

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 one or more of the following purposes-

To control movement of animals and people, including vehicles

CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on any area where management of animal or human movement is needed.

CRITERIA

General Criteria Applicable to All Purposes

Fencing materials, type and design of fence installed shall be of a high quality and durability. The type and design of fence installed will meet the management objectives and site challenges. Based on objectives, fences may be permanent, portable, or temporary.

Fences shall be positioned to facilitate management requirements. Ingress/egress features such as gates and cattle guards shall be planned. The fence design and installation should have the life expectancy appropriate for management objectives and shall follow all federal, state and local laws and regulations.

Height, size, spacing and type of materials used will provide the desired control, life expectancy, and management of animals and people of concern.

Fences shall be designed, located, and installed to meet appropriate local wildlife and land management needs and requirements.

Fences that are installed in areas of heavy wildlife movement or traffic (such as riparian areas) shall be planned with appropriate wire spacing and heights. Spacing of wires should be adequate for the movement of the wildlife that are being planned for. Use of smooth wire for the top and bottom wires can reduce potential harm to wildlife that may jump over or crawl under the fence. Increasing visibility of a fence is another mechanism for decreasing the impact of fences on wildlife. Marking fences leads to reduced fence collisions which can cause injuries and sometimes mortality for many species of wildlife. Further guidance on the installation of wildlife friendly fencing can be found in Oklahoma Biology Technical Note 35.

Table 1 in the general specification shows criteria for selecting fence types based on intended use, number of wires and height. Appendix 1 includes material and installation specifications for materials and installation.

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.

CONSIDERATIONS

The fence design and location should consider: topography, soil properties, livestock management, animal safety, livestock trailing, access to water facilities, development of potential grazing systems, human access and safety, landscape aesthetics, erosion problems, soil moisture conditions, flooding potential, stream crossings, and durability of materials. When appropriate, natural barriers should be utilized instead of fencing.

Locate fences (division fences) to help facilitate management of different landuses and special management areas within landuses such as ecological sites, pasture types, riparian areas, critical eroding areas, etc.

For domestic livestock, install fences in areas that will best facilitate the handling, feeding, watering and movement of the type of livestock managed. Consider fencing along the contour to minimize livestock trailing and subsequent erosion.

When installing interior fences to facilitate livestock movement (cross fencing), temporary fences should be considered in order to minimize costs and allow for flexibility in the system. Locations should allow for the shortest and straightest distances.

For horses, consider avoiding the use of barbed wire when possible in order to minimize potential injury, especially when areas of confinement are small.

Where applicable, cleared rights-of-way may be established which would facilitate fence construction and maintenance. Avoid clearing of vegetation during the nesting season for migratory birds.

Where applicable, fences should be marked to enhance visibility as a safety measure for animals or people.

Fences across gullies, canyons or streams may require special bracing, designs or approaches.

Fence design and location should consider ease of access for construction, repair and maintenance. Where practical, in order to minimize maintenance and installation costs, avoid areas such as rough and irregular terrain, excess trees and brush, areas with long-standing water and water crossings

Fence construction requiring the removal of existing fencing materials should provide for proper disposal to prevent harm to animals, people and equipment.

PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for all fence types, installations and specific sites. Requirements for applying the practice to achieve all of its intended purposes shall be described.

OPERATION AND MAINTENANCE

Regular inspection of fences should be part of an ongoing maintenance program to ensure continuing proper function of the fence. Operation and Maintenance (O&M) includes the following:

A schedule for regular inspections and after storms and other disturbance events.

Maintenance activities:

- Repair or replacement of loose or broken material, gates and other forms of ingress/egress
- Removal of trees/limbs
- 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.

REFERENCES

Bell, H.M. 1973. Rangeland management for livestock production. University of Oklahoma Press.

Heady, H.F. and R.D. Child. 1994. Rangeland ecology and management. Western Press.

Holechek, J.L., R.D. Pieper, and C.H. Herbel. 2001. Range management: principles and practices. Prentice Hall.

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

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

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

United States Department of Agriculture, Natural Resources Conservation Service. 2005. Electric fencing for serious graziers. Columbia, Mo.

United States Department of Agriculture, Natural Resources Conservation Service. 2003. National range and pasture handbook, revision 1. Washington, DC.

Vallentine, J.F. 1971. Range development and improvement. Brigham Young University Press.