Steelhead Recovery Initiatives

Current

- **Chilliwack / Squamish Watershed Carcass Redistribution Program**
- **Water Chemistry Analysis**

Subject to funding proposal approval

- **Coquihalla River Recreational Angler Creel Survey**
- **Lower Mainland River Guardian Program**

Chilliwack / Squamish Watershed Carcass Redistribution Program

"Historically, huge numbers of salmonid carcasses provided entire watersheds with abundant nutrients derived from the ocean. Recent research strongly supports the hypothesis that salmon carcasses play a key role in maintaining the productivity of salmonid systems and benefiting the aquatic and terrestrial ecosystem as a whole. Rearing juveniles consume salmon eggs, feed directly on spawned-out carcasses, and benefit from increased abundance of invertebrates and algal growth. The presence of carcasses in streams has been related to increased juvenile density, growth rate, body size, improved fish condition, improved over wintering survival and ultimately increased marine survival." (DFO In-House document – "Guidelines for In-stream Placement of Hatchery Carcasses", 2002 DRAFT)

The Squamish and Chilliwack Watersheds have been recently chosen for river nutrification through the placement of excess returning hatchery salmon carcasses. These watersheds have been chosen primarily based on the ease and access to large numbers of carcasses from either the Tenderfoot Creek Hatchery or the Chilliwack River Hatchery.

During the Week of Sept 15, 2003 approximately 100 Chinook carcasses were distributed throughout lengths of the Shovelnose creek (Squamish Watershed). The carcasses were distributed within the creek with aid from the Tenderfoot Hatchery staff and an organized group of Squamish based South Coast Steelhead Coalition members. Specific locations were pre-selected to maximize the biological effectiveness of the introduction of marine derived nutrients to this freshwater ecosystem.

Tenderfoot Hatchery staff distributing chinook carcasses into Shovelnose Creek extension channel

We are currently in the process of carcass distribution for the Chilliwack River. On October 08, 2003 approximately 140 pink salmon carcasses were distributed in Foley Creek near the Chilliwack-Foley FSR bridge by volunteers from the South Coast Steelhead Coalition, Chilliwack Fish and Game Club, and Chilliwack River Hatchery.
Continued distribution will include the placement of approximately 300 pink, coho, and chinook salmon into each of Centre, Post, Middle, Chipmunk, Little Chilliwack, and Depot Creeks and the shorelines of the Chilliwack Lake.

Post Creek (Chilliwack River tributary)

In the past months, the Chilliwack River Hatchery staff has conducted carcass distribution work by releasing excess salmon carcases into Anderson pond and Slesse, Borden, and Anderson Creeks. Continued efforts by all concerned groups will eventually help the aquatic ecosystems of the Chilliwack River and its tributaries.

Without the help of volunteers and in-kind support from hatchery personnel these carcass distribution programs would only have limited success.

Water Chemistry Analysis

Candidate streams for slow release fertilization are currently being assessed to determine whether or not nutrient enrichment would be a strategy to enhance the fresh water habitat of juvenile steelhead and other freshwater species. The following rivers have had water chemistry testing in previous years but require updated data collection before considering to implement a current stream enrichment program: Capilano, Seymour, Chilliwack, Chehalis, Silverhope, Coquihalla, Indian, and Nahatlatch. The following rivers have had limited or no water quality testing in the past and therefore will require initial baseline data collection (when time/access permits); Orford, Brem, Lang, Vancouver (Jervis Inlet), Tzoonie (Sechelt Inlet), Chapman, Rainy, Cheakamus, Norrish, and Upper Pitt.

Coquihalla River Recreational Angler Creel Survey

In the summer/fall of 2002 a new steelhead angling opportunity was developed on the Coquihalla River, a river previously closed to angling since 1994. Unfortunately, extremely low water levels and low returning summer steelhead during the current 2003 summer/fall season resulted in the fishery being re-closed as a conservative fishery management approach. Plans in the future are to continue the fishery, on a more permanent basis, if stock status can stay within a designated Routine Management Zone.
The project will monitor and evaluate the recreational fishery and determine the impact, if any, on wild summer run steelhead. The project will also provide information that is critical to the ongoing management of this fishery and will enable this recreational opportunity to be sustained.

Lower Mainland River Guardian Program

Implementation of a River Guardian Program under the Quality Waters Strategy will provide valuable information on the Lower Mainland Steelhead Fishery. River guardians will monitor angler activity and success and provide valuable steelhead stock information to fishery managers. By allocating guardians throughout Lower Mainland Rivers we will promote and ensure compliance of steelhead fishing regulations and fair angling ethics. Guardians can educate and inform local anglers' about the Greater Georgia Basin Steelhead Recovery Plan and the steelhead issues that revolve around the survival of the species. Guardians will record feedback from anglers related to steelhead (and other species), habitat issues, and regulation changes that may be useful to regional fishery managers.