## Audubon International Signature Sanctuary Restoration Case Study - Lost Marsh Golf Club

Hammond, Indiana

## Prior to Development:

Lost Marsh Golf Club was developed upon portions of an old industrial park, adjoining slag dump, a portion of George Lake basin and an adjacent woodland area. The total size of the property was 235 acres, 25.5 of which are wetlands, and 64.3 acres of open water.

Research concluded that the south portion of George Lake was filled between 1937-1958 with steel mill slag, fly ash, and other industrial waste – the 100 acre property where the dumping occurred had gained the name of "Bairstow Slag Dump". The property was acquired by the City of Hammond in 1998.

Upon acquiring the property, the City of Hammond made the decision to "cap" the slag dump, to minimize the leaching of alkaline leachate entering George Lake. In order to do this, it was decided to construct a golf complex as the cap. At the point of this decision, efforts had already begun to remove drums, debris, and contaminated soil. The golf course opened for business on September 20, 2003.

The slogan for the Signature Sanctuary Program is "Success not by chance, but by design," and Lost Marsh Golf Club represents that concept in a number of ways. One of the main focus points of Signature Sanctuary design is the requirement that native species of flora are to be planted and maintained throughout the property. Native species of flora attract native fauna, which in turn supports a healthy ecosystem and diverse array of wildlife, ultimately contributing to the sanctuary designation.

The habitat of Lost Marsh Golf Club at the point of restoration efforts beginning was made up of mostly invasive, poor quality plants; such a purple loosestrife, and phragmites. There was a large potential to provide higher quality habitat for both migratory and resident wildlife by eradicating these invasive flora species and planting native flora such as soft-stem bulrush, pickerel weed, and broad-lead arrowhead throughout the restored areas.

As outlined in the required Natural Resource Management Plan (NRMP), these areas will remain intact and protected. Buffer areas were outlined and established in order to ensure that sensitive habitats are not disturbed. Additionally, a pesticide list was developed to limit the potential for negative environmental impacts through day-to-day golf course maintenance operations. Lost Marsh Golf Club's restoration efforts far surpassed the expectations of numerous entities, as proven below.

## Post Development:

This remediation project proved to be extremely successful. The course was featured in a Chicago Tribune Article, in November 2003, and at the time was noted by "Environmental Protection Agency officials as the largest and most successful brownfield reclamation project in the Midwest."

A year prior to this, Lost Marsh Golf Club was awarded Indiana's Governor's Award for Environmental Excellence.



Lost Marsh Golf Club AI site visit, Fall 2019, Indiana.