



Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

FENCE

CODE 382

(ft)

DEFINITION

A constructed barrier to animals or people.

PURPOSE

This practice is used to accomplish the following purpose:

- Provide a means to control the movement of animals, people, and vehicles to accomplish specific conservation objectives.

CONDITIONS WHERE PRACTICE APPLIES

Apply this practice on any area where management of animal or human movement is needed.

CRITERIA

General Criteria Applicable to All Purposes

Plan, design, and construct this practice to comply with all Federal, State, and local regulations. The landowner must obtain all necessary permissions from regulatory agencies or document that no permits are required. The landowner and/or contractor is responsible for locating all buried utilities in the project area, including drainage tile and other structural measures.

Ensure all fencing materials installed are durable and of high quality, and the type and design of the fence installed meets the management objectives and site challenges. Use permanent, portable, or temporary fences based on management objectives.

Position fences to facilitate changes in management strategies, access requirements, or otherwise meet conservation objectives. The fence design and installation must include height, size, spacing, type of materials, and location of features such as gates and cattle guards.

The fence design and materials must have a life expectancy appropriate for the management system and resource objectives. Base the durability of materials in the design and location of fences on topography, environment, purpose, and management objectives. Specialized bracing, designs, and materials may be necessary to cross features such as gullies, canyons, and streams.

Design, locate, and install fences to minimize impacts on local wildlife as appropriate.

Provide for proper disposal of materials when fence construction requires the removal of existing fencing materials to prevent harm to animals, people, or equipment.

Criteria Applicable to Facilitating Wildlife Movement

NRCS reviews and periodically updates conservation practice standards. To obtain the current version of this standard, contact your Natural Resources Conservation Service State office or visit the Field Office Technical Guide online by going to the NRCS website at <https://www.nrcs.usda.gov/> and type FOTG in the search field.

USDA is an equal opportunity provider, employer, and lender.

NRCS, NM
February 2022

Planners are required to determine which wildlife species occur in the planning unit and if their movements can be impaired by fencing. Fencing will accommodate the movement of species identified in the planning process as being of concern.

All fences will have a maximum top wire height of 44 inches with the top two wires 10-12 inches apart and stretched tight to reduce the hazard of tangling deer and elk in the fence.

To minimize affects to big game, net wire fences are strongly discouraged. If necessary, a preferred net wire fence has 39 inches of woven wire with 2 strands of barbed wire at 2 and 3 inches above the net wire for a maximum height of 44 inches. If net wire is used within antelope habitat consideration should be given to install sections of smooth wire, 100 yards or more in length, every one half mile or leave a gap not greater than 42 inches high in net wire sheep fences. Pass structures or using small cattle guards of six feet wide and four feet in line length, installed about one mile apart can also be used to facilitate antelope movement

https://efotg.sc.egov.usda.gov/references/public/NM/range103_transmittal_document.pdf

Criteria Applicable for planning and constructing wire fencing in occupied Lesser Prairie Chicken Habitat Area

All new wire fences installed within a 1/2 mile radius of known active (used at least once in the last 5 years) Lesser Prairie Chicken (LEPC) leking areas shall be marked to reduce fence collisions. Marking will consist of installing 3-inch pieces of vinyl siding undersill on the top wire and third wire from the top on a four or five wire fence. Where fence post spacing is 30 feet then 4 markers will be installed on the top wire (and evenly spaced) and 3 on the third wire from the top. Where fence post spacing is 20 feet place 3 markers on the top wire (evenly spaced) and 2 markers on the third wire from the top. In addition all brace and line posts will be configured to discourage raptors from perching. Fence marking reference: <http://www.suttoncenter.org/conservation/fence-marking>

CONSIDERATIONS

To minimize hazards to wildlife and address maintenance issues where deer and elk are present and can be expected to cross the fence give consideration to a smooth top wire at 42 inches. Another effective technique is to place 1 inch dia. PVC pipe sleeves over the top wire in a 3 or 4 wire fence at locations where game trails intersect the fence and in fence corners.

Consider soil properties, soil moisture conditions, and erosion concerns.

Consider livestock management and adaptive grazing strategies, trailing, access to water facilities, and wildlife deterrence or passage.

Consider animal and human safety concerns by enhancing visibility of fences through design materials, fence markers, signage or fladry systems (line of rope mounted along the top of a fence, from which are suspended strips of fabric or colored flags that will flap in a breeze).

Consider using natural barriers where appropriate and design and locate fences to ease access for construction, maintenance, and landscape aesthetics.

Establish cleared rights-of-way to facilitate fence construction and maintenance where applicable. Avoid clearing of vegetation during the nesting and brood rearing seasons for migratory and ground nesting birds.

PLANS AND SPECIFICATIONS

Prepare plans and specifications that describe the requirements for applying the practice according to the requirements of this standard. As a minimum, include—

- Plan view or map showing layout of fence and location of gates.

- Details for fence installation showing post spacing, bracing, and gate installation.
- Material quantities and requirements.

OPERATION AND MAINTENANCE

Regular inspection of permanent, temporary, and portable fences is a part of an ongoing maintenance program that ensures proper function of the fence for the lifespan of the practice. As a minimum, include the following in the operation and maintenance plan:

- Conduct inspections of fences after storms and other disturbance events
- Repair or replacement of loose or broken material, gates, and other forms of ingress and egress
- Removal of trees and limbs
- Repair or replacement of water gaps as necessary
- Repair of eroded areas as necessary
- Repair or replacement of markers or other safety and control features as required
- Maintain fladry or signage as necessary

REFERENCES

Bell, H.M. 1973. Rangeland Management for Livestock Production. University of Oklahoma Press. Norman, OK.

Heady, H.F. and R.D. Child. 2002. Rangeland Ecology and Management, Third Edition. Routledge, NY.

Holechek, J.L., R.D. Pieper, and C.H. Herbel. 2001. Range Management: Principles and Practices. Prentice Hall, NJ.

Jakes, A.F., P.F. Jones, L.C. Paige, R.G. Seidler, M.P. Juijser. 2018. A Fence Runs Through It: A Call for Greater Attention to the Influence of Fences on Wildlife and Ecosystems. Biological Conservation, vol. 227, pp. 310–318. doi:10.1016/j.biocon.2018.09.026.

Paige, C. 2012. A Landowner's Guide to Fences and Wildlife: Practical Tips to Make Your Fences Wildlife Friendly. Wyoming Land Trust. Pinedale, WY.

Sherry, J. 2020. IB: 20-10-A. Installing Turbo Fladry: An Informal Guide, Issue Brief. The Natural Resources Defense Council, NY.

Stoddard, L.A., A.D. Smith, and T.W. Box. 1975. Range Management. McGraw-Hill Book Company.

USDA NRCS. 2003. National Range and Pasture Handbook (Title 190). Washington, D.C.
<https://directives.sc.egov.usda.gov/>

USDA NRCS. 2005. Electric Fencing for Serious Graziers. Columbia, MO.

United States Department of Interior, Bureau of Land Management and United States Department of Agriculture, Forest Service. 1988. Fences. Missoula Technology and Development Center.

Vallentine, J.F. 1989. Range Development and Improvement, Third Edition. Brigham Young University Press. Provo, UT.

Worley, J.W. 2015. Fences for the Farm, Circular 774. University of Georgia Extension. Athens, GA.