

**Cheakamus Ecosystem Restoration Stakeholder Team  
Meeting #8  
Thursday June 21, 2007  
6:30 to 9:00 pm  
Howe Sound Inn and Brewing Company  
Meeting Summary**

Dave Brown	South Coast Steelhead Coalition
John Buchanan	Independent
Bev Cochrane	Independent
Gary Cotter	North Vancouver Outdoor School
Victor Elderton	North Vancouver Outdoor School
Cal Hartnell	Squamish Streamkeepers
Roman Lehocky	Independent
Randy Marchant	Independent
Deb McBride	Independent
Doug Morrison	Squamish Streamkeepers

Regrets: Jack Cooley, Gil Sage

*Cheakamus Ecosystem Restoration Technical Committee (CERTC)*

- Greg Wilson – Ministry Of Environment
- Luanne Patterson – CN

*Other Resources*

- Sarah Weddell – CN Consultant: National Media

Meeting Facilitator: Tom Sadleir – Cornerstone Planning Group

Note-taker: Vikram Singh – Cornerstone Planning Group

The following information materials were provided to all meeting participants:

- April 26, 2007 Stakeholder Team meeting notes
- May 7, 2007 CERTC meeting summary
- Smolt Release Strategy for Cheakamus River Steelhead (Spring 2007).

## **Motions**

The following motion was moved, seconded and carried unanimously:

*That the Stakeholder Team requests that the Ministry of Environment contract Mark Labelle to conduct the follow-up report on the Steelhead fish culture program.*

## **Requests to CERTC/CERTC Members**

- Request an assessment of the returning Pink Salmon, including the effects of the 2003 flood of the Cheakamus and the 2005 CN spill.
- Request for information on timetables for recovery efforts for animals and birds potentially affected by the CN spill.
- Request for information on nature of rail lubricant used by CN.
- Request to dig a refuge hole in Swift Creek's channel between the railway and the Paradise Valley highway.
- Request that District of Squamish appoint a CERTC representative to attend Stakeholder Team meetings.
- Request that NVOS be consulted regarding large woody debris (LWD) installation in the Cheakamus River to address potential issues, including safety.
- Request that Victor Elderton be the primary CERTC contact for the North Vancouver Outdoor School (NVOS) regarding the communication of recovery efforts, and Carl Halverson be the primary contact at NVOS regarding technical matters.
- Request that when char detection aerial surveys are conducted, flights should also cover blind channels.
- Request to examine the unintended consequences of recovery efforts (e.g. effects on the river of the increased number of chum fry).
- Request to investigate the installation of automated floodgates in the culverts along the Squamish estuary to help prevent damage from possible future accidents.
- Suggest that CERTC send letters of thanks to volunteer fishermen, who helped capture broodstock.

## **CERTC Items**

### *Large Woody Debris (LWD) Project*

Discussion ensued regarding restoring watershed processes in the Cheakamus through the installation of LWD structures. It was noted that 11 LWD structures would be placed in the Cheakamus from the Bailey Bridge to the Upper Paradise spawning channel outfall. Discussion topics included the materials to be used, securing of LWD, potential for breaking loose (and associated potential impacts to dykes), impacts to and consultation with, boaters and kayakers, installation schedule, lifespan, and LWD durability vs. steel or concrete structures.

### *Re-watering Projects*

KM 6.5 was noted as a side-channel of high interest for re-watering. CN was noted as keen to get this project completed by end of 2007, and is currently waiting for approvals from regulatory agencies. The project is targeting chinook and steelhead.

It was noted that KM 8 was looked at by MoE, DFO and Triton Environmental, and that the project was complex, but was being considered for 2008.

The decision not to proceed at this time with a re-watering project on Swift Creek was raised. The Stakeholder Team noted that refuge ponds could likely be dug in certain areas. However, assessments reveal that unusually fast drying conditions and the permeability of soils in the area cannot be overcome by digging deeper holes. Such works would potentially attract fish and increase stranding which DFO does not permit. These were the reasons provided for why this project has been shelved by CERTC.

#### *Chinook Release Update*

CN provided the Stakeholder Team with a chinook release update. It was noted that 98,947 coded wire tagged chinook and 7,566 untagged Chinook had been released in the Cheakamus as part of Cheakamus Ecoystem Recovery efforts.

#### *Smolt Release Strategy Update*

An updated smolt release strategy was presented and discussed (also available at [www.certc.ca](http://www.certc.ca)). It was noted that the primary content changes involved release locations. Discussion topics included the number of adult steelhead present in the Cheakamus relative to those present in previous years. Early findings have determined the number to be similar to those from the past few years.

#### *Adult Char Monitoring Report*

Discussion ensued regarding the adult char monitoring project (also available at [www.certc.ca](http://www.certc.ca)). It was noted that 40 char were tagged with radio transmitters, and their movements monitored from four fixed receiving stations, as well as through float trips with handheld tracking antennas. Twenty-five of the 40 tagged fish were determined to have moved out of the river. Additional tracking would be conducted by airplane as part of the conditionally approved Squamish River Watershed Society (SRWS) creel survey proposal, if SRWS could accommodate this request.

## **Stakeholder Team Items**

### *Broodstock Capture*

Members discussed the capture and spawning of broodstock. It was noted that nine pairs were collected, just shy of the 10 pair broodstock target. Additionally, six pairs died from infections after capture; two pairs before they were spawned. Five pairs were spawned, allowing for collection of more than 20,000 eggs. The difficulty in holding steelhead was raised as they are extremely violent in captivity. It was reported that one female steelhead that had been caught in the Cheakamus River was accidentally spawned with a male steelhead from the Chehalis River. The eggs from this pairing were destroyed to maintain watershed genetic integrity. It was also noted broodstock collection was still being attempted but it was getting late in the season. MoE and BC Fisheries are still considering the potential genetic and smolt quality implications from the low number of spawning pairs.

Interest was expressed in a study comparing the number of spawning years of cultured fish and wild fish.

### *Brohm Creek*

Interest in the monitoring of adult steelhead density on Brohm Creek was expressed. It was noted that red counts (spawners) had been conducted on the creek. CN is also conducting juvenile monitoring in Brohm as part of the Resident Fish Abundance Monitoring Program.

### *Effects of the CN Spill on Animals and Birds*

Members requested information on studies of the effect of the CN spill on animals and birds in the environment surrounding the Cheakamus, including in the estuary. It was noted that animals and birds were covered in the study of risk assessment for the ecosystem in and around the Cheakamus.

A number of studies were noted as underway by CN, including field surveys for bird species, and another looking at amphibians. No fatalities of birds caused by the CN spill have thus far been recorded. It was noted that the only animals or birds likely to be hurt by the spill were those who were physically in the river during the spill. A member of the Stakeholder Team related their knowledge of an individual who had photographic evidence of a coyote that appeared to have been burned by the spilled sodium hydroxide. This member noted they would attempt to bring the photographs to the next Stakeholder Team meeting.

It was noted that eagles should have chum to eat, as chum were largely un-impacted.

It was noted that a benthos impact report by MoE and the CN benthos monitoring report were nearing completion and would be available soon.

Additionally, the estuary was noted as having been likely largely unaffected, as the pH and sodium are neutralized in salt water. Further information on this topic will be available shortly in the CN Water Quality report currently under review by CERTC.

### *Estuary Projects*

Members requested information on current recovery projects focused in the Squamish estuary. Current such projects include: the Wilson Slough reconnection project, a Squamish River Watershed Society project, and the Water Quality Monitoring Report.

Monitoring activities in the Squamish estuary were discussed, and it was related that, while steelhead and char were being tracked, it is still too early to know their numbers. It was further noted that any coho with Pacific Ocean Shelf Tracking (POST) tags would be tracked as they moved through the estuary.

Discussion took place regarding the black substance observed in the estuary, west of the tracks to the Squamish Terminal. It was noted that this is organic material, likely a result of decaying marsh.

### *Effects of Increased Fry Populations*

NVOS offered that the chum fry population has increased substantially due to the lack of predators (sculpin) and that these fish returning as adults could have unexpected effects on the natural environment, noting that over-spawning events have occurred with chum in the past, and could have unforeseen consequences.

### *Pink Salmon*

An assessment of the returning pink salmon, including the effects of the 2003 flood of the Cheakamus and the 2005 CN spill, was requested. The RST program has been monitoring pink fry populations for many years and provides excellent pre-spill populations. CN noted that the DFO/MoE impact assessment report estimated there was a 3%-10% reduction in the pink population as a result of the spill. The target recovery for pink salmon is a 10% increase in pink fry numbers above the 2005/2006 population estimate.

It was noted that DFO has placed a ban on pink salmon angling retention, as recommended by the Local Sport Fish Advisory Committee.

### *Project Proposals*

It was reported that two Squamish River Watershed Society project funding applications (Squamish River Estuary Training Dyke Culvert Improvement Project; Creel Survey of the Squamish River Watershed Recreation Fishery) had been conditionally approved by CERTC, pending the receipt of additional information.

### *CN Safety*

A Stakeholder Team member questioned whether safety issues by CN had been addressed regarding train lengths and speeds, and other safety-related operational issues. Questions were provided to CN regarding these issues for response by operations staff. CN operational issues are outside the scope of the Terms of Reference (available at [www.certc.ca](http://www.certc.ca)) of the Stakeholder Team and will not be discussed at meetings.

### *Legal Issues*

Legal and compensation issues were raised but determined to be beyond the scope of the Terms of Reference (available at [www.certc.ca](http://www.certc.ca)) of Stakeholder Team.

### *Open House*

The next Cheakamus Ecosystem Recovery Open House was discussed, and is scheduled for October 25, 2007, to coincide with the update of the 2007 Cheakamus Ecosystem Recovery Plan.

### *Cheekye Bridge abutment*

An update on the Cheekye Bridge abutment was provided. It was related that the latest design options provided by CN engineers were not received well by CERTC and that new designs were requested. It was also noted that there was little to no information available on the Cheekye Bridge and the original purpose of the apron.

### *Next Meeting*

The next Stakeholder Team is tentatively scheduled for August 30, 2007. The Stakeholder Team expressed interest in holding meetings on the last Thursday of every second month, to avoid conflicts with other regular stakeholder meetings.