CARTWRIGHT JUNCTION TO HAPPY VALLEY-GOOSE BAY
TRANS LABRADOR HIGHWAY
FISH AND FISH HABITAT COMPONENT STUDY
DEFICIENCY STATEMENT
Issued April 2003

GENERAL COMMENTS

N The Component Study was found to be poorly organized for quick and easy review (e.g., latitudes and longitudes in one table, field data in another, photos elsewhere and a summary in a fourth; photos are out of order and would have been preferable adjacent to corresponding aerial photos). Evaluation would have been more easily done if all information for one site was in one place. Some information on field data sheets should have been included in a table (i.e., depth, surface velocity, substrate type, bank material, back slope, bank vegetation, cover, potential obstructions, gradient). A table containing habitat characteristics would be useful in determining the size and type of water transfer structure appropriate for each stream crossing.

1.0 INTRODUCTION

N Figure 1.1 should have the Churchill River, Traverspine River and Otter Brook labelled. Watershed boundaries for each of the five watersheds should be shown to the extent possible.

1.2 Watersheds

N Churchill River is identified as only a single crossing near its mouth. The first 12 stream crossings are identified elsewhere as in the Churchill River watershed. Clarification should be presented and Table 1.1 Physical Characteristics of Four Rivers may need to be revisited.

2.2.2 Ground Surveys

N Ground surveys are identified as conducted for a 50 m section of stream only. Provide the rationale for the 50 m section of ground survey. Provide advice as to whether it should be assumed that the crossing would occur in the middle of the surveyed section.

2.2.3 Water Quality and Flow

N Indicate the standard operating procedures for collection of water samples and compare the protocol employed with the standard operating procedures. Describe all units of measurements and conversions completely, i.e., for surface velocity, revolutions per minute is converted to m per sec.

3.1 Background Summary of Surveyed Stream Crossings

N The Component Study states that the proposed route will result in 95 stream crossings. Appendix 3 contains photographs of a stream crossing identified as #96. Clarify why crossing #96 is not included in the way point list or field notes.

N Expand on the contents of the Comment column in Tables 3.1 to 3.5, e.g., site not accessible, ground surveyed, Type of habitat, intermittent stream, etc.

3.2 Fish Habitat

N The Churchill River was not ground surveyed. The field data sheet states that no ground survey is required for the Churchill River, which is not correct. However, there is considerable information on the Churchill River available from other sources (e.g., Churchill River Power Project) which should be reviewed and relevant information on habitat and species presented. Given that a causeway is proposed for the Churchill River site-specific information is required.

N Provide an explanation for the inconsistencies between the information contained in Tables 3.7 to 3.11 and the information in the field data sheets, e.g., crossings #22 and #24 are characterized as rapids and Type III Habitat in Table 3.8 yet the field data sheets describe both crossings are 50% Type II and 50% Type III Habitat (crossing #22 is 40% rapids and crossing #24 is 50% rapids on front of sheet but 70% Type III and 30% Type II on back of sheet; similarly crossings #90 and #91 need to be rechecked.

N Indicate whether both crossings #43 and #44 are over ponds. Given the potential for infilling, habitat data (substrate, depth, vegetative cover, etc) is required for these crossing locations.

3.3 Fish Species

N It is stated “DFO made a preliminary determination that the planned road construction methods are not likely to result in a harmful alteration, disturbance or destruction (HADD) of productive fish habitat....” This statement could be interpreted as DFO having already made a decision on HADD, which is not the case. Such a decision can only be made when the exact crossing locations are determined and DFO has reviewed site-specific habitat information and the detailed designs of the crossing structures.

N Table 3.12 has been compiled from only one source (Anderson, 1985), and as a result is incomplete. More current information sources are available and should be consulted (e.g.,

studies conducted for the Churchill River Power Project, DFO scientists, outfitters, etc.) For example Arctic charr and rainbow smelt are now known to inhabit the Paradise river. Updated species information needs to be added to the table.

3.4.1 Field Measurements

N There is no discussion provided relating to water quality field measurements contained in Table 3.13, as was done for the water chemistry results. Provide any general comments which can be made about what the field measurements mean and whether there are any anomalies. The word "narrative" under the column titled "CCME Guidelines" needs to be explained.

3.4.2 Laboratory Results

N Provide any reasons which can be put forward for high values obtained, and in particular of aluminum and iron exceedences.

APPENDIX 2 FISH HABITAT STUDY GPS WAY POINTS FOR STREAM CROSSINGS AND FIELD DATA SHEETS

N What are the units for surface velocity?

N Inconsistencies in the field data sheets require clarification, e.g., for both crossings #1 and #9 the substrate is described as fines whereas habitat is classified as Type II yet velocity present in Type II would preclude the presence of fines, perhaps they should be classified as Type IV; Crossing #3 could not be seen yet the width is stated as 0-2 m, how can that be known; the sketch for crossing #9 states "170 m from crossing" without stating what it is referring to.

APPENDIX 3 PHOTOGRAPHS

N The six major river crossings (#1, #23, #36, #73, #79 and #94) should be named, and the watershed name should be indicated beneath the other photographs.

OMITTED

N 4.2 5) of the Guidelines requires that the proponent should also discuss existing fish species and fisheries (e.g., recreational, commercial, subsistence). This was not done.

N 4.2 5) of the Guidelines requires qualitative descriptions of fish populations, including abundance and life history parameters, in each of the four watersheds that the highway will traverse. This was also not done.

- The Component Study gives no recognition to the presence of trophy brook trout in the watersheds. The proponent should discuss, as part of the discussion of fisheries and the qualitative descriptions of fish populations, the application of the precautionary principle to those populations or determine the trout carrying capacity of the habitat, the size and composition of the trout population, estimate the sustainable yield and the existing harvest. Neither does the Component Study describe key features of the existing lodge based fishery on the Eagle River and the Eagle River Plateau, and the sensitivity of market demand for lodge packages to the management of these features (i.e., catch rate, crowding, pristineness, stability, and type and quality of tourism services).

NOTE

- Nine of the potential crossing sites were not ground accessible. Fisheries and Oceans Canada will require the proponent to provide basic design information and precise watercourse crossing locations, and information for any areas where infilling is proposed, as soon as this information becomes available. This will allow Fisheries and Oceans Canada to identify areas of potential concern, address any possibilities for re-design or re-location of crossings if warranted and to initiate discussions concerning special protection measures for these areas. Given the time requirements for these steps to take place, the requirement for the proponent to provide the needed information in a timely manner is strongly emphasized. It is also recommended that the proponent meet with Fisheries and Oceans Canada prior to the collection of site-specific information at surveyed stream crossings.