



River Mile (RM) 0.8 to 2.3

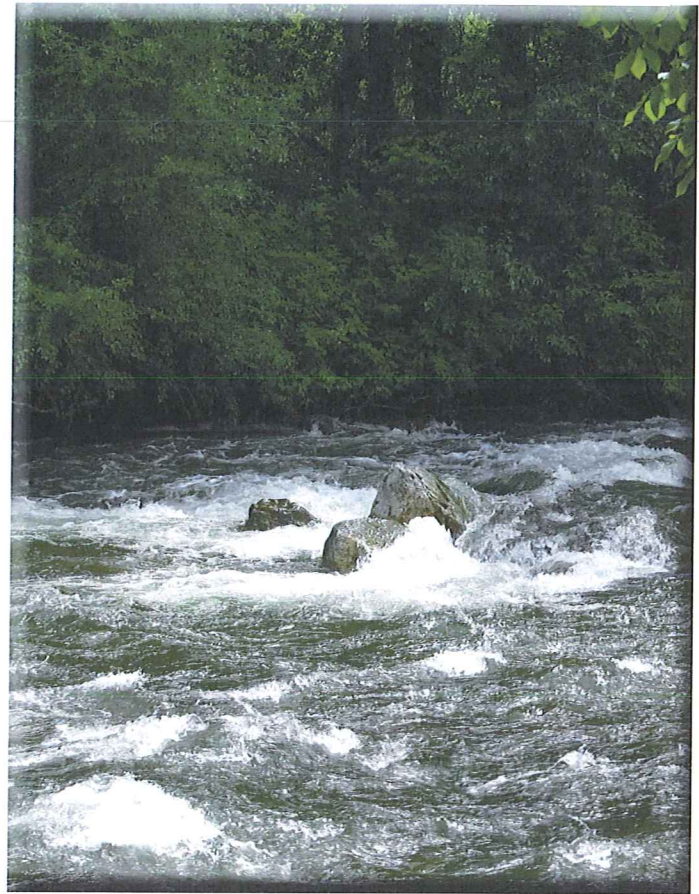
Lower Entiat **Restoration Project**

Project Sponsor: Cascadia Conservation District -
Mike Cushman

The Upper Columbia River spring Chinook salmon ESU was listed as endangered under the Endangered Species Act March 24, 1999 (64 FR 14307)

The Upper Columbia River steelhead was listed as endangered August 18, 1997 (62 FR 43937), and reclassified as threatened January 5, 2006 (71 FR 834)

The journey to construction of these innovative fish habitat projects began in the early 1990's when a group of landowners got together to address natural resource concerns in the Entiat Watershed. In October 2004 the Entiat Watershed Planning Unit, its partners, and the community developed the Entiat Water Resource Inventory Area 46 Management Plan through a local, grass-roots approach.



Boulder Cluster Example

Project Goals:

- Provide resting and holding areas for juvenile and adult fish.
- Provide rearing areas for juvenile fish during the summer and winter seasons when river levels are at their lowest.
- Connect off-channel habitat to provide slower water for juvenile fish during high flow spring flood season.
- Provide habitat for juvenile fish to grow before leaving the Entiat to improve their chances of returning as adults.



Habitat Log Example

Project Elements -

- Side channel connection at RM 0.8
- 7 Boulder Clusters at RM 1.1 to RM 1.3
- 23 Habitat Logs w/ Boulders at RM 1.6 side channel
- 2 Boulder Clusters at RM 2.2



Side Channel area at RM 1.6

Entiat National Fish Hatchery (ENFH)

Restoration Project River Mile (RM) 6.7



Split flow channel inlet excavation and boulder cluster area

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Watershed Connection: The Entiat Watershed Planning Unit formed in 1993 after a group of local Entiat landowners concerned about Entiat natural resources, partnered with Cascadia Conservation District to form the first Coordinated Resource Management Plan in North Central Washington. The Planning Unit has received national recognition for their success in working toward creative and collaborative solutions to resource issues such as improving and maintaining water supply for farmers, residents, and fish.

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Habitat log split channel area



Alcove inlet excavation area at RM 6.73

Project Elements:

- Split flow channel inlet excavation to connect at lower flows near RM 6.8
- 1 Boulder Cluster at RM 6.8 to direct flow into the split channel
- 15 Habitat Logs with Boulders along the river bank of the split flow channel
- Reconnection of off-channel alcove at RM 6.73