



PROTECTION & REHABILITATION DISTRICT

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LAKE ONALASKA: FIFTY YEARS OF CHANGE

Lake Onalaska is known for its beautiful sunsets and its exceptional sunfish fishing. Located just upstream from La Crosse, Wisconsin and directly adjacent to Onalaska, Wisconsin, Lake Onalaska lies within the Upper Mississippi River Wildlife and Fish Refuge which is managed by the Fish and Wildlife Service and also, is part of the Upper Mississippi River nine foot navigation project, which is managed by the U.S. Army Corps of Engineers. In fact Lake Onalaska is not a lake, but a portion of the impoundment of the Mississippi River formed by Lock and Dam 7 of the Upper Mississippi River Navigational System in 1937.

The area considered to be Lake Onalaska consists of 5,400 acres with a mean depth of five feet. Islands separate the lake from the main channel of the Mississippi and the Black River flows into the lake on the upper end through braided marshy channels. Because Lake Onalaska is shallow, it does not stratify and water chemistry is a mixture of Mississippi and Black River waters.

Lake Onalaska is very productive of many animals and plants with an average production of 300 to 500 pounds per acre of fish, extensive beds of submerged and emergent vegetation, including wild celery, coontail, potamogetons, water milfoil, American lotus, and wild rice. There are over 100 species of fish in the Mississippi River and many of these are also found in Lake Onalaska.

The most popular sport fish in the lake are large mouth bass and blue gill, as

well as northern pike. Many other species of fish can also be caught, including walleye, sauger, white bass, crappie, perch, catfish, bullheads. Commercial fishing benefits the resource through control of rough fish populations, as well as providing economic benefits to fishermen. The most commonly fished commercial species are catfish, carp and buffalo.

In 1975 Lake Onalaska Protection and Rehabilitation District was formed in response to resident concerns that the lake was rapidly losing open water and becoming choked with vegetation. The District was formed to stimulate the collection of information, develop lake management alternatives and promote projects that will lead to an improved lake environment. Major studies completed by the District are the Lake Onalaska Rehabilitation Feasibility Study, and Lake Onalaska Macrophyte and Macroinvertebrate Population Study.

The diversity and abundance of life that uses Lake Onalaska is phenomenal. Each year hundreds of thousands of water fowl pass through and use Lake Onalaska as a feeding and resting area during migration. This is particularly true for the canvas back duck. They feed on the wild celery tubers within the lake during their major fall migration. The backwater areas produce hundreds of local waterfowl, muskrat, mink and has a large beaver population. The Mississippi Valley is a major bird migration corridor. Pool 7 is the most heavily used recreational area on the upper Mississippi River and has been estimated to contribute \$30 million dollars per year to the local economy from tourism, commercial fishing, and outdoor recreation. The many braided channels in the backwater areas and the extensive open water area permit large numbers of recreational craft and many types of recreational craft to use the lake and its adjoining backwater areas with a reduced amount of surface water conflict.

Because Pool 7 is an impoundment, it suffers from what most reservoirs suffer from, sedimentation, nutrient trapping and erosion problems. These are exacerbated by the use of the main channel Mississippi as a major navigation and commercial shipping route. This requires the need to maintain the channel through dredging. Changes in technology have led to the use of large recreational craft on the Main Channel and deeper backwaters of the river system. The institutional arrangements to address management problems are complex consisting of federal agencies, the several states adjacent to the upper Mississippi River system, interstate commissions, local municipalities and groups such as the Lake Onalaska Protection District.

Different management philosophies and missions of the involved institutions have led at times to stormy public policy debates and public concern over agency management strategies. In spite of this complex institutional arrangement, a comprehensive management plan for the upper Mississippi River system has been completed, and Federal legislation in 1986 to establish the Environmental Management Plan (EMP) for the Upper Mississippi River.

Lake Onalaska has been named as a high priority to receive funding from the EMP program. Projects proposed will provide deep water for improved winter fish habitat, creation of islands for water fowl nesting, riprapping for bank stabilization, and to control bank erosion plus management of water flow into and out of the lake system.

Since 1976 when the original feasibility study was begun, extensive areas of the lake have converted from open water to marsh. Because the lake is part of the upper Mississippi River system and water flows change with each year, it is very dynamic and each year is different from the last. The lake is changing rapidly and hopefully through the Environmental Management Plan, some of those changes can be directed to improving this very diverse and productive system to the benefit of fish, wildlife and people.

In the winter of 1976-77 the main ice fishing area of the lake was monitored by a graduate student working for the U.S. Fish and Wildlife Service. During the 17 week study, 233,000 bluegills were taken by fishers in 95,519 hours of fishing yielding 69,731 pounds of fish with an average length of 7 inches.

In all seasons, winter, spring, summer or fall there are tremendous recreational opportunities on Lake Onalaska for a wide variety of recreational interests.

The Lake Onalaska District will never be able to become deeply involved in funding and carrying out management programs for the lake because of the many institutional arrangement necessary and the high cost associated with managing such a valuable resource.

They have become involved in a number of projects including construction of a sediment trap, providing access to the lake, and bank riprap by individual landowners. They helped establish a voluntary waterfowl avoidance area to benefit canvas back ducks during the fall migration. Boaters are requested to voluntarily avoid a marked area of the lake where ducks congregate. The Lake Onalaska District is an example of local government working closely with State and Federal resource management agencies to affect national policy to produce benefits to lake residents as well as the entire Upper Mississippi River.