

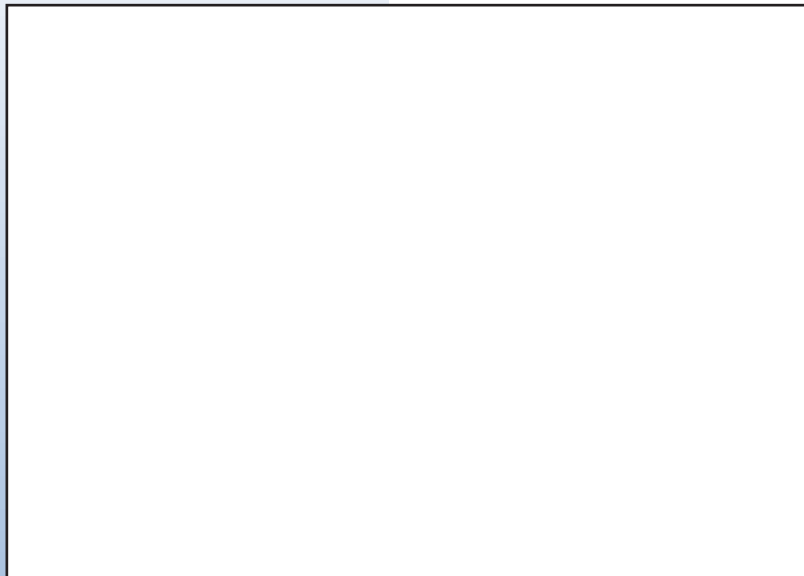


Information Bulletin

Simpson Lake Transplant

PEACE/WILLISTON FISH & WILDLIFE COMPENSATION PROGRAM

Objective: To create a new lake fishery in Simpson Lake that would diversify the angling opportunity and relieve pressure on other wild stock species.



▲ Fisheries technician Randy Zemlak prepares to release the rainbow trout into Simpson Lake.

Fish biologists with the Peace/ Williston Fish and Wildlife Compensation Program are conducting a fish enhancement project at Simpson Lake.

Simpson Lake is located 65 kilometres west of Chetwynd in the Pine Pass, an area with relatively few small lake fisheries. Program biologists chose the lake for the project because although it was barren of all fish species, it had several promising tributary systems containing habitat suitable for spawning and rearing. To the

biologists, this meant that the lake had the potential to support a self-reproducing fish population.

During the inventory stage of the project, biologists wanted to determine whether the lake could support a transplanted fish population. A 1990 oxygen survey showed that the oxygen levels were very good and that fish could successfully “over-winter” in the lake.

Program biologists wanted to use wild stock, rather than hatchery strains in the transplant. Wild stocks were preferable in this case because hatchery fish had the potential to compromise the genetic integrity of the wild stock if they were to escape from Simpson Lake into a river system. The biologists decided to capture the fish at W.A.C. Bennett Dam because the fish there are native to Williston Reservoir and its tributary systems.

In August 1994, biologists used angling and gill nets to capture 26 rainbow trout from the donor site. Each fish was weighed, measured and had a

scale sample taken to determine its age and general health. The larger fish were tagged so that biologists could record their movements if they were later recaptured by anglers.

Biologist Arne Langston and fisheries technician Randy Zemlak made thorough inspections of each catch to ensure that no foreign material would be included in the transplant. Even the water, which could contain microscopic animal or plant life foreign to Simpson Lake, had to be discarded. Other fish species captured were released into the reservoir or transplanted to Dunlevy Creek.

"We wanted to be sure there were no foreign fish, plants or eggs in with the rainbow trout because they have the potential to affect the ecology of the transplant site," said Langston.

In July 1996, program biologists repeated the transplant with 62 additional rainbow trout. For this second capture, they experimented with the use of a fine mesh basket to scoop the fish from the donor site, a method that proved more successful and less stressful for the fish.

To ensure that the fish remained healthy during the transplant, they were kept in a 900-litre tank in controlled conditions. The biologists used oxygen bottles to diffuse fine mists of oxygen into the water and placed blocks of ice in the tank to keep the water cool. The water temperature at the capture site was approximately four degrees lower than at Simpson Lake and the water in the tank was allowed to warm slightly to make the fish acclimatized to conditions at the release site.

The fish were transported by truck for most of the four-hour journey from the Bennet Dam to Simpson Lake. Since the only direct access to Simpson Lake is via a one-kilometre overgrown trail, the biologists were met by members of the Chetwynd Rod and Gun Club who used their all-terrain vehicles to drive the fish to the lake shore. They also volunteered the use of their boats to bring the fish across the lake to the inlet stream for release.

The Peace/Williston Fish and Wildlife Compensation Program is a joint B.C.Hydro and B.C. Environment initiative to enhance and protect fish and wildlife within the Williston and Dinosaur watersheds in northeastern British Columbia.

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