

Memorandum



m a i n s t r e a m
AQUATICS LTD

6956 Roper Road Edmonton, Alberta T6B 3H9
Telephone: (780) 440-1334 · Fax: (780) 440-1252
email: info@mainstreamaquatics.ca

Project:	Jericho Project Advisory	File No.:	04006
From:	Rick Pattenden	Date:	22 November 2004
To:	Derrick Moggy, Fisheries and Oceans Canada	Page:	1 of 10
cc:	Dan Johnson and Greg Missal, Tahera Diamond Corporation		
Re:	Response to DFO Concerns specified in Letter dated 4 November, 2004.		

In a letter dated 4 November 2004, DFO outlined concerns with the Jericho Diamond Project that remained following NWB technical session held on 28 October 2004. The following is summary of discussions held on 10 and 12 November between Tahera Corporation, its fisheries consultant, and DFO. The intent of the discussions was to provide information to DFO in order to address the concerns or come to a consensus on how to resolve remaining issues.

Water Intake:

1. Alternatives – Several alternatives were provided in the NWB submission, specifically in the water intake matrix. Each option was considered in terms of impacts to fish and fish habitat, yet it is not clear as to the rationale for not implementing options such as the floating pump house or buried pipe. Specifically, the key differences between the Boston and Jericho camps for the floating pump house and; what geotechnical investigations, modeling etc. that has been completed to support the rejection of the buried pipe option.

Next Steps: Please provide the feasibility of implementing these options, including the background information or investigations that support the rationale for their rejection.

Response

Tahera presented their rationale for rejecting all alternatives except use of the causeway. The primary reasons for use of the causeway were simplicity of construction, ease of operation and maintenance, and minimal impacts to water quality and fish habitat during construction.

Remaining Tasks

None. The discussion outlined Tahera's position regarding the water intake alternatives and Tahera's choice to use the causeway. It is Tahera's position that DFO has sufficient information on which to base their decision.

2. Water Intake Design – As discussed, the current design (intake embedded within a perforated water well) does not meet the basic criteria outlined in the DFO Freshwater Intake End-of-Pipe Fish Screen Guideline in that it is essentially buried in the bottom substrate (side slopes of the causeway are considered an fish habitat enhancement to encourage resident fish to spawn under the No Net Loss Plan) and drawing water within. We discussed several options including:

- a. An assessment of the risk to fish eggs and larvae due to the predicted water velocity, along with the implementation of appropriate mitigation and monitoring measures to verify predictions; or,

- b. Redesigning the water intake to a buried pipe option (no harmful impact to fish and fish habitat) or floating pump house (no harmful impact to fish and fish habitat); or,
- c. Redesigning the causeway and water intake, such that the intake pipe will extend from the causeway into sufficiently deep water.

Next Steps: If the last option is the preferred approach, please provide updated plans indicating the change in causeway length and location and design of the water intake, along with revised calculations indicating compliance with the DFO Freshwater Intake End-of-Pipe Fish Screen Guideline. In the event, the other options are to be implemented, demonstration that the DFO Freshwater Intake End-of-Pipe Fish Screen Guideline will be met along with the provision of a plan to construct, operate, maintain and abandon the structure.

Response

Tahera's preference is Option C.

Remaining Tasks

Tahera will provide revised design drawings for the causeway, water intake and revised calculations indicating compliance with DFO Freshwater Intake End-of-Pipe Fish Screen Guideline. These will be submitted to DFO prior to the NWB hearings.

- 3. Impact on shoreline sediment movement (littoral drift) – There has been no information provided on the amount of substrate (including sediment) that moves along the shoreline where the proposed causeway will be placed. By constructing the causeway into the lake, there is the potential to interfere with this normal process resulting in the accumulation of fines on adjacent gravel-cobble areas, which are typically preferred by fish. TDC has indicated this issue was investigated through a desktop review of water circulation and collection of baseline sedimentation from input sources like Stream C1. DFO disagreed with TDC's conclusion that shoreline sediment movement will not be affected by the causeway and suggested mitigation measures be considered to address this issue prior to the conclusion of the environmental assessment. TDC's indicated they would consider measures to mitigate this impact through the implementation of the flow through culverts and moving the location of the causeway. The intent behind the flow through culverts was to allow unimpeded sediment movement along the shoreline, as well as to reduce the loss of fish habitat by reducing the footprint and potentially creating cover for fish. Although the relocation of the causeway will ensure sensitive habitat (such as spawning areas) is unlikely to be affected by the causeway, it still has not been demonstrated that there will be no change in adjacent habitat due to interference with shoreline sediment transport. Therefore, DFO is still not satisfied that shoreline sediment movement due to prevailing currents and winds has been adequately addressed to ensure there is no potential to alter fish habitat adjacent to the causeway.

Next Steps: Please provide an assessment of the potential for the causeway to interfere with normal shoreline sediment movement processes resulting in changes to bottom substrate. In the absence of this assessment, mitigation measures such as the flow through culverts will be required to address this issue.

Response

Discussion centered on whether causeway would result in interference to normal shoreline sediment processes. Tahera feels there will be no effect. Reasons given include absence of sediments along the shoreline that could be mobilized, the short life span of the causeway (9 years), and the porosity of the rock material used to construct the causeway (would allow some water flow through the structure).

Tahera presented reasons why use of culverts to mitigate the potential problem could cause operational issues due to ice damage and why culverts would be largely ineffective. In the absence of quantitative

data needed to address the issue, DFO requested that Tahera monitor causeway effects on shoreline sediment processes.

Remaining Tasks

Tahera will adjust the current monitoring program to examine potential causeway effects on shoreline sediment processes. This will entail visual inspections during mine operation and placement of sediment deposition monitoring sites in the immediate vicinity of the causeway. This will be in addition to the site that has been established at the mouth of Stream C1. If the monitoring program indicates causeway effects on shoreline sediment processes, use of culverts in the causeway will be considered. The causeway monitoring component will be submitted to DFO prior to the NWB hearings.

Blasting Analysis:

1. DFO is generally satisfied with the approach taken to determine whether the blasting associated with the pit will impact fish and fish habitat in Carat Lake. However, it does not appear to have captured the impact on Stream C1, which provides habitat to resident fish species as demonstrated through fisheries investigation over the past, which observed fish several hundred metres upstream of the mouth. As a result, the potential still exists that blasting in the pit may impact fish in Stream C1.

Next Steps: Please provide a revised delineation of the extent of the blasting that also considers the impact along Stream C1 over the development of the pit.

Response

The original assessment that examined the effects on Stream C1 was provided in FEIS (Section 3.2 of NIRB Document B.2.3).

Remaining Tasks

Memo containing figures illustrating the extent of the blast zone over the operational life of the mine a consideration of mitigation measures will be submitted to DFO and prior to the NWB hearings.

Fish Salvage Program:

1. Any project that occurs in fish bearing waters will require fish be salvaged and moved to an appropriate area prior to construction as a condition of a s.35 Fisheries Act Authorization. With this in mind, and seeking the opportunity to test some basic assumptions about lake productivity in the North, the General Fish-Out Protocol for Lakes to be Lost due to Mining Development was developed. TDC has indicated they will modify this protocol to the extent necessary and implement it prior to the construction of the Processed Kimberlite Containment Area (PKCA) using Long Lake, which is fish-bearing.

Next Steps: Please provide an updated/modified General Fish-Out Protocol for Lakes to be lost due to Mining Development for fish salvage in constructing the Long Lake PKCA. Furthermore, please identify what consultation/work has been done by TDC to accommodate the needs/desires by the local communities in terms of the use of the fish salvaged from Long Lake.

Response

Tahera agreed to provide an updated protocol and discussed community consultation.

Remaining Tasks

Tahera will present a Site Specific Fish-out Protocol to DFO for review prior to the NWB hearings. Tahera will solicit community input regarding the Long Lake Fish salvage Program.

Stream C1:

1. Permafrost risk – The risk of permafrost was investigated in 1996 along the general area of Stream C1 and its proposed diversion location. It states that the active layer is between 1 and 2.5 metres deep. TDC has indicated that the diversion channel will be approximately 1 metre deep. DFO is concerned that an adequate assessment of permafrost has not been completed to ensure the construction of the diversion channel will not encounter permafrost. Furthermore, it is not clear whether a revised active layer under the diversion channel will form over time, i.e. will a 1 to 2.5 metre active layer develop along/under the diversion channel.

Next Steps: Provide an assessment of the risk of permafrost being encountered during diversion channel construction and changes in the active layer over time, due to the diversion channel. Any mitigation measures necessary to address this issue should be explored and provided, along with a monitoring plan to ensure early detection of problems associated with encountering permafrost.

Response

Tahera presented their understanding of the available information regarding permafrost characteristics in the proposed diversion location, and stated that sufficient information was available for the site. Tahera also stated that mitigation measures are specifically incorporated into the existing diversion design in order to address the permafrost issue. This includes use of a base layer of material between the diversion channel and the permafrost layer. Additional riprap would be placed in sensitive areas to buttress permafrost zones below the active layer (Note 5). This information is presented in Appendix X - SRK Tech. Memo W, Drawing W-3).

Tahera will monitor diversion channel conditions as part of the standard mine operation monitoring protocol (Appendix I – AMEC Summary Monitoring Report). This will involve visual inspections to identify areas of instability. In addition, the diversion channel will be built one year prior to required operation. This will provide sufficient time to identify any potential issues related to stability and make the necessary adjustments before the channel becomes operational.

Remaining Tasks

None.

2. Channel design – Due to the concerns with long-term water quality at closure, TDC has agreed that the diversion channel will be designed for long-term use. DFO supports this approach as well as the commitment to design the diversion channel to accommodate fish habitat characteristics typical of adjacent natural channels. In addition to the meanders and low flow channel, the incorporation of pools is also favourable as this would improve habitat diversity in Stream C1, given the limited pool habitat. However, due to the uncertainty associated with permafrost, DFO is concerned the 1 metre depth in the pool design over such a width may result in degradation of the pool. As a result, it would be beneficial to determine whether a narrow, longer pool would provide the same function as the wide pool. In addition, it is acknowledged that there is a general lack of baseline fisheries data previous to the construction of the berm, and therefore it is uncertain as to the extent of fish passage to upstream sections. Therefore, it would be favorable to improve the connection to the lower section, provided permafrost will not be an issue and the impacts due to blasting can be mitigated (i.e. incorporation of a temporary cofferdam until blasting distance is adequate). During DFO's site visit, it was apparent that riparian vegetation does well along the upper section of Stream C1 and will be a key component missing in the new channel. Since the diversion is being designed, the feasibility of incorporating riparian vegetation along the banks should be investigated.

Next Steps: Please provide TDC's commitment to design the channel for long-term use, incorporating natural channel design principles such as meanders, low flow channels, as well as the feasibility of incorporating long, narrow pools, improved access to downstream habitat and riparian vegetation. Furthermore, DFO will require detailed design drawings for review, although a timeline on this provision would be sufficient the purposes of the NWB Hearing.

Response and Remaining Issues

Pool Width

Tahera does not anticipate any issues regarding the adjustment the design of the two channel diversion energy dissipation pools to a narrow, longer pool configuration.

Tahera will revise the design drawings and submit the drawings to DFO for review prior to the NWB hearings.

Improved Access

Tahera does not agree that physical manipulation of the lower section of Stream C1 to facilitate fish access to the upper section and the diversion channel is warranted for the following reasons. First, the relatively high gradient of the lower section increases the probability of bank instability. Second, it is not clear whether the lower section of Stream C1 is a barrier to fish movement. Third, the characteristics of Stream C1 (size, hydrology, temperature regime) make it highly unlikely that fish would access the upper section, whether or not there was an improved channel. Fourth, construction of an improved channel that will be narrower and deeper will cause loss of existing fish habitat, which is highly braided, wide, and shallow. This loss will require additional compensation.

Stream characteristics and fish use of Stream C1 will be monitored as part of the Aquatic Effects Monitoring Program. Parameters measured will include discharge, temperature, habitat characteristics, fish abundance, and distribution. If monitoring establishes that fish cannot access the upper section of Stream C1 due to physical barriers in the low section, Tahera will consider modifying the lower channel to improve fish access. Tahera will present the AEMP Stream C1 protocol to DFO for review prior to the NWB hearings.

Riparian Vegetation

Tahera will investigate the feasibility of incorporating riparian vegetation along the banks. This will be included in the revised NNLP to be submitted to DFO.

Detailed Drawings

Tahera stated that detailed design drawings were presented in Appendix X - SRK Tech. Memo W, Drawings W- 2 and W-3). Revised design drawings for the adjusted pool widths will be submitted to DFO for review prior to the NWB hearings.

3. Water flow in Stream C1 during operation – As a result of water quality from the pit and surrounding waste rock and ore piles which is not likely to meet Canadian Council of Ministers of the Environment (CCME) guidelines, a portion of the watershed will be redirected to the pit through the construction of diversion ditches and subsequently sent to the PKCA for treatment. Furthermore, should Total Suspended Solids (TSS) become a water quality issue, then Ponds A, B, and C will be constructed and water quality will be monitored. In the event, water quality in the ponds meets appropriate water quality guidelines; the water in the ponds will be directed to Stream C1 or Carat Lake via a constructed ditch. If water quality does not meet appropriate water quality guidelines, it will be diverted to the PKCA. While DFO supports a centralized location for water treatment, we would prefer that any water not requiring treatment be directed back to Stream C1 to maintain normal flows to the extent possible. As a result, it is not clear whether the ponds can be constructed at the beginning of operations to ensure that any water meeting appropriate water quality guidelines can be directed to Stream C1 to maintain flows. Although

sufficient data was not collected in Stream C1 prior to the construction of the berm across the channel, it is predicted that the change in water flows will not be significantly different than existing conditions. However, the section of Stream C1 where the water reconvenes, upstream of the mouth, is still the same as prior to the berm construction. Therefore the change in fisheries needs to be monitored to verify TDC's predictions, along with the provision of an adaptive management plan to ensure no further impacts to fish habitat.

Next Steps: Please provide the rationale for not constructing Ponds A, B and C at the beginning of operations to ensure water flows in Stream C1 will be maintained to the extent possible. Furthermore, please provide an outline of the monitoring proposed at the mouth of Stream C1 and upstream, to ensure changes in fish communities and the use of fish habitat to support TDC's predictions.

Response

Tahera stated that all water flows of suitable quality would be directed to the natural drainage to the greatest extent possible. Tahera described the anticipated requirements and operation of Ponds A, B, and C over the life of the mine. In general, natural drainage to Stream C1 would be maintained early in the mine life until such time that containment of runoff from the waste rock dump were required (unsuitable water quality) or expansion of the mine pit disrupts natural overland flow patterns (Year 3). In either scenario, containment ponds would be built.

Remaining Tasks

Tahera will provide a written summary that describes the criteria for use of Ponds A, B and C at the beginning of operations to ensure water flows in Stream C1 to the extent possible. This will be presented to DFO for review prior to the NWB hearings.

Tahera will provide an outline of the monitoring proposed at the mouth of Stream C1 and upstream, to ensure changes in fish communities and the use of fish habitat to support Tahera's predictions. Stream characteristics and fish use of Stream C1 will be monitored as part of the Aquatic Effects Monitoring Program. Parameters measured will include discharge, temperature, habitat characteristics, fish abundance, and distribution. Tahera will present the AEMP Stream C1 protocol to DFO for review prior to the NWB hearings.

4. Re-establishment of water flows at closure – At closure, TDC has indicated that they can not predict with certainty whether water quality in the pit will meet the appropriate water quality guidelines. Therefore, re-connecting Stream C1 to the end-pit lake can not be determined as a feasible option at this time. DFO has suggested that the diversion channel should be designed as a permanent structure as a result, which TDC has agreed to do. However, should water quality be sufficient for discharge to Stream C1, TDC has indicated that the diversion channel will be abandoned and the end-pit lake will be put on-line. DFO has expressed concerns with respect to the loss of water due to evaporation from the end-pit lake and the potential for the end pit lake to act as a nutrient sink thereby robbing the downstream section of Stream C1 of valuable nutrients. Furthermore, TDC has indicated that a connection with the downstream section of Stream C1 will be improved, but did not indicate in what capacity.

Next Steps: Please provide an assessment of the loss of water due to evaporation from the end-pit lake and the associated change in water flows in Stream C1. What are the expected changes in nutrients due to the implementation of the end-pit lake on downstream fish habitat? Please outline the feasibility of improving the connection to the downstream section of Stream C1.

Response

Tahera agreed to assess the loss of water due to evaporation from the end-pit lake and the effect on nutrients and will outline the feasibility of improving the connection to the downstream section of Stream C1.

Remaining Tasks

Tahera will submit the material to DFO for review prior to the NWB hearings.

Stream C3

1. Extent of water quality impacts – TDC has indicated that the CCME guidelines for water quality will not be achievable for all parameters discharging from the PKCA. For those parameters exceeding CCME guidelines, site specific thresholds were to be proposed by TDC, which were based on site-specific conditions, best-achievable discharge quality and current standards. Furthermore, TDC can not predict with confidence the changes in water quality parameters throughout the length of Stream C3, although they can predict the parameters at the edge of the mixing zone. It is still not clear however, whether CCME Guidelines will be met for all water quality parameters in terms of chronic toxicity at the PKCA discharge and the extent this is expected to impact downstream habitat from the discharge of the PKCA (presently the unnamed pond, west of Long Lake – which is fish-bearing). TDC has committed to monitor fish health in the Stream C3 to determine whether chronic effects are occurring, and if so, the implementation of a barrier will be considered to mitigate this impact. However, it is not clear whether water quality within Stream C3 and within Lake C3 will improve as a result of this approach. Furthermore, TDC has indicated that the divider dyke will be implemented to improve water quality parameters, which was the purpose of the original polishing pond in the Environmental Assessment stage. It was not noted what improvement the polishing pond (as an addition to the PKCA and divider dyke) will have on the water quality parameters, specifically TSS. Although, Stream C3 has been included in the NNLP, the unnamed pond has not.

Next Steps: Please provide an assessment of the improvements the polishing pond, in addition to the current plan, will have on water quality, specifically TSS. Please clarify the location of the discharge point from the PKCA throughout the life of the mine. Please clarify the water quality parameters that will not achieve acute toxicity at the discharge, as well as those parameters that will not achieve chronic toxicity at discharge. Please outline the measures TDC considered to ensure CCME guidelines for chronic toxicity of all parameters were met at the discharge of the PKCA. Please outline what monitoring measures that were considered in providing an early indicator for fish health due to chronic toxicity which may require the construction of the barrier to mitigate impacts to fish.

Response and Remaining Tasks

Polishing Pond

Tahera stated that use of the polishing pond is a contingency in the event that additional treatment of the PKCA effluent is required prior to discharge. It would be used as a storage area that was separated from the main PKCA. Because the water residence time in the pond is approximately 24 hours the incremental improvement to water quality by caused by the addition of the pond would be negligible.

Discharge Point

The discharge point control point of the PKCA during the entire operational life of the mine will be at pumping over the west dam. In the event that the polishing pond was required, the discharge point would shift to pumping over the west dam of the polishing pond.

PKCA Discharge Water Quality

PKCA discharge constituents are not expected to be acutely toxic to aquatic life. In addition, PKCA constituents will be monitored for acute toxicity prior to release to the aquatic environment. If monitoring indicates acute toxicity appropriate steps will be taken, which include identifying the cause of the toxicity and initiating the appropriate treatment. Discharge that is acutely toxic to aquatic life will not be released to the aquatic environment.

A limited number of number of PKCA discharge constituents are predicted to be chronically toxic to aquatic life (Appendix U, SRK Tech. Memo N, Table 12).

Chronic Toxicity

Proposed discharge limits required to protect aquatic life are discussed in Appendix V, SRK Tech. Memo O.

Monitoring Fish Health

Tahera stated that fish health would not be specifically measured. Instead water quality at the lower section of Stream C3 would be monitored. If any constituents do not meet CCME guidelines for protection of aquatic life, which is expected, fish mitigation measures will be implemented.

2. Erosion concerns in Stream C3 – TDC is proposing to discharge water from the PKCA in quantities exceeding normal flows in Stream C3 by as much as 5 times. TDC has indicated that erosion is not a concern, but has stated that a hydrologist will survey the stream annually and recommend appropriate mitigation measures to ensure erosion does not become an issue. TDC has indicated that mitigation measures would likely include armoring the channel. DFO is still concerned that the risk of erosion has not been completed by a qualified hydrologist, with the proposal of appropriate mitigation techniques to address these concerns.

Next Steps: Please provide an assessment of the risk of erosion along Stream C3, the alternatives available to address this issue, an outline of the mitigation measures to be implemented during construction and an outline of the plan necessary to restore the channel (specifically fish habitat) to pre-existing conditions or better.

Response

Tahera stated that it is highly unlikely that erosion will be an issue in Stream C3, but insufficient information is available at the present time to accurately assess the risk of erosion in Stream C3. As stated previously, an inspection of Stream C3 by a qualified hydrologist will be completed prior to the start of elevated discharges. Tahera committed to having the inspection completed and mitigation program in place prior to the end of the open water period in 2005.

Remaining Tasks

None.

No Net Loss Plan (NNLP)

1. Habitat Accounting Framework – In general, DFO is satisfied with the framework used to determine the losses and gains associated with project components. However, any changes associated the project components (i.e. the incorporation of the unnamed pond, west of Long Lake, into the PKCA) should be updated and reflected in the NNLP. This would also include changes such as the incorporation of alternatives such the buried pipe or floating pump house option.

Next Steps: Please provide an updated calculation of all fish habitat losses and gains, including the unnamed pond west of Long Lake and any alternative designs such as the water intake.

Response

Tahera agreed to update calculation of all fish habitat losses and gains.

Remaining Tasks

Tahera will submit a revised No Net Loss Plan with the updated calculates once DFO and Tahera have come to an agreement regarding the final description of the Jericho Project.

2. Baseline Fisheries Data for the compensation area – In order to demonstrate that the compensation measures proposed in the NNLP are successful in achieving their objective, an adequate fisheries data set will be required prior to implementation of the enhancements. This

would include current use by resident fish in the proposed enhancement areas as well as migratory success (or lack thereof) in areas proposed for barrier mitigation. An appropriate period of time to collect the baseline information should be proposed, along with an approach to fill any gaps in the existing data set (i.e. migratory capacity of resident fish in the O-series lakes and streams, habitat use and biomass calculations for the compensation areas).

Next Steps: Please provide an outline/framework for the collection of additional fisheries information to provide sufficient baseline information to support the conclusion that the compensatory enhancements are successful in achieving their goal.

Response

Tahera agreed that an adequate fisheries data set will be required prior to implementation of the enhancements in order to demonstrate that the compensation measures proposed in the NNLP are successful.

Remaining Tasks

Tahera will submit an outline/framework for the collection of additional fisheries information in a revised No Net Loss Plan once DFO and Tahera have come to an agreement regarding the final description of the Jericho Project.

3. Detailed Design for Compensatory Measures – To date, TDC has only provided a general overview of the compensatory measures proposed under the NNLP. DFO would be supportive and encourages diversity in the enhancement measures (i.e. varying substrate sizes, incorporation of varying cover methods, varying shapes of the enhancement measures, etc), particularly where comparisons to other approaches can be made with other enhancements designs. Detailed drawings will be required to be submitted to DFO for review. In addition, the implementation of these enhancements measures will require mitigation measures associated with the construction plan to ensure sediment entry is prevented and the works are undertaking at appropriate times of the year. Furthermore, a plan to ensure the compensatory measures has been completed and construction according to the NNLP needs to be prepared and submitted for review. Where blasting in the water is necessary (i.e. to mitigate barriers), an analysis should be prepared to determine impacts to fish and measures developed to mitigate this impact.

Next Steps: Please provide a commitment to diversify the habitat enhancements, a timeline on the provision of detailed designs, a plan to mitigate the implementation of the enhancements, a plan to demonstrate the compensatory works have been completed according to the plan and a blasting assessment associated with barrier mitigation.

Response

Tahera stated that they are in general agreement with the DFO position.

Remaining Tasks

Tahera will submit a timeline on the provision of detailed designs, a plan to mitigate the implementation of the enhancements, a plan to demonstrate the compensatory works have been completed according to the plan and a blasting assessment associated with barrier mitigation (if required). This information will be submitted in a revised No Net Loss Plan once DFO and Tahera have come to an agreement regarding the final description of the Jericho Project.

4. Monitoring Plan – In order to ensure the enhancements have achieved their objectives and goals, a monitoring plan is required to demonstrate effectiveness of the compensatory measures. It is important to ensure that sufficient baseline fisheries data has been collected to provide a solid framework to demonstrate that improvements are achieving the goals set out at the beginning.

Key indicators which demonstrate their effectiveness, comparisons between altering designs, documentation of the enhancements over time will be required.

Next Steps: Please provide monitoring plan to demonstrate the success of the compensatory measure based on adequate baseline data, appropriate key indicators and a documentation/report to present and record this information.

Response

Tahera stated that they are in general agreement with the DFO position.

Remaining Tasks

Tahera will provide monitoring plan to demonstrate the success of the compensatory measure based on adequate baseline data, appropriate key indicators and a documentation/report to present and record this information. This information will be submitted in a revised No Net Loss Plan once DFO and Tahera have come to an agreement regarding the final description of the Jericho Project.

5. Performance Bonding – Although TDC has committed to implement compensatory measures and the DFO Fisheries Act Authorization will outline the compensatory measure to be implemented according to the plan, it is typical of projects of this scale for DFO to require Performance Bonding. The Bonding will further ensure compensatory measures are undertaken according to the plan during the identified timelines while ensuring feedback for the effectiveness of the measures.

Next Steps: Please provide a cost break down for the construction and monitoring associated with the compensatory measures, including the shoal construction, causeway reclamation, restoration of Stream C3 and the construction of the “fish friendly” diversion channel. Furthermore, provide a proposed timeline for the completion of these measures, how TDC will demonstrate the measures have been completed, and objective goals to demonstrate that compensatory measures are effective at achieving their goals.

Response and Remaining Issues

Performance Bond

Tahera stated that they would be able to provide a cost break down for construction and monitoring of the compensation measures, including shoal construction and causeway reclamation and other components associated with the No net Loss Plan. Tahera stated that they were unable to commit to a cost estimate for restoration of Stream C3 for two reasons. First, the requirement for restoration of Stream C3 is not expected because mitigation measures will be implemented immediately in the event that erosion becomes an issue. Second, it is not possible to predict with any certainty, the amount of restoration that may be required for Stream C3.

Tahera also expressed concern that some aspects of the cost break down may be required by the Nunavut Water Board (e.g., causeway reclamation), thereby duplicating bonding requirements of each jurisdiction. Tahera requested that DFO examine this issue to provide clarification.

Tahera also asked that DFO provide guidelines to assist Tahera in developing the cost break down.

NNLP Implementation

Tahera will provide a proposed timeline for the completion of NNLP measures, an outline of how the measures will be completed. This information will be submitted in a revised No Net Loss Plan once DFO and Tahera have come to an agreement regarding the final description of the Jericho Project.