



Eightmile Lake Restoration Project

More information available at: <http://www.co.chelan.wa.us/natural-resources/>

PROJECT DESCRIPTION

Eightmile Lake is one of four Alpine Lakes currently managed by Icicle Peshastin Irrigation District (IPID) for supplemental irrigation water. IPID typically releases water from one lake each year on a rotating basis to supplement irrigation supply and to perform routine maintenance. In drought years, water is released from all four lakes.

Over time, ice and flooding have damaged water storage control structures on Eightmile Lake, which has reduced the useable storage capacity to 1,600 acre- feet.

The Icicle Work Group (IWG) evaluated four storage scenarios at Eightmile Lake. These scenarios included installing a siphon to increase drawdown, rebuilding the dam to restore the maximum water surface elevation to its historic level, and rebuilding the dam to increase storage. These project alternatives would provide 2,000 acre-feet, 2,500 acre- feet and 3,500 acre-feet of of useable storage. The IWG proposes restoration to 2,500 acre-feet as part of its base package of projects which would include restoration of the dam height to the historic high water mark, and increased operating drawdown.

Lead Entity : Icicle-Peshastin Irrigation District

Estimated Project Cost: \$1.6 Million

PROJECT BENEFITS

- Instream flow benefits 9.5 cfs (1,125 acre-feet) from Eightmile Lake to the Wenatchee River in Icicle Creek from August through September
- IPID to receive additional 475 acre-feet in drought year benefit
- Flexibility in flow management
- Improves storage reliability and management
- Meets domestic demand for the City of Leavenworth through 2050 (up to 900 ac-ft)
- Meets domestic demand for Chelan County through 2050 (up to 900 ac-ft)

GUIDING PRINCIPLES

- Improves instream flow
- Improves domestic supply
- Improves agricultural reliability
- Enhances Icicle Creek habitat and passage

TIMELINE TO IMPLEMENT

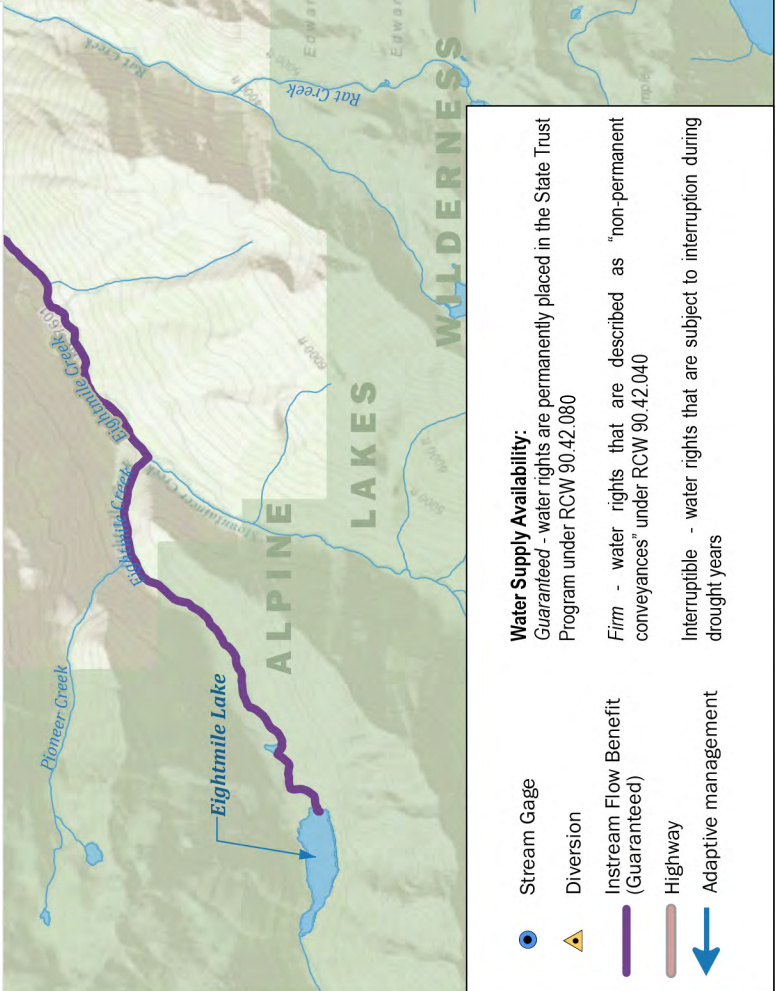
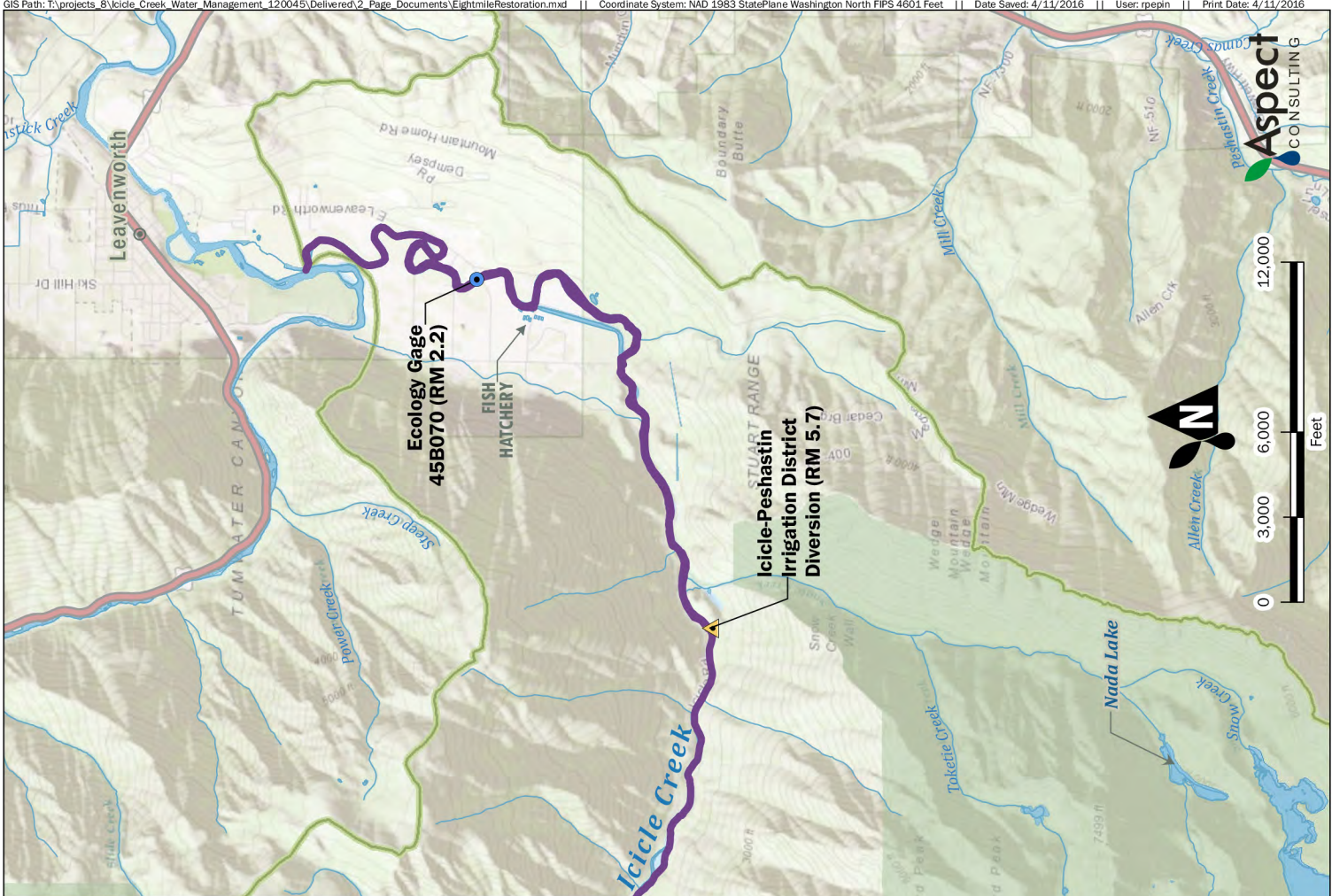
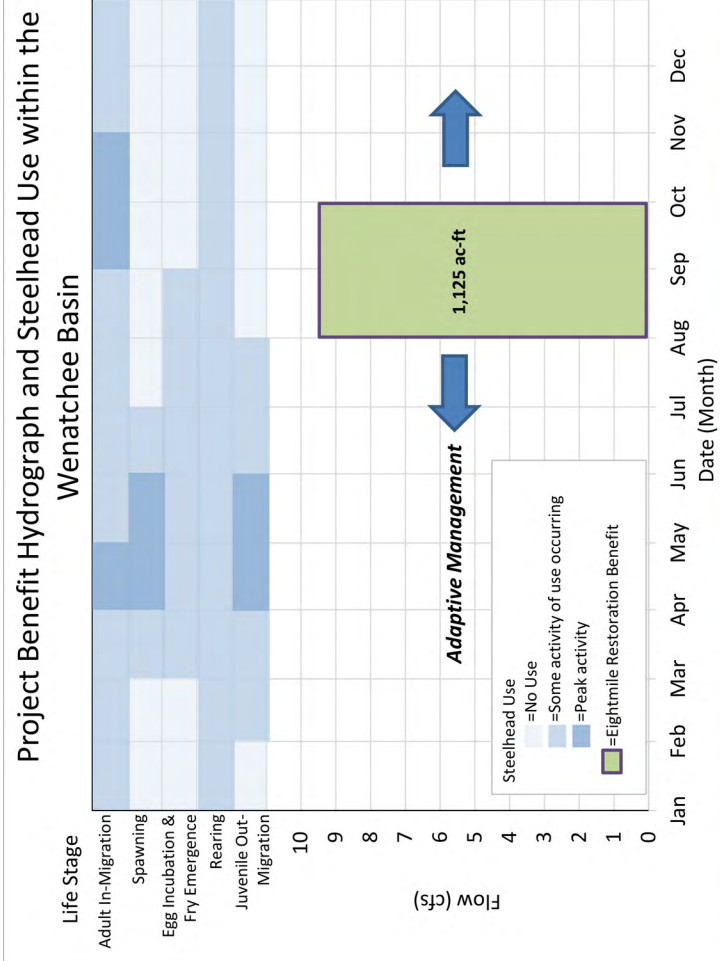
2015	Appraisal Study Completed
2016-2017	Environmental Review and Feasibility Studies
2017-2018	Permitting and Design
2018	Construction

POTENTIAL ISSUES/DATA GAPS

- Working in Wilderness Area, remote access for construction, storage water rights
- Coordination with Alpine Lakes Automation Project
- Data gaps include permitting and construction feasibility, impacts and storage/release timing

EXISTING AND ONGOING STUDIES

- Eightmile Lake Restoration and Expansion Appraisal Study, 2015, Anchor QEA/Aspect Consulting
- Feasibility Study Eightmile Lake Storage Restoration, ongoing, Chelan County
- Preliminary Draft, Needs and Alternatives Analysis, Icicle Creek Sub-Basin Storage Study, March 2007 Anchor Environmental, LLC
- Alpine Lakes Optimization and Automation Appraisal Study, 2015, Aspect Consulting/Anchor QEA
- Alpine Lakes Optimization Feasibility Study, ongoing, Chelan County



Water Supply Availability:
Guaranteed - water rights are permanently placed in the State Trust Program under RCW 90.42.080
Firm - water rights that are described as "non-permanent conveyances" under RCW 90.42.040
Interruptible - water rights that are subject to interruption during drought years

