



Habitat Protection and Enhancement

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

PROJECT DESCRIPTION

The Icicle Work Group (IWG) has identified habitat improvements as important to advancing the objectives set out in the guiding principles.

Throughout Icicle Creek, the IWG is planning habitat improvement projects, including riparian plantings, engineered log jams, conservation easements, and others. Additionally, the IWG plans to coordinate land acquisition projects with the Upper Wenatchee Community Land Plan to protect land within the Icicle Creek subbasin.

In the next two years, Icicle Creek will be evaluated for physical and hydraulic conditions to identify project opportunities. The IWG has budgeted \$2.5 million for instream habitat and land acquisition projects.

PROJECT BENEFITS

- Improve instream habitat
- Improves ecosystem health
- Conserves land in upper reaches of Icicle Subbasin

GUIDING PRINCIPLES

- Enhances Icicle Creek habitat

POTENTIAL ISSUES/DATA GAPS

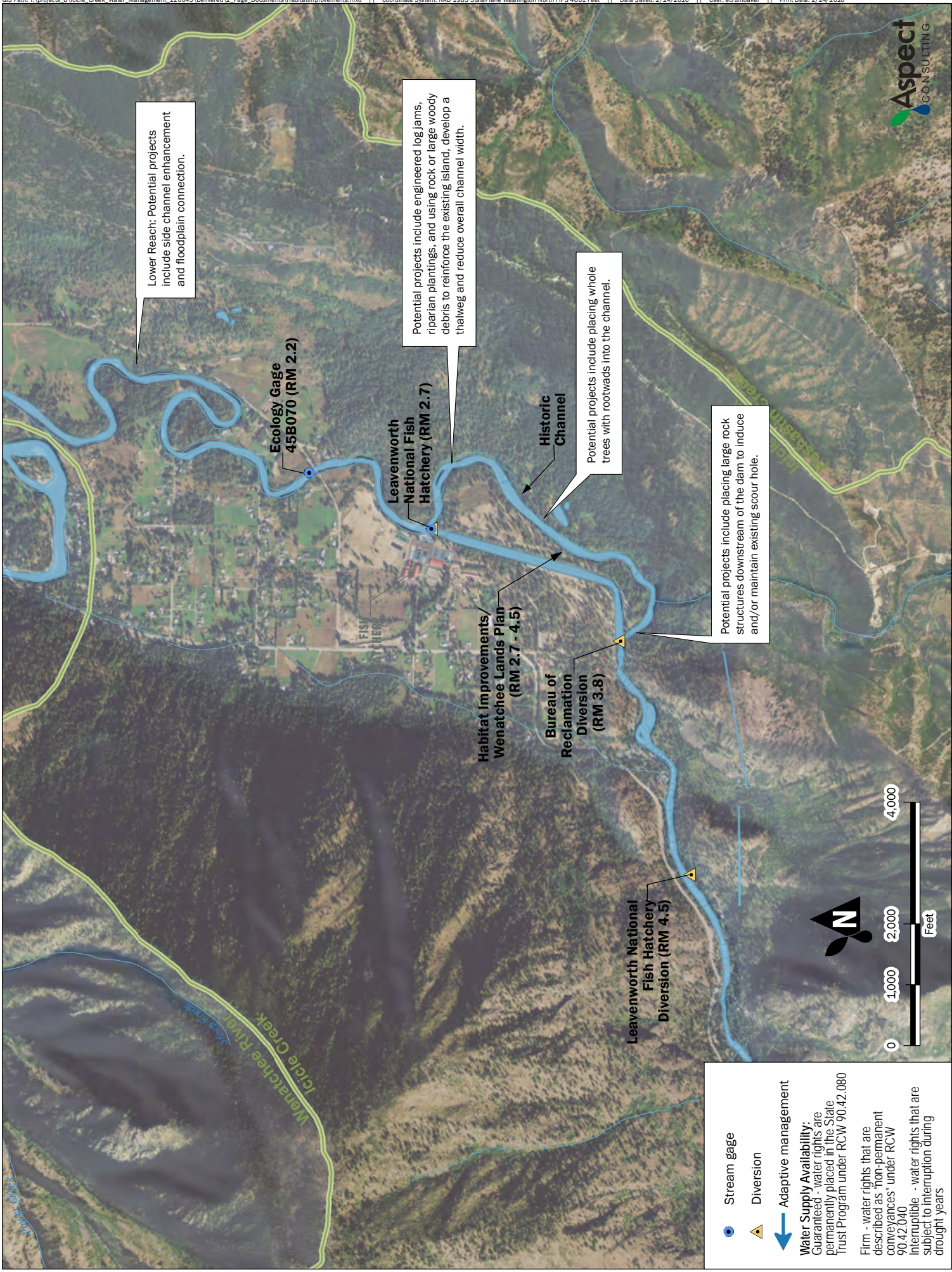
- Assessing physical and hydraulic conditions
- Determining project sites

TIMELINE TO IMPLEMENT

2016	Project Development and Design
2016-2017	Environmental Review
2018	Construction

EXISTING AND ONGOING STUDIES

- Lower Icicle Instream Flow Incremental Methodology (IFIM), 2005, US Bureau of Reclamation
- Icicle Creek Target Flow Report of the Leavenworth National Fish Hatchery, 2004, Montgomery Water Group
- Icicle Creek Instream Flow and Fish Habitat Analysis for LNFH, 2013, USFWS
- Lower Icicle Creek Habitat Project Field Survey, 2015, US Fish and Wildlife Service, Department of Ecology, Chelan County



Lower Reach: Potential projects include side channel enhancement and floodplain connection.

Potential projects include engineered log jams, riparian plantings, and using rock or large woody debris to reinforce the existing island, develop a thalweg and reduce overall channel width.

Potential projects include placing whole trees with rootwads into the channel.

Potential projects include placing large rock structures downstream of the dam to induce and/or maintain existing scour hole.

- Stream gage
- Diversion
- Adaptive management

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

