



Rivers and Smith Salmon Ecosystems Planning Society

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Final Report

RS1 Coordination - Information Project

to the

Pacific Salmon Foundation

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1. Introduction:

This report outlines the activities carried out by the Coordinator of the RSSEPS under the contract with the Pacific Salmon Foundation to provide coordination and information services for the Society for 2004. The contract for this position was signed in January of 2004, however the funding for this position came from the 2003 budget. The contract for this position expired on October 30, 2004. A new proposal to secure funding from the PSF and other funding agencies for the 2005 projects is being developed.

2. 2004 Activities

The year began with the hiring of David Stevenson as the new coordinator for RSSEPS. The Society signed a contract with the Pacific Salmon Foundation in December 2003 for \$52,000 to enable the coordination and information activities to be carried out. The Society had four full member meetings and the Technical Advisory Committee (TAC) met three times. The TAC identified the 2004 field projects through a series of telephone conference calls. The Coordinator set up a new bank account and hired a bookkeeper. Barb Hughes of Eby's Business Services in Comox has agreed to do the work. Elaine Blackburn, a CGA from Cumberland has agreed to provide an audit of our financial transactions for 2004.

The coordinator facilitated the completion of the 2003 field projects. The reports for each project were submitted and the contribution agreements were finalized with the PSF. The major accomplishment of the Society this year has been the complete revision of an earlier draft of the Recovery Plan for the Salmon of Rivers and Smith Inlet. Thanks are due to Doug McCorquodale and members of the TAC for their work on this revision. This Recovery Plan clearly defines the problems and the challenges facing the Society in realizing its goal of restoring the salmon stocks to healthy levels. The final report was submitted to the PSF for copying and binding. It will be used as a guide for all of our field activities and as a tool for further funding.

The web page for the RSSEPS (rsseps.ca) was revised and the information on it was updated. The web page will be the main vehicle for communicating with the general public on our activities. It will contain reports on our field activities, minutes of our meetings and the current Recovery Plan. The web page is being managed by Submit Services of Port Hardy.

The RSSEPS has a management committee of three which for 2004 is Bruce Burrows representing the Wuikinuxv First Nation, Colleen Hemphill representing the Gwa'sala Nakwaxda'xw First Nations, and Sharon Chow from the Sierra Club of BC. Gary Taccogna of the DFO is a Technical Advisor to the Management Committee. The RSSEPS also has as a Technical Advisory Team which consists of DFO staff with expertise in Rivers and Smith Salmon stocks, fisheries biologists, plus scientists from UBC and SFU. The RSSEPS has a half-time coordinator who is responsible for project development and management, fund raising and communications. The current coordinator for the RSSEPS is David Stevenson.

3. The RSSEPS Technical Advisory committee

The RSSEPS formed a Technical Advisory Committee (TAC) to inform its decisions on implementing the Recovery Plan. The TAC consists of fisheries technicians and biologists from the DFO, scientists specializing in fish technology and First Nation representatives. Terms of Reference for the TAC have been developed and approved. The purpose of the TAC is to provide the RSSEPS with timely accurate data on state of the salmon stocks, make recommendations on recovery strategies and provide technical supervision to the projects carried out by RSSEPS. The RSSEPS Coordinator chairs the meetings; provides background, and records proceedings.

The TAC consists of DFO staff with expertise in Rivers and Smith Salmon stocks, fisheries biologists, plus scientists from UBC and SFU. Membership in the TAC is contingent on approval by the RSSEPS membership and is based on the applicant's ability to contribute to the planning process. The current Technical Advisory Committee consists of:

- Bob Bocking Fisheries Consultant for the Pacific Salmon Foundation
- Bruce Burrows - Wuikinuxv Nation
- Nigel Haggan - UBC Fisheries Centre
- Jonathan Hepples - Stock Assessment Biologist for DFO
- Sandie MacLaurin - Community Advisor for DFO
- Doug McCorquodale - biologist for Gwa'sala Nakwaxda'xw First Nations
- Richard Routledge - Director of Environmental Science SFU
- Karl Wilson Senior Biologist for DFO

Gary Taccogna, the Oceans and Community Stewardship Area chief for the DFO acts as technical advisor to the Management Committee.

4. 2003 Projects

In 2003, funding from the Pacific Salmon Foundation, combined with funding from the DFO, was used to fund:

- RS1 the Communication - Coordination of the RSSEPS
- RS 2, the revision of our Recovery Plan for Rivers and Smith Inlet salmon stocks
- RS 3, Hydroacoustic Adult Enumeration project in the Wannock River
- RS 4, Juvenile Habitat Marine Survival Study in Rivers and Smith Inlets
- RS 5, Docee Fence Co-management Capacity building in Long Lake
- RS 6, Long Lake Juvenile Assessment
- The RSSEPS was incorporated as a non-profit society on August 21/04

5. 2004 Activities & Projects

In 2004, funding from the Pacific Salmon Foundation was used to fund:

- RS1 - the hiring of a new coordinator for RSSEPS
- RS2 - completion of the Recovery Plan for the Rivers and Smith Salmon
- RS3 - a review of the Hydro Acoustic Enumeration project on Wannock River and an assessment of the technology
- RS4 - a continuation of the Early Marine Productivity studies for Rivers and Smith Inlets
- RS 5 - a continuation of the Docee Fence Co-management Project in Smith Inlet
- RS7 - a Critical Habitat Survey of Long Lake Chinook in Smith Inlet
- RS 8 - an evaluation of the Sockeye Strategic Enhancement project in the Owikeno Basin
- RS9 - the construction of a fish counting fence at Genesee Creek in Owikeno Lake.
- RS 10 - a comprehensive review of the Productive Capacity of both Rivers and Smith salmon ecosystems
- RS 11 - the Creel Survey of sports fishing catches in Rivers Inlet
- RS12 - the Wannock River Dead Pitch enumeration

6. Key Issues in the Watershed

The key issues facing the implementation of a salmon recovery plan for Rivers and Smith Inlets are:

6.1 some of the stocks are so low that recovery will be difficult and long term.

We will need to identify at-risk habitat to ensure the productive capacity of watersheds is maintained. Significant work is needed to identify important habitats for each species life history stages in both the freshwater and marine environments. This will help to identify species production bottlenecks and also the most critical habitats requiring the highest level of protection.

6.2 completing the review and development of Recovery Targets for Smith and Rivers Inlets. The Productive Capacity review will provide us with defensible recovery targets for all salmonid species within the watersheds in the Owikeno and Long Lake Basins. The recovery plan currently outlines abundance targets that are based on the rearing capacity of Owikeno and Long Lakes. Productive capacity models will be developed based on habitat features and historical records for all species within the Rivers/Smith Inlet recovery plan. This will ensure production of realistic targets.

6.3 filling in the knowledge gaps. Projects such as the critical Habitat Review of Long Lake Chinook and the Early Marine Survival project are important in informing the Recovery Plan. It is generally recognized that early marine survival is variable and is an important factor in determining the eventual numbers of adults returning to these ecosystems. Consequently, a better understanding of the processes that contribute to this inter-annual variability in early marine survival rates is important if we are to improve abundance forecasts and adjust fisheries management strategies. The Early Marine Survival project focuses on Juvenile sockeye salmon surveys, zooplankton and phytoplankton surveys, and analysis of water samples from direct migration routes in Rivers Inlet and Smith Inlet and Fitzhugh Sound. This survey work has top priority, primarily because if the work is not continued each year, then the integrity of the time series that is needed to compare inlet observations to eventual returns will be irretrievably compromised. In this endeavour, each year provides only a single data point and so multiple years of data are required to produce meaningful results. Current status of a number of the salmon populations in the Rivers and Smith ecosystems is either completely unknown, or at best, poorly understood. Freshwater and marine distribution of some species, and populations within species, is not well known for certain life history stages. More research needs to be done in this area.

6.4 global climate change. Since Global climate change plays a significant role in marine survival rates of salmon we will need to understand the relationship between global climate regime shifts and local early marine survival rates. There is a need to continue and expand the work of the Early Marine Survival project to establish a data base to inform recovery monitoring and fisheries management decisions.

6.5 establishing confidence in the enumeration techniques and data.

Reliability of information related to stock status is a major limitation to recovery planning and implementation, especially for Rivers and Smith Inlet sockeye. Spawner counts only include a portion of the actual spawners and that portion has likely been increasing through time as access and technology have improved. In addition, there are major, habitat related spawner and

juvenile assessment problems due to turbid water in several systems in both Rivers and Smith Inlet watersheds. The lack of an accurate and reliable measure of spawners to these areas is a major stock assessment and management problem. Without this information it is not possible to assess freshwater survival and production rates and there is no basis to set spawner targets or to manage the fisheries to meet spawner needs.

The RSSEPS has sponsored 2 years of a pilot project in the use of split beam hydro acoustic technology to count migrating salmon on the Wannock River.

This year we are sponsoring a review of the project and a review of the technology to determine if hydro acoustics can serve as an accurate enumeration tool for recovery monitoring and fisheries management. If this technology can provide us with reliable data then we will consider purchasing this equipment and training Wuikinuxv people to run it.

7. Membership in the RSSEPS

As of mid 2004, the organizational membership included:

- Gwa'sala-'Nakwaxda'xw First Nation
- Wuikinuxv First Nation
- Canada Department of Fisheries and Oceans
- District of Port Hardy
- Sierra Club of BC
- UBC Fisheries Centre
- Western Forest Products Ltd.
- International Forest Products Ltd.
- Coastal Ecosystems Research Foundation
- Rivers Inlet-Hakai Pass Sportfishing Association

One commercial fisherman also sits on the RSSEPS although he does not purport to officially represent any part of or the whole of the commercial fishing sector. Generally, however, most of the people at the table are representatives of an identifiable organization, community or group. Key partnerships involve the Wuikinuxv Nation and the Gwa'sala 'Nakwaxda'xw Nation and the Central Coast Stock Assessment staff of the Department of Fisheries and Oceans Canada. All three groups are represented on our management committee and our Technical Advisory Committee and have been strong contributors to our recovery efforts.

In July of 2004, the Coordinator traveled to Wuikinuxv and gave a progress report on the RSSEPS activities to the annual Nanakila Conference. Members of the Society are kept informed of activities by email. The public can be informed about RSSEPS activities through our web page, rsseps.ca, which contains all of our reports minutes of meetings and updates.

8. Financing Issues

Last years budget from the PSF consisted of \$52,000 for the Coordination and Information Project and \$150,000 for the field activities for a total contribution of \$202,000. The total value of all our projects for 2004 was \$388,338. This means that our leveraging potential was 1.92. (Leverage = Total Value of All Projects / PSF-PSEFS Contribution). Last years contribution from the PSF was a combination of funds from 2 different budget years. The funds for coordination (\$52,000) were from the 2003 budget and the funds for the field projects (\$150,000) were from the 2004 budget. The proposed funding for 2005 from the PSF is \$125,000 for all projects including coordination. This is a large reduction from the previous years funding. This reduction is happening at the same time as the DFO are reviewing and reducing their budgets for Stock Assessment. This means that it will be a major challenge to secure adequate funding to carry out all of our activities for 2005. We may have to reduce some of our activities due to budget constraints.

Since all of our field activities will be carried out in conjunction with other field activities conducted by the DFO, we will need to continue to work closely with them in determining our activities for 2005.

9. Conclusion

The final reports on the 2004 activities are due December 31. These will be presented at our AGM in mid-January. Our audited financial statement will be available at the time. The planning process for the 2005 projects will begin at our meeting in Vancouver on November 17, 2004 and continue at our AGM. The RSSEPS is grateful to the PSF for its continued financial support. We look forward to another productive year in 2005.

David Stevenson
RSSEPS Coordinator