Kawagama Lake Project

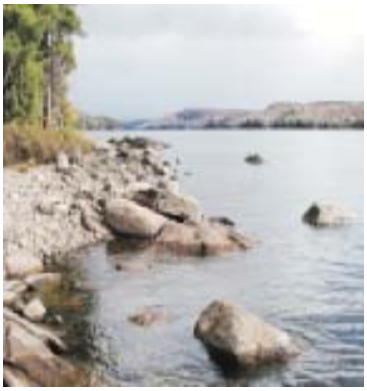
One of the goals of the *Muskoka River Water Management Plan* is to improve habitat conditions for lake trout by improving water levels conditions. Water management activities such as late fall and winter drawdown have the potential to negatively affect lake trout populations. Winter draw downs are done on many lakes to provide storage for the spring run-off and mitigate the risk of flooding.

Lake trout spawn on rocky shoals in the fall and the eggs fall down between the spaces in the rocks where they remain for most of the winter. The young lake trout or “fry” hatch in late February or March and remain in the shoal until their yolk sac is used up. In early May, the lake trout fry emerge from the shoal to begin feeding in open water. Eggs and fry can be killed if the lake level is drawn down too far before they emerge in the spring

The Planning Team identified the need to evaluate the impact of water level management on the spawning success of lake trout in Kawagama Lake. The project objectives were to collect detailed information on the spawning habitat used by lake trout, document lake trout spawning activity and to assess the affect of winter drawdown on egg and fry survival.

Kawagama Lake contains several shoals with good spawning habitat. The field investigations conducted in 2004 revealed that a significant number of eggs and newly hatched fry died as a result of being exposed when the water levels were lowered during the winter on Kawagama Lake.

As a result of the study conducted on Kawagama Lake, new winter drawdown levels were implemented in 2006 to protect the lake trout eggs and fry.



Lake trout spawning shoal on Kawagama Lake.



Young lake trout or “fry”.



Checking winter lake trout egg and fry survival on Kawagama Lake.