

REPORT

File Number: 95100-30BED-063806
Application Number: 2008-063806-A01
Approval Holder: Elmworth Energy
Activity: Surface Water Supply for Shale Gas Project Hydrofracking

PURPOSE:

This Approval is an amendment to the original withdrawal approval which covers the withdrawal of surface water from Noel River to supply Hydrofracking water for a Shale Gas Project. This Approval is an extension of time only with corresponding changes to submission dates for monitoring requirements. DFO has approved the request.

BACKGROUND:

Elmworth Energy is seeking to withdraw water from the Noel River below Noel Lake for the purpose of supplying water to "hydro-frac" a Shale Gas exploration well, to be conducted some time during the months of September through June 2009. Withdrawal amounts required are estimated at 6000 cubic metres in total. Water will be extracted with a submersible pump and piped to a temporary storage pond.

The rate, duration and timing of pumping are estimated based on expected operations, but are not known exactly as they depend on the successful progress of the fracking process in the exploration well. Maximum and average withdrawal rates requested are based on an assumed pumping duration of 16 to 24 hours per day over a 10-day period. However pumping may be of shorter duration on some days and therefore pumping may take place over more than 10 days. As a result the withdrawal may exceed the 2-week threshold established in the *Activities Designation Regulations* as the minimum withdrawal period for which approval is required.

All information requirements set out in the NSE Guide to Surface Water Withdrawal Approvals (2004) have been provided. The application has been reviewed by Fisheries and Oceans Canada and a joint NSE - DFO site visit was conducted to establish appropriate maintenance flow requirements and locations and evaluate the potential effects of a downstream dam structure on maintenance flows.

Because the withdrawal is requested only for during a higher flow period, only limited monitoring requirements have been established. Any extensions or renewals of the approval must consider maintenance flow and monitoring requirements specific to the

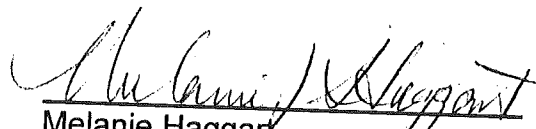
period requested. An amendment to extend the approval to the end of June 2009 has been approved by DFO, however any further extensions for summer months will likely require changes to maintenance flow and/or monitoring requirements.

LOCATION:

The operation is located at or near Noel, Hants County.

RECOMMENDATION:

The information in the application to amend the approval to withdraw water from Noel River near Noel, has been reviewed and it is recommended that the application be approved subject to the following conditions.


Melanie Haggart
Regional Hydrogeologist

Nov 24/08.