

EMERGENT WETLANDS RESTORED IN YAHARA RIVER AT CHEROKEE MARSH AND LAKE LEVEL REGULATIONS CHALLENGES TO RESTORATION EFFORTS.

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Abstract: The Yahara River flows through the 4,000-acre Cherokee Marsh before entering Lake Mendota in Madison, WI. A dam was constructed at Lake Mendota's outlet in the 1850's, which raised the water level approximately five feet. This resulted in water backing up into the peat wetlands (sedge meadow, wet prairie, fen) along the Yahara River in Cherokee Marsh. Wetlands along the river's edge broke away from the underlying peat to form floating plant mats. These floating plant communities are unstable in the presence of floods, wind, and ice action erosion. Using air photos, and original public land survey records we documented a loss of over 640 acres of wetlands along the Yahara River in the past 150 years.

The goal of our project (begun in 2001) is to protect these floating plant mats by establishing emergent and submergent plants along the river interface in one to three feet of water. Using adaptive restoration, we developed several innovative techniques to facilitate the establishment of native wetland plants in a difficult environment. We used several unique configurations of welded wire fencing and wood snow fence enclosures to protect new plantings. One of our most visible successes involved developing a technique to establish American Lotus Water Lily from seed. By the end of the 2007 growing season American Lotus was present along 1.7 miles of shoreline.