GENERAL INSTRUCTIONS FOR EXCEL TEMPLATE:

1. Do not leave blank rows above or between comments.
2. Do not modify or delete the instructions or the column headings (*i.e.* the grey areas).
3. Each comment must have an associated topic and recommendation.
4. All formatting (*i.e.* bullets) will be lost when this file is uploaded to the Online Comment Table.
5. If necessary, adjust the cell width and height in order to view all text.
6. Cutting and pasting comments from WORD documents cannot include hard returns (spaces between paragraphs).
7. If you would like to create paragraphs within a single cell, please use a proper carriage return (ALT & ENTER).

TOPIC	COMMENT	RECOMMENDATION
Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.	*Comments should contain all the information needed for the proponent and the Board to understand the rationale for the accompanying recommendation.*	*Recommendations can be for the proponent or for the Board. Recommendations should be as specific as possible, relating the issues raised in the "comment" column to an action that you believe is necessary.*

Item Number	Topic	Comment	Recommendation
1	3.2.1.2 Biological Component: Fish	Other NWT mine Response Frameworks seem to offer more robust systems for determining Significance Thresholds for Fish biological endpoints than does the Ekati Response Framework. For Snap Lake, fish health endpoints are: condition, relative gonad size (GSI), liver size (LSI), age distribution, and size-at-age. Exceedances of a critical effects size for these endpoints are deemed to cause "impairment to fish health". Critical effect sizes are defined as ± 10% for condition and at ± 25% for weight-at-age, relative fish gonad size (GSI), relative liver size (LSI), and age. For Ekati, Significance Thresholds for fish tissue contaminants are set with none developed for fish health based on other metrics or biological endpoints. DDEC's	DDEC should develop Significance Thresholds and Action Levels for fish health.

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		rationale seems to be that (a) there have been no historical mine-caused physiological changes to fish (Table 3.2-2) and (b) EQCs are set so as to manage for a much lower degree of environmental change than would be elicited in fish. DDEC believes fish biological thresholds are unnecessary as action levels for water and sediment-quality changes would be activated at levels well below significance thresholds for fish (Section 3.3). The 2012 Environmental Impact Report ranked fish biology as the second most important aquatic environmental risk. Even if DDEC is confident that fish will not experience adverse effects before significant changes in water or sediment quality, it should still be necessary to establish Significance Thresholds for fish metrics early rather than having to develop them under conditions of aquatic habitat stress. This task does not seem complicated or onerous when other diamond mines have developed such Significance Thresholds.	
2	3.2.1.2 Biological Component: Fish	DDEC's Significance Thresholds and Action Levels do not include parasite infestation, as this has not been determined to be a mine effect. However it can be argued from the AEMP evidence that parasite infestation by *Ligula* is caused by the mine since in the last two fish monitoring years (2007 and 2012) this roundworm was found in substantially higher infection rates in sculpin of lakes immediately downstream of mines (Moose and Cujo lakes) than in reference lakes. These infestations also declined with downstream distance from the mine.	DDEC should develop Significance Thresholds and Action Levels for parasite loads in sculpin and its fish predators (round whitefish and lake trout).

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3	3.2.1.2 Biological Component: Fish	Mercury is a metal of paramount concern to Aboriginal communities in fish consumption. Regardless of whether or not mercury is presently showing an increasing trend in Ekati lake fish, its importance in Aboriginal perceptions of safe consumption of fish warrants inclusion of mercury into the Response Framework.	Mercury should be included in the contaminants of concern for fish for which Significance Thresholds and Action Levels are developed.
4	3.2.1.1 Biological Component: Phytoplankton, Zooplankton and Benthos	Indices of taxonomic diversity are not included as benchmarks to determine action levels for plankton or lake and stream benthos. The Agency sees no reason not to include these numerical determinates in developing benchmarks of aquatic health given plankton community changes have already been identified downstream of the mine and DDEC has determine them to be caused by the mine. The 2012 AEMP report (p.3-99) stated "...*changes in diversity and relative density suggest that mine activities have affected zooplankton community compositions downstream from the LLCF as far as Nema Lake.*" It also states that there may be impacts that cascade up the food chain into fish. Likewise, the AEMP Re-Evaluation report stated that declines of number of zooplankton genera in AEMP lakes are associated with increasing concentrations of certain water quality chemistry "*with effects exacerbated by proximity to the LLCF or KPSF*" (p.4-49 AEMP Re-Evaluation Report). Due to its use of multivariate analyses, DDEC claims that these indices of biodiversity are "*too complex for calculation of numerical benchmarks*", the rationale DDEC gives for not developing Action Levels (p. 3-11 & Table 3.2-1). But multivariate analysis is used to	DDEC should develop Significance Thresholds and Action Levels for zooplankton and benthos diversity.

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		determine what factors drive changes in plankton communities based on statistical analysis of multiple variables. But the Response Framework is developing quantitative Significance Thresholds for changes to individual variables. For plankton, individual quantitative Significance Thresholds should be set for variables such as diversity indices (which the AEMP has been measuring annually), percentages of dominant or edible taxa, and Bray-Curtis ordination which measures the extent to which invertebrate communities come to differ from baseline conditions over time. Each of these metrics were used in the Diavik and/or Snap Lake Response Frameworks. It is understood that DDEC would first need to determine what degree of aquatic community change is considered adverse to a lake ecosystem, something that was to be done in setting critical effects size analysis several years ago and not completed.	