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Capilano salmon get help around dam  
As many as 85% die in fall over spillway

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FISH technicians Russel Jacob (left) and Greg Joseph inspect one of their subjects near the Capilano Fish Hatchery as part of a project to boost fish stocks in the Capilano River. Metro Vancouver and other agencies plan to truck smolts downstream past the Cleveland Dam.

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FOR the first time in more than half a century, young coho and steelhead migrating down the Capilano River may have a fighting chance of making it to the sea with the launch of a program by Metro Vancouver and other organizations to drive them in tank trucks around the Cleveland Dam.

The region, together with the Department of Fisheries and Oceans, the Ministry of the Environment, and the B.C. Conservation Foundation announced the \$400,000- project this week, which will see the smolts captured in traps placed in and near the Capilano Reservoir, measured, tagged and then transported to the river below the barrier.

For years, the DFO has been transporting adult coho and steelhead past the dam on their way upriver to spawn, but this is the first time anyone will be assisting their young as they head in the other direction.

The plan is intended to significantly improve the odds of survival for the fish, which have been dying in droves as they plunge over the dam's 90-metre spillway. As many as 85 per cent have been perishing in the fall, according to conservationists.

"The fish weren't really fully respected in the process of (designing the dam)," said Craig Wightman, a senior biologist with the B.C. Conservation Foundation. "This is a basically a change in attitude by Metro Vancouver toward trying to deal with these other resource values."

The river's fish stocks were devastated by the dam's construction in 1954. Some species vanished, said Wightman, and the coho population is likely at a third of its original size.

Steelhead are in worse shape. Rough estimates put the number of smolts of both species entering the reservoir each year at around 60,000. Less than 10 per cent of those are steelhead. After the losses sustained at the spillway and out at sea, only a tiny number of those have been returning.

The change of approach is in part the result of media attention to the issue. Last year, the Outdoor Recreation Council ranked the Capilano River as the second most endangered river in British Columbia. It cited the spillway problem and other dam-related issues as reasons for the decision.

"I guess it got in the media and we brought it to the attention of our directors at Metro Vancouver," said Derek Bonin, Metro's planning forester. "We explained the issue and they gave us the direction to try to resolve it."

But it is not clear yet how effective the truck and track program will be in addressing the problem.

"This is a bit of a trial year," he said. "If we can capture 50 per cent I think we'd be doing really well."

At any rate, the plan is likely just an interim measure until a more permanent solution can be found, said Bonin. That may involve some kind of structure at the dam itself that would allow the fish to bypass it safely on their own. Metro will be looking at solutions tried in other jurisdictions for ideas, said Wightman.

Project organizers will also be turning their attention to problems below the dam. Since its construction, the barrier has been preventing the transit of gravel and other debris used by spawning fish into the six kilometres of the riverbed below it. It may be possible to bring some of that material in artificially to help build back spawning beds. That is an idea the region will be looking at.

There is also the issue of water temperature. In the summer months, when the reservoir drops below the level of the spillway, water is ejected into the lower stretch of the river through pipes at the bottom of the dam. That water, drawn from the depths of the lake, is significantly colder than that which would normally feed that part of the waterway.

Cold water can stunt the growth of young fish, and thus impact their odds of survival.

"Fish don't grow very well at four to eight degrees. It takes them a heck of a long time to reach the smolt stage," said Wightman. "The longer they're in the river as juveniles, the more mortality they're exposed to just from natural predation."

Planners have yet to determine how best to address the issue.

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