The Technical Advisory Committee (TAC) for the Elk Valley Water Quality Plan (the "Plan") held their 6th meeting on June 9-11, 2014. This document is a record of the technical advice received at this meeting, and is Appendix A to the Meeting Notes.

The TAC process is structured around a review of work packages submitted to the TAC in advance of their meetings by Teck. These work packages relate to the analytical process that Teck is undertaking to inform decisions around the selection of water quality targets, management scenarios, and any additional monitoring and studies that will be included in the Plan. The advice in this table relates primarily to work packages that were reviewed and discussed at TAC Meeting #6.

## Summary Table

| Category | # | Description of "Technical Advice" from Mtg | Rationale |
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| **Human Health** | **6A-1** | For the human health baseline evaluation, evaluate the available data on metal concentrations in wildlife tissue collected for environmental assessments. | |
| **Synthesis Report** | **6A-2** | Recommend longer term (e.g. 42 or 53 day) toxicity tests to assess *Hyalella* endpoints of growth, reproduction, and biomass. | |
| **Synthesis Report** | **6A-3** | For the Screening-level Environmental Risk Assessment (SLERA), include the exposure pathway of benthic invertebrates for amphibians. | |
| **Synthesis Report** | **6A-4** | For the tissue-based SLERA, use the 95th percentile of the tissue data within a Management Unit (MU) to calculate hazard quotient. | |
| **Synthesis Report** | **6A-5** | Recommend using a more sensitive approach than the Reference Condition Approach (RCA) to evaluate the benthic invertebrate community structure endpoint. | |
| **Synthesis Report** | **6A-6** | For the integrated data evaluation and production of environmental quality report cards, recommend the consideration of a more conservative definition of "fair" for tissue selenium concentrations. | The current definition of "fair" is a maximum selenium hazard quotient (Se HQ) > 1.0, but a mean Se HQ ≤1.0. For example, for selenium, it may not be considered "fair" because of the steepness in the dose-response curve. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Synthesis Report** | **6A-7** | For the environmental quality categories associated with the Water Quality Index (WQI) and Sediment Quality Index (SQI), align the "fair" category with the "fair" category of the Canadian Council of Ministers of the Environment (CCME). | |
| **Synthesis Report** | **6A-8** | Recommend the inclusion of all elevated water quality constituents in the integrated data evaluation report card tables (e.g. Cd, Zn, Co, Ur, Ni, Ammonia) . | These summary tables provide a good snapshot of conditions and should be inclusive of all monitoring parameters (i.e. not just the order constituents). Some of these secondary parameters could be important indicators of mine waste geochemistry (e.g. metal leaching from potentially acid rock drainage generating waste rock). |
| **Synthesis Report** | **6A-9** | Include all mine influenced tributaries on the environmental quality report cards (e.g. West Line Creek). | Since one of the key issues in the Order is to assess impacts, the current status of all mine affected tributaries in the watershed should be documented. |
| **Synthesis Report** | **6A-10** | For the integrated data evaluation and development of management unit report cards, recommend making the process more explicit for how separate lines of evidence are evaluated and an overall rank is determined. For instance, explain how determinations are made when lines of evidence (such as calcite and water quality) are indicating different rankings of environmental quality. | Greater transparency is needed on how the ratings of the overall status of the watershed are determined. |
| **Synthesis Report** | **6A-11** | In Appendix E "Report Card" summary tables, provide more information on the calculation in the cell (e.g. denominator of hazard quotient (HQ) calculations). | |
| **Synthesis Report** | **6A-12** | Provide Lake Koocanusa data in a similar format as the Appendix E report card tables, and recommend including US data (segregated by species) in these tables. | Lake Koocanusa is a shared international waterbody. As a consequence, its characterization should be done with all available data rather than truncating the analysis based on a political boundary (i.e., the international border). Data from the U.S. side has been provided through the sharepoint site and should be used accordingly. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Lake Koocanusa –** *Sampling Protocol* | **6A-13** | Recommend having separate depth integrated samples for both the epilimnion and hypolimnion layers of the Reservoir (as opposed to taking just one sample each in the epilimnion and hypolimnion as stated in the sampling protocol). | |
| **Lake Koocanusa –** *Sampling Protocol* | **6A-14** | Recommend the collection of at least 3 years of data in order to determine if there is a statistical difference between the three sampling locations identified for the LK2 Order Station. (Note. One year of data is likely insufficient for determining if there is a statistical difference between these locations) | |
| **Lake Koocanusa –** *Sampling Protocol* | **6A-15** | Ensure that there is an upstream Lake Koocanusa station to serve as a reference outside the immediate influence of the Elk River. There is some indication that the current monitoring station in Lake Koocanusa upstream of the Elk River (RG USELK) is influenced through diffusion. | Empirical evidence indicates the station immediately upstream of the Elk River inflow (RG_USELK), is influenced by up-reservoir mixing with Elk River water (i.e., diffusion related transport within reservoir). As a consequence, in making site comparisons, and especially for characterizing the background concentration of the reservoir, a site established outside of the zone of influence should be used (i.e., RG_WARDB or some other up-gradient site). |
| **Lake Koocanusa –** *Sampling Protocol* | **6A-16** | Evaluate whether the Sept. 1 to Oct.15 period is the critical period to monitor in order to show the greatest stratification in the Lake. (Note. It was thought this period may be too late to capture the thermocline, as current operations have the reservoir drawn down by 20ft typically by the end of September each year). | |
| **Lake Koocanusa –** *Sampling Protocol* | **6A-17** | For evaluating Lake Koocanusa water quality concentrations against targets, taking an average of the three LK2 sampling sites is not recommended. | |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Lake Koocanusa –** *draft response to TAC Advice* | **6A-18** | **Related to draft Response for Advice # 2-4:** Monitoring data on selenium concentrations in fish tissue should be summarized for each individual fish species. Data should not be pooled across fish species for providing summary statistics because selenium bioaccumulation rates vary amongst fish species. This recommendation applies to all summaries of this type of monitoring data, including high-level summaries for public information. Summaries of this monitoring data should also be broken down into sampling periods (i.e. a summary from the same sampling cycle) and not lumped together across all years. This is important for determining if there are any trends through time occurring. Reference sites should be carefully defined and clarified. A map illustrating where the reference and exposed sites are is needed.<br><br>Please specify how many lake or reservoir sites are included in the "reference dataset". How many of these reference sites are suitable analogs for Lake Koocanusa (i.e., stratified and with sometimes a poorly oxygenated hypolimnion)? | In order to ascertain whether differences exist in certain fish, or perhaps trends are occurring over time, tissue data should be analyzed separately for each fish species. For example, certain species tend to have greater bioaccumulation potential due to foraging habits. If these fish are underrepresented in the overall sample population, lumped statistics will fail to identify important facts about certain fish species.<br>Furthermore, MT Govt is interested in how the reference sites are being used as a comparative basis for Lake Koocanusa. In this case, we are unclear about whether this is a valid approach as it is a unique system that does not have a suitable reference population from which to draw inference from. We would usually take a site-specific approach in such a case. |
| **Lake Koocanusa -** *Monitoring* | **6A-19** | Recommend taking concurrent water quality samples when sampling biota to help draw relationships between different environmental compartments. | |
| **Lake Koocanusa -** *Monitoring* | **6A-20** | Assess extending the burbot sampling period (to as late as the beginning of May) in Lake Koocanusa given recent experience in Arrow and Kinbasket reservoirs. | |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Targets –** *$NO_3$ Benchmark Derivation* | **6A-21** | In the near-term, the selection of Level 1 and Level 2 response values should be informed by the results of site-specific toxicity test and the results of toxicity testing that have been published in the literature. These results indicate that *Ceriodaphnia dubia* is the most sensitive receptor for nitrate effects, thus the level 1 and level 2 toxicity benchmarks should be derived using the results of the *C. dubia* site specific tests and a hardness correction should be applied for adjusting these test results to different hardness levels.<br><br>In the longer term, additional site-specific toxicity tests should be conducted to resolve the residual uncertainties associated with hardness normalization of toxicity test results and effects thresholds for sensitive species of aquatic organisms. | |
| **Interactive Effects** | **6A-22** | Recommend the explicit documentation of what is known about multiple stressors/interactive effects and what the uncertainties are regarding multiple stressors/interactive effects. | |
| **Interactive Effects** | **6A-23** | Recommend that the conclusion for the evaluation of mixture effects is that "there has been no demonstration of mixture effects" as opposed to "mixture effects not expected at benchmark concentrations". | The statement that "mixture effects not expected at benchmark concentrations" goes beyond the data. |
| **Long Term Targets –** *Integrated Assessment* | **6A-24** | Recommend validating the methods of the interactive effects assessment with the results of the benthic invertebrate community structure monitoring. | |
| **Long Term Targets –** *Integrated Assessment* | **6A-25** | In the qualitative evaluation of multiple stressors, recommend the consideration of all mine-related stressors (both existing and expected future changes), and ensure that all stressors in the Conceptual Site Models are included in the assessment. | |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Long Term Targets –** *Integrated Assessment* | **6A-26** | In the integrated effects assessment (IEA) at the management unit scale, assess the effects of direct acute and chronic selenium toxicity in tributaries with high concentration levels. | Some of the high-concentration tributaries have dissolved selenium greater that 400 µg/L – a level where acute toxicity could be of concern. This issue should be investigated and considered within the IEA process. |
| **Implementation Plan** | **6A-27** | Provide detailed rationales for areas where effects are predicted with the initial implementation of the EVWQP. Examples:<br>– Why meeting the level 1 toxicity benchmarks for selenium are not technically/economically achievable at Order Station FR5. As part of this rationale, provide quantitative plots for how selenium water quality would change at FR5 with additional treatment capacity. Why achieving the short-term selenium target is not attained until 2023 at Order Station ER2.<br>– Why areas will have increasing concentrations above benchmarks for a period of time before mitigation is implemented (e.g. nitrate at Order Station FR4 and FR5).<br>– Where local scale effects are predicted (i.e. tributaries) | Additional details are needed to ensure transparency of integrated/blended effects assessment for management units and explanation of why certain levels of effects cannot be further mitigated in the watershed. |
| **Implementation Plan** | **6A-28** | Assess the risks of being greater than the level 1 toxicity benchmark during the planning window. | |
| **Management Actions** | **6A-29** | Recommend having a fulsome description/discussion in the plan of the changes to blasting practices and any preliminary water quality monitoring results demonstrating the benefits of this change for the reduction of nitrate water quality concentrations. | Although the potential effects of changes to blasting practices cannot be quantified and incorporated into the predictive modelling at this time, a fulsome discussion of the scope of the changes to practices that will be/have been made (e.g. all 5 mines?), the data that is available and the future monitoring/evaluation aspects would be useful to demonstrate Teck's intent to mitigate nitrate. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Implementation Plan** | **6A-30** | In graphs of water quality modeling results, include the water quality results of an unmitigated scenario alongside the mitigation scenario. | To demonstrate the improvement of water quality over time, an unmitigated scenario should be included on the graphs. Otherwise, the beneficial effects of additional water treatment plants over time cannot be seen. |
| **Implementation Plan** | **6A-31** | Provide a graph of water quality for the Michel Creek station along with a summary table of potential effects to Michel Creek and its tributaries similar to the presentation of data for Order Stations and Management Units. | Michel Creek and its tributaries are an important part of the Elk Valley watershed. The potential effects to this area with implementation of the WQP should be clearly presented. |
| **Targets –** *Lake Koocanusa* | **6A-32** | Recommend a site-specific ecological assessment of protective selenium levels in Lake Koocanusa to assess whether the 2 µg/L target is protective. | The TAC does not have consensus that 2 µg/L is protective of Lake Koocanusa. The EVWQP process had little analysis on Lake Koocanusa, which is potentially the most sensitive receiving water. |
| **Targets** | **6A-33a** | Recommend setting selenium long-term management targets to be in line with the expected water quality concentrations of the Implementation Plan. | This approach would show Teck's commitment to improving water quality over time and would assist to address uncertainties in the selenium ecological assessment. It would also potentially be helpful for decision making around future projects. |
| | **6A-33b** | US Govt and MT Govt agree with this comment provided long-term targets are demonstrated to be protective of all uses, and are vetted in a site-specific manner, including within Lake Koocanusa. | |
| **Monitoring Framework** | **6A-34a** | Recommend that the EVWQP monitoring program include a component to validate and refine the selenium bioaccumulation models. | |
| | **6A-34b** | US Govt and MT Govt supports this comment provided that bioaccumulation models also are constructed for Lake Koocanusa. | |
| **Monitoring Framework –** *Benthic Invertebrates* | **6A-35** | Recommend synoptic monitoring for calcite and benthic invertebrates, including for the 2014 special supporting monitoring study on calcite. | To fully interpret the biological effects and ecological risk of calcite, and given the potential for spatial and temporal variability in calcite formation, synoptic monitoring of calcite and benthic invertebrates is required. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Monitoring Framework -** *Sediments* | **6A-36** | Conduct a broad survey of sediment chemistry within the study area using sampling methods that facilitate sediment sampling across a range of streambed substrate types (i.e., fine sediment, gravel, and cobbles, etc.). | The available sediment chemistry data for the Elk River watershed were generated using sediment samples collected primarily in depositional areas within the study area. While this information is relevant for assessing sediment quality conditions in the watershed, it does not provide information on many mine-influenced areas that have different stream-bed substrate types (e.g., gravel, cobbles, etc.). Nevertheless, benthic invertebrates are exposed to fine sediment that accumulates in coarser stream-bed substrates. Hence, there is a need to characterize sediment quality conditions in many areas that were not sampled in 2011 and 2013, due to the focus on sampling obviously depositional habitats. It is important to note that sampling of fine sediment in stream-bed substrates that include coarser materials requires different methods than those that are applied in depositional habitats. More specifically, MacNeil corers, freeze-core sampling, modified Besser samplers, and/or alternative methods, combined with sieving to < 2.00 mm, is required to obtain fine sediment for chemical analysis from coarser-grained substrates. |
| **Monitoring Framework -** *Groundwater* | **6A-37** | Recommend undertaking a more fulsome groundwater monitoring program beyond just sampling the water quality of wells (e.g. gaining better understanding of groundwater – surface water interactions) – see Ministry of Environment (MOE) comments from TAC Meeting 5 | |
| **Monitoring Framework -** *Groundwater* | **6A-38** | The trigger for additional groundwater monitoring should be considerably lower than the guideline. The current trigger of within 20% of the guideline is too high. | |
| **Monitoring Framework -** *Reporting* | **6A-39** | The human health screening level risk assessment should be done annually. | |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Human Health Evaluation –** *Groundwater Sampling* | **6A-40** | Recommend capturing seasonal changes in drawdowns and recharge in evaluation of groundwater (e.g. large drawdowns of water occur in summer for irrigation). | |
| **Human Health Evaluation –** *Aesthetic Characteristics* | **6A-41** | Include an assessment of the effects on aesthetic qualities of surface water and groundwater in the Plan that affect the potability of the resource (e.g. total dissolved solids (TDS), calcium bicarbonate). | |
| **Human Health Evaluation** | **6A-42** | In the human health assessment, include a qualitative assessment for why plant & animal uptake of water / sediment pathways are determined to be "complete but minor exposure pathways". | |
| **Human Health Evaluation** | **6A-43** | Assess human health risks based on predicted future water quality conditions (with both short- and long-term targets). | |
| **Calcite Management -** *Implementation* | **6A-44** | Add calcite management to the immediate implementation steps, as beginning to stabilize calcite should not be limited to only monitoring and implementing pilot projects over the next 10 years | Monitoring and piloting work are not considered "management". Additional measures should be considered for priority tributaries on a shorter term basis. Suggest implementation of treatment technologies should be moved into the immediate time frame so that the medium term target will be met by year 10. |
| **Calcite Management** | **6A-45** | Ensure that the calcite monitoring program has the (statistical) power to detect changes in calcite formation over time within a stream reach. | |
| **Calcite Management** | **6A-46** | Verify the Calcite Index (CI) technique approach by undertaking a multiple path assessment using a number of representative reaches (e.g. 5 times per reach). | Need to assess the repeatability and consistency for the proposed new CI approach |
| **Calcite Management** | **6A-47** | Recommend that calcite monitoring be linked with both biological and physical habitat monitoring. | |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Calcite Management -** *Targets* | **6A-48** | Reconsider the medium-term target for calcite to ensure stream reaches that may be approaching a calcite index of 2 are targeted for calcite management. | A calcite index of 2 may not be sufficiently conservative for determining priority streams for mitigation. Need also to have a preventative lens for calcite management (i.e. not just mitigate stream reaches with significant concretion but also prevent degradation), especially when there is significant habitat associated with a stream reach (e.g. Greenhills Creek). |
| **Calcite Management -** *Targets* | **6A-49** | The medium- and long-term targets for calcite should be considered interim targets. | There is insufficient information to know what the targets should be. |
| **Calcite Management** | **6A-50** | Define more explicitly the ecological risks associated with calcite formation and how this will be tested through the program (including the identification of the impact hypotheses to be tested and resolved during the monitoring and implementation of the program) | |
| **Calcite Management** | **6A-51** | Define triggers more explicitly and directly link with what concrete actions and activities will be undertaken should they be triggered | |
| **Calcite Management** | **6A-52** | Recommend revising the Program Goal's "ideal outcome" for calcite management methods to "calcite does not form in the receiving environment above background levels". | The proposed wording would eliminate subjective language of "reducing to acceptable levels". Similar wording should be considered for the long term objective/target. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Calcite Management** | **6A-53** | Recommend the separate reporting of the two terms (pebbles with calcite and pebble concretion) used to estimate the calcite index and recommend that the target be zero embeddedness | In the current formulation of the index, there are two terms which are summed to create the index value. The first represents the calcite coverage, and the second represents the degree of embeddedness. The second term is zero until the first term is greater than 0.7 (70% of pebbles have some calcite).<br><br>Reporting these scores separately would facilitate an evaluation of whether these factors independently could be linked to habitat effects and could be used to influence target setting. |
| **Management Options** | **6A-54** | Add residuals management to the list of topics that will require future research and potential technology development, given the dominance of Active Water Treatment Facilities (AWTFs) in the proposed EVWQP. The Elk Valley Water Quality Plan should also include information on the volumes and concepts for waste management, along with future studies needed to assess and prevent adverse effects related to these materials. | Residual waste management from water treatment plants will be a very large issue with implementation of the plan (on the order of hundreds of $m^3$ of waste will be generated per day). It is important for the EVWQP to recognize and document how future management of these materials would occur, and how adverse effects will be assessed and prevented. |
| **Management Options** | **6A-55** | Add analysis of the benefit of partial covers to Chapter 4 (Management Options). | It is not clear if and how this was considered in the development of the plan and should be reflected in the Management Options Chapter. |
| **Management Options** | **6A-56** | Document a more detailed explanation (i.e. more specific criteria that was used) for how decisions were made in the selection of the proposed EVWQP management options and the rationale for the proposed schedule for when they get implemented (i.e. both water treatment and diversions). | It is important that the process of decision making on the implementation plan is well documented. The current chapters contain very high level explanations of decision criteria and assumptions. More details should be captured in Chapter 4 (Management Options), Chapter 7 (Targets) and/or in appendixes. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Management Options** | **6A-57** | Review Chapter 4 (Management Options) and provide context and qualify new goals or criteria that were mentioned in the development and analysis of the management options (e.g. Section 4.4.2. where *"Optimization of clean-water diversion and active water treatment"* and *"Minimizing the requirement for long-term active water treatment"* is highlighted. | The EVWQP should be clear and transparent in how the implementation plan was derived. The two new objectives that were added should include an explanation of how these were considered and used. |
| **Management Options** | **6A-58** | Outline and summarize the decision criteria that will be used to inform different long term management options different from AWTFs. | |
| **Management Options** | **6A-59** | Add phosphorus section to Chapter 4 (Management Options) and how this will be reported on during implementation of the Plan. | A discussion on phosphorus is currently absent. The potential for eutrophication is a key issue that should be addressed and discussed by the EVWQP. |
| **Adaptive Management** | **6A-60** | Allow for the triggers to be revised and adapted with new information as a component to the adaptive management strategy. | |
| **Adaptive Management** | **6A-61** | For the adaptive management plan, provide more specificity about what would represent a trigger and how the triggers will be evaluated.<br>For example, the adaptive management process associated with water quality monitoring should include a specific threshold variation in the expected water quality trend that would trigger a root cause analysis. | There will be a very large reliance on adaptive management over time with implementation of the EVWQP. It is important to show more details around assessment criteria and triggers for evaluation and action. Certain components may be able to be better defined than others. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Adaptive Management** | **6A-62** | The adaptive management plan needs to more clearly link back to the overarching objectives (e.g. from the Ministerial Order) and define a hierarchy of sub-objectives (which should include costs, timelines, etc.) and these need to be tied to the conceptual site models and monitoring program (including explicitly identifying the impact hypotheses to be tested), the indicators to be used, the triggers, and the resulting management decisions. | |
| **Adaptive Management** | **6A-63** | Define triggers at other nodes in the system to ensure the adaptive management strategy covers a broader range of locations and analytes. | |
| **Adaptive Management** | **6A-64** | The adaptive management plan should lay out how the results of the Research & Development program get incorporated into the Implementation Plan. For instance there should be decision criteria for how approaches that are more effective than active water treatment in the long-term (e.g. covers) get implemented. | |
| **Adaptive Management** | **6A-65** | Identify and summarize the "range of actions" that would be associated with the outcome of the root cause analyses that would be expected, without being too prescriptive | |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Adaptive Management** | **6A-66** | Recommend that the adaptive management plan include a process for adaptively managing the targets. | Currently there is no specification in the adaptive management section on how new information on underlying process-science (e.g., new evidence such as bioaccumulation modeling done by the U.S. or other researchers on the reservoir) will be used to update existing targets. Furthermore it is unclear how discharge permits will be revised to incorporate new science. If 2 µg/L Se is demonstrated to not be adequately protective of fish in a stratified, poorly oxygenated environment such as in the reservoir, then the adaptive management plan should explicitly state how all targets in the Lake and at other order stations will be revised to accommodate this new information. |
| **Adaptive Management** | **6A-67** | Update the models used in the development of the EVWQP as a component to the Adaptive Management strategy and in order to better assess the long term targets.<br>There must also be a component in the adaptive management strategy to refine and adjust the long-term targets if necessary, as additional studies and more empirical data become available. | There remain great uncertainties in the process to derive the Se targets and questions remain with respect to the toxicological implications of the elevated nitrate and sulphate, particularly in the upper Fording River. |

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| **Category** | **#** | **Description of "Technical Advice" from Mtg** | **Rationale** |
| **Adaptive Management** | **6A-68** | Describe and document in the EVWQP how the 2µg/l long term selenium target for Lake Koocanusa may be revised if monitoring suggests a problem in the future. | We recommend that it is unwise to take a "wait and see" approach with respect to the relationship between water column Se and fish tissue/ovary concentrations in Lake Koocanusa and disapprove of the approach presented in the EVWQP. We would also like clarity on what actions will be taken by Teck if certain fish species such as longnose suckers, peamouth, or burbot start to show tissue concentrations exceeding BC guideline (note: data already shows this is occurring). As a consequence, the EVWQP should include a discussion of how targets throughout the watershed will be revised to be protective of fish in the reservoir, and ultimately how damages will be compensated to the extent they are quantifiable. |
| **Water Quality Planning Model** | **6A-69** | Provide a comparison of the concentrations in tributaries estimated through scaling the Water Quality Planning Model results with the results of the finer scale water quality model used for the Line Creek Phase 2 assessment (for the purposes of evaluating the scaling method employed in assessing effects of target concentrations). | The approach used to estimate tributary concentrations in the EVWQP is new and uncertainty and conservatism of this method are not well understood. In order to illustrate conservatism and uncertainty, and understand how well this approach approximates values, tributary concentrations generated by the EVWQP water quality model need to be compared to results that have been calculated using a finer resolution model (i.e. the LCO2 EA water quality model) where the uncertainty and conservatism of inputs (flow, source terms) are understood and concentrations are better constrained. |