

**RIVERS and SMITH ECOSYSTEMS
PLANNING SOCIETY MEETING
November 17, 2004**

Location: Pacific Salmon Foundation

Members Present:

Rick Routledge	SFU: Director of Environmental Sciences
Bruce Burrows	Wuikinuxv Nation
Mike Rough	Black Gold Lodge
Gary Taccogna	DFO: Community Stewardship Chief
Sandie MacLaurin	DFO: Community Advisor
Doug McCorquodale	Gwa'sala-Nakwaxda'xw First Nations: Biologist
Karl Wilson	DFO Biologist
Colleen Hemphill	G-N Treaty Negotiator
Bob Bocking	PSEF: Technical Committee
Jody Wright	SFU – Graduate student
David Stevenson	RSSEPS Coordinator
Sharon Chow	Sierra Club
Alan Kenny	PSF

Start meeting 0938

INTRODUCTION

The purpose of this meeting was to review and discuss the progress of the Rivers and Smith Ecosystems Planning Society's 2004 projects. Since the last meeting, the major challenge has been finalizing the 2004 projects.

A summary of the Coordinator's Report was presented. The contract for the Report expired at the end of October; however, a new contract will begin in January.

The following information will be continued to be posted on the RSSEPS website (www.rsseps.ca): updates, reports, and minutes. Comments would be appreciated regarding the content and layout of the site.

Coordinator's Report: 2004

The RSSEPS was incorporated as a society under the BC Societies Act on August 21, 2003. Although the society should be holding an AGM within the month, permission has been granted to hold it in the new year when the society is more prepared. All final reports and audited financial statements for the 2004 projects will be presented at this meeting.

Some of the major challenges for the upcoming year include a budget cut from \$150,000 to \$125,000. Because the PSF has agreed to take on more recovery plans, each plan will consequentially receive a smaller contribution. Concerns were raised regarding where additional funds could be located for future projects. It was suggested that Provincial

interests in fish habitat be included in the project planning for 2005. It was suggested that the Williams Lake office of the Ministry of Agriculture, Food and Fish should be contacted as the Caribou region also covers the central coast.

Action Item # 1: Sandy will provide the Society with the names of the Williams Lake contacts.

A summary spreadsheet was provided outlining the current financial status for each project. It should be noted that any funds currently left over in the accounts will be spent once all projects have been invoiced. A spreadsheet indicating other sources of funding beside the PSF funding project was requested.

Action Item # 2: David will send out a spreadsheet outlining where all funds and income contributions came from by project.

A reply has not yet been heard regarding the Western Forest Products monitoring of the Machmell Channel.

Action Item # 3: David will write a formal letter to Ken Hall requesting a reply on the Machmell Channel monitoring.

RICK ROUTLEDGE – MARINE PRODUCTIVITY STUDY:

The purpose of this project was to monitor juvenile sockeye migration and habitat conditions in Rivers and Smith inlets and adjacent waters with the aim of understanding the impact that this life stage can have on overall survival of these salmon populations.

The Marine Productivity project was started by Ron Tanasichuk and Sean Buchanan. The student contributors include: Erin Springford, Tyler Gray, and Jody Wright.

Emergence from the Wannock River was observed in late May, with runs building up through June and tapering off in July. A late contingent of small fish has also been observed later in July.

Fish utilization patterns in the Upper Inlet, Moses Inlet, Fitz Hugh Sound and Wyclees Inlet were observed. Usage in the Upper Inlet appeared to be highly dependent on the physical water conditions, as well as the flow down the Wannock River. High catches were observed in Moses Inlet, while Wyclees Lagoon appears to be a staging area for smaller sockeye.

A high variation in salinity levels occur throughout Rivers Inlet. Abundance of fish in Rivers Inlet seems to be highly dependent on the thickness of the freshwater lens. As the concentration of freshwater increases, nutrient concentrations decrease, resulting in decreased phytoplankton populations. The data suggests that as river discharge increases, marine productivity decreases.

Stomach samples were taken throughout Rivers Inlet. The abundance of juvenile herring larvae in full stomachs may imply the importance of herring populations.

As we approach another small El Nino event, work is encouraged for the coming year to attempt to draw a correlation between El Nino and its effects on marine survival.

Sediment cores extracted from Owikeno Lake indicate a continued drop in sockeye populations between the 1800s and 2000. These conclusions were drawn from the measurement of heavy nitrogen levels and the flagellar reduction in a small species of water flea. This reduction is indicative of changes in predation pressure, and it is thus hypothesized that it is correlated with decreased sockeye populations.

Recommended future actions:

- Continue monitoring from 2006 – 2011
- Analyze satellite imagery and aerial photos
- Continue with sediment coring
- Hydrodynamic modeling
- Experiment the effects of salt water and nutritional needs on sockeye
- Monitor water conditions with respect to plankton growth (early March through late May)
- Begin studies earlier in the season, before migration occurs

DOUG McCORQUODALE: DOCEE FENCE CO-MANAGEMENT CAPACITY STUDY

The Docee Fence Co-Management Capacity Study is currently in its second year of operation. The crew working the fence consists of two Gwa'sala-Nakwaxda'xw First Nation technicians, one hired directly through the program and one hired as a federal employee.

The fence is located in the Docee River, a relatively short river providing the opportunity to perform accurate total adult counts. It spans the length of the river and is comprised of a flash plate, a viewing platform and approximately 20 gates designed to block fish passage. The gates are opened approximately three times a day, and as they are opened, the number of fish passing over the flash plate is counted by an observer located on the viewing platform directly above.

Sub-sampling was performed to try and determine composition; however, difficulties were found differentiating between small chinook and large coho. Sub-sampling may not be an effective means of enumerating all species traveling through the fence.

DOUG McCORQUODALE: LONG LAKE CHINOOK CRITICAL HABITAT SURVEY

Little background information is currently available concerning the Long Lake chinook. Their traditional significance, large size, and drastically reduced escapements have warranted the need for further research into spawning locations, current escapements and run timing.

Project Objectives:

- Literature and information review
- Data gap identification
- Exploratory field research

Project Methods:

- Information acquisition via interviews, electronic and hard copy reports
- Open-ended field examinations focused mainly on adult fish

Results:

- Sparse electronic and written information available
- Current escapements are less than 10% of historic levels
- Spawning observed in the Docee River only
- More interviews are required
- Escapement estimates based solely on size estimates may not be sufficient

Next Steps:

- Interview completion
- Literature review completion
- Field data analysis and comparing/contrasting to historic observations
- Recommend future projects

It should be noted that a recent number of major slides have deposited large amounts of wood at the lake outlet, potentially preventing future spawning.

SANDIE MacLAURIN: SOCKEYE ENHANCEMENT EVALUATION – OWEEKENO BASIN & REVIEW OF THE SOCKEYE ENHANCEMENT PROGRAM

The intent of this program was to collect samples from two representative systems in Rivers Inlet to locate enhanced representation within the two populations. Populations were chosen based on a sufficient enhanced representation and the opportunity to calculate accurate area under the curve population estimates. The systems chosen were the Inziana River and Amback Creek.

Sampling was performed by Owikeno, DFO Snootli Hatchery and Stock Assessment crew. The Inziana River was sampled from September 9th until the week of September 22nd, and Amback Creek was sampled from September 27th until October 15th. Otoliths were removed and the POH lengths and sex were recorded from a representative population sample. The otolith samples have yet to be read; due to a miscommunication in recommended storage techniques, each individual otolith requires washing and drying before they can be read. Completion is anticipated around the end of February. It is expected that the decreased cost for labour can be re-allocated for the increased cost for otolith reading.

Egg take targets were either met or exceeded in all but Amback Creek. Amback Creek obtained the target number of females; however, lower fecundity resulted in fewer eggs. Although the field plan was successful this year, because this particular stock is no longer at risk, no plans have been made for evaluation or enhancement next year as yet.

Break for lunch 1152

Begin 1305

DOUG McCORQUODALE: PRODUCTIVE CAPACITY REVIEW

The purpose of this project was to develop accurate productive capacity estimates for watersheds within the Rivers and Smith inlets, the focus being the Owikeno and Long Lake basins. Capacity was defined as the average around which the population can fluctuate to produce maximum production.

Targets are calculated using a 3-part process. First, existing information is collected and reviewed. The information is then filtered for relevant data such as habitat changes, numbers present, marine factors and marine survival. Next, the productive capacity estimates are developed. Once the numbers are attained, the models are run and the results critically reviewed and confirmed. Justification to support these targets is then to be provided via reporting.

The next steps for this project include completion of the data collection and review, running the models, critically reviewing the results and reporting.

BRUCE BURROWS: CREEL SURVEY AND WANNOCK RIVER DEAD PITCH PROGRAM

The purpose of the creel survey was to obtain an accurate representation of the sports fishery catch in Rivers Inlet. The survey was budgeted at \$14,000, and was completed in just under \$10,000.

The only data received thus far includes a chinook catch of approximately 1,450 fish. No numbers have been provided for coho or other species.

The creel survey had a noted affect on angler awareness. During the starting week of July 13, the angler awareness of the new regulations was approximately 76%; however, upon completion of the survey angler awareness was up to approximately 99%. A high compliance of approximately 95% was noted.

A few problems with the creel survey were discussed. Future project funding was not recommended because the survey was seen as more of a fisheries management program as opposed to a recovery project. Also, there was not enough communication throughout the season; more consultations should have been made.

The Wannock River dead pitch program is nearing completion. The VERY preliminary escapement estimate is 2000. More carcasses were recovered this year with considerably poorer river conditions, indicating that the population is doing better than the brood year of 1999 where there was so much concern.

The final reports for the Creel Survey and Dead Pitch program will be completed and presented at the AGM.

SANDY MacLAURIN: CHINOOK EGG TAKE PROGRAM

The Wannock River egg take took place between October 16 and October 20. Biological data was obtained from the handled fish; however, males were immediately released without sampling. Sufficient broodstock were captured to obtain 120,000 Wannock chinook eggs. Survival thus far appears to be very good. The plans are to rear, smolt and mark the fish. No adipose clipped fish were noted.

A one-day deadpitch was performed on the Chuckwalla River; the currently returning fish are progeny of the captive broodfish. It should be noted that typically broodstock are found in the earlier part of the run; however, current sampling at the end of the run has shown a 25% contribution of marked fish.

MIKE ROUGH: SPORTS FISHERY ASSOCIATION UPDATE

A one rod person policy was implemented at the beginning of the season to help alleviate pressure on the Wannock chinook. Based on the dead pitch numbers, this policy seemed to have been successful.

Near the end of the season, commercial openings in areas 7 & 8 occurred and consequentially, the anticipated coho run never appeared. In the future the association would like to be notified before a large opening is to occur.

TED PERRY: REVIEW OF DFO STOCK ASSESSMENT, PRIORITIES AND POLICIES

The Fisheries and Oceans Stock Assessment is divided into two areas: marine species and salmon. The salmon Stock Assessment coordinating committee is comprised of a few core staff including chief scientists in Nanaimo and a chief for each area. For the past 3 – 4 years, dividing the system according to work prioritization while facing declining budgets has been challenging.

The objectives of Stock Assessment are cooperative and integrated stock assessment programs and improved capacity and opportunity for First Nations. DFO has approached these objectives by developing Assessment Frameworks to facilitate a mutual understanding and joint planning, and to use as a tool for prioritizing activities. Capacity-building opportunities are pursued. Budget planning is a very sensitive issue, and to some extent a code of secrecy until final decisions are made.

The Salmon Stock Assessment Framework (AF) takes into account salmon populations and their characteristics, as well as the resource management goals (i.e. sustainable fisheries and viable populations). Work is prioritized using the AF summary table; stocks with a high exploitation rate warrant a high monitoring priority, as well as stocks with international obligations in accordance with the Pacific Salmon Treaty. AFs are a significant component of the total assessment effort.

Currently, the most significant production issues are a) management of mixed stock fisheries and b) determining status (particularly in the Fraser River). The most significant conservation issues are a) Skeena Wild, b) Southern BC Inside, c) West Coast Vancouver Island Wild, d) Fraser Lates and e) Rivers and Smith Inlet.

This year, the operating budget has dropped by 1 million dollars (approximately 20%). Efforts are being made to reduce the cost of operating on the Fraser in order to create available funds for other programs in the future; however, key staff members have had to be relocated as a result. It was confirmed that George Kronkite will not be available for the Wannock Hydroacoustic Program next year, but the feasibility of George being available to train a crew for a week was discussed.

Action Item # 4: Ted will discuss the possibility of George training a crew for the Wannock Hydroacoustic Program with Fisheries and Oceans.

Fisheries and Oceans is anxious to remain effective partners. The central coast staff will be encouraged to communicate with the RSSEPS on the status of their projects.

KARL WILSON: MACHMELL FLATS LOG REMOVAL FEASIBILITY STUDY

The purpose of this project was to determine if woody debris accumulation at the mouth of the Machmell River is negatively impacting fish habitat and how it varies with species and timing.

Minnow traps with baited roe were placed in and around woody debris and left to soak for 1 – 2 hours. Traps were also placed in areas with little or no woody debris.

The fish caught in the Inziana River, Genesee Creek, Sheemahant River, and Second Narrows minnow traps were primarily coho. These results imply that high amounts of debris provide a healthy coho habitat; also, it is apparent that there is a high juvenile use of the Machmell Flats. Future work is needed to determine fish usage during the spring.

CONCLUSION

Discussion of the plans for 2005 was postponed until the technical meeting in December.

Action Item # 5: The technical committee will review the projects as listed priorities and prepare to discuss during the technical meeting in December.

Action Item # 6: David will post the project summaries on the website in addition to circulate them electronically. Action Item #7 David will contact Western and Interfor to inquire about funding from the Forest Investment Account salmon habitat restoration projects.

The meeting was adjourned at 4:00p,m.