

**Fisheries and Oceans**

Eastern Arctic Area  
P.O. Box 358  
Iqaluit, NU  
X0A 0H0

**Pêches et Océans**

Secteur de l'Arctique de l'est  
Boîte postale 358  
Iqaluit, NU  
X0A 0H0

*Your file*

*Votre référence*

*Our file    Notre référence*

NU-05-0021

October 31, 2005

Ms. Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, Nunavut  
X0B 1J0

Dear Ms. Beaulieu:

**Subject:** Abandonment and Restoration Plan for the Tailings Containment Area at the Lupin Mine.

Fisheries and Oceans Canada (DFO) has reviewed the submission made by Kinross Gold Corporation on June 29, 2005 entitled, "*2005 Abandonment and Restoration Plan, Lupin Tailings Containment Area, Water Licence NWBILUPO0008, Lupin Mine, Nunavut.*" As per the direction provided by the Nunavut Water Board on July 15, 2005, we have provided input based on closure of the Tailings Containment Area (TCA) with the expectation that further review and comment will be required at a later date on the Abandonment and Restoration (A&R) plan for the remainder of the mine infrastructure.

With respect to the A&R plan for the closure of the Tailings Containment Area, DFO has the following requests/ comments related to fish and fish habitat:

**General**

- The A&R report is generally lacking in up to date information related to fish and fish habitat. While DFO has obtained a copy of the 1985 report prepared by Reid, Crowther and RL&L on the aquatic studies program for the Lupin Mine, this information is dated. With a lack of current information it is difficult for DFO to provide comment on potential impacts on fish and fish habitat as they relate to A&R Activities at the TCA.
  - DFO requests that Kinross provide current surveys on fish and fish habitat for the areas that could be impacted by TCA closure activities.
- There is currently no plan that specifies sequencing of activities to be done during the closure of the TCA.
  - DFO requests that Kinross provide a detailed description of when each of the closure activities will be initiated and completed.

#### **Section 1.5.4 Hydrology, Pages 7 & 8**

- Brief descriptions of aquatic habitat downstream of the TCA are presented, and it is stated that over-wintering habitat may be limited in most of the water bodies downstream of the TCA. The February 1985 Aquatic Studies Report indicates that arctic grayling and lake trout use Upper Seep Creek during summer months for feeding and/or spawning and migrate downstream during early fall (September). Lake Trout were also found in Dam Lake 2. Several species of fish including, arctic grayling, lake trout, ninespine stickleback, round whitefish, cisco, and slimy sculpins were found in lower Seep Creek.
  - As part of an overall assessment of the fish habitat in the area, DFO requests that Kinross examine whether fish are still present in waterbodies downstream of the TCA and during what seasons.

#### **Section 5.6 Ecological Risk Assessment, Pages 25 & 26**

- It is noted on Page 25 that Ponds 1 and 2 are not intended to be aquatic habitat,
  - Based on the 1985 aquatic studies report, it is likely that fish were present in the TCA at least prior to its construction. DFO requests that Kinross confirm whether fish are currently present in Ponds 1 and/or 2 of the TCA.
- No fish species were identified as potential receptors for the ecological risk assessment despite their likely presence in waters downstream of the TCA. Fish present downstream of the TCA are likely to be chronically exposed to any contaminants that are released from the TCA.
  - DFO requests that Kinross clarify why fish were not included as potential receptors, and comment on the potential for fish to accumulate toxins over time.

#### **Section 6.1 TCA Infrastructure, Pages 28 & 29**

- It is noted that some roadways and associated culverts will be removed during the closure of the TCA. In order to determine whether these activities will have any impact on fish and fish habitat additional detail will be required.
  - DFO requests that Kinross provide maps and plans for road and watercrossing locations and indicate which watercrossings will be removed. Detail should also be provided on the road alignments that transect waterbodies containing fish, including how the watercrossing structure will be removed and what channel stabilization will be undertaken.

#### **Section 6.4 Planned Restoration Activities, Page 36**

- Plans indicate that an engineered spillway will be constructed at Dam 1A to allow for discharge from the Pond 2 into Seep Creek. It is stated that this spillway will be designed to prevent migration of fish species from Seep Creek to the TCA.
  - It is difficult to determine from the level of information provided whether there will be impacts to fish and fish habitat from this component of the A&R plan. As such, DFO requests detailed plans and specifications for the spillway including construction methodologies, scheduling, requirements for blasting, and sediment and erosion control plans.
  - DFO would also request that Kinross comment on whether the change in flow regime caused by the change in the outlet control structure could

change the stability of the Seep Creek channel. Could changes in hydrology or channel morphology result in changes in the ability of fish to utilize available habitat downstream, or cause periodic stranding of fish?

**Section 7.0 Rip Rap Quarry, Page 39**

- Plans indicate a quarry be developed within the footprint to the TCA to the north of cell 3 and east of the perimeter road.
  - DFO requests Kinross provide information on blasting activities that would be required for quarrying, and whether there are any fish bearing watercourses in the vicinity where blasting could cause fish mortality or injury.

**Section 8.2 Data Collection and Reporting, Page 41**

- The report notes that other activities including the removal of the obsolete tails lines, etc. may occur during the 2005 season.
  - DFO requests details on what is involved with dismantling and removing the tails lines.

In conclusion, there insufficient detail in the information provided with the 2005 Abandonment and Restoration Plan to allow DFO to adequately determine what impacts to fish and fish habitat might occur as a result of the proposed activities on site.

We suggest that a public hearing in Kugluktuk would be warranted for a project of this magnitude. However, we respectfully submit that that it would be challenging for us to provide meaningful comment to the Nunavut Water Board (NWB) on the potential impacts to fish and fish habitat with the current level of information provided by the proponent. Prior to attending a hearing we would welcome an opportunity to review and provide comment on any supplemental information provided by the proponent to address the information requests we have made in this submission to the NWB.

We would like to thank the Nunavut Water Board for the opportunity to review the A&R plan submitted by Kinross gold Corporation in support of the closure of the TCA at the Lupin mine site. I trust our comments are helpful in the continued review of this project. Should you have any questions or comments, please contact me at directly by telephone at 867-979-8007, by e-mail or by fax at 867-979-8039.

Yours sincerely,

***Original Signed By:***

Tania Gordanier  
Habitat Management Biologist

c.c.: Michelle Wheatley, Area Director, Eastern Arctic Area  
Mike Tansey, Reclamation Manager, Lupin