

Rivers Smith Salmon Ecosystems Planning Society
February 27, 2007 Meeting

Present:	Rick Routledge	Simon Fraser University
	Andrew Johnson	Wuikinuxv Nation
	Peter Johnson	Wuikinuxv Nation
	Vern Sampson	F.O.C. Charter Patrolman-Central Coast
	Wayne Jacob	Wuikinuxv Nation
	Bruce Burrows	Wuikinuxv Nation
	Lance McGill	District of Port Hardy
	Bob Bocking	LGL Ltd.
	Matt Mortimer	DFO – Campbell River
	Dave Peacock	DFO- Prince Rupert
	Jen Fagan	DFO- Campbell River
	Eric Peterson	Tula Foundation
	Colleen Hemphill	Gwa'sala-'Nakwaxda'xw Nation
	Doug McCorquodale	Gwa'sala-'Nakwaxda'xw Nation
	David Stevenson	RSSEPS-Coordination
	Misty MacDuffee	Raincoast Conservation Society
	Ted Walkus	Wuikinuxv Nation
	Karl Wilson	Fisheries and Oceans Canada

Meeting Commenced 9:30

Review of financial statements 2006: David provided a summary of the financial situation. Financial statements were not presented.

Confirmation of Management Committee - Bruce Burrows, Misty MacDuffee, and Colleen Hemphill have both agreed to stand again for upcoming year. No objections.

Review of 2006 projects

Early Marine Research

Rick Routledge provided a summary report of the Early Marine Research. Seana's MA thesis which is based on the research is no available on the internet.

Smith Sensitive Habitat digital Atlas

David Stevenson – reported that the Sensitive Salmon Habitat atlas is available online. The link is found on the RSSEPS web page rseps.ca.

A spring workshop on reading and interpreting maps was suggested.

ACTION: David will coordinate with the bands and organize workshop

Rivers Echo Sounding Project

Bob Bocking provided a review of the Echo Sounding program in Rivers Inlet. The final report is available on the RSSEPS web page. There was some discussion of the need to incorporate into the next year's study a way of determining species composition.

Docee Fence

Doug McCorquodale gave a report on the Docee Fence for 2006. A total of 4 individuals from Gwa'sala 'Nakwaxda'xw Nation(GNN) (crew of 2) were employed to operate the fence. In 2006, the sockeye and coho returns were less than anticipated. In addition, the low water conditions were a problem for Chinook for most of the season, and they were observed holding at the bottom in significant numbers close to the time of spawning. When water came in it was high fast flows resulting in turbidity, poor visibility and dangerous conditions. As a result, the escapement estimates for Chinook were not as reliable as in 2005, and few samples were obtained. Cameras installed for sub-sampling was a step in the right direction, but the low water levels rendered the cameras in-operable for some of the season.

Discussion ensued regarding camera improvements and possible changes. Motion sensitive camera is an option but success of each model depends on target species and changing environmental conditions (water levels).

Sockeye Salmon Enhancement Evaluation

Otoliths were collected by Wuikinuxv First Nation from sockeye returning to the Amback River in fall of 2006 to determine the survival of hatchery reared fish.

Otoliths were collected from the Amback River in 2006 to complete the 2001 brood year survival rate. Results are not in yet, so analysis is incomplete at the current time. Initial results indicate that four year olds from the 2001 brood had a low survival rate, however the survival of the 2001 brood year will not be known until the otolith samples collected in 2006 are read.

Each otolith costs \$8.00 to prepare and examine for thermal marks. The lab that does the work has limited capacity and often there is a backlog of otoliths awaiting analysis.

Proposed 2007 Projects

Rivers Echo Sounding Project –Approved for funding by the Pacific Salmon Commission. Possible changes to program were discussed for the second year. Possible changes include timing, use of gillnets (depth distribution would not be covered), or seine nets to determine species composition. It was agreed that timing is not an issue, but that there is not a lot of fish and the challenge is sampling species composition.

Wannock Hydro Acoustic Enumeration

The DIDSON, a Hydro acoustic probe used to count fish in river systems, performed well on last summer's pilot on the Wannock. Two people were required, one person on each side of bank for a complete fish count. It was proposed that we do another pilot this summer with a

long range Didson. If it works well then we will only need one rather than placing one on each side of the Wannock.

Other enumeration options and initiatives were discussed, with big price tags attached. Funding possibilities, operation costs, software, and fish behavior and timing were considered.

David will pursue funding possibilities for both the pilot project and the eventual purchase of the Didson.

Smith Chinook Mark Recapture – Approved for funding by Pacific Salmon Commission from the Northern Boundary Fund.

Historic information suggests that this population once utilized lake habitat for spawning purposes – which is unusual in the species. The fence is not working out for enumeration and is out by the time all of the fish have moved into the system. Chinook would move upstream and then drop back, so the fence may be affecting behavior. It appeared that a terrible run was observed in 2006, with only six fish through the fence. The actual escapement was much larger, as evidenced by a large body of fish holding in the lagoon prior to the onset of the rains.

The project will focus on trying to determine if lake spawning is still a component of the life history strategy of a portion of the population of these fish. It may be difficult to capture these Chinook - netting may not be possible. It will require creativity in determining where to collect fish and a sample size that will make it worth while.

DFO has six radio receivers (but no antennas) that can be contributed to this project. Logistical details need to be sorted out.

Action Item: Doug will discuss project logistics with Dave Peacock in the near future.

Rivers Ecosystem Study Project

The Tula Foundation has expressed an interest in funding a major ecosystem study of Rivers Inlet. Rick Routledge has put together a draft proposal. This study will have study with many components; substrate, glaciology changes, glacial systems and zooplankton. The main focus will be on fjord ecology and hydro dynamics but will also include other sockeye lakes such as Long Lake and Elizabeth Lake at Koeve. Eric Peterson of the Tula Foundation said he was interested in a comprehensive look at all of the variables. He would like to see all of the results brought together and shared via a web page.

Three sockeye lakes in the region will also be studied by another team at UBC.

Wannock Chum

In an attempt to rebuild the Wannock River chum salmon run Wuikinuxv members attempted to capture chum salmon adults for broodstock. Unfortunately no Wannock chum salmon were captured. In an additional effort to determine if chum salmon were returning to the Wannock River to spawn historical spawning sites were located and hydraulic sampling was conducted. These efforts failed find any chum salmon eggs.

Transplanting chum salmon to the Wannock River may rebuild a run; however any hope of rebuilding the native sock will be lost. Possible donor stocks were discussed, but it appears further research is required to find a stock that has a similar run timing as the Wannock chum. Vern Sampson gave some statistics on chum from his work on the Wannock Deadpitch. Ted Walkus suggested that an increase in the seal population may have been a factor in the decline of the chum. Misty MacDuffee suggested that we need to determine the cause of the decline in order to determine the rehabilitation strategy.

Dave Peacock agreed to a backgrounder on chum stocks. We need also to look at the habitat. Spawning gravel does not appear to be a major issue.

Coho Mark Recapture

Dave Peacock reported on Coho stocks. He suggested that more information is needed on Rivers/Smith Inlets Coho. There is a need for a mark recapture program. A coded wire tag program would require 10 to 20 K sampling. This year was the first in decades, where Rivers and Smiths coho survivals were much like the South Coast where they were poor. Bella Coola coho survivals were good.

Dave Peacock will investigate the possibility of a mark recapture program for 2007.

Wuikinuxv Hatchery Feasibility

Karl Wilson presented some information on the previous hatchery on the Wannock. The Wuikinuxv previously expressed interest in the possibility of restarting a hatchery. Possible locations have since been reviewed, and benefits and drawbacks to each site were discussed.

Four possible hatchery sites were proposed and the benefits and drawbacks to each are listed below.

- 1) Village of Wuikinuxv; old facility present, people present, power source available, poor water quality – high in copper (requires more testing), needs a second water source.
- 2) Old facility near Airstrip; old facility present, old wells present, closed because of operational costs, no power, generators used for pumps
- 3) Meadowese Creek; historic hatchery site, water likely good due the presence of salmon, no power, but has potential for a gravity fed water system, access is an issue as a boat is required to reach the site
- 4) Nicktaqueet; potential for gravity feed water supply, good building site, no power, must traverse river-poor access

A feasibility study is required to provide definite answers. This would take site access, cost of development, cost of operation, maintenance cost, availability of water sources (requires two), which species would be raised and to what stage in development, and the actual output of facility (# of people employed, # fish raised) into consideration.

Other parameters that must be considered are turbidity issues at proposed sites, presence of fish spawning in vicinity and the possibility for disease transfer, genetic dilution, water

analysis (metal and nitrate), funding possibilities, and long term sustainability of facility and jobs.

A cost estimate for a hatchery at Oweekeno has not been done, however, the 1 million egg capacity sockeye facility located at the Snootli Hatchery in Bella Coola cost \$750,000 to construct in 1999. This cost did not include a river intake or a well as these were already present at the Snootli Hatchery. Rick Routledge suggested that hatchery propagation was not sustainable and threatened to dilute the gene pool of the stocks. The Northern Boundary Fund is funding a series of workshops on Enhancement Opportunities. RSSEPS will coordinate a workshop with David Levy and Al Lill to further pursue the possibilities of a hatchery at Oweekeno. Bruce repeated his call for a feasibility study for an Oweekeno hatchery that will look at both the technical questions and the social and economic issues.

David will try to identify funds for such a study. David will contact David Levy and arrange for the workshop.

Northern Boundary Fund

The majority of the projects funded by the Northern Boundary and Transboundary Rivers Restoration and Enhancement Fund administered by the Pacific Salmon Commission (PSC) are not for habitat restoration or enhancement projects but for projects that provide improved information for resource management.. The PSC is looking to fund habitat restoration and low technology enhancement projects, but the strict evaluation process does not make proposals look promising and therefore few are funded.

Wild Salmon Policy

David Stevenson circulated a terms of reference for a WSP Integrated Strategic Management Committee. The group felt that a separate committee to implement the WSP for Rivers and Smiths Inlets was not required and that RSSEPS could fill that role. We need more discussion on Conservation Units and the benchmarks for each species including some community consultation with the Wuikinuxv and the GNN.

Clear definitions are still required on red/yellow/green zones and ecosystem management. The role of RSSEPS, how to proceed and implementation were also discussed. The challenge remains in dealing with conservation units, changing fisheries and topics of concern.

Setting Goals and Objectives for WSP Pilot Project

Dave Peacock handed out a set of tables which itemized the Core Stock Assessment Plan for areas 9 and 10. Jen Fagan explained the planning strategy for arriving at stock assessment numbers. There are two strategies – one is using the 5 year average model and one is the sibling model using the 4 and 5 year old numbers from the previous year to forecast stock returns. Jen said they use the 5 year average model because the confidence limits are tighter. Bruce asked that the planning strategy be more transparent. There was further discussion on species and choice of stream surveys, with referral to the tables. In some cases streams will be examined every year to obtain good escapement estimates. In other systems it may be possible to obtain reliable escapement estimates by enumerating every second year. Dave Peacock pointed out that management units may be smaller than conservation units. The Wild salmon policy was designed to conserve genetic groupings; decisions are formed on this policy. There was further discussion on the Core Stock Assessment Strategic Plan. There will be further discussion in May at the next meeting of RSSEPS..