United States Department of Agriculture

Conservation Enhancement Activity

CONSERVATION STEWARDSHIP PROGRAM

E578A

Stream crossing elimination

Conservation Practice 578: Stream Crossing

APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial); Pasture; Range; Forest; Farmstead; Associated Ag Land

RESOURCE CONCERN: Animals

PRACTICE LIFE SPAN: 10 years

Enhancement Description

Existing stream crossings on an operation are consolidated into fewer crossings in order to reduce impacts to stream habitat.

Criteria

- Minimize the number of stream crossings through evaluation of alternative trail or travel-way locations. Assess land user operations to consolidate and reduce the number of crossings in order to minimize habitat fragmentation and to minimize barriers to aquatic organism movement.
- Evaluate proposed crossing removal sites for variations in stage and discharge, tidal influence, hydraulics, fluvial geomorphic impacts, sediment transport and flow continuity, groundwater conditions, and movement of woody and organic material. Assess the effects of removal upon the channel with respect to local site conditions and stream geomorphology, to the extent possible.
- Road crossing removal can affect wetlands, flooding potential, existing infrastructure, and social and cultural practices and resources. Evaluate and address the full range of impacts when planning or designing removal projects.
- Replacing or removing an existing instream structure may trigger channel adjustments upstream and/or downstream of the crossing. Mitigate undesirable channel plan or profile shifts resulting from the removal of crossing.

CONSERVATION STEWARDSHIP PROGRAM

- Return the stream to a condition to provide passage for as many different aquatic species and age classes as possible.
- Incorporate natural streambed substrates throughout the removed crossing length. Natural streambeds provide numerous passage and habitat benefits to many life stage requirements for fish and other aquatic organisms.
- Retain as much riparian and streambank vegetation as possible during crossing removal to maintain shade, riparian continuity, and sources of nutrient and structural inputs for aquatic ecosystems. Plant all areas to be revegetated as soon as practical after crossing structure removal.
- Where appropriate, consider removing associated access roads or trails and restoring native vegetation representative of the site.

CONSERVATION STEWARDSHIP PROGRAM

Documentation and Implementation Requirements

Participant will:

- ☐ Prior to implementation, develop a written plan detailing proposed stream crossing removal and associated actions using Conservation Practice Standards Stream Crossing (Code 578), Aquatic Organism Passage (Code 396), and Streambank and Shoreline Protection (Code 580). (NRCS will provide technical assistance, as needed.)

- ☐ Prior to implementation, obtain all necessary Clean Water Act, Section 404 permits, and other federal, state or local permits, as required.

- ☐ During implementation, use erosion control methods based upon specifications developed for the site.

- ☐ Where necessary, prior to crossing structure removal, remove upstream accumulation of sediment from behind the structure.

- ☐ Remove the structure (culvert, bridge) and associated embankment materials as much as possible from the bank with as little encroachment into the stream as possible.

- ☐ Where necessary, replace natural streambed rock, cobble, and gravel throughout the removed crossing length.

- ☐ After structure removal, blend the stream bank at the former crossing into existing site topography. Use streambank soil revegetation and stabilization measures that are appropriate to maintain bank stability and prevent erosion.

- ☐ Where appropriate, remove crossing-associated access roads or trails and restore native vegetation representative of the site.

- ☐ During implementation, notify NRCS of any planned changes to verify the planned system meets the enhancement criteria.

- ☐ After implementation, conduct inspections after high flows and undertake prompt actions if there is excessive streambank or streambed instability or erosion.

NRCS will:

- ☐ As needed, provide technical assistance to meet the criteria of the enhancement, including NRCS engineering oversight where required.

CONSERVATION STEWARDSHIP PROGRAM

- ☐ Prior to implementation, provide and explain NRCS Conservation Practice Standards Stream Crossing (Code 578), Aquatic Organism Passage (Code 396), and Streambank and Shoreline Protection (Code 580) as it relates to implementing this enhancement.
- ☐ Prior to implementation, ensure that stream will not be actively incising or down cutting after the crossing removal.
- ☐ Prior to implementation, ensure that all necessary Clean Water Act, Section 404, and other federal, state, or local permits have been acquired.
- ☐ Prior to implementation, as needed, develop a written plan detailing proposed stream crossing removal and associated actions using Conservation Practice Standards Stream Crossing (Code 578), Aquatic Organism Passage (Code 396), and Streambank and Shoreline Protection (Code 580).
- ☐ During implementation, evaluate any planned changes to verify they meet the enhancement criteria.
- ☐ During implementation, verify all erosion control needed for the site is functioning and is maintained to specifications developed for the site.
- ☐ After implementation, verify that the stream crossing removal and follow-up channel and streambank actions, and removal of crossing-associated access roads or trails was implemented according to the plan and specifications developed for the site.

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

_____ _____

NRCS Technical Adequacy Signature Date

WASHINGTON SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY E578A

CONSERVATION STEWARDSHIP PROGRAM

Additional Criteria for Washington

NRCS Engineering Functional Assessment is required for all project designs completed by non-NRCS engineering PEs.