



Blackwater Mine

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Director, *Environmental Management Act*
Ministry of Environment and Climate Change Strategy
Regional Operations Branch, Environmental Protection Division
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The Aquatic Effects Monitoring Program (AEMP) Plan, Version 2.0 was revised to Version 3.0 as directed by the Ministry of Environment and Climate Change Strategy (BC ENV). Below is a summary of the key changes in response to comments from BC ENV, BC Ministry of Water, Land and Resource Stewardship (WLRS), and Nechako First Nations following the review of the Plan, Version 2.0. The 'Revision History' in the AEMP Plan, Version 3.0 provides additional detail regarding sections, figures, and tables revised.

Key changes in the plan in response to BC ENV (Comments Received May 8, 2024) are:

- Additional text has been provided to indicate that a reduction in sampling frequency will be implemented only upon approval from BC ENV. (Comment ID#1, #4, #6)
- Additional text has been provided to indicate that a post-hoc power analysis will be completed with statistical analysis of effects to verify that the existing sample sizes are sufficient to determine an effect has or has not occurred. (Comment ID#18)
- The plan no longer indicates 10 aging structures will be collected from fish collected from lakes. The fish community sampling methods have been clarified to indicate aging structures (scales) will be obtained for up to ten rainbow trout per size class collected at stream sites. Aging structures (otoliths) will be collected for fish collected from streams and lakes used for tissue metal analysis. (Comment ID#19)
- The Kokanee spawning analysis methods have been revised to indicate that Kokanee escapement estimates using both the Gaussian AUC (GAUC) and the trapezoidal AUC (TAUC) method will be reported, for comparison. (Comment ID#23)
- A new section has been added to the plan to provide the documentation and map of the 2023 Wildfire and how future AEMP interpretive reports will assess the potential impacts of the wildfire (current and historical). (Comment ID#24)

The BC ENV Comment ID#22 recommended changes to the benthic invertebrate community sampling replication to increase confidence in the data analysis (i.e., increase power to detect effects). No changes to the benthic invertebrate community sampling replication were made in the plan because the Reference Condition Approach (RCA) for evaluation of the effects provides a comparison to the natural

variability across the study area and this can be completed at a range of temporal scales and doesn't rely on the control site conditions and variability to be the same as the impact sites.

Key changes in the plan in response to WLRS (Comments received June 22, 2024) are:

- Text has been provided to indicate that a reduction in sampling frequency will be requested by a Qualified Registered Professional with supporting rationale for the change in frequency. A reduction in sampling frequency will be implemented only upon approval from BC ENV. (Comment ID#26, #52, and #53)
- Text has been provided to specify the available baseline data to be used in the assessment of effects. (Comment ID#30 and #32)
- Text has been provided to add detail regarding how the Bray-Curtis Index is calculated to compare the community composition among the sites sampled. (Comment ID#31)
- The plan specifies that fish classified as 'salvaged' will not be included in the assessment of fish community endpoints (e.g., CPUE, abundance, density). (Comment ID#35)
- Fulton's condition (K) will be used as the metric for fish condition. (Comment ID#36 and #48)
- Additional detail has been provided regarding the field methods for the Kokanee fry outmigration assessment. (Comment ID#42, #44, and #45)
- Additional text has been provided to indicate that counts of the unique implanted Passive Integrated Transponder (PIT) tags will be used to determine fish abundance. (Comment ID#47)

Revisions to the plan in response to discussion with Nechako First Nations are:

- Kokanee summer spawner surveys in Creek 661 have been updated to encompass the entire Kokanee spawning distribution.
- The Kokanee spawning analysis methods have been revised to indicate that Kokanee escapement estimates using both the Gaussian AUC (GAUC) and the trapezoidal AUC (TAUC) method will be reported, for comparison.
- Text has been provided to indicate that annual reporting will include a spatial analysis of Kokanee redd Distribution for Davidson Creek, Creek 661 and middle Chedakuz Creek survey sites.
- Text has been provided to indicate that an Implementation Framework is being developed under separate cover and will be used to inform the specific timing of fish community field surveys.
- Text has been provided to indicate that data from Kokanee summer spawning surveys in Davidson Creek, conducted under the Federal Condition 3.14 Follow-up Program, will be considered in the annual AEMP Interpretive Report.
- Text has been provided regarding inclusion of Kokanee egg to fry survival estimates in the annual reporting.