

July 29, 2010

Mr. Brian Elliot
Lesser Slave Watershed Council
P.O. Box 2607
High Prairie, AB T0G 1E0

Dear Mr. Elliott

Thank you for submitting the Lesser Slave Basin Water Management Plan - Phase 1 to Alberta Environment, and for your patience while we completed our review process. As you know, this included reviewing and gathering more information related to the minimum flow recommendation for the Lesser Slave River, and the various options to achieve this. Our department also determined that additional review time was necessary in order to receive comments on the plan from First Nations communities in the watershed.

Having completed our review, I am pleased to approve the Lesser Slave Basin Water Management Plan – Phase 1. Alberta Environment supports this planning document and recognizes its usefulness as a local planning and decision-making tool that can provide direction for the Watershed Council. Recommendations within the plan that are specific to Alberta Environment are supported in principle. However, implementation of these recommendations will be based on feasibility, availability of funds, departmental priorities, and additional discussions with the Lesser Slave Watershed Council. It is also important to note that recommendations stated within the plan that fall outside of Alberta Environment's mandate may also require additional discussions with the Ministry or agency responsible.

I would like to thank the Watershed Council for their efforts and commitment to developing a plan that has been well prepared through extensive background study and research. The plan provides a comprehensive perspective of the challenging issues facing the Lesser Slave River resulting from low flow conditions, and gives recommendations to deal with those issues.

Although this management plan includes recommendations that can generally be supported by Alberta Environment, there are specific components within the plan that require further comment. Alberta Environment's response to specific recommendations are given as follows:

Recommendation: *Maintain a minimum flow of six cubic metres per second in Lesser Slave River*

As part of this decision to approve, Alberta Environment supports the recommendation for a minimum flow rate of six cubic meters per second in the Lesser Slave River to meet existing

... 2

Alberta ■

human needs and aquatic ecosystem requirements during extreme low flow periods, primarily in winter. The available information, data and modeling have demonstrated this minimum flow rate will help protect the aquatic ecosystem in the river, and have minimal effects on lake levels. It is important to implement this recommendation in preparation for extreme low flow events that may occur in the future. The Alberta Government is currently reviewing the best options to achieve this outcome. I understand an in-stream flow needs assessment is currently being done by the Lesser Slave Watershed Council in collaboration with Alberta Sustainable Resource Development. Results of this assessment should be useful in possibly refining the minimum flow required to maintain aquatic ecosystem health in the Lesser Slave River.

Recommendation: *Option 2 – Regulate low flows in the Lesser Slave River using gated culverts, designed and installed by Alberta Environment*

With respect to the recommendation to install gated culverts for maintaining a minimum flow of six cubic meters per second at the control weir, Alberta Environment agrees this is a reasonable option, and the future use of temporary siphons is not a desirable alternative. However, the recommended gated culvert is one of several options, and the department is currently considering other design alternatives to move water past the control weir during very low flow situations.

Recommendation: *Low flow operational response procedures – surveillance, obtaining approvals, channel dredging*

The low flow operational procedures appear to be a thorough and appropriate step-by-step response to low flow scenarios such as those experienced in 1999 and 2006. These procedures would ensure that there is water in the Lesser Slave River to meet aquatic ecosystem needs, and authorized water use requirements downstream. However, Alberta Environment believes that the responsibility for implementing these procedures should remain with the licensed users, and is not prepared to take the lead for channel measurements and dredging. The Department would be able to provide enhanced surveillance, measurements and predictions with respect to fall-winter lake levels and flows in the river. Alberta Environment can also provide technical advice during future low flow situations, and would be responsible for any operational activities required (e.g., operating gated culverts if such structures are installed).

Recommendation: *Establish a permanent long-term water quality monitoring station on the Lesser Slave River*

In Spring 2010, the Department was able to resume monthly water quality measurements at a far downstream site on the Lesser Slave River which had been sampled in previous years. Alberta Environment is prepared to consider establishing a permanent long-term water quality monitoring station on the Lesser Slave River. However, implementation of this recommendation will depend upon necessity, budget availability and operational priorities.

Recommendation: *Completion of the in-stream flow needs field program*

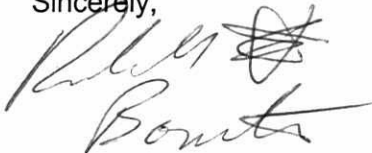
The recommendation to complete the science-based In-stream Flow Needs assessment is a sound one, and is something that Alberta Environment could support. However, Alberta Environment is unable to commit extensive project funding at this time. The Department has completed most of the water quality component of IFN using in-house resources, with a view of

developing a running, fully calibrated water quality model (CE-QUAL-W2) to support the In-stream flow needs study.

Once again, thanks to all members of the Lesser Slave Watershed Council for their dedication and commitment to being stewards of this watershed. I encourage you to continue your commitment to develop the Phase 2 of the Lesser Slave Lake watershed management plan. I also request and encourage you to continue to meaningfully engage First Nations in participating in the development of the Phase 2 planning process.

If you have questions, or require additional discussion at this time, please contact Rod Burr at (780) 624-6765 or Abdi Siad-Omar at (780) 427-7227. Thank you again and please extend my congratulations to the Lesser Slave Watershed Council for completing this major milestone.

Sincerely,

A handwritten signature in black ink, appearing to read "Randall Barrett", with a stylized flourish at the end.

Randall Barrett
Regional Environmental Manager

cc: Shannon Flint, Regional Director
Pat Marriott, Acting Regional Approvals Manager
Rick Friedl, A/Head, Central and Northern Operation
Gary Sasseville, District Approvals Manager
Mark Heckbert, Program Manager, Fish and Wildlife