

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**STREAM HABITAT IMPROVEMENT AND MANAGEMENT**

(Feet)  
Code 395

**DEFINITION**

Improving a stream channel to make a new fish habitat or to enhance an existing habitat.

**PURPOSES**

To increase the production of desired species of fish.

**CONDITIONS WHERE PRACTICE APPLIES**

In streams where poor habitat limits production of desired species.

**CONSIDERATIONS**

Quantity

1. Effects on the water budget.

Quality

1. Effects on channel erosion and the movement of sediment and soluble and sediment-attached substances that would be carried by runoff.
2. Effects on wetlands or water-related wildlife habitats.
3. Short-term and construction-related effects on the quality of water resources.
4. Effects on stream temperatures to provide desired effects for aquatic and wildlife communities.
5. Effects on the visual quality of water resources.

**PLANS AND SPECIFICATIONS GUIDE**

Methods for providing or improving food supply, shelter, spawning areas, water quality, or other elements of fish habitat.

Any planning of stream improvement structures must be coordinated with the Wyoming Game

and Fish Department to meet 404 permit requirements from the Army Corps of Engineers. In addition, any action must be in accordance with NRCS wetland, floodplain, and chemical modification policies.

All improved stream areas will be managed to prevent overuse by livestock.

The completed job will improve visual quality of the stream corridor. The improvement of food supplies, establishment of escape cover, development of spawning beds, control of erosion, and improvement of aesthetic values are commonly shared objectives of cold water stream management. Stream habitat improvements require specialized knowledge in aquatic ecology. Technical assistance should be requested during improving fish habitat on existing streams is directly related land use in the watershed. Stream improvement projects will be a waste of effort if the surrounding resource use contributes to the destruction or degrading of the stream fish habitat. Total watershed evaluation and conservation planning is encouraged before undertaking stream habitat improvement.

Stream Improvement Projects: Several steps are involved in stream habitat improvement and range from selecting the reach of stream to evaluating the results of the projects. These are:

1. Conduct a habitat evaluation of the existing stream. Use the "Cold Water Stream Appraisal Guide for Wyoming" (NRCS and Wyoming Game and Fish Department) for streams with maximum daily average flows below 5,000 cfs.
2. Interpretation of the stream survey will determine the need and intensity of treatment or management. The NRCS Biologist will assist in this interpretation.
3. Applicable specifications will be selected from the Wyoming Construction Specifications. The instructions for their use serve as a guide in the preparation of the drawings and/or the items of work and construction details.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

For work not covered by existing specifications, such as log dams, special specifications and/or detailed drawings will need to be compiled. Before actual construction and installation, the effect on fisheries, aesthetics, and recreation can be estimated by planning the measure as a hypothetical model. By using the "Cold water Stream Appraisal Guide for Wyoming" a comparison to the existing stream habitat evaluation will indicate a relative increase or decrease in environmental quality.

Special consideration in the specification details or in the plans should take into account that many western streams do not lend themselves to economically feasible structures due to high peak flows and/or velocity.

Construction operation will be carried out in such a manner that erosion and air and water pollution will be minimized.

4. A follow-up evaluation should be completed one year after installation, using the "Cold Water Stream Appraisal Guide for Wyoming" to determine and document the extent of improvement.

Specifications for establishment and operation of this practice shall be prepared for each field or treatment unit according to the Criteria, Considerations, and O&M described in this standard.

Specifications shall be recorded using approved certification sheets, job sheets, narrative statements in the conservation plan, or other acceptable methods.

Additional Documentation Required:

1. Location - Field Numbers and Map.
2. Length of stream treated.
3. Soil map unit information.
4. Primary fish species benefiting.
5. Date and signature.
6. Date practice applied.

WY-ECS-41 and 42 are applicable to this practice.