

## **2016 QISES Drought Proofing Report**

The droughtproofing program, begun in 2004, uses naturally stored winter and spring runoff in Mud Lake, Reed Lake and a large wetland to augment summer flow in Hyacinthe Creek when required. There are two sets of 5 cm diameter lines at three sites (Mud Lake outlet, the large Walcan Road culvert at Reed Lake outlet and the wetland outlet downstream of Reed Lake). Drawdown of these sources in sequence, or together, is intended to maximize water delivery to lower reaches of Hyacinthe Creek during dry periods, and thus provide higher quality rearing habitat for coho fry.

In early April, Emcon and QISES volunteers removed debris from the upper end of the two large culverts under Hyacinthe Bay Road. Later in the month, beaverdam debris from the Reed Lake culvert was removed by hand, as far downstream as the large wetland.

In May, the waterlines and intake box were removed from Little Morte Lake, since the lower lake level was no longer useful as a backup water source for Hyacinthe Creek. The damaged waterline was removed at the site 3 wetland, and the beaver dam was repaired as much as humanly possible. The intake box was moved further out into the wetland, attached to a weighted float. The beaver did not appear to be present at the wetland this year. We later pieced together a new water line from the wetland to have a backup for the second line. We also replaced one line at the Mud Lake outlet, and repaired one line at Reed Lake. All waterlines were primed for summer use.

Stadia rods made by John Fraser were placed in Mud Lake, Reed Lake and the wetland above the beaver dam to gauge water levels more accurately during the summer.

Rains were typical for summer, with sufficient in June, and showers continuing until mid-July. Intermittent rains began in late August. By July 27<sup>th</sup> one line from Mud Lake had been partially opened and later fully opened since the second line had lost its prime. By mid-August, one line was opened from Reed Lake to maintain water in the wetland. By late August, there was only a tiny flow above the Hyacinthe Bay culverts. Monitoring ended by mid-September.

In conclusion, the droughtproofing system continues to be a useful tool for supporting coho fry in Hyacinthe Creek; the situation could have been much worse without it. However, a substantial amount of volunteer time was needed to repair waterlines and improve usefulness of the intake boxes. Special thank you to all volunteers for their ongoing help in maintaining this system.

Janis McLean

## 2016 DP Timeline

April 5 – Frank, Al, Doug – cleared log jam debris from Hyacinthe Bay road culverts.

April 26 – Doug, Janis, Al, Eileen – inspected DP sites. Cleaned out beaver dam debris from Reed Lake to wetland.

May 1 – Frank, Erin, Janis, John, Doug, Mark, Eileen, Al – removed lines and intake box from Little Morte Lake. Fixed site 3 dam and dismantled damaged line.

May 15 – Frank, Doug, Theresa, Janis – replaced waterline at Mud Lake and Reed Lake, and primed.

May 31 – Frank, Mark, Doug, Al, Janis – fixed one waterline at site 3, moved box further out into wetland and placed stadia rods in Mud Lake, Reed Lake and the wetland.

July 2 – Janis – check water levels.

July 27 – Janis – check water levels and opened 1 Mud Lake line.

July 30 – Janis – check water levels.

August 14 – Janis – checked water levels and opened 1 Reed Lake line.

August 21 – Janis – check water levels.

September 8 – Janis – check water levels.