



Irrigation Efficiencies Cascade Orchards Irrigation Company

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

PROJECT DESCRIPTION

Cascade Orchards Irrigation Company (COIC) shares a point of diversion with Leavenworth National Fish Hatchery (LNFH) on Icicle Creek.

COIC provides water to irrigators in the lower reaches of the Icicle subbasin, near the confluence of Icicle Creek with the Wenatchee River. Proposed conservation measures in COIC's irrigation system, subject to COIC shareholder approval, would add up to 11.9 cfs and 3,640 ac-ft/year to the lower 4.5 miles of Icicle Creek.

COIC is exploring the option of moving their point of diversion to the Wenatchee River, which would leave more water in Icicle Creek. Improvements would also include replacement of the open ditch system with a closed pipe system to improve efficiency.

COIC is currently working on an alternatives analysis to explore various conservation options. The cost of the COIC water conservation options, which will be subject to approval by their shareholders in future meetings is estimated at approximately \$3-5 million.

PROJECT BENEFITS

- Provides up to 11.9 cfs (3,640 ac-ft) of streamflow benefit
- Improves COIC system operation

GUIDING PRINCIPLES

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

POTENTIAL ISSUES/DATA GAPS

- Work with COIC to identify any potential impacts to landowners
- Coordinate changes in point of diversion and operation with LNFH

TIMELINE TO IMPLEMENT

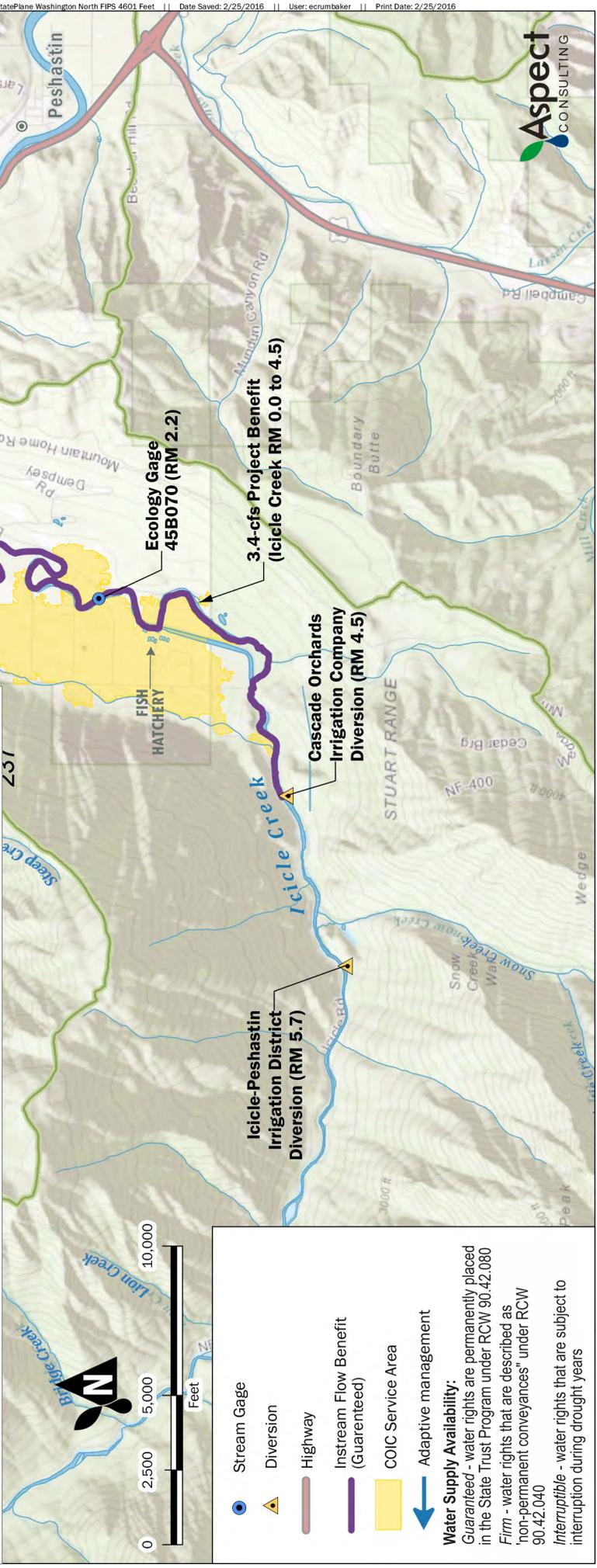
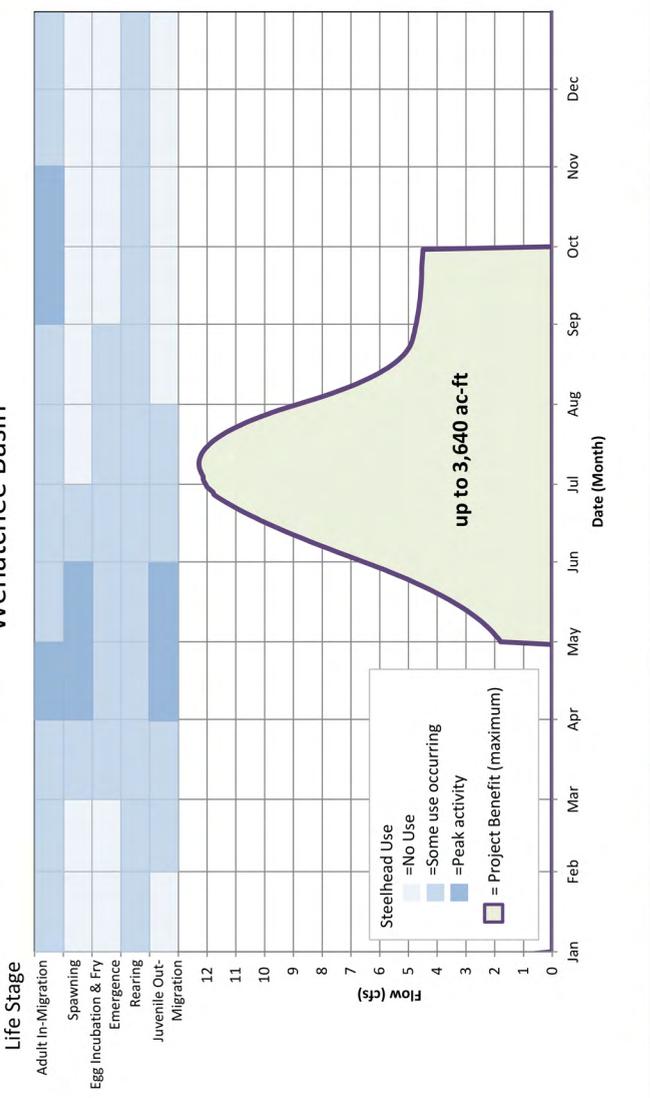
2016	Alternative Analysis and Feasibility
2016-2017	Environmental Review and Design
2018	Construction

EXISTING AND ONGOING STUDIES

- Alternatives Evaluation Study Cascade Orchards Irrigation Company, 2015 (draft), Washington Water Trust and Anchor QEA
- Needs and Alternatives Analysis, Icicle Creek Sub-basin Storage Study, 2007, Anchor Environmental LLC



Project Benefit Hydrograph and Steelhead use within the Wenatchee Basin



- Stream Gage
- Diversion
- Highway
- Instream Flow Benefit (Guaranteed)
- COIC Service Area
- 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