RESTORING THE CALOOSAHATCHEE RIVER OXBOWS

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BENEFITS

A restored oxbow is valuable to the community for 3 primary reasons:

[1] Ecological benefits associated with the improvement in water quality and wildlife habitats.

(2) Recreation benefits in the form of fishing and tourism.

3) Historical benefits resulting form the preservation of the only remaining parts of the original river.

"The oxbows are glimpses into history".....at least the oxbows that have not been developed into residential areas. Only a few of these remain.

INTRODUCTION

Hendry County is starting an oxbow restoration demonstration project in the Caloosahatchee as part of the Florida Watershed Initiative program of the South Florida Water Management District. The objective of the oxbow restoration project is to establish healthy water flows, water quality and shoreline vegetation that will improve the fish and wildlife habitat of the river. This restoration project will serve as a demonstration and living example of what oxbow restoration can accomplish. This is the first of hopefully many oxbows restorations using the methods and designs developed by this first project.

HISTORY

The Caloosahatchee oxbows are all that remain of the narrow, meandering historic river following the channel dredging conducted by the US Army Corps of Engineers in the 1930's and 1950's.

Prior to the channelization the river bends slowed the water facilitating the deposition of sediments and absorption of nutrients in the water column and provided habitat for native fauna and flora.

After the Caloosahatchee was channelized water flowed directly down the straight, deepened river whose vertical shores are without littoral habitat. Today these historic, remnant meanders represent the only productive aquatic, habitat left in the riverene system suitable to serve these same critical functions.

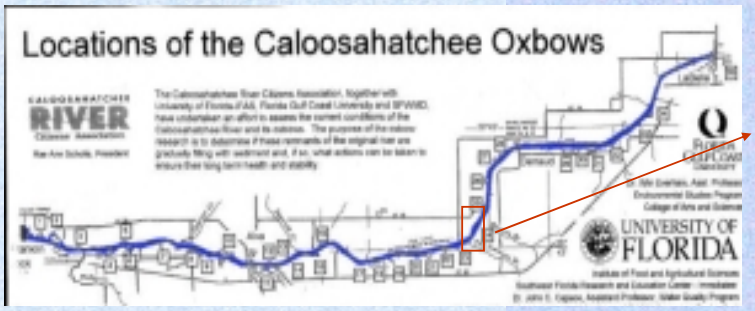
However, the channelization has diverted the historic flows from the oxbows which has reduced the flushing necessary to maintain and keep the oxbows healthy. The lack of flow has resulted in sedimentation and caused successional changes to these unique, productive aquatic habitats.

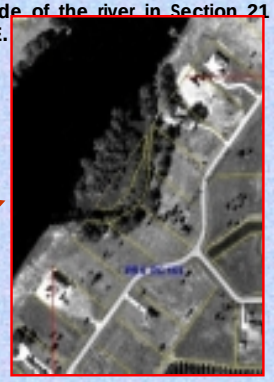
The Old Ft. Denaud oxbow began to deteriorate when an earthen road was installed several years ago connecting the mainland to the island. The road effectively stagnated the oxbow by blocking flow. As exotic vegetation prospered and died, a layer of fine muck sediments added to the problem.

This oxbow will be restored by removal of sediments and the fill road to restore water flows through the oxbow. Removal of noxious exotic vegetation, particularly brazilian pepper and restoration of the littoral zone with native aquatic vegetation will help to stabilize and enhance the aquatic productivity of the system.

LOCATION - OXBOW 24

The demonstration oxbow is located in Hendry County on the south side of the river in Section 21 Township 43S Range 28E.





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OBJECTIVES

- Protect, restore, enhance and maintain priority habitats and species within the oxbow's ecosystem to mitigate for damages caused by past development.
- Work collaboratively with other project partners, fish and wildlife management agencies and the community.

- **Public Interest:** show by demonstration and living example what oxbow restoration can accomplish for the ecosystem, recreation, and the community.
- **Private Interest:** improve the property value and quality of life for the residential lots adjacent to the oxbows.
- **Funding:** Public and private sources.

APPROACH TO RESTORATION

PHASE A: Physical Restoration

- Removal of Fill Road
- Excavation / Dredging
- Shoreline Restoration

PHASE B: Restoration Performance Assessment

- Literature review
- Hydrological Model Development
- Hydraulic and Ecological Monitoring, Infrastructure and Measurement
- Community Involvement