

**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 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.

In areas where a lack of adequate water has been identified as the limiting habitat component.

CRITERIA

General Criteria Applicable to All Purposes

Because each facility is unique to species, habitat, topography, and climate; watering facilities must be planned and installed according to a wildlife management plan and adapted to the specific site.

Methods used will be designed to protect the soil resource from erosion.

The effective water storage capacity for any wildlife watering facilities will be no less than the

minimum designed storage, as specified in Wildlife Guzzler Drawing 1 of this standard.

With the exception of meeting the minimum storage requirements described above, the design shall be sized to accommodate the expected and/or anticipated consumptive rates of target and non-target species as described in Table 1 of this standard.

Facilities will be protected from livestock use and/or damage. Refer to Oklahoma Conservation Practice Standards Fencing (382) and Use Exclusion (472).

The facility must provide permanent, accessible, dependable, and suitable quality water for the critical period.

The distribution and spacing of facilities shall be based on topography, required travel distance to water, proximity to other required habitat components, and the home range, territory size, and distribution of the target species. Refer to Table 2 of this standard for specific information on the distribution of watering facilities for wildlife.

Ramps shall be installed in above ground water troughs and tanks when necessary for access and escape.

Design shall include appropriate safety features to minimize the hazards of the facility.

Management measures shall be provided to control invasive species and noxious weeds.

Disturbed areas, including excavations and embankments, will be vegetated according to a revegetation plan. Native plant species will be used where practical. Refer to Oklahoma

Conservation Practice Standards Critical Area Planting (342), Pasture and Hayland Planting (512), or Range Planting (550).

Facilities shall be installed in compliance with all applicable laws, including water rights and permits if needed.

CONSIDERATIONS

Consider adapting existing water sources such as troughs, tanks, wells, and pipelines for wildlife watering.

Consider the effects on the target species and the ecosystem by concentrated grazing, predation, hunting etc.

Consider the proximity of watering facility to other required habitat components including food and water.

Consider the accessibility of the site for installation and maintenance.

Consider the impacts of freezing on accessibility of water and damage to facilities.

Consider any effects upon natural springs and associated unique flora and fauna.

Consider the aesthetics of the installation.

Consider the effects on downstream flows or groundwater that could affect other water users or associated aquatic sites.

Consider the quality of water for wildlife consumption.

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.

The typical wildlife watering facilities to be planned and installed in Oklahoma include:

Excavated or embankment ponds. Refer to Oklahoma Conservation Practice Standard Pond (378).

Concrete lined watering basins with permanent water supplied by spring, pipeline, or well. Outside dimensions of concrete liners will be no less than 6 feet by 6 feet and no greater than 12 feet by 12 feet. Designed water depths will be between 1 foot and 2 feet. Slopes will be 3 horizontal to 1 vertical or flatter. Concrete will be 4 inches in thickness with welded wire fabric reinforcement and textured to provide solid footing for hooved wildlife species. Concrete and other materials and installation requirements will be the same as those described in Oklahoma Conservation Practice Standard and Specification Lined Waterway or Outlet (468).

Tanks or troughs supplied by a pipeline or well. An access/escape ramp will be planned where water is not available at ground level. Refer to Oklahoma Conservation Practice Standards Trough or Tank (614), Pipeline (515), or Well Standard (642).

Spring or seep development. Refer to Oklahoma Conservation Practice Standard Spring Development (574).

Constructed wildlife guzzlers with catchment structure, underground storage tank and watering trough. Refer to Wildlife Guzzler Drawings 1 and 2 attached to this standard for design specifications.

Prefabricated, commercially available Wildlife Water Guzzlers as described in the list of "Pre-Approved Structures, Components, and Appurtenances" in Section 4 of the Field Office Technical Guide.

OPERATION AND MAINTENANCE

Repair and maintain facilities as needed.

Insure that the area adjacent to the facility is protected from erosion by suitable vegetation.

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

Periodically monitor water quality to insure acceptable water quality. Maintain as needed.

TABLE 1**Daily Water Requirements for Common Wildlife Species**

<u>Species</u>	<u>Number of Animals</u>	<u>Gallons of Water Per Day</u>
Antelope	Each	1-2
Deer	Each	1-2
Elk	Each	5-8
Quail	Covey	1-2
Turkey	Flock	2-3
Pheasant	Local Population	2-5
Dove	Local Population	2-5
Songbirds	Local Population	1-2

TABLE 2**Distribution of Watering Facilities for Common Wildlife Species**

<u>Species</u>	<u>Distribution of Facilities</u>
Antelope	1 per 1-2 square miles
Deer	1 per square mile
Elk	1 per 2-4 square miles
Quail	1 within .25 mile of food and cover areas
Turkey	1 within 1 mile of roost areas
Pheasant	1 within .5 mile of feeding areas
Dove	1 within 2 miles of feeding areas
Songbirds	1 within .25 mile of feeding areas