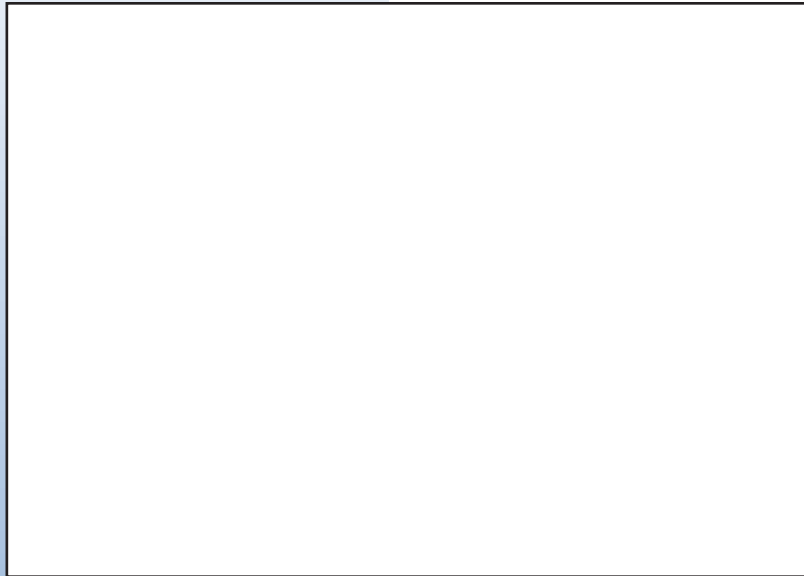




Habitat Improvement at Dina Lake No. 3

PEACE/WILLISTON FISH & WILDLIFE COMPENSATION PROGRAM

Objective: To create a self-reproducing rainbow trout fishery in a barren lake through stocking and habitat enhancements. This project was conducted in cooperation with local organizations.



▲ Fisheries technician Randy Zemlak (right) and a Biology 11 student place and rake spawning gravel in the inlet stream at Dina Lake No. 3.

In a period of only a few years, two biologists and some enthusiastic community members turned a barren lake into the most popular ice fishing spot in the Mackenzie area. The enhancement project at Dina Lake No. 3 is one of many projects undertaken by the Peace/Williston Fish and Wildlife Compensation Program, but staff say it was also one of the most rewarding.

Dina Lake No. 3 is part of the Dina chain, located 30 kilometres north of Mackenzie. The lake

was chosen for an enhancement project when a forest recreation officer suggested that a sport fishery would complement the existing canoe circuit of the lake chain.

Before any enhancement was undertaken, biologists had to complete a comprehensive inventory of the lake and its surrounding area, including a series of surveys over an 18-month period. Results from these surveys showed that although Dina Lake No. 3 was barren of all fish species, it did contain enough nutrients and oxygen to support a fish population.

Stocking began in the fall of 1992 when program biologists enlisted the help of the Mackenzie Fish and Game Association to transplant 5,000 rainbow trout fry into Dina Lake No. 3. Since there is no road access, the fry had to be transported by truck to neighbouring Dina Lake No. 1, driven by boat to the eastern shore and carried in buckets by the volunteers along a canoe portage trail to Dina Lake No. 3.

Over the next two years, 5,000 rainbow trout yearlings were released into Dina Lake No. 3 by helicopter. Monsoon buckets normally used in fire fighting were filled with the fish and emptied into the lake. Once again, the Mackenzie Fish and Game Association members were on hand to assist with the stocking.

By the winter of 1994/95, Dina Lake No. 3 had become a very popular ice fishing spot and was well-known by the residents of Mackenzie. Although the lake had been successfully stocked, it remained closed off from other water systems, making the fish completely spawn-bound.

Fish that are unable to spawn reabsorb the eggs, or milt, into their bodies. This has negative consequences both for the sport fishery—they are of poor eating quality and they are reluctant to bite lures—and for the health of the fish, whose growth rates are reduced.

Unless the lake was restocked every couple of years, the fish population would again diminish over time. A survey

of the lake had indicated that the only way to encourage natural production was to alter the inlet stream to make it suitable for spawning.

The existing channel was thick with mud where it entered the lake and was blocked by two inactive beaver dams. The water was dispersed into several tiny streams where it flowed over the beaver dams and was too shallow to be of any use to the fish.

Program biologists had no trouble finding volunteers to help improve the spawning habitat. In February 1996, members of the Mackenzie Rocky Mountain Riders took advantage of the ice-covered lake to transport 150 bags of spawning gravel by snowmobile to the site.

When the time came to begin work on the creek, biology students from Mackenzie Secondary School came out to lend a hand. Working alongside program biologists, the students helped dig out a new channel to consolidate the flow of water. They also placed and raked the spawning gravel along

the new creek bed. The creek now flows freely and visits to the lake during spawning season have indicated that the trout are making good use of their new spawning ground.

For the biologists, seeing the efforts of the local residents was particularly gratifying. "This lake is an ideal project because of the community involvement at the various stages," said fish biologist Arne Langston. "Mackenzie residents have the Fish and Game Club, the students and the Rocky Mountain Riders to thank for their new sport fishery."

After all that hard work, biologists intend to protect the new spawning creek from any bears and eagles who might also want to take advantage of the new fishing site. Logs and brush piles were strategically placed over the creek bed to keep the fish safe.

Plans for further enhancement at Dina Lake No. 3 are well underway. The Rocky Mountain Riders have again volunteered to haul additional bags of gravel to the site and Peace/Williston staff and volunteers will be on hand in the spring to continue improvements to the spawning habitat.

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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