

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD AND SPECIFICATIONS**

WETLAND WILDLIFE HABITAT MANAGEMENT

(acre)

Code 644

DEFINITION

Retaining, developing, or managing habitat for wetland wildlife.

PURPOSE

- Maintain, develop, or improve habitat for waterfowl, fur-bearers, or other wetland-associated flora and fauna.

CONDITIONS WHERE PRACTICE APPLIES

On or adjacent to wetlands, rivers, lakes, ponds, fens or other water bodies where wetland associated wildlife habitat can be managed. This practice applies to natural wetlands and water bodies as well as wetlands that may have been previously restored, enhanced, or created.

CRITERIA

General Criteria Applicable to all Purposes

Habitat development and management, necessary to achieve the purpose(s), shall be based on use of the Wildlife Habitat Appraisal Guides (WHAG) – Community Models or the individual species guidesheets depending upon the needs and objectives of the landowner. The appraisal is used to determine a habitat suitability index (HSI) for the wetland area.

WHAG evaluations must result in a HSI of at least 0.5 for the wetland area to be developed/managed. Recommendations selected by the producer for development and management should achieve this minimum

level of scoring on the community or species model.

Habitat Elements

The following elements will be evaluated when assessing wildlife habitat. Not all may apply to every habitat type.

1. Food
 - a. Type
 - b. Amount
2. Cover
 - a. Type - nesting, brood rearing, resting/roosting, protection/escape, and winter.
 - b. Amount
 - c. Quality
3. Water
 - a. quality
 - b. quantity
 - c. accessibility
 - d. seasonal availability
4. Interspersion and Distance to
 - a. crops
 - b. grasses and or legumes
 - c. shrubs
 - d. trees
 - e. water
 - f. openings
5. Migration
 - a. routes
 - b. season of use
 - c. corridors

As indicated by the wildlife habitat evaluation,

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

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certain habitat elements may be weak or missing. For the desired natural community or selected wildlife species, identify the types, amount, and distribution of habitat elements and management actions necessary to achieve the management objectives.

The amount and kinds of habitat elements planned, their location, and management shall be identified in a management plan.

All disturbed areas will be seeded to wildlife friendly vegetation. Vegetation used will be adapted for use on the local soil/site conditions. Disturbed areas will be vegetated according to a revegetation plan. Use CONSERVATION COVER (327) unless the area is subject to frequent overflows or spillway protection is needed, then CRITICAL AREA PLANTING (342) will be used. Native plant materials will be used whenever possible to provide the intended protection.

Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where available and feasible.

Any habitat management technique will ensure that the soil resource base is protected.

Livestock grazing or haying can be used to maintain or improve vegetation structure and composition so as to improve the desired wildlife habitat. This will require a detailed management plan.

Management measures shall be provided to control invasive species and noxious weeds on a "spot" basis.

The landowner is responsible for all necessary local, state, and federal permits that apply.

See SHALLOW WATER MANAGEMENT FOR WILDLIFE (646) for information on shallow water on agricultural fields and moist soil areas.

Marsh Development

The developed area will be at least one acre. Larger areas will attract and hold more wetland wildlife species.

The developed area will have an average water depth of no more than 2 feet on at least 20 but not more than 40 percent of the area at design level. At least 50% of the area will be designed to have an average depth of 6 inches. Remaining area can be upland nesting areas, buffer areas, island loafing areas, or deeper borrow pits used in berm construction.

Vegetative re-establishment will be comprised of native species that occur on the wetland type being restored.

In soils where seedbanks of desirable species exist or natural succession of selected species will begin to occur in less than five years, then natural regeneration will be allowed for re-vegetation. Specific guidelines that consider soil, seed source, and species will be developed from recommendations by MDC or NRCS biologist. The topsoil from wetland excavated areas will be stock piled and redistributed to maintain plant seedbanks.

If the site was predominantly herbaceous vegetation prior to modification and planting is necessary, then a minimum of two species adapted to the site will be planted. Use soils and site information to determine plants to use. Planting rates and species will be based on recommendations from MDC or NRCS biologist. Herbaceous vegetation may also be established by placing soil containing seed or tubers at a minimum depth of 4 inches over 50 percent of the site.

Creative borrow should be used to intersperse open water and emergent cover. Irregular shaped borrow areas should be used over straight sided (square/rectangular) areas.

Islands can provide loafing, resting and nesting sites. Islands should be at least 15 feet in width and be 2-4 feet above normal water level in the wetland area. Islands of oblong shape parallel with water flow are desired. Island should have at least a 6-foot top. At least one-fourth of the side slope should be 6:1 or flatter.

An adequate water control structure is desirable (but not required) to manipulate levels for vegetation succession and control. Slow, shallow water removal will expose mudflats for wetland wildlife use. See STRUCTURE FOR WATER CONTROL (587).

WETLAND RESTORATION (657) will be used if berms are needed as part of the water control plan.

A water management plan, when needed, will be developed to insure proper use of water level manipulation. Consult with NRCS Biologist/Wildlife Conservationist or MDC Biologist for specific recommendations.

Green Tree Reservoir

Flood bottomland hardwood areas on the average of no more than 8 inches during the trees dormant season.

Tree stands for development must be at least 40-50% mature mast bearing tree species.

Minimum size is one acre.

Borrow areas for berm development will be located outside the reservoir area. Use WETLAND RESTORATION (657).

An adequate water control structure is a necessity. Water must be off the area by the time of bud development in early spring. Water control structure must be of sufficient size to pass normal summer flow of water through the ponded area. It should drain the site within one week in case of heavy runoff event. See STRUCTURE FOR WATER CONTROL (587).

A water management plan will be developed to insure proper use of water level manipulation. Consult with NRCS Biologist/Wildlife Conservationist or MDC Biologist for specific recommendations.

Selective cutting can be used to release the more productive tree species and allow openings for use by wetland wildlife. See FOREST STAND IMPROVEMENT (666).

If tree planting is required use trees adapted to wet sites. Use a minimum of three species, two of which must be hard mast producing species. See TREE/SHRUB ESTABLISHMENT (612).

Cropfields/moist soil areas

SHALLOW WATER MANAGEMENT (646) will be used to develop/manage these areas.

Water Supply

Opportunistic water supply (flooding or rainfall) will provide an adequate water source in most years.

For optimum benefits a source of water to flood wetland areas must be adequate and dependable. The source should be sufficient to flood one-third to one-half the area within one week.

CONSIDERATIONS

Consider the accessibility of the site for installation and maintenance.

Consider any effects on unique flora and fauna.

Consider the aesthetics of the installation.

Consider the effects of movement of dissolved substances on groundwater and downstream surface waters.

Consider the effects of runoff, infiltration, evaporation, and transpiration on the water budget.

Consider the effects on downstream flows or aquifers that would affect other water uses or users.

Consider that nutrients and pesticides contained in surface and ground water, as well as accumulated sediments, may have an adverse effect on wetland vegetation. The nutrient and pesticide tolerance of the species planned along with the wetland objectives should be considered where known nutrient and pesticide contamination exists.

Consider the need for buffer practices beneficial to wildlife around the perimeter of the site. Plan practices such as FILTER STRIP (393), FIELD BORDER (386) and/or CONSERVATION COVER (327) to create a vegetative buffer between the management unit and adjacent land uses. This buffer should be at least 30 feet wide, or wider, depending on its purpose.

Consider the effects of management actions on compliance with state and federal hunting regulations.

Consider the effects of elevated wildlife uses on adjacent lands (crop depredation).

Consider the effects on adjacent wetlands or water bodies that contribute to wetland system complexity and diversity, decrease habitat fragmentation, and maximize use of the site by wetland associated wildlife.

Consider flood impacts or water seepage problems on adjacent non-wetland areas.

Consider use of these areas by reptiles and amphibians. Stacked logs and/or rock piles may be located near the water's edge to provide critical habitat for local reptile and amphibian species.

PLANS AND SPECIFICATIONS

Plans and specifications for this practice shall be prepared for each site. Plans and specifications shall be recorded using approved specification sheets, job sheets, technical notes, or narrative documentation in the conservation plan, or other acceptable documentation to describe the requirements for applying the practice to achieve its intended use.

Targeted plant community or species of wildlife will be recorded.

Document how habitat needs will be provided: (1) desired depth of water needed during the different seasons; (2) types, locations and sizes of structures required; and (3) desired plant species and the means of establishing and maintaining them.

OPERATION AND MAINTENANCE

Depending upon landowner objectives it is desirable to not flood wetland areas immediately after wetland development. Not flooding for one year after development will allow earthwork to settle and vegetation to begin establishment.

A plan for the operation, maintenance, and management of the area shall be developed and recorded using approved job sheets, technical notes, or other forms of acceptable documentation.

The plan shall include monitoring and management of the overall site, as well as structural and vegetative measures. The area should be reviewed annually to see if adjustments are needed in any water/vegetation management plan.

Repair and upkeep of the practice (maintenance) shall be carried out as needed, such as repair or replacement of vegetative or structural components.

The following activities will be addressed in the plan: (1) timing and level setting of water control structures required for establishment of desired hydrologic conditions or for management of vegetation; (2) inspection schedule of embankments and structures for damage assessment; (3) depth of sediment accumulation allowed before removal is required; (4) management needed to maintain vegetation, including control of unwanted vegetation; and (5) acceptable uses and timing (e.g. grazing and haying).

Inspect the area adjacent to the facility to make sure the area is well protected with desirable vegetation.