

Bridge Coastal Restoration Program: Coquitlam River Watershed Plan Update

Public Information Session: Draft Notes
Coquitlam, BC
February 17, 2009

Morning Session

Introduction

The meeting began with an introduction of participants and a welcome from Mike Gage, Chair of the BCRP board.

The purpose of the workshop was to provide a forum for local community members and First Nations to provide input on fish and wildlife restoration priorities for the Coquitlam system, as suggested by BCRP agency partners: Ministry of Environment (MOE), Fisheries and Oceans Canada (DFO), and Canadian Wildlife Service (CWS).

The public input received from this session will contribute to a larger initiative of updating BCRP's watershed plans to ensure they reflect the most current restoration needs to continue to address the ecological footprint created by the construction of hydroelectric facilities. These updated plans will serve as a framework for guiding and assessing future restoration proposals seeking BCRP funding.

It was mentioned that there is a need to better collaborate and build partnerships with other watershed initiatives: for example, Metro Vancouver's watershed plan and City of Coquitlam's watershed strategy.

The Coquitlam Hydro-Electric System

A brief history of the Coquitlam hydro-electric system was given by Brent Wilson (BC Hydro). The Coquitlam-Buntzen system is an inter-basin diversion with a dam at the south end of Coquitlam reservoir and a 3.9 km tunnel on the west side that diverts water to Buntzen Lake Reservoir and on to two powerhouses. Management of the Coquitlam system is slightly different from other BC Hydro operations due to its use as a domestic water supply for Greater Vancouver.

The Bridge Coastal Restoration Program in the Coquitlam

Scott Allen, BCRP program manager, provided a summary of the BCRP funded projects in the Coquitlam system. Twenty-two fish projects and no wildlife projects have been conducted with \$1,030,000 (7%) of BCRP funds. The program is trying to raise awareness of the need for beneficial wildlife projects in the drainage.

A number of comments were made specific to the BCRP proponent-driven funding application process:

- Concerns about the inconsistency and potential lack of year to year bidding cycle which complicates ecosystem restoration efforts;
- The lack of coordination between restoration efforts and long term integrated planning;
- The administrative burden on small groups preparing and submitting grant applications on an annual basis;
- The focus to date on doing studies rather than on the ground projects; and
- Consideration should be given to the interaction between BCRP funded projects and other watershed development impacts (e.g., would the Gateway project adversely affect proposed new BCRP projects?).

It was mentioned that the Planning Committee (BCRP) is looking into the idea of issuing requests for proposals as an alternative to the current proponent-driven funding process. This could address a number of the concerns identified above and provide for multi-year funding of some restoration projects, less administration burden on proponents, and more consistency and integration of restoration efforts.

Kwikwetlem Salmon Restoration Program

Craig Orr provided a summary of the KSRP, a history of the dam and blockage issues, and took the opportunity to outline other priorities for the watershed. Craig also identified he was speaking on behalf of the Kwikwetlem First Nation, Watershed Watch, and himself.

He highlighted the challenge and frustration planning processes often impose on ecosystem restoration efforts as they must overcome the “burden of proof”. Craig drew parallels between the KSRP and the work of C. S. Holling’s panarchy theory, which speaks to how our lack of understanding of complex ecosystems is used intentionally to delay action until there is sufficient evidence to move forward. Craig described how the KSRP has been overcoming some of these challenges and the efforts and success the program has had to date in spite of these: in 2007, after almost 100 years, two sockeye were returned to the Coquitlam Reservoir. A number of watershed priorities were described in Craig’s presentation, as follows:

- Sockeye, Fraser River White Sturgeon, and eulachon were high priorities for the Kwikwetlem First Nation
- It was also noted that eulachon populations have declined and need attention
- A new delivery model was required for setting ecosystem priorities, one which:
 - Must be based on an ecosystem basis
 - Must maximize past investments and future actions
 - Stop shifting the “burden of proof”
 - Fish need water
 - Fish and other values can co-exist
 - Fish is a priority in ecosystem planning
 - Must have stable year to year funding
 - Must address habitat, passage, and all limiting factors

Later in the meeting George Chaffee (Kwkwetlem First Nation) spoke about the importance of the KSRP initiative and how there must be growth and movement ahead. He mentioned frustration with the process at times and how it has seemed to bog down in answering questions with no one taking a clear leadership role. He emphasized the need for long term secure funding that was not linked to BCRP; Kwkwetlem was approaching both Metro and BC Hydro on this. He also stressed the need to look at the entire Coquitlam watershed.

Fish Passage Decision Framework

Kevin Conlin (BCRP Planning Committee) gave a presentation on BC Hydro's new fish passage decision framework. The framework provides a 7-step process under which to consider fish passage projects. The Fish Passage Decision Framework will ensure that fish passage decisions are based on a Triple Bottom Line (TBL) approach, with sound defensible criteria.

In general, the first steps are to be facilitated through the BCRP with input from the agencies and BC Hydro at certain points:

- Step 1: Preliminary Screening
- Step 2: Stakeholder and FN Engagement - Strategic Watershed Prioritization
- Step 3: Environmental Feasibility Studies
- Step 4: Preliminary Technical Feasibility Consideration
- Step 5: Compensation Program Endorsement

Further steps are to be carried out by BC Hydro with input and approval from the agencies at key points:

- Step 6: TBL Driven Business Case Development (Environmental, Technical/Financial and Social Benefits Assessments)
- Step 7: BC Hydro Board of Directors Approval

A concern was raised as to how a TBL approach would be able to fully account for the social, cultural and environmental benefits of fish passage. If these benefits are not properly characterized and integrated into the decision framework, the evaluation will be biased. A request was made to clarify how full cost accounting (the proposed TBL Decision Framework approach) will consider and weigh social, cultural and environmental benefits.

Further questions were raised as to how the Fish Passage Decision Framework could impact the ongoing KSRP initiative, if at all. An additional request was made to clarify how the BC Hydro Fish Passage Review Framework may affect ongoing KSRP work, including the planning process and how decisions get made.

Agency Priorities – Wildlife: Ministry of Environment

Two presentations were given about the priorities for wildlife in the Ministry of Environment. The BC government's new "Conservation Framework" was outlined by

Brent Gurd. The Conservation Framework will help identify priority wildlife species that can help direct BCRP funds to those species with a higher conservation threat. Species at risk biologist Kym Welstead presented options for “Species At Risk-Friendly Restoration”. It is possible in many instances to improve the habitat of species at risk during fish-restoration projects (e.g., lessen the steepness of river banks to allow for wildlife species to be able to get out of the water).

Important websites for information provided by these two presenters:

<http://www.env.gov.bc.ca/conservationframework> – Conservation Framework
www.sccp.ca - South Coast Conservation Program Atlas

<http://shim.bc.ca:3455/BMP> - Best Management Practices for lower mainland wildlife species. username: BMP, password: BMPS4U

Workshop participants proposed that perhaps the BMPs could be added to the watershed plan.

A question was raised as to whether the current red/blue/yellow listings will still exist given the overlap with the Conservation Framework. It was not clear at this point, but it was felt that eventually the Conservation Framework will replace the coloured listing approach.

Another question was raised about why spotted owls were not listed as a priority species in the presentation (but are in the “summary of agency priorities”). Brent Gurd commented that because there was a low feasibility of restoring their habitat it was given a lower ranking and not included.

Agency Priorities – Fish: Fisheries and Oceans Canada

Matt Foy provided an overview and rationale of DFO’s identified priorities (see handout from session).

Agency Priorities – Fish: Ministry of Environment

Duane Jesson clarified that the provincial fisheries priorities (see handout) were identified with input from the four fisheries biologists who work in the Lower Mainland. He also clarified that bulltrout is considered a high priority species as compared to introduced char, carp, bass, and yellow perch species which are low.

A comment was made about how steelhead augmentation at the hatchery was recently stopped and since that time steelhead numbers have been falling. There was an offer by the hunting and fishing club to donate 10,000 smolts at no cost to the province, but no word was received back.

Afternoon Session

Breakout Groups

During the afternoon session, two breakout groups were facilitated – one for fish and another for wildlife. The general direction provided to the groups was to first review and discuss the initial agency priority ratings and identified project areas. Then, participants were asked to indicate their level of support, to suggest any potential changes, and to provide supporting rationale for their comments.

Fish Breakout Group – Summary

The fish breakout group was facilitated by Michael Harstone (Compass Resource Management). The break out group identified which species they wanted to talk about first, given the identified agency priorities and projects in the table (handout) and given the time constraints.

- **In general, there was broad support and agreement on the identified agency priorities and projects for the watershed** (unless noted otherwise).
- Specific comments by species are summarized below.

Coho

- While there was general support for the priority rankings, some participants felt that some of these were higher than others. For example, it was mentioned that maintaining and upgrading existing habitat areas should be considered “very high”.
- It was felt that smolt production should be targeted above 25,000 given dropping marine survival.
- The importance of multi-year follow-up and funding was stressed.
- It was also felt that restoration options that benefited more than one species should be associated with a higher priority (which speaks to the need of multi-species priority criteria).
- Another idea for restoring habitat areas was in the removal of dykes (with consideration to flooding issues). A dike removal proposal will require consultation and support from the Cities, Kwikwetlem First Nation and other stakeholders based on the particular location (with consideration to flood protection).

Steelhead

- Questions were raised about the target numbers. It was noted that the target number was based on work from the Georgia Basin Steelhead (recovery) Plan. Some participants felt that the smolt target of 7000 should be increased.
- While there was general support for the priority rankings, some participants felt that some of these were higher than others. For example, it was mentioned that small side channel development should be considered “very high”.
- Two additional restoration options were discussed:
 1. **Hatchery augmentation.** It was noted that the hatchery could be used to bolster and increase the smolt numbers and that this should be considered in restoration efforts. This view was not shared by everyone, as some people felt that there

were other more natural options which should be the priority first. A question was raised as to how hatchery augmentation is viewed in light of the wild salmon policy.

2. **Fish Passage.** Another option that would open up new habitat areas for steelhead restoration was a fishway at the dam.
- Fish stranding was raised as an issue to consider. A stranding assessment report would help identify areas that might benefit from re-contouring such as perched side channels.
 - Confounding factors (e.g., rainbow smolts) involved with the WUP stock assessment were discussed.

Sockeye

- Some participants felt that a fishway at the dam should be given a high or medium ranking.
- Sockeye restoration priorities were clearly linked to the KSRP initiative discussed above. Much of the ensuing discussion revolved around the need to better characterize the benefits and costs of fish passage (for example, what are the costs of alternative fishway designs, what are the benefits of fish passage to other species – e.g., bull trout, steelhead, and coho).
- Given KSRP recent efforts, improving the outmigration of smolts through the dam should be given a “very high” ranking. Another area to address is the migration of smolts through the tunnel.
- It was commented that many of the feasibility questions around fish passage at Coquitlam are in the process of being answered at Alouette (e.g., monitoring of sockeye returns) and this needs to be built into the process.
- Sockeye are a high priority species to First Nations

Chum and Pink

- No comments.

Chinook

- It was noted that chinook have benefited from the additional WUP flows in the river and given the recent increase in WUP flows last fall there may be additional benefits.
- It was noted that BCRP has not been funding a fish culture program, however there may be benefits if more support was given to brood stock collection from Chilliwack.

Trout

- It was recognized that there is limited baseline data on trout and as such this should be a priority.

Fraser River White Sturgeon

- Species are high priority to First Nations
- Inclusion of species reflects importance of a holistic ecosystem approach to watershed restoration

Eulachon

- Species are high priority to First Nations
- Inclusion of species reflects important of a holistic ecosystem approach to watershed restoration

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Wildlife Breakout Group - Summary

The wildlife breakout group was facilitated by Taylor Zeeg (Compass Resource Management). In general, the group agreed with the high priority rankings and agreed with the addition of two species (red-legged frog, coastal tailed frog), as well as agreeing with the need to include old growth forests as a priority habitat. Additional projects were added to the list of priorities.

An inequity was also identified between data available above the dam (due to inventory and TEM mapping conducted by Metro Vancouver) and the lack of data available for areas below the dam. Participants expressed the need for broad inventory and habitat mapping below the dam.

General Comments

- Add a column for Conservation Framework rating to the Agency Priority table
- Need a species / habitat inventory – lack of projects proposed because there is a lack of knowledge about what species occur in Coquitlam
- Species / habitat inventory would entail a full season with good biologists (Spring to Fall), find out:
 - What is there “on the priority list”
 - What is there “off the priority list”
 - Note good habitat for what could be in the watershed (priority species wise)
- Metro Vancouver has TEM available, willing to share. The TEM could be used to predict what habitats were lost by flooding. Other information available to start inventory:
 - Elicit information from Metro staff
 - Bird studies (available through Metro staff)
 - Organized surveys (volunteers)
- Using Metro TEM in combination with other information sources could create wildlife habitat mapping
- There is a challenge for projects seeking funding for inventory work
 - E.g., spotted owl requested 2nd year funding for inventory work but it was turned down because there was no enhancement or restoration actions in the proposal. Technical Review Committee felt inventory wasn't useful since the watershed is fully protected. Need to re-think that? If spotted owls are reintroduced into the watershed then there will need to be follow-up monitoring.
 - Agency priority identifies Spotted Owl inventory as a priority
 - Group suggested allowing funding for inventory work with caveat that there be a restoration / enhancement component to proposal
- Group felt MOE has a role in inventory, but recognize capacity issue. MOE can apply to BCRP for funding.
- General comment: can encounter challenges when trying to switch from inventory work to restoration work “inventory inertia”
- Need consistency between restoration programs:
 - A proposal for Bridge was rejected but same proposal accepted in Columbia

- Need inter-region strategies and action plans to harmonize efforts
- Be specific about species / ecosystems and have 5-10 year action plan
- For each priority species, include a column that identifies species' habitat
 - Species-specific inventory work can lead to habitat-related work for that species and benefits others that depend on that habitat
- BCRP proposals are fish centric – caution inadvertently giving up wildlife habitat to gain fish habitat
- Need to be more creative about what tools can be used to enhance or conserve habitats for SAR, use tools like Wildlife Habitat Areas (WHAs) on Crown land
- *Action:* Use available BMPs when doing fish / wildlife habitat work. Sentiment that fish projects not using BMPs and negatively affecting wildlife – group suggested that the wildlife board review the fish enhancement proposals (and vice versa) to ensure projects aren't harming some species while enhancing others
- Suggestion that BCRP applicants require a reference letter from a local naturalists club
- Data collection – How do proponents report a species sighting? Suggest BCRP create a support structure for making sure species sightings are recorded
- BCRP could require contractors to submit species data to Conservation Data Centre
- Information available on Grizzly DNA analysis (Clayton Apps), study area may have reached quite close to Coquitlam
- Need to add Old Growth as a priority habitat (in addition to wetlands and riparian) in need of conservation/restoration
- Need a focus on reducing invasive species and unnatural predators (was identified as a high priority)
- Questions at end as to why the lack of insects and plants on priorities list, or bats? Some of them are high priorities in the Conservation Framework.

Species / Habitat	Conservation Framework Rating (goal 1, 2, 3)
<i>Pacific Water Shrew</i>	5, 6, 1
<ul style="list-style-type: none"> ● Need for habitat mapping, promote use of BMPs, consider PWS when conducting fish restoration projects, and link to recovery team activities ● CDC recorded occurrence in Coquitlam (Mundy Park) ● There is a report of sighting opposite gravel mines ● Before starting a project, need to check with CDC ● Why didn't CWS note this species as a priority since it's a SARA listed species? ● Caution on sampling these species, can lead to fatalities, Dennis Knouff reportedly uses a safe handling method 	
<i>Pacific Giant Salamander</i>	N/A
<ul style="list-style-type: none"> ● Not in Coquitlam – remove from list 	

<ul style="list-style-type: none"> • Add Red-Legged Frog and Coastal Tailed Frog instead 	
Red-Legged Frog	3, 1, 2
<ul style="list-style-type: none"> • Keep same project list for red-legged frog as Pacific Giant Salamander: <ul style="list-style-type: none"> ○ Conservation of streams and riparian habitats ○ Conservation covenants on private lands ○ Water quality initiatives ○ Inventory and research needed • Good indicator species • Conservation of wetlands important for red-legged frogs 	
Coastal Tailed Frog	4, 1, 2
<ul style="list-style-type: none"> • Prefer fast moving mountain streams as habitat • Suggested projects: <ul style="list-style-type: none"> ○ Conservation of streams and riparian habitats ○ Conservation covenants on private lands ○ Water quality initiatives ○ Inventory and research needed 	
Spotted Owl	5, 6, 2
<ul style="list-style-type: none"> • Group felt spotted owl should be a high priority with restoration potential high (release of captive bred owls into Coquitlam) • Note significant negative impact of barred owl on spotted owl population • Add short-eared owl (6, 2, 3) and barn owl (6, 2, 3) as priority species (inventory needed of all owl species in area) 	
Wolverine	3, 2, 3
<ul style="list-style-type: none"> • Added by wildlife break-out group • Occurrence in Upper Pitt watershed, close to Coquitlam, species travels a lot so likely entering into Upper Coquitlam watershed • Perhaps too wide-ranging to bother with management actions? 	
Swallows and Bats	
<ul style="list-style-type: none"> • Added by wildlife break-out group • Seeing a decrease in abundance from Burnaby Mountain down to Burnette Hwy, worried it might be due to mosquito control in cities? • Attendee had had 2 bats identified by an expert, should find out what kind they were 	
Painted Turtle	4, 6, 2
<ul style="list-style-type: none"> • Added by wildlife break-out group • Report by Kym Welstead of sighting in Mundy Park– should be confirmed, no one present at Coquitlam workshop knew of any there • Large turtles at Colony Farm – don't know what species, need inventory 	
Roosevelt Elk	3, 2, 3
<ul style="list-style-type: none"> • Concerned about agency priority to monitor new population <ul style="list-style-type: none"> ○ Is MOE introducing new population? ○ Uncertain about population occurrence 	

<ul style="list-style-type: none"> ○ Concern about winter range enhancement through thinning, slashing and burning <ul style="list-style-type: none"> ▪ Metro Watershed Management Plan requires minimum intervention, so thinning, slashing, burning contrary to Metro WMP ○ Group suggests wording “forest management activities must be consistent with Metro Watershed Management Plan” 	
<p><i>Western Screech-Owl</i></p>	<p>3, 1, 2</p>
<ul style="list-style-type: none"> • The group agreed screech-owls are a high priority • Riparian-associated species, secondary cavity nester, require minimum diameter tree • Concern about lack of inventory for this species <ul style="list-style-type: none"> ○ There is an annual nocturnal owl survey by Metro Vancouver up the East side of the watershed, could expand this effort to get better data ○ General interest in getting this survey information into the watershed plan priorities, does MOE have a role here? 	
<p><i>Great Blue Heron</i></p>	<p>4, 2, 3</p>
<ul style="list-style-type: none"> • Priority project: available habitat is restricted so need long term plan to grow new habitat • Caution: herons may eat painted turtles so need to situate habitat restoration efforts accordingly • Very significant colony in Coquitlam River Management Area (~80 nests) • Further encroachment by the Mary Hill bypass (depending on plans for the Gateway) puts Coquitlam River Management Area (CRMA) at risk • Herons depend on Colony Farm open fields for foraging, need to protect this habitat 	
<p><i>Species at Risk in General</i></p>	<p>N/A</p>
<ul style="list-style-type: none"> • Priority: MoE / BCRP develop a terms of reference for a SAR species assessment. The assessment would lead to a management plan with key objectives. Proponents would apply based on specific objectives. This would likely need to go to the BCRP policy board for consideration. • Need general SAR inventory (bryophytes, amphibians, plants etc.). Full season. Spring to fall. • Suggestion: Prepare a Comprehensive Plan <ul style="list-style-type: none"> ○ Drainage by drainage assessment of species occurrence ○ I.D. suitable habitat even if species isn't currently there ○ Itemize every SAR ○ I.D. other species not on current priority list but should be added. Use it to build capacity in NGOs and First Nations • Pursue land conservation opportunities for all of these species (brought up with respect to screech-owls) 	

<ul style="list-style-type: none"> • Retain levels of biodiversity 	
Wetland / Riparian Habitat	N/A
<ul style="list-style-type: none"> • Caution: wording around “enhance” Colony Farm and CRMA, this habitat is already productive so group is concerned about negative impacts of “enhancement” • <i>Priority project?</i> Lansdowne and Falcon wetlands – potential for wetland habitat work? Would be good choice as not accessible to fish. Inventory needed to find out what is there first • Need habitat assessment for Coquitlam • There is an unusual wetland up in the Coquitlam reservoir that needs some inventory done • When doing habitat work don’t create bullfrog habitat • Consider adding signage at Colony Farm so public knows it’s a managed wetland 	
Black-tailed deer	?
<ul style="list-style-type: none"> • Concern about forest management project priorities • Group suggests adding: forest management practices be consistent with Metro Vancouver WMP • Some questions about whether we can do anything about this species, should it be a priority? You can’t improve winter range above the dam, and there is little opportunity below the dam... 	
Mountain Goat	4, 1, 3
<ul style="list-style-type: none"> • Observation of herd in upper Coquitlam • Priority: potential mineral lick enhancement project? 	

The wildlife breakout group ran out of time and didn’t address some species on the summary of agency priorities:

- Riverine birds: likely same questions as at ALU – why does CWS feel they are a medium priority? May be indicator species?
- Band-tailed Pigeon
- Bald Eagle
- Northern Goshawk
- Marbled Murrelet: have the habitat for them (around COQ reservoir) but no inventory to know if they are there. Mountains may be in the way?
- Furbearers

Breakout Group Plenary Session

Each break out group summarized their discussions and comments during a plenary discussion. Some additional comments during this session included recognition that the river is a highly disturbed urban river which can never be fully restored; an emphasis should be placed on bolstering public education around enhancement efforts at Colony Farms.

Next Steps

The next steps expected towards updating the watershed plans were discussed as follows:

- Prepare and distribute draft workshop notes to participants
- Finalize workshop notes
- Agency representatives will review and finalize their agency priorities for the watershed
- Agency priorities and public feedback will inform the updating of the watershed plans (likely in an addendum to the plan)
- Updated watershed plans (addendum) will be prepared and made available.