

2004 Yukon River Panel R&E Program Support

April, 2005

**CRE-DFO-04
Fisheries and Oceans Canada
Whitehorse, Yukon**

Abstract

This is the final report of project CRE-DFO-04. The purpose of this project, in an agreement between the Department of Fisheries and Oceans and the Yukon River Panel, was to provide Departmental technical support to the Yukon River Panel's Restoration and Enhancement Fund. This report covers the period from April 01, 2004 to March 31, 2005.

The project involved one biologist and one senior technician who were employed to assist the Habitat and Enhancement Branch and the Stock Assessment/Fisheries Management Unit, respectively. These technical staff worked in a support role with the proponents and the Yukon River Panel in a collaborative effort to meet the goals and objectives of the Restoration and Enhancement Fund. The primary responsibilities of the technical reviewers involved assisting the proponents in developing Conceptual and Detailed Proposals, providing technical assistance from project initiation to acceptance of a final report and other related duties.

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R&E Technical Support - Stock Assessment and Fisheries Management

1.0 Yukon River Panel R&E Program StAD Senior Biological Technician Position

The Stock Assessment/Fisheries Management (StAD) sector within the Department of Fisheries and Oceans (DFO) continued the deployment of an indeterminate senior fisheries technician as part of a funding agreement between the Yukon River Panel Restoration and Enhancement Program and Fisheries and Oceans Canada to provide support to the implementation of the Panel's R&E program.

1.1 Development of 2005/06 Yukon River Panel R&E Conceptual Proposals

In consultation with proponents, the StAD technical support, assisted with the development of the 2005/06 conceptual proposals. This included direct contact with proponents to discuss their proposals (concepts) and the fielding of questions from proponents. This process was limited due to the time that the program support became available.

1.2 Review of 2005/06 Conceptual Proposals

The StAD technical support reviewed a total of 42 Canadian conceptual proposals and 13 U.S. proposals that relate to fisheries management or stock assessment (as defined by the Yukon River Panel). This review included technical merit, suitable budget allocations, and overall value in support of the goals of the Restoration and Enhancement (R&E) Fund. Upon completion of the reviews, the technical support presented the results of the reviews to both the Canadian component of the Yukon River Panel (YRP) to the bilateral Panel. During the review process, the reviewer fielded questions from Panel members and other technical support staff.

1.3 Development of 2005/06 Detailed Proposals

In consultation with the proponents, the StAD technical support assisted successful proponents with the development of their 2005/06 detailed proposals. This included, but was not limited to, reviewing draft proposal submissions for technical and budgetary suitability, and developing the projects to better fit the goals and objectives of the Yukon River Panel.

1.4 Review of 2004 Final Reports

The technical support reviewed and edited 2004 interim, draft and final reports. Approx. 15 reports were reviewed and edited prior to final submission to the Yukon River Panel. This was an iterative process that involved extensive communication between the proponent and the technical reviewer.

1.5 Assist Proponents with the Development of 2005/06 Workplans

Upon successful approval of the detailed proposals by the Yukon River Panel, the StAD technical support liaised with proponents to develop workplans and a payment schedule. The support also assisted the proponent in securing the required government permits (e.g. navigable waters, collection permits, and scientific licenses).

1.6 Assistance to DFO – StAD/FM

This position provided direct and in-direct assistance to the general management of DFO's contribution to the Yukon River Panel's R&E program, thereby enabling DFO StAD management to deal with other Yukon River strategic issues.

1.7 Other R&E Related Tasks

- General point of contact for R&E related questions
- Attended meetings with respect to R&E related projects/issues
- Liaised with various US partners to plan/implement projects of mutual interest (e.g. Eagle Alaska Sonar Program)
- Completed outstanding report that StAD/DFO was the primary lead on Whitehorse Rapids Fish Hatchery Coded Wire Tag report - CRE-63-04
- Assisted in a technical capacity for projects that were operating during the 2004/05 season, including the CWT application at the Whitehorse Rapids Fish Hatchery and the subsequent release of the fry.
- Development of recommended protocols for stock assessment related R&E projects (in-progress).

R&E Technical Support - Habitat and Enhancement

2.0 Yukon River Panel R&E Program HEB Biologist Position

The Resource Development Unit of the Oceans, Habitat and Enhancement Branch (OHEB) of Fisheries & Oceans Canada functioned as an integrated team to meet the requirements of the Agreement and the needs expectations of our clients from April to present.

2.1 Yukon River R&E Protocols

The following protocols were finalized in 2004:

- Protocol for collection of data from juvenile chinook salmon
- Protocol for obstruction removal (full- and field)

- Protocol for the collection and submission of thermal data from data loggers

The protocols were partially implemented in 2004.

An evaluation of the protocols and associated guidance and derivative documents was completed, and the 2004 Protocols will be modified for 2005.

2.2 Issue Identification and Address

Issues identified and their address to date include:

- *Effects of beaver activities on the upstream migration of juvenile Chinook salmon* – A pilot field project was conducted on Croucher Creek, near Whitehorse between March and September 2004. A draft memorandum report is in preparation. The study area was monitored over the winter;
- *Value of ground water fed channels to juvenile Chinook salmon.* Sampling commenced in the summer of 2004. Physical monitoring was conducted over the winter;
- *Stranding of juvenile Chinook salmon in aggradational river channels.* Preliminary investigation was conducted in summer 2004;
- *Yukon Fisheries Field Assistant course* – Preliminary material to “Yukonise” course manual was prepared. Our intent is to have the Course Manual, in conjunction with the Protocols, serve as the Yukon River R&E Manual.

Marine Derived Nutrients – Identified sites and resources for DFO Science Branch, provided technical and logistic support, and assisted in the development of future partnerships with First Nations for the first field program in the Yukon River Drainage in Canada

2.3 Conceptual and Detailed Proposal Review

- Conducted primary reviews of a total of 39 Conceptual Proposals, and secondary reviews on 8 proposals;
- Presented CP reviews to Canadian Panel contingent and the bilateral Panel;
- Conducted primary or lead reviews on 25 Detailed Proposals , and secondary reviews on 3 Detailed Proposals;
- Presented DP reviews to the YR Panel.

2.4 Project Monitoring

Conducted field monitoring on:

- CRE 19-04, Mayo River Channel reconstruction;
- CRE 35-04, Klusha – Tatchun obstruction management;

- CRE 47-04, Teslin Stewardship;
- CRE 50-04, Michie/M'clintock Stewardship/biological investigations;
- CRE 55-04, Upper Nordenskiold investigations;
- CRE 59-04, Kluane River obstruction management;
- CRE 65-04, MacIntyre Local Incubation Facility;
- CRE 87-04, Germaine Avulsion bio-engineering;
- CRE 95-04, Yukon Queen II mitigation;
- CRE 98-04, Yukon Stewardship Program

2.5 Report Review

Interim reports – processed all reports quickly.

Final reports – completed all primary or secondary reviews of final reports submitted to OHEB in a timely manner.

2.6 Salmon Planning

Yukon River Canadian Sub-basin Salmon Management Plan

- assisted in the 2004/05 implementation.

JTC Plan

- assisted in development through literature review & participation in two workshops.

Watershed salmon management plans

- developed a template in consultation with the TTC; advocated acceptance by other groups

2.7 Ongoing Activities

Preparation for possible future projects:

- Fraser Falls access remediation – on site;
- Forty Mile River tributaries – on-site;
- Klondike River tributaries – on site.

Operation and maintenance phase of past projects:

- Little Takhini investigation – completed;
- Wolf Creek fishway – annual maintenance.

Evaluation of past projects:

- Janet Creek – overflight;
- McQuesten Log Jam – on site & overflight;
- Wolf Creek revegetation – on site.

Revegetation trial – Porter Creek

- Completed 3 year trial.

Outreach

- World Fisheries Convention – prepared and presented poster describing Yukon River R&E activities;
- Yukon Bio-diversity Forum – prepared and presented an oral presentation describing glaciation effects on salmon habitat;
- Your Yukon column – assisted columnist in preparation of a newspaper column, based on the above;
- YRDFA Exchange – provided educational services;
- Career Day – prepared and participated;
- YRDFA booklet – assisted with text and images;
- YRPA booklet – assisted with text and images.

Policy development

- Pacific Stewardship Strategy – participated on Working Group.

Working with Youth

- Young Yukon Conservation Corps (Y2C2) – applied for and provided assistance to two projects.

Financial Contribution

The Yukon River Panel's Restoration and Enhancement Fund contributed a total of \$85,000 (Canadian Funds) in support of this project. This funding was split equally between the two R&E technical support positions.