



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

National Marine Fisheries Service

P.O. Box 21668

Juneau, Alaska 99802-1668

August 5, 2005

Anne Currie
Project Assessment Director
British Columbia Environmental Assessment Office
P.O. Box 9426 Stn Prov Govt
Victoria, B.C. V8W9V1

Dear Ms. Currie:

The National Marine Fisheries Service (NMFS) reviewed the Galore Creek Project June 2005 *Summary of 2004 and 2005 Environmental Baseline Field Programs*, (Field Program Report), prepared by Rescan Environmental Services Ltd for NovaGold Canada Inc. We offer the following comments for consideration. Our comments focus on elements of the 2005 field program related to living marine resources that are of concern to NMFS, including anadromous fish and potential downstream water quality impacts.

Overview

The Field Program Report summarizes the findings from the 2004 field program and outlines the planned 2005 field program. In 2004, two access routes were investigated, the Northern Route and the Southern Route. In January 2005, NovaGold announced that its preferred access alternative was the Southern Route. The March 2005 Field Program Report focused the 2005 feasibility and environmental assessment activities solely on the southern access alternative. NMFS provided comments in April on that report.

In June of this year, NovaGold advised that it is pursuing a modified northern access route in place of the southern access route and 2005 baseline studies are now being redirected from the southern access route to the northern route. The proposed road would start from Highway 31 via an existing Forest Service Road. The route would continue into the More Valley, crossing the Iskut River. The route would follow the More Valley until Round Lake and continue down Sphaler Creek (predominately on the north side of the creek), following along the Porcupine River, into the Scotsimpson Valley and then through a 4 kilometre tunnel into the Galore Creek Valley.

The road will be used for access for supplies, fuel and personnel. Concentrate will not be trucked from the mine site, but will be transported as slurry through a buried pipeline along the road corridor. Concentrate will be pumped from a processing facility located in the Galore Creek Valley through a 6" steel pipeline designed for this application. The proposed pipeline will be approximately 120 km long. A dewatering (filter) plant along with a concentrate storage and load out facility will be located between the Iskut River and Highway 37 at the terminus of the pipeline.



Alternatives for staging sites for road construction are currently being developed. Possibilities include expanding the existing airstrip at the Porcupine Valley and/or developing an airstrip in the valley near Round Lake.

2005 Baseline Studies

Revisions in the 2005 Sampling Program

NMFS notes that some of our previous comments were incorporated into the revised 2005 baseline field program and we appreciate the changes in this document including: the addition of whole fish tissue analysis for metals; including collections of coho salmon parr, where available, in metals analysis; changing the location of the STIK-8 sampling location from Kadin Island to Sergief Island; and initiating baseline sampling for petroleum hydrocarbons including polycyclic aromatic hydrocarbons (PAHs).

STIK-8

Page 2-79 states that 14 staghorn sculpins, 15 Dungeness crab and 30 Alaska bay shrimp will be collected at STIK-8. Sampling will consist of 3-pass removal electrofishing with stop nets in the study section. NMFS wants to bring to your attention that changing the location of STIK-8 sampling location may impact the species that are available for tissue sampling as well as the method of sampling. The field crew should be aware that they may need other sampling gear and may need to collect species other than those planned.

Recommended Changes in Proposed Sampling

Petroleum Hydrocarbons

NMFS supports baseline sampling for petroleum hydrocarbons; however, we recommend using a different sampling technique. Page 2-71 discusses the investigation into background levels of petroleum hydrocarbons including poly-cyclic aromatic hydrocarbons (PAHs) and states that samples will be collected using standard grab sampling techniques. NMFS recommends sampling hydrocarbons with polyethylene membrane devices (PEMDs or polyethylene strips) instead of using the standard grab sampling technique. Grab samples have a history of detecting pollution only when it is fairly high and nearly continuous, whereas polyethylene strips will detect ephemeral traces.

NMFS believes that the advantages of polyethylene strips far outweigh the disadvantages. The concern that polyethylene strips do not accumulate alkane hydrocarbons is misplaced, because alkane hydrocarbons are far less soluble in water than are PAH. PAHs are therefore the best analyte class to monitor to detect pollution from petroleum-derived products heavier than gasoline. Polyethylene strips do not accumulate particulate oil droplets that may be dispersed in the water column. However, the presence of these droplets guarantees dissolution of PAH into the water, which would be detected by the strips.

The problem with any water-monitoring program based on discrete grab samples is the high likelihood of missing pulse inputs of pollutants, and these pollutants are usually introduced in pulses rather than continuously. The sampling frequency required for discrete grab samples to reduce this likelihood to an acceptably low value is nearly always cost-prohibitive. Water monitoring based on grab samples is almost guaranteed to satisfy water quality regulations even when gross violations periodically occur. In contrast, the extreme sensitivity of the polyethylene strips together with their ability to integrate continuous sampling over timescales of weeks reduces the likelihood that such violations would be overlooked. Failure to detect pollutants in the polyethylene strips after a month-long deployment is very compelling evidence that water quality criteria are being met.

NMFS recommends using PEMDs to monitor petroleum hydrocarbons as the preferred technique for both baseline and long-term monitoring. Technical questions on this technique can be addressed to Dr. Jeffrey Short, Supervisory Research Chemist at NMFS Auke Bay Laboratory in Juneau (907 789-6065).

Additional Tissue Sampling Site in the Porcupine River or Sphaler Creek

The analysis and long term monitoring for the project should include the potential long term and cumulative impacts of road construction and other potential mine development along the road corridor. Baseline tissue samples from lower Sphaler Creek or upper Porcupine River is important baseline information. NMFS recommends adding a sampling site for whole fish tissue samples in this vicinity.

Editorial Comments/Inconsistencies

2004 Tissue Sampling

Page 2-47 states that Dolly Varden were sub-sampled for metals at sites GAL-3, MORE-5, and REF-1 and that fish were sub-sampled for metals at three sites on the Stikine (STIK-1, STIK-2, and STIK-8). Figure 2-3-1 which identifies 2004 Aquatic Environment Study Stations does not identify issue sampling at sites REF-1, STIK-1, STIK-2 or MORE-5. Appendix 2.3-23, Summary of Tissue Metal Concentrations, 2004, does not report results for STIK-1 (it only reports results for GAL-3, MORE-5, REF-1, STIK-2 and STIK-8).

2005 Tissue Sampling

Tissue samples were collected at MORE-5 in 2004. Table 2.3-15, Proposed 2005 Aquatic Environment Sampling Sites and Figure 2.3-12, 2005 Aquatic Environment Study Station does not identify MORE-5 as an aquatic tissue-sampling site in 2005. If this site is being sampled it should be identified as such. If this site is being dropped as a sampling site then the rationale for this decision should be discussed in the document.

Conclusion

NMFS appreciates the opportunity to keep abreast of project information and to provide comments.

Please contact Cindy Hartmann at 907 586-7585 or cindy.Hartmann@noaa.gov if you have any questions or for further coordination.

Sincerely,



Sue Salveson
Acting Administrator, Alaska Region

cc: Jo Harris, B.C. Environmental Assessment Office, Jo.Harris@gems6.gov.bc.ca
Lynn Brunsdon, B.C. Environmental Assessment Office,
Lynn.Brunsdon@gems8.gov.bc.ca
Bob Hart, B.C. Environmental Assessment Office, Bob.Hart@gems4.gov.bc.ca
Melody Vouriot, B.C. Environmental Assessment Office,
Melody.Vouriot@gems1.gov.bc.ca
Clem Pelletier, President, Rescan Environmental Services Ltd,
cpelletier@rescan.com
Kyle Stanfield, Project Manager, Rescan Environmental Services Ltd.,
kstanfield@rescan.com
Douglas Brown, Vice President Business Development, NovaGold Resources Inc.,
doug.brown@novagold.net
Susan Craig, Land and Environment Manager, NovaGold Resources Inc.,
sue.craig@novagold.net
Derek Nishimura, Senior Habitat biologist, Fisheries and Oceans Canada,
nishimurad@pac.dfo-mpo.gc.ca
Deborah Rudis, USFWS Juneau, Deborah_Rudis@fws.gov
Pamela Bergmann, USFWS Anchorage, Pamela_Bergmann@ios.doi.gov
Chris Meade, U.S. EPA, Juneau, meade.chris@epa.gov
Patty McGrath, EPA, Seattle, Mcgrath.Patricia@epamail.epa.gov
Robert Erhardt, USDA Forest Service, Wrangell, rerhardt@fs.fed.us
Ed Fogels, Alaska DNR, Anchorage, ed_fogels@dnr.state.ak.us
Kerry Howard, Alaska DNR, Juneau, kerry_howard@dnr.state.ak.us
Jim Cariello, Alaska DNR, Petersburg, jim_cariello@dnr.state.ak.us
Gordy Williams, ADF&G, Juneau, gordy_williams@fishgame.state.ak.us
Rolland A Holmes, ADF&G, Sport Fish, Juneau,
rocky_holmes@fishgame.state.ak.us
Adam Moles, NMFS, AFSC, ABL, adam.moles@noaa.gov
Jeff Short, NMFS, AFSC, ABL, jeff.short@noaa.gov
Scott Johnson, NMFS, AFSC, ABL, scott.johnson@noaa.gov
Jeep Rice, NMFS, AFSC, ABL, jeep.rice@noaa.gov