WQ10 Stream Protection

Purpose

Reduce excess amounts of sediment, organic material, nutrients, and pesticides in surface runoff; and reduce excess nutrients and other chemicals in shallow groundwater flow, with a secondary benefit of streambank stabilization.

Applicability

Applies to areas immediately adjacent to permanent, losing, or intermittent streams that have a defined stream bed where livestock have uncontrolled access for watering purposes.

Erosion Requirements

This practice has no erosion requirements.

Specifications

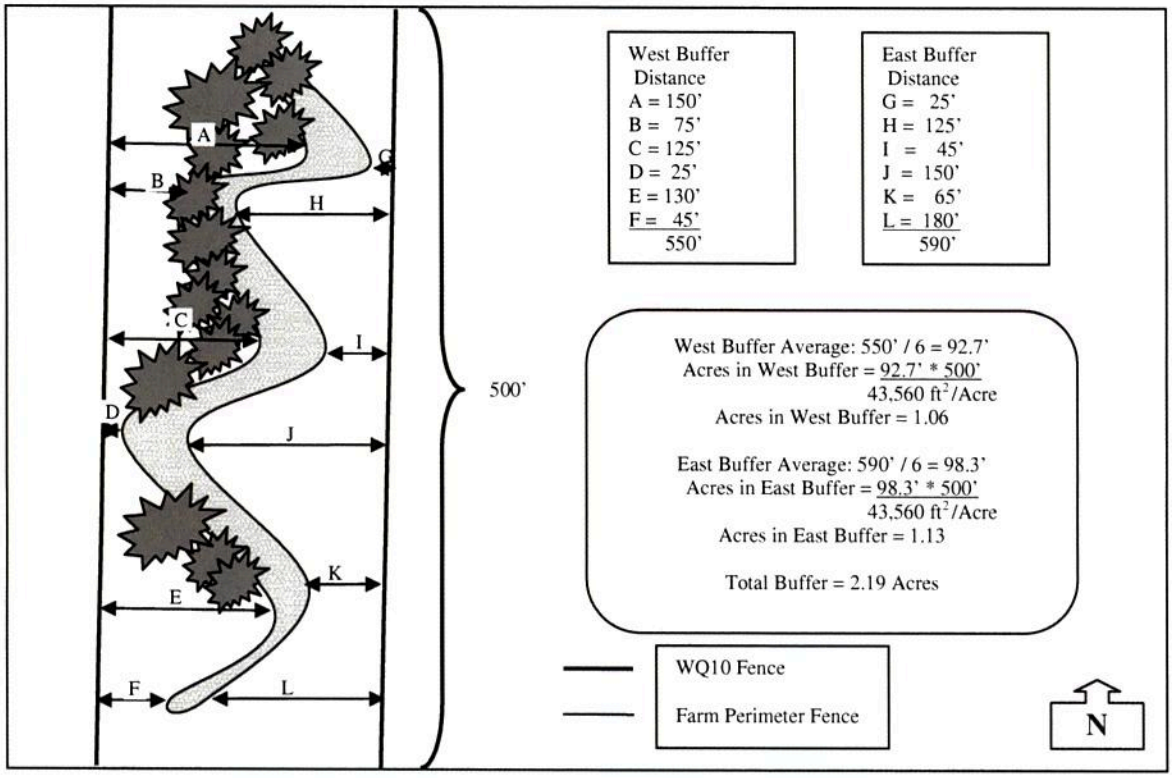
The completed practice must meet the NRCS Standards and Specifications for Critical Area Planting (342), Vegetation Establishment, Herbaceous Seeding (723), Pond (378), Fence (382), livestock exclusion under Access Control (472), Livestock Pipeline (516), Stream Crossing (578), Watering Facility (614) and Water Well (642) contained in the Field Office Technical Guide.

The Soil and Water Conservation Program strongly encourages the construction of High-Tensile Electric (HTE) exclusionary fence due to the flood prone nature of this practice's applicable location(s).

Policies

1. The area where the practice will be applied must currently have evidence of livestock presence to qualify.
2. The area to be excluded must have an adequate boundary fence or natural barrier(s) that contain livestock to the property prior to installment of the exclusion fence.
3. A one-time out of production incentive for livestock exclusion is available for landowners who allow the riparian area to regenerate naturally or maintain it as a conservation buffer. Buffer acres are measured from the high-flow bank of the qualifying stream to the completed fence using the measurement criteria in 3a and 3b of this section.
    a. Excluded area on each side of the qualifying stream must be a minimum of 25 feet. The incentive may be paid up to a maximum of a 150 foot average from the high bank. Incentive is available for both sides of the qualifying streams.
    b. The maximum area on which the incentive may be paid cannot exceed a 150 foot average, with 180 feet as the maximum allowed in the averaging calculation (See Figure 1).

Figure 1



4. Both sides of the qualifying stream must be excluded from livestock access.
5. The excluded area may be flash grazed beginning one year after contract payment. Livestock access to the excluded area outside of the approved dates is a violation of the maintenance agreement, except for designated stream crossing points.
6. Grazing should not occur under wet weather conditions to prevent manure from being carried to the streams by runoff or floodwaters.
   a. Cool-season grasses (CSG) may be grazed for a single 3-day period between April 15th and May 7, and again for a single 3-day period between September 1 and October 1. The average minimum grazing height is 6 inches for CSG. Strip grazing of the excluded area using temporary fence may be utilized during the above spring and fall periods as long as livestock graze each strip only one time for 3 or fewer days, and maintain a 6 inch average minimum grazing height.
   b. Warm-season grasses (WSG) may be grazed for a single 3-day period between July 15 and August 15. The average minimum grazing height is 8 inches for WSG. Strip grazing as indicated above may also be carried out for WSG.
   c. Grazing dates may be restricted further due to establishment of a planted buffer. Consideration should be given to wildlife when flash grazing is practiced.
   d. Livestock stocking rates should be reevaluated based on the grazing area that remains after exclusion of the riparian area.

The upland acres remaining will be under greater grazing pressure. Reducing livestock numbers, and/or implementation of a grazing system is recommended to prevent upland erosion.

7. Spraying is allowed to control noxious weeds: along fence lines for maintenance purposes and for suppression of fescue and/or weeds in a WSG or tree/shrub planting for erosion control or wildlife benefit. Prescribed burning of WSG stands is an allowed maintenance practice. Chemicals utilized for maintenance are not eligible for cost-share.

8. Mowing within the buffer incentive area is prohibited except for fence maintenance and should be limited to a single swath along the fence.

9. **Cost-share is authorized for**:

   a. Water Source
   Development of a watering source(s) for livestock when the qualifying stream is fenced to exclude livestock. More than one watering source may be developed on farms where pipeline and trenching costs would exceed $3,500; or when crossing roads or streams with pipeline is not recommended. Development of watering sources may not exceed $3,500 each for a pond, well, or connection to a public water supply. Designated stream crossings for livestock are authorized. All water supplies should be a minimum of 25 feet from the exclusion fence and a minimum of 100 feet from the high bank of the qualifying stream.

   1) Pond(s). This may include placement of a water line through an impoundment dam of an existing pond or reconstruction of ponds that no longer provide adequate livestock water.

   2) Well(s). The following are procedures and guidelines that must be followed if a new or existing well is to be used for livestock watering purposes:

      a) The cost of components allowed for the upgrade and use of an existing well or construction of each new well is limited to $3,500, which include(s) the well drilling, casing, grout, liner, electrical lines from the pump control box to the pump, and miscellaneous well components. Miscellaneous well components include the well cap, drive shoe, inverted bell, cement, fittings, and seals for the well itself.

      b) All wells must be constructed or upgraded and registered according to state requirements. Any certification fees are not eligible for cost-share.

   3) Connection to Public Water Supply System (PWSS). Includes water meter, backflow preventer valve, labor, and installation costs. Districts that cost-share on water meters must contact the Public Water Supply District (PWSD) to obtain cost-data for water meter installation for that specific PWSD. The district must enter the cost for the PWSS Water Meter and Setup component in MoSWIMS. The component cost will need to be updated prior to a contract being developed if the meter installation is in a different PWSD than the previous contract. Written documentation of the PWSD cost data must be scanned into MoSWIMS as supporting documentation prior to submitting the contract for contract review. The state average cost will continue to be used for pipeline, trenching and backfill, and boring costs for the service lines.

b. Permanent Water Distribution

1) Standard cost-share reimbursement applies for the pipeline from existing/new well(s) and ponds to the tank(s).

2) Tanks are limited to one per field adjacent to the qualifying stream excluded by the WQ10 practice. If a dependable water source is available in an adjacent field, the cooperator is not eligible for a tank in that field.

c. Limited access. If deemed the least cost alternative, a limited access area may be authorized to allow controlled access to a qualifying stream or pond.

d. Stream crossing(s).

e. Exclusion fence.

f. Critical Area Seeding. Permanent vegetative cover based on the Critical Area Seeding component.

g. Buffer Exclusion – Out of Production

1) Grazable grassland areas adjacent to the qualifying stream and within the buffer area are eligible for the out of production incentive (see Figure 2).

2) Grassland fields and a narrowly wooded riparian corridor adjacent to the excluded qualifying stream are eligible for the incentive (see Figure 3).

3) Incentives are not authorized for stream segments within heavily wooded areas that exceed ten acres (see Figure 4). Heavily wooded areas that exceed ten acres should be evaluated for an N472 Livestock Exclusion practice.

4) Incentives cannot be used in conjunction with other incentive practices for the same fenced area. The least-cost practice only should be utilized (i.e., N472 fencing of an area that includes a stream may not receive the WQ10 out of production incentive *and* the N472 livestock exclusion incentive, or vice-versa).

5) Buffer Extension Incentive, under the conditions listed in Section V, subsection G.

Figure 2

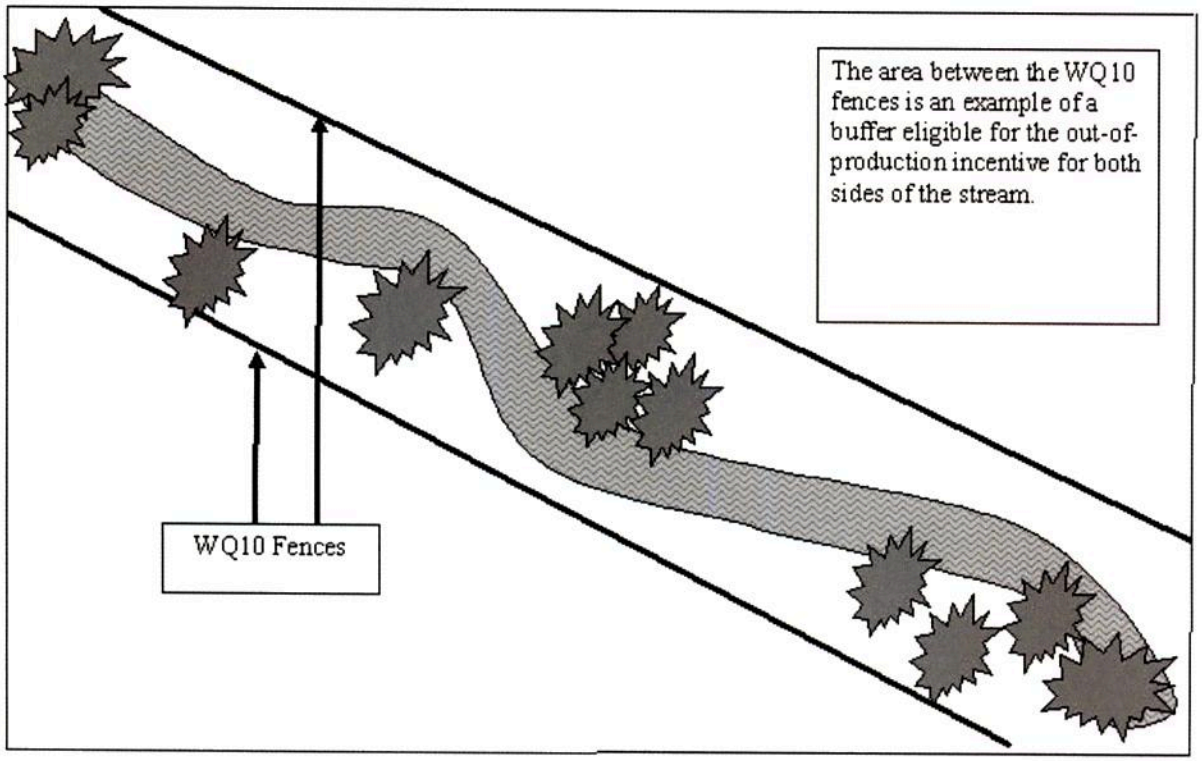

The area between the WQ10 fences is an example of a buffer eligible for the out-of-production incentive for both sides of the stream.
WQ10 Fences

Figure 3

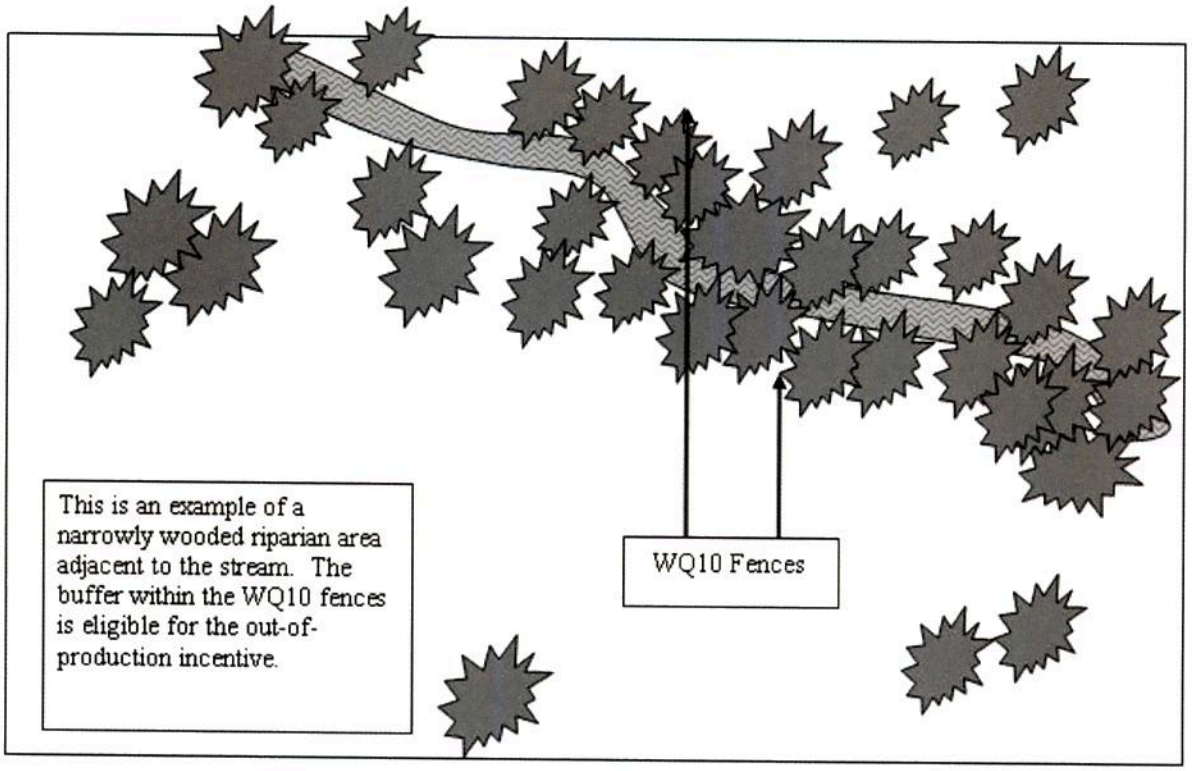
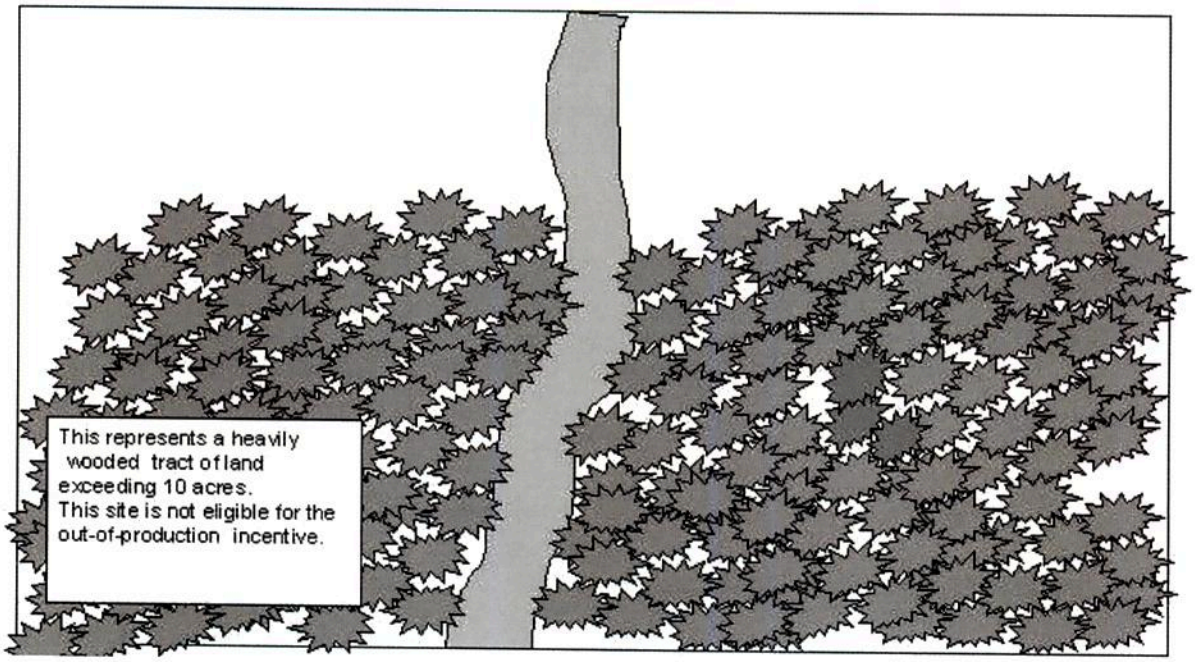


Figure 4



10. **Cost-share is not authorized for**:

   a. Spring Development. Cost-share is authorized under the N574 Spring Development practice.

   b. Exclusion costs for fields dedicated to the harvest of crops or forage production.

   c. Reconstruction: The Soil and Water Conservation Program will not pay for the rebuilding of fence. High Tensile Electric (HTE) is recommended to lower the landowner's costs if a rebuild is necessary.

Maximum State Cost-Share

1. Assistance for components is limited to 75% of the county average cost, not to exceed the state average cost. Each watering source is limited to $3,500.00.
2. The out of production incentive cannot exceed $500.00 per acre of buffer exclusion, as described in 9.g.

Map Requirements

1. Shapefiles from NRCS's Toolkit program must be saved on the district's T:\ drive prior to contract approval. The shapefiles must contain attributes that show the following information that pertains to the contract:
   - Farm Perimeter
   - Location of Power Source
   - Area Treated with Practice
   - Any other feature that may affect the completed practice.

   a. Planned items must be shown and labeled with the fiscal year to be installed.

      - Planned Fence
      - Planned Pipeline
      - Planned Water Source
      - Planned Watering Facility (Specify Tank or Hydrant)

   b. Existing items must be labeled with the fiscal year installed and funding source (EQIP, SWCP, etc.).

      - Existing Fence, including existing perimeter and cross fences
      - Existing Pipeline
      - Existing Water Source
      - Existing Watering Facility (Specify Tank or Hydrant)

2. A map that displays the completed practice must be scanned and attached as a document type "Map" in MoSWIMS prior to contract payment submission.

Technical Responsibilities

Technical staff has the responsibility for determining the need for the practice, for the design of the practice based upon the minimum extent necessary, and to certify that the completed practice meets NRCS standards and specifications within commission policy. A certified Technician II can design and certify this practice; however, if a pond is installed, the practice must be certified and contract signed by NRCS staff. If a public water supply and water meter is developed as a water source, a Technician II must certify and sign the contract.

Acres Served
Acreage on which the incentive was paid.

Extent Installed
Linear Feet of the stream excluded.

Maintenance Life
10 years.