



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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Lake Erie Watersnake Post-Delisting Guidelines for Construction, Development, and Land Management August 2011

The Lake Erie Watersnake (*Nerodia sipedon insularum*) was listed as “threatened” under the Endangered Species Act in 1999, but in August of 2011 was removed from the list due to recovery. Lake Erie Watersnake populations will continue to be monitored for 5 years to ensure the population persists at a stable level. The U.S. Fish and Wildlife Service (Service) has developed the following voluntary guidelines to assist island landowners in avoiding and minimizing impacts to Lake Erie Watersnakes during typical land management and construction activities. The Service strongly encourages island residents to follow these guidelines to protect watersnake habitat, ensure population persistence, and prevent re-listing of the subspecies. *Intentional killing of Lake Erie Watersnakes is still prohibited by State law.*

The Lake Erie Watersnake occurs on the islands in the western basin of Lake Erie. Summer habitat includes cliffs with crevices, rocky shorelines, and rock-filled structures such as docks, breakwalls, and shoreline erosion control structures. Lake Erie Watersnakes forage in Lake Erie for small fish, primarily round goby. Suitable winter hibernation sites include cracks and crevices in bedrock, rocky soils, animal burrows, tree root masses, and human-made structures such as foundations, drainage tiles, and building pads.

Shoreline Management

The island shoreline including areas adjacent to interior island ponds, inlets, bays, and marinas, are important habitat for Lake Erie Watersnakes as well as native birds, fish, amphibians, and mammals. Shoreline vegetation also helps to stabilize banks, prevent erosion, and promote water quality. Landowners are encouraged to avoid mowing within 69 feet (21 m) of the shoreline to protect these important habitat and water quality functions.

If shoreline mowing is necessary, mowing between April 15 and September 15 should be completed at dusk, when watersnakes will have taken cover for the night. Mowers should utilize a high setting, and the area to be mowed should be actively monitored for watersnakes. If Lake Erie Watersnakes are encountered during mowing, activities can cease until the snake has left the area on its own, or the snake can be removed to a location outside of the mowing area and near the shoreline.

Excavation or removal of shrubs, standing or downed trees, root masses, animal burrows, piled rocks, cliffs, or bedrock within 69 feet (21 m) of the shoreline, ponds, inlets, bays, and marinas should be avoided. If necessary, excavation of these features should only occur after April 15 and before October 15, when temperatures are above 60 degrees Fahrenheit. Within 69 feet (21 m) of shore, heavy machinery should be limited to paved areas so as not to harm watersnakes that may have retreated under rocks, logs, and other material.

The Service encourages preservation and construction of shoreline structures with designs beneficial to watersnakes. These include timber or steel crib docks and riprap erosion control structures instead

of concrete or sheet steel. Any project that will impact the shoreline or waters of Lake Erie **must** be coordinated with the Buffalo District of the U.S. Army Corps of Engineers (Corps) to ensure compliance with the Clean Water Act. The Corps can be contacted at (716) 879-4330.

Excavation

During hibernation, Lake Erie Watersnakes are unable to move and are vulnerable to any disturbance of their hibernation sites. Excavation of any kind in potential suitable winter hibernation habitat within 528 ft (161 m) of shore should be avoided between October 15 and April 15. Activities to be avoided include, but are not limited to, digging foundations, burying utility lines, removing tree roots or hollow tree bases, and destroying human-made structures such as foundations or drainage tiles.

Excavation activities occurring between April 16 and May 31, or between September 15 and October 14 should only be conducted when air temperatures are above 60 degrees Fahrenheit. The area should be actively monitored for snakes before and during excavation and any watersnakes found should be carefully removed to a location outside of the construction area and near the shoreline.

Any holes or trenches that are dug should be filled in as soon as possible to prevent watersnakes from inadvertently falling into them and becoming trapped. Holes or trenches should be inspected for Lake Erie Watersnakes before being filled.

Erosion Control

Mesh or woven erosion control fabrics or blankets should **NOT** be used to stabilize disturbed areas, as they have been documented to entangle and kill Lake Erie Watersnakes and other snake species. Loose straw or mulch can be used as an alternative.

Tree Removal

Tree root masses may provide suitable hibernation habitat for the Lake Erie Watersnake. If you plan to remove trees on your property, the Service recommends that only the above-ground portion of the tree be removed. The root mass should be left underground.

Summary of habitat management practices, timing, and location where applicable.

Time	Location	Recommendation
Oct 15-April 15	Within 528 feet (161 m) of shore	No Excavation.
April 16-May 31	Within 528 feet (161 m) of shore	Excavation only when temperature above 60° F. Mow at dusk, on high setting.
June 1-Sept 14	Within 69 feet (21 m) of shore	Mow at dusk, on high setting.
Sept 15-Oct 14	Within 528 feet (161 m) of shore	Excavation only when temperature above 60° F. Mow at dusk, on high setting.

Further Information

The Service is available to provide technical assistance regarding the Lake Erie Watersnake, proposed development projects, and land management activities. Questions should be directed to the Service at (614)416-8993. Additional information about the Lake Erie Watersnake is also available at our website: http://www.fws.gov/midwest/Ohio/endangered_LEWS.html and at www.RespectTheSnake.com.