



United States Department of Agriculture
Natural Resources Conservation Service

Wildlife Enhancement Activity – Shallow Water Habitat Management (EHM40)

Shallow Water Habitat Management

Small, shallow sites where water is usually found seasonally, often from late winter through early summer

Benefits

Shallow water habitats are used by amphibians, reptiles, birds, mammals and other species in completing their life requisites (e.g., reproduction, rearing, feeding, etc.). Most species of amphibians need shallow water areas to lay their egg masses. These seasonal pools of water do not provide year around water habitat to support fish that would prey on the egg masses.

Criteria for Shallow Water Habitat Management

Shallow water habitat sites will be implemented and/or maintained where water can be impounded or regulated by diking, ditching, flooding, pumping, or excavation. Soils must have low permeability or seasonal high water table to inhibit subsurface drainage and allow for maintenance of proper water levels. These aquatic habitats must be located adjacent to or within wildlife-friendly cover or natural habitats. This activity does not apply on existing wetlands.

There are no area limitations, although larger aquatic habitats provide greater ecological benefits. The following are required for this enhancement.

- Maximum depth shall not exceed 30 inches and the average depth should be between 6 and 18 inches.
- These aquatic habitats must be designed and managed to hold water at a minimum from late winter through early summer
- A combination of irregular as well as smooth substrate is required to create diverse plant communities and habitat structure.
- A combination of open water and natural vegetation, including moist soil and wetland plants, is required within the wetted perimeter.
- A ratio of about 50% open water to 50% vegetation is ideal. Habitat complexity can be enhanced by the addition of logs or rocks that provide resting and basking sites.

Appropriate Conservation Standards for implementing this enhancement include those parts of Shallow Water Development and Management (646), Dike (356), or Water and Sediment Control Basin (638) that accommodates the specifications above.

Operation and Maintenance:

The contributing watershed and/or water supply shall provide clean water free of harmful pollutants. Conservation treatments will be applied to the contributing watershed to ensure minimal erosion and sediment delivery. The aquatic habitats will be buffered by wildlife-friendly perennial vegetation dense enough to retard erosion and trap sediments before entering the water.



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An adequate method for dewatering may be required when water levels must be artificially lowered in order to produce a desired habitat conditions. Reed canarygrass, purple loosestrife and other undesirable invasive plants are to be eliminated from the site. Dense vegetation that eliminates open water (e.g., cattails, prairie cordgrass, etc.) is to be removed.

References:

Cooper, C. M., P. C. Smiley Jr., J. D. Wiggington, S. S. Knight, and K. W. Kallies. 1997. Vertebrate use of habitats created by installation of field-scale erosion control structures. *Journal of Freshwater Ecology* 12:199-207.

Gibbons, J. W. 2003. Terrestrial habitat: a vital component for herpetofauna of isolated wetlands. *Wetlands* 23(3):630-635.

Shields, Jr., F. D., P. C. Smiley, Jr., and C. M. Cooper. 2002. Design and management of edge-of-field water control structures for ecological benefits. *Journal of Soil and Water Conservation* 57:151-157.

Smiley, P. C., Jr., C. M. Cooper, K. W. Kallies, and S. S., Knight. 1997. Assessing habitats created by installation of drop pipes. Pages 903-908 in S.S. Wang, E. J. Langendoen, and F. D. Shields, Jr., editors. *Proceedings of the Conference on management of landscapes disturbed by channel incision*. Oxford, Mississippi, USA.



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CSP Enhancement Certification Sheet

Shallow Water Habitat Management (EHM40)

Participant Acknowledgement Statement:

I agree to apply this enhancement under the terms and conditions of my CSP contract and understand the requirements of the activity.

Compensation will be on a per acre basis as described in my CSP contact.

Fields	Habitat Area (sq ft)	Management Activities

I agree that the following information will be provided to NRCS upon request:

1. Written documentation of the activity performed.
2. Copies of dated receipts for equipment or services purchased.

I understand that it is my responsibility to obtain all necessary permits and to comply with all laws, regulations and ordinances pertaining to the application of these activities.

Accepted by: _____ **Date:** _____