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EC file : 4704 004 067
NWB file : 2BE-KLG1116

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Via email: licensing@nunavutwaterboard.org

RE: 111130 2BE-KLG1116 Prosperity Goldfields Corp – Amendment Type B – Kivalliq Region

Environment Canada (EC) has reviewed the information submitted with the above-mentioned amendment application as submitted to the Nunavut Water Board (NWB). The following specialist advice has been provided pursuant to the *Canadian Environmental Protection Act 1999*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Prosperity Goldfield Corp. is proposing to amend water license 2BE-KLG1116 to allow for additional project components. The original project components include the transportation of materials to site, construction of an airstrip and a temporary camp, as well as associated fuel storage, and a drilling program. The proposed additional activities would include an increase of on-site fuel storage capacity, an increase in camp capacity, an expansion of exploration activities and an associated increase of overall water use. The on-site fuel storage would increase from five 4540 L tanks through an addition of six 4540 L double-walled tanks for an on-site capacity of 49 940 L. The camp size and function would be increased through the addition of buildings and infrastructure and the exploration program would be increased through the addition of one drill and therefore increasing drilling activity. These activities would result in the increase in water usage from 55 m³/day to 100 m³/day.

Based on a review of the proposed exemption, EC provides the following comments for the NWB's consideration:

General

- The proponent shall not deposit, nor permit the deposit of chemicals, sediment, wastes, or fuels associated with the project into any water body. According to the *Fisheries Act*, Section 36 (3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.

- EC does not foresee any major issues with the increased water use as long as there are proper measures in place to cope with the increase in waste water. For example, with respect to drilling, will additional sumps be created or do the current sumps have enough capacity to deal with the increased waste water? Should additional sumps be needed, are there enough suitable locations available?

Fuel Storage and Spill Contingency Planning

- EC recommends that AEM update the Fuel Spill Contingency Plan and the Abandonment and Restoration Plan for the Kiyuk Lake Project to reflect these proposed changes to on-site facilities.
- Please note the new *CEPA Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations* that came into force on June 12, 2008. These regulations apply to both outside, aboveground and underground storage tank systems (including the piping and other tank associated equipment) under federal jurisdiction containing petroleum and allied petroleum products that have a capacity greater than 230 litres. This includes tanks located on federal or Aboriginal lands. Exceptions are pressurized tanks, mobile tanks, tanks regulated by the National Energy Board, and outdoor, aboveground storage tank systems that have a total combined capacity of 2500 litres or less and are connected to a heating appliance or emergency generator. All storage tank system owners must identify their tank systems to EC and installation of new systems must comply with the regulation's design requirements. Further information on these regulations can be found at www.ec.gc.ca/st-rs.
- The proponent is encouraged to consult and implement the recommendations found in the 2003 CCME Guidance Document PN 1326 *Environmental Code of Practice for Above Ground and Underground Storage Tank Systems containing Petroleum Product and Allied Petroleum Products*. This document provides up to date information regarding best practices for the storage of petroleum products and allied petroleum products. EC recommends that double-wall storage tanks be placed entirely within a dyked area, with an impermeable barrier in the floor and sides of the containment area.

Comments previously submitted on behalf of EC on 10 May 2011 would still apply to this project. If there are any additional proposed changes to the project EC should be notified, as further review may be necessary. Please do not hesitate to contact the undersigned with any questions or comments with regards to the foregoing at (867) 975-4631 or by email at Paula.C.Smith@ec.gc.ca.

Yours truly,



Paula C. Smith
Environmental Assessment Coordinator

cc: Carey Ogilvie (Head, Environmental Assessment-North, EPO, Yellowknife, NT)
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