

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

WILDLIFE WATERING FACILITY

(no.)

CODE 648

DEFINITION

Develop, improve, or modify watering places and systems for wildlife.

PURPOSE

- To provide adequate drinking water, during critical periods, for wildlife.
- To create or expand suitable habitat for wildlife.
- To improve water quality and accessibility for wildlife.

CONDITIONS WHERE THIS PRACTICE APPLIES

In areas where new, additional, or improved watering places are needed to increase the range, distribution, improve the habitat of, or attract wildlife by meeting their water requirements; *and/or* where lack of adequate water has been identified as the limiting habitat component.

In West Virginia water availability is very seldom a limiting factor for wildlife habitat. The exceptions to this are generally located in dry regions of the high elevations (typically above 3,000 ft). NRCS planners are encouraged to work closely with the state staff biologist to determine the applicability of this practice in West Virginia.

Catch basins in dry woodland sites and improvements of small water supplies such as springs, seeps and small intermittent streams will qualify under this practice.

CRITERIA

- ***Water sources may be developed if a permanent water source is more than one-half mile from the proposed development. (Intermittent streams having pools which hold water throughout the year constitute permanent water supplies.)***
- The distribution and spacing of facilities shall be based on topography, required travel distance to water and the home range, territory size, and distribution of the target species. ***Refer to the Upland Wildlife Habitat Management (645) practice standard for information concerning home range and distribution.***
- Because each facility is unique to species, habitat, topography, and climate; watering facilities must be planned and installed according to a ***site specific*** plan and adapted to the ***species***.
- ***Facilities shall be designed and installed in compliance with all State and Federal laws including water rights and permits if needed. If required, permits will be obtained prior to installation.***
- Methods used will be designed to protect the soil resource from erosion
- The facility must provide permanent, accessible, dependable, and suitable quality water ***for the desired specie(s) during*** critical period(s). ***Only clean unpolluted sources of water shall be used.***
- ***No wildlife watering facility shall be constructed where domestic livestock have access to the facility. If necessary***

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

permanent fences shall be constructed at a minimum distance of 50 feet from the facility's water edge. The fence type shall not be exclusionary to wildlife. Refer to conservation practice standards Fence (380) and Use Exclusion (472).

- Design **of the facility** shall be sized to accommodate the expected and/or anticipated consumptive rates of target and non-target species.
- **Developed pools and spring improvements shall have a minimum capacity to store 50 gallons of water. Developed spring designs shall conform to conservation practice standard Spring Development (574).**
- **Dug out seeps and catch basins shall have a surface area of at least 100 square feet and a depth of 18 inches or more over at least one-fifth of the area. These type facilities shall provide at least 700 gallons of permanent water suitable for wildlife consumption. At least 25% of one slope of the facility shall be at least 4:1 or flatter and permit wildlife to enter and leave the water. Refer to the conservation practice standard Pond (378) for embankment specifications.**
- **Rock lined outlets are desirable where concentrated flow of water is expected. Outlets shall conform to conservation practice standard Lined Waterway or Outlet (468). If frequent overflow is expected, an appropriate pipe, lined waterway, or other stable outlet shall be provided. Surface water catchments shall be designed according to practice standard Pond (378) or other appropriate standards.**
- **If escape cover does not exist for the targeted specie(s), plan for the development of at least one escape route to and from the water suitable to the desired specie(s).**
- Ramps shall be installed in open water troughs and tanks when necessary for access and escape. **Troughs and watering tanks shall conform to**

practice standard Watering Facility (614).

- Design shall include appropriate safety features to minimize the hazards of the facility.
- Facilities shall be designed and installed in compliance with all State and Federal laws including water rights and permits if needed.
- Disturbed areas shall be vegetated according to a revegetation plan using native plant materials. **Refer to conservation practice standard Critical Area (342). NOTE: Any variety of tall fescue shall not be used to revegetate any disturbed area as a result of the installation of this practice.**

CONSIDERATIONS

- **Consider using watering facilities to concentrate wildlife for recreational purposes and for other aquatic habitat even if located within close proximity to other water sources.**
- Consider the effects on the target species and the ecosystem by concentrated grazing, predation, hunting etc.
- Consider the accessibility of the site for installation and maintenance.
- Consider any effects upon natural springs and associated unique flora and fauna.
- Consider the aesthetics of the installation.
- **Consider climate and water availability during winter months.**
- **Consider life cycle requirements for indigenous amphibians and reptiles and supply supplemental structures to facilitate use of the facility (basking logs, woody debris, etc).**
- Consider the effects on downstream flows or groundwater that could affect other water users or associated aquatic sites.
- Consider the effects on wetlands or other aquatic sites.

- Consider the existence and maintenance of suitable water quality for the target species.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use.

At a minimum, plans and specifications will include:

- ***plan map including identified target specie(s) with home range and the location of facility identified;***
- ***drawings and/or sketch of facility to include surface area, maximum depth, spoil disposal, water supply or drainage area, outlet, location in relation to escape cover and areas where revegetation is required;***
- ***if applicable a planting plan showing species composition, planting rates, spacing and planting dates;***
- ***drawings and specifications including jobsheets for component practices;***
- ***a soils investigation of the site;***
- ***any required permits and an environmental evaluation to include the WV CPA-052 or similar documentation;***
- ***location of other suitable water sources and distribution within the species home range; and***
- ***an operation and maintenance plan***

OPERATION AND MAINTENANCE

Operation and maintenance shall provide for the inspection, operation and maintenance of vegetation, spillways and other components of the system.

The facilities and adjacent areas shall be checked at least annually to insure proper function. Repair and maintain as needed.

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Inspect the area adjacent to the facility to make sure the area is well protected with desirable vegetation and not subject to erosion or deposition. Correct as needed.

Facilities not designed to withstand or operate during freezing weather shall be winterized prior to winter conditions.

Annually monitor water quality in questionable areas.

An operation and management plan shall include as applicable:

- ***management measures required to control invasive species and noxious weeds;***
- ***operation and maintenance of any component practices and structures;***
- ***measures to protect the facility from pesticide and excess nutrient contamination; and***
- ***a schedule for removal of organic material and sediment.***

REFERENCES

U.S. Department of Agriculture, Natural Resources Conservation Service, National Engineering Handbook (NEH) Part 650, Engineering Field Handbook.

USDA, NRCS Wetland Restoration and Enhancement – Northeast Freshwater Wetlands, Wetland Science Institute, January 1999.

**** Information in bold italics indicates modification of the national standard by WV.***

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Sample Practice Narratives

648-Wildlife Watering Facility (A)

A wildlife watering facility will be installed according to the attached NRCS specifications for recreation and/or to enhance water distribution for the identified specie(s) as identified on the plan map. An intermittent pool or spring development will be installed for this purpose. Pool and/or spring developments will hold a minimum of 50 gallons of permanent usable water. Suitable cover will be provided for the identified species adjacent to the facility. Livestock shall not have access to this facility at any time. Refer to the attached drawings, specifications and/or jobsheets for design information. Any required permits will be obtained prior to the installation of this practice. Additional component practices and an operation and maintenance plan may be required to fully implement this practice.

Optional – A concrete or other suitable trough with modifications for escape will be used in conjunction with the development of intermittent pools and spring developments.

648-Wildlife Watering Facility (B)

A wildlife watering facility will be installed according to the attached NRCS specifications

for recreation and/or to enhance water distribution for the identified specie(s) as identified on the plan map. A dugout seep, spring or catch basin holding a minimum of 700 gallons of permanent water will be used for this purpose. Refer to the attached drawings, specifications and/or jobsheets for design information. This facility will hold a minimum of 50 gallons of usable water at any time. Appropriate cover will be provided for the identified species adjacent to the facility. Livestock shall not have access to this facility at any time. Any required permits will be obtained prior to installation of this practice. Additional component practices and an operation and maintenance plan may be required to fully implement this practice.