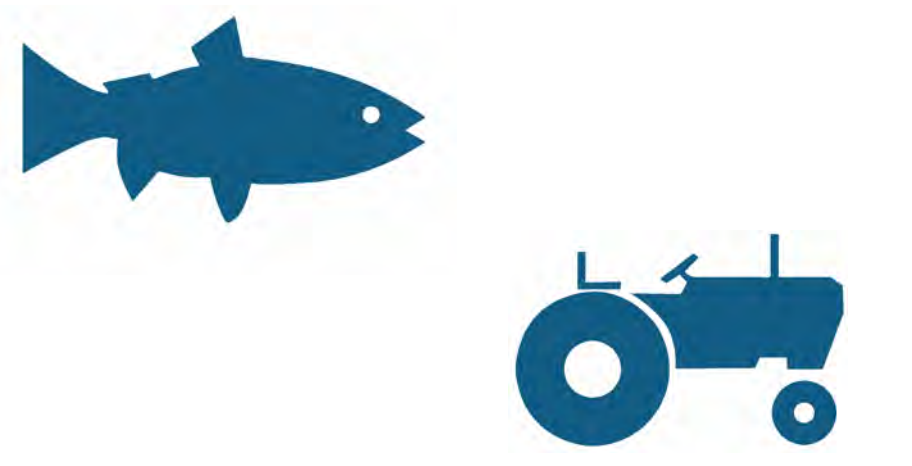


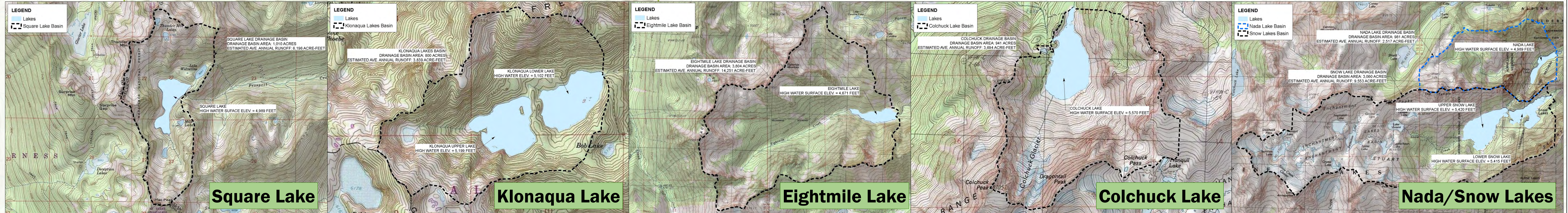
# ALPINE LAKES



There are seven reservoirs located within the Alpine Lakes Wilderness Area that have been used as supplemental supply for the Icicle-Peshastin Irrigation District and the US Fish and Wildlife Service Leavenworth National Fish Hatchery: Upper and Lower Snow, Nada, Colchuck, Eightmile, Klonauqua, and Square Lake Reservoirs.

To operate these reservoirs, trips are made by helicopter or on foot to manually turn release valves. Because of the time and cost to adjust valves, trips are generally only made at the beginning of the season to open the valves and at the end of the season to close the valves. Typically, water is released from all the reservoirs in drought years to augment downstream water supply. In average years, water is released from Upper and Lower Snow, and Nada Reservoirs. In addition, water is released from one of the remaining four lakes to facilitate operation and maintenance by the District.

The purpose of the Alpine Lakes Optimization, Modernization and Automation project is to provide automated valve control to facilitate annual releases from all of the reservoirs for instream flow benefit. This project will provide approximately 30 cfs of instream flow benefit in Icicle Creek over 92 days. All water supplied benefits instream flow. Leavenworth National Fish Hatchery and Icicle-Peshastin Irrigation benefit from automated rather than manual operation of the reservoirs.



**Project Costs: \$680,000 Total (\$124/acre-foot)**

Under the land exchange agreement recorded with the Chelan County recorder's office IPID retained several rights to the land, including:

*"a nonexclusive, perpetual easement across, through, along, and upon the property described herein for the purposes of maintenance, repair, operation, modification, upgrading and replacement of all facilities presently located in or upon the property described herein, together with a nonexclusive right of ingress to and egress from all such facilities for all such purposes, in accordance with Rules and Regulations of the Secretary of Agriculture, 36 CFR 251.17 and 251.18, attached hereto and made a part hereof, in such manner as not unreasonably to interfere with its use by the United States, its authorized users or assigns, or cause substantial injury thereto."*

*The Grantor [IPID] may exercise the rights hereunder by any means reasonable for the purposes described, including but not limited to the use of motorized transportation and equipment, or aircraft. These rights include the right to regulate water level of all facilities located upon the property described herein. In performing maintenance, repair, operation, modification, upgrading and replacement of facilities located in or upon the property described herein, the Grantor will not without prior written consent of the Forest Service, which consent shall not unreasonably be withheld, materially increase the size or scope of the facilities."*



Colchuck Lake Gate Actuator



Square Lake Gate Actuator



Square Lake Dam and Spillway



Eightmile Lake Dam



Nada Lake Solar Panel Installation for Monitoring Equipment



Lower Klonauqua Lake Gate Chamber Open with Gate Actuator



Nada Lake Dam



Upper Snow Lake Outlet Discharging to Nada Lake

