Canada has provided that the City and the Town do a static pass/fail bioassay test. The City indicated in an Undertaking that came out of the Public Hearing that they would like to do an LC₅₀ test. For the City, EC believes that:</p> <p><i>...the LC₅₀ test does not provide any additional information, but does incur significantly higher costs and requires larger sample volumes. EC recommends the pass/fail test be used, with a "fail" (i.e. less than 70% survival) triggering an LC₅₀ test.</i></p> <p>The Town does not want the bioassay testing included in their Licence at all.</p> <p>The Town's opinion is that the Canadian Council of Ministers of the Environment (CCME) Canada Wide Standard (CWS) does not require this testing for a system such as that found in Hay River. The Town also believes that this testing will benefit EC only.</p>	<p>Staff is seeking input from the Board on what to include regarding bioassay testing in these Water Licenses.</p> <p>Staff further recommends that the Board consider consistency with regard to decisions based on the CCME CWS.</p>
<p>Conditions Applying to Waste Disposal</p> <p>The Licensee shall complete monitoring of wastewater effluent quality for carbaceous biological oxygen demand (CBOD) and</p>	<p>Reviewers recommended that a trend analysis between BOD₅ and CBOD be carried out by the Proponent for a period of three years. The findings are to be submitted to the Board. This is because the</p>	<p>Staff is seeking input on the inclusion of the trend analysis requirement.</p> <p>Staff further recommends that</p>

<p>biological oxygen demand (BOD) for a minimum of three years. The study findings, including a trend analysis, shall be submitted to the Board for approval in a report that is completed before August 31, 2014.</p>	<p>CCME CWS have identified CBOD as the parameter to be analyzed. Standards were set for Southern Canada and are yet to be accepted in Northern Canada. The trend analysis would provide information that would assist in determining future values for CBOD. Hay River is of the opinion that they should not have to pay for this research on behalf of the Federal Government. The City of Yellowknife is anticipating the adoption of <i>CCME CWS for the Treatment of Municipal Wastewater</i> in the North and wants these values (CBOD and TSS) to be included in the Water Licence. The purpose of a trend analysis between BOD₅ and CBOD is to develop values specific to the North.</p>	<p>the Board consider consistency with regard to decisions based on the CCME CWS.</p>
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<p>Conditions Applying to Waste Disposal</p> <p>The Licensee shall ensure all treated soil from the Biotreatment Pad that will be used for capping material of landfill cells will meet the following criteria prior to incorporation:</p>	<p>INAC recommends the use of the new <i>CCME CWS for Petroleum Hydrocarbons in Soil</i> for capping material criteria. Past criteria are based on the GNWT <i>Guideline for Contaminated Site Remediation</i>. This guideline describes the process that is used to manage (e.g. identify, assess, remediate) contaminated or potentially contaminated sites on Commissioner's Land including private land within municipalities. The CCME CWS refer to federal lands.</p>	<p>Staff recommends adhering to the GNWT Guidelines since they are specific to municipal lands.</p>
<p>Conditions Applying to Construction</p> <p>For example: Prior to construction of any dams, dykes or control structures intended to contain, withhold, divert or retain Waters or Wastes, the Licensee shall submit to the Board (for approval) final design drawings stamped and signed by an Engineer, which notes "issued for construction" or similar phrase.</p> <p>Construction of designed structures shall be carried out as approved by (as submitted to) the Board.</p>	<p>There have been discussions in the past about taking out the phrase "for approval" in Licence conditions that deal with drawings, plans, etc. that already have an Engineer's stamp or some sort of Engineering approval. Staff would like direction on the inclusion of this phrasing for the Hay River and Yellowknife Water Licences.</p>	<p>Staff recommends removing the requirement for Board approval concerning documents prepared and approved by Engineers.</p>

<p>Conditions Applying to Operation and Maintenance</p> <p>If the Plan is not approved by the Board, the Licensee shall resubmit a revised plan within 90 days of notification.</p>	<p>EC suggested the inclusion of this condition following the Operation and Maintenance Plan.</p>	<p>Staff is of the opinion that if this condition is added to the Licences, it should be included as a qualifier to all required plans. Staff would like direction as to whether or not this condition should be included in the licence.</p>
<p>Conditions Applying to Spill Contingency Planning</p> <p>The Licensee shall immediately report to the 24-Hour Spill Report Line (867-920-8130) any spills of Waste, which are reported to or observed by the Licensee, within the Town boundaries or in the areas of the Water Supply Facilities or Waste Disposal Facilities.</p>	<p>INAC has recommended including a reportable spills tables as a schedule in the water licences.</p>	<p>Does the Board want to include this table as a schedule of the licence or not?</p>

Overall Formatting

There are some style differences between the Hay River WL and the City of Yellowknife WL. Staff is seeking input as to what preferences the Board has for the presentation of these Licenses.

Outstanding Issues – Town of Hay River

Conditions Applying to Waste Disposal

1. D.3 All Sewage effluent discharged from the Sewage Disposal Facilities at Surveillance Network Program Station Number 0053-2 shall meet the following effluent quality requirements:

Faecal Coliform (FC)	1000 or 200 FC per 100 ml	2000 or 400 FC per 100 ml
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The Board had previously established a maximum Average Concentration of 1000 FC per 100 ml and a maximum Concentration in any grab sample of 2000 FC per 100 ml for Faecal Coliform bacteria. The 1000 FC per 100 ml was derived from the *Canadian Water Quality Guidelines* for Recreational Waters (CCME 1999). These effluent quality criteria were intended to protect the most sensitive water use likely to occur in the receiving water body, namely non-contact or secondary Water use (i.e. fishing, boating).

Health Canada's *Guidelines for Canadian Recreational Water Quality* was updated in 2002 and recommends that E.Coli should not exceed 2000 E.Coli/L; if 90% of the fecal coliforms are E.Coli, either fecal coliforms or E.Coli may be determined. Assuming this to be the case, the Health Canada fecal coliform effluent quality recommendation would be 2,000 FC/L which is about two orders of magnitude more stringent than the previous Water Licence limit of 10,000 FC/L (1000 FC/mL).

Since the point of compliance for the Town of Hay River is still in a drainage ditch, at least 1000m before actually reaching Great Slave Lake, INAC suggests that the new Health Canada limits for recreational waters may be overly conservative in this case. They recommended keeping the former limits.

Staff recommends that since the Town will have trouble meeting compliance with the new Health Canada guidelines, that it is extremely unlikely that recreational activities will take place at this location, and considering the time and opportunity for further dilution as the waters make their way towards Great Slave Lake, the Board may want to consider adhering to the historic limits.

2. D.13 The Licensee shall, prior to introducing any new industrial or agricultural Waste into the Waste Treatment Facilities, submit to the Board for approval a description of the Waste, including volumes of Waste, types of Waste and any mitigative measures proposed to protect the treatment disposal facilities.

The Town of Hay River feels that the Board is attempting to regulate economic development within the Town of Hay River with the inclusion of this condition and has asked for an extension for legal review. They would like the condition removed from the licence and back up their request by stating no similar condition is found in the City of Yellowknife or the Hamlet of Enterprise Water Licences.

The Inspector does not oppose the presence of this condition but suggested that the reasons for decision define 'new Waste' as any exotic material not previously accepted by the Town's facilities.

Staff would like some Board direction as to whether or not this condition should be:

- included in the Reasons for Decision with clarification of its intent provided there;
- if it should be removed completely; or,
- if the Board would choose another course of action.

6. Reviewer Comments

The attached Comment Summary Table contains the comments that were received from reviewers and how the comments, if applicable, were incorporated into the March 2010 draft WL.

7. Security

No security required for this operation.

8. Conclusion

Board staff has considered the Water Licence Application, interventions, and comments submitted during the licencing process and notes that the proposed conditions in the draft WL should mitigate any potential environmental impacts.

9. Attachments

- Reviewer Comment Summary Table
- Draft Type A Water Licence Cover Page
- March 2010 Draft Type A Water Licence Conditions and Surveillance Network Program

Respectfully submitted,

Shannon Hayden
Regulatory Officer

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

Reviewer	Comment	Mitigation
<p>Carole Mills, Manager, Water Resources Division, Indian and Northern Affairs Canada (INAC)</p>	<p>Summary of INAC comments:</p> <p>Scope and Definitions INAC supports using geometric mean for calculating the average concentration for faecal coliforms.</p> <p>INAC suggests including “or subsequent edition” to the end of the Coarse and Fine-grained Soil definitions.</p> <p>INAC suggests referring to their department as Indian Affairs and Northern Development.</p> <p>INAC suggests specifying a mixture of Toilet Waste and Greywater in the definitions of Sewage.</p> <p>INAC suggests not naming the (Northwest Territories Water) Regulations.</p> <p>INAC suggests rewording the Sewage Disposal Facilities to read “comprises the area and engineered structures designed to contain and treat Sewage, as defined in UMA Engineering Limited ‘Town of Hay River Sewage Treatment System Improvements’ drawing number 00-CM1003, dated September 29, 2006, as well as the adjacent wetland area.”</p> <p>INAC suggests revising the definition of Surveillance Network Program to read: “a program established to define environmental sampling and analysis requirements.”</p> <p>Conditions Applying to Water Use C.4. – INAC suggests removing this condition (referring to mesh size) since they are of the opinion that it is outside the jurisdiction of the <i>NWT Waters Act</i>.</p>	<p>Included in Licence.</p> <p>Included in Licence.</p> <p>Included in Licence.</p> <p>Not applied to Licence.</p> <p>Board decision.</p> <p>Included in Licence.</p> <p>Incorporated into Licence.</p> <p>Board decision.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

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	<p>Conditions Applying to Waste Disposal</p> <p>D.2. – INAC suggests allowing one or more lagoon cells to be out of operation at a time with Inspector approval.</p> <p>D.3. – INAC suggests the faecal coliform criteria limits be raised to the previous limits.</p> <p>D.4. – INAC does not agree that the BOD vs. CBOD report should be completed by an Engineer.</p> <p>D.10. – INAC feels it may be premature to ask the Town to provide methods for managing and monitoring drainage Water from the snow disposal areas. INAC is willing to work with the Town to conduct snowmelt sampling. INAC suggests revising the condition to read: “The Licensee shall within 90 days of issuance of this licence submit to the Board a Snow Disposal Plan including, but not limited to, a map identifying areas currently used or planned to be used for snow disposal. All areas used for this purpose must be approved by the Board.”</p> <p>D.12. – INAC recommends providing rationale or definitions for what would constitute “any new industrial or agricultural waste.”</p> <p>D.17. - INAC notes that the CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHC) in Soil was updated in 2008 with some changes to the criteria in this part. Specifically criteria for Coarse and Fine-grained Fraction 1 and 2 soils.</p>	<p>Included in Licence.</p> <p>Board decision.</p> <p>Included in Licence.</p> <p>Included in Licence.</p> <p>Addressed in the Reasons for Decision.</p> <p>The new CCME standards are not used in this Licence. Guidelines are based on the GNWT Guidelines for Contaminated Site Remediation which refers specifically to municipal lands instead of federal lands.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

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	<p>Conditions Applying to Construction G.1. – INAC highlights a duplication of the word “stamped.”</p> <p>G.3. – INAC highlights a duplication of the statement “stamped by an Engineer.”</p> <p>Conditions Applying to Spill Contingency Planning I.3. – INAC suggests including information about reportable limits into the Licence as a Schedule</p> <p>Schedule D INAC suggests that the extent of the Drainage Study should only be defined after the collection, analysis and interpretation of existing monitoring data. They suggest revising the Schedule to read: “Following a review of available site surface and groundwater quality and quantity information, the Solid Waste Disposal Facilities Drainage Study may include the following information as directed by the Board.”</p> <p>SNP INAC suggests item 9 be revisited to specify that the sampling is from the Biotreatment Pad.</p>	<p>Error addressed.</p> <p>Error addressed.</p> <p>Forwarded to Proponent. Appendix B-3 of the INAC Guidelines for Spill Contingency Planning also provides Immediately Reportable Spill Quantities.</p> <p>Included in Licence.</p> <p>Included in Licence.</p>
Rick Walbourne, Habitat Biologist, Department of Fisheries and Oceans (DFO)	<p>Summary of DFO comments:</p> <p>Conditions Applying to Waste Disposal D.10. – DFO suggests the Snow Disposal Plan should include a topographic map associate with the areas associated to the plan.</p>	<p>Included in Licence.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

Reviewer	Comment	Mitigation
<p>Michael Richardson, Director of Public Works and Planning, Town of Hay River (the Town)</p>	<p>SNP DFO recommends that the SNP include a map of all stations with associated geographic coordinates.</p> <p>Excerpt from the Town's March 8, 2010 comments:</p> <p>The Town of Hay River requests a three-week extension (to March 30, 2010) to the draft licence response deadline of March 9, 2010, to allow for sufficient time to undertake legal consultation.</p> <p>The Mackenzie Valley Land and Water Board has failed to acknowledge many of our arguments and concerns, most importantly our request that the Board to [sic] refrain from imposing themselves upon the daily lives of our citizens.</p> <p>In this draft licence, specifically clause D.12, the Board has now gone beyond what was a [sic] previously a fully serviceable water licence, to insisting that the Board regulate economic development within the Town of Hay River.</p> <p>The requirement that the MVLWB will approve or reject specific industry based on wastewater flows has the potential to be highly detrimental to municipal initiatives and could easily have serious implications of the timing and the type of development that occurs in Hay River.</p> <p>The Town is surprised and offended that this specific issue was not raised before or at the Public Hearing where the Town, and certainly the public, would have enthusiastically voiced their opposition to such an intrusion into our community and her continuing development.</p>	<p>The Board does not currently have a copy of a printable SNP map. The Town has been asked to provide one.</p> <p>The timing is not possible if a new WL is to be put in place before the current licence expiry.</p> <p>D.12 has been a condition of the Hay River Water Licence since 1991.</p> <p>The Town had every opportunity to bring any issues with this condition forward to the Board during the review process.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

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	<p>The failure to provide an opportunity to discuss this publicly is entirely contrary to the Public Process required by the Mackenzie Valley Resource Management Act, and therefore, should require the complete removal of this clause, if not invalidate this entire licence. We note further that this clause, nor anything similar, is not in the February 11, 2010 draft licence for the City of Yellowknife or the final licence for the Hamlet of Enterprise.</p> <p>The Town of Hay River questions the Board's motives as they relate to this clause. Based on the above, the Town is seeking a legal opinion and would request that the deadline for comments be deferred until March 30, 2010.</p> <p>Conditions Applying to Waste Disposal</p> <p>D.3. – Once again we renew our objection to this requirement in the licence as the condition is of benefit to Environment Canada only. The Town would like to discuss arrangements for sample collection and analysis with EC outside of the scope of the water licence.</p> <p>Further, the new EC regulations are out and while they still do not apply to the NWT, they also still do not include bioassay testing for discharges from communities such as ours.</p> <p>D.4. – At the public hearing Board members themselves questioned the use of such data. The Town then submitted a scientific rationale for not analyzing for both BOD and CBOD. We have no use for this information but would now suffer the expense. We do not believe that we should be required to educate regulators.</p>	<p>The Board does not have any pre-determined 'motives' in the drafting of this licence, aside from the protection of water resources in the Mackenzie Valley.</p> <p>Board decision.</p> <p>Board decision.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

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	<p>If another agency does have a use for it, then we would be pleased to work out an agreement with them outside the licence. Please remove this requirement from the licence and SNP program.</p> <p>D.12. – The Town submits that this is an inappropriate and failed interpretation of the NWT Waters Act and/or Regulations prohibiting the deposit of waste.</p> <p>The Town reiterates our absolute opposition to this, or any form of this clause, in our water licence.</p> <p>D.17 – This licence incorrectly interprets the CCME and GNWT requirements for PHC in commercial soils.</p> <p>Conditions Applying to Spill Contingency Planning</p> <p>I.1. – Our discussions with INAC suggested that we would, and it was understood that it was agreed by all, update our currently acceptable plan to conform to the new INAC guidelines in the next submission. We request that the MVLWB require this update with submission of our annual report as per Schedule B(k).</p>	<p>Board decision.</p> <p>Error addressed. This Water Licence follows the GNWT Guidelines.</p> <p>Included in Licence.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

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	<p>Schedules</p> <p>H.1 (o) - This is once again an inappropriate application of the NWT Waters Act. The level of detail required for APPROVAL by the MVLWB is completely inappropriate for someone who is not actually operating the process.</p> <p>The Town sees no need to go beyond the requirements of D.17 for the purpose of this licence.</p> <p>SNP See comments for D.3 and D.4</p> <p>“Licence” should be correctly spelled “Licence.”</p> <p>Excerpt from the Town’s March 13, 2010 comments:</p> <p>Firstly, our request for a three-week extension to the commenting period was denied based on the somewhat arbitrary work plan developed many months ago. The work plan in and of itself should not command such importance, as it exists only to provide structure to the water licence renewal process. Issues such as those raised by the Town deserve more than a simple dismissal based on a work plan. We believe a temporary extension to the current licence to accommodate our request could have been granted.</p> <p>The Town of Hay Rivers renews our request for an extension.</p>	<p>The items outlined in Schedule H, item 1(o) originate from the Town’s 2004 proposal that a treatment plan be created for each individual lot of soil accepted for treatment at the Biopad for inclusion in the O&M Plan.</p> <p>Error addressed.</p> <p>The timing is not possible if a new WL is to be put in place before the current licence expiry. This is how the timing for the work plan was derived. The Town was given an extra six days to provide additional comments.</p>

Reviewer Comments – Town of Hay River – MV2009L3-0005 Draft Water Licence

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	<p>Secondly, based on telephone discussions with you on the afternoon of March 8, the intended meaning of clause D.12 was clarified as you understood it. As we now understand from you, the clause is meant to regulate new types of industrial or agricultural wastes without precedent in the Town of Hay River.</p> <p>Notwithstanding the above and notwithstanding that the clause appeared in our previous licence, we maintain that a clause similar to D12 is not present in recently issued draft and final licences (Yellowknife and Enterprise, respectively) and it should not be present in our licence.</p> <p>The Town strongly requests that clause D12 be removed from our licence. We do not believe that the Board should have the power to arbitrarily regulate economic development in the Town of Hay River.</p> <p>If for whatever reason the Board deems to continue to impose this clause on the Town remains, and if the intent of the clause is correct as you stated, then we request that a new draft of clause D12 be written to reflect this intent. Further, if such a clause is to remain, we request that the rewritten clause specify the quality and quantity of proposed industrial or agricultural wastes that would trigger an intervention by the Board. As required by the Public Process, the rewritten clause must be submitted for public consultation and given a reasonable period of time for comments by the Town and interveners.</p>	<p>Board decision.</p> <p>Condition has not been re-written but its intent has been clarified in the RFD. It is not contingent on any quality or quantity. The Town had every opportunity to bring any issues with this condition forward to the Board during the review process.</p>

