Fox Waterway Agency
45 S. Pistakee Lake Rd. ▪ Fox Lake, IL 60020
(847) 587-8540 ▪ FAX (847) 587-9742
www.foxwaterway.state.il.us

FACT SHEET: TRINSKI'S ISLAND

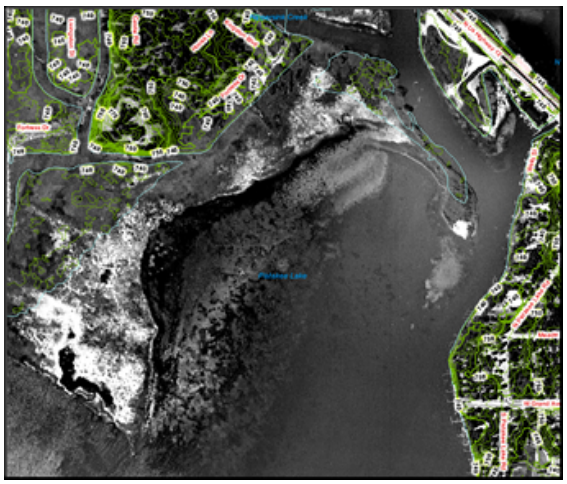
The Trinski's Island Project is a solution that combines dredging, habitat restoration and public recreation, while relieving congestion in the most heavily traveled channels of the waterway system--Governor's Channel and East Channel. Improved boating lanes, upgraded aesthetics and habitat through the restoration of a severely blighted island, and creation of a unique boater's only public-access educational area are some of the key features.

BENEFITS and Goals:

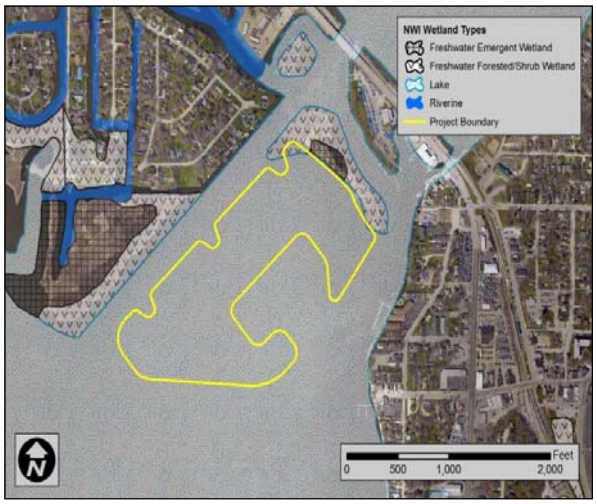
- Decrease boating traffic congestion by expanding Governor's Channel from 150 feet to 300 feet wide allowing boaters a wider boating lane and the residents of Fortress Drive wider berth for access to residential piers;
- Create a wider "no-wake" zone at East Channel for a slower approach to and from "Beer Can Bridge" and wider berth for boaters accessing business and residential piers;
- Maintain vista-views through low-profile design to approximately summer pool height while restoring public lands, creating an educational stop for boaters, and recreating critical habitat for birds, fish and sensitive wetland plant species using reclaimed lake sediments;
- Reduce the severe winds that cause erosion, excessive wave action and hazardous boating along both the Governor's Channel and East Channel;
- Dredge 320,000 cubic yards of sediment out of the most-heavily traveled boating lanes in the system without impacting local roads in the Fortress Drive, Kingston Blvd., Pistakee Lake Rd. neighborhoods. This eliminates the impact of 40,000 truckloads;
- Save costs by efficiently leveraging existing and new funds such as grants, capital funds, general revenue funds, and FWA sweat equity;
- Outside-the-box solution for creating sediment storage and public access areas by restoring an island back to its original "footprint".
- Continually patrolled and monitored by FWA staff, Lake and McHenry Sheriff, and Illinois Conservation police which are all conveniently headquartered minutes from project.

Agency Mission: Under 615 ILCS 90/7.1, the Fox Waterway Agency (FWA) is responsible for implementing programs to improve and maintain the Chain O'Lakes complex as a recreational waterway.

1940's



2010



PROJECT BACKGROUND

Approximately 50 acres of shallow, navigationally impaired open water will be restored to re-create the historic extent of the original wetland island "footprint". Hydraulically dredged sediments will be distributed within the interior of the island to an elevation approximately equal to normal summer pool (737.2 MSL) using permit (LRC-2007-395), allowing approximately 320,000 cubic yards of accumulated sediment to be recovered from sediment impaired areas within Nippersink Lake, Pistakee Lake, Fox Lake and surrounding areas. The island will be an ADA compliant and will allow the public to view first hand, how sediment transported into the Fox River Chain O'Lakes complex as a result of soil erosion can be converted to a functional wetland and important wildlife habitat. To preserve the wetland and wet woodland features of the existing island, the restored island will be separated by a small non-navigable channel and restored in the future.

HYDROLOGY/FLOODPLAIN ANALYSIS

This project will have no significant impact of flooding, as evidenced by hydrological analysis conducted by the IDNR entitled "The Chain O'Lakes Worst Case Scenario". The analysis provided justification for creation of multiple wetlands within the regulated floodplain. Specifically, the three islands located in the north end of Pistakee Lake, the west side of Nippersink Lake, the west side of Grass Lake (approximately 55.7 acres in size) and four possible operation alternatives of the Stratton and Algonquin Dams were analyzed and assumed to occupy elevation 739.0 ft, or 1.8 ft. above the normal summer pool elevation of 737.2 ft. Therefore, the floodplain volume displaced by each island would be 100.3 acre-ft. (55.7 acres x 1.8 ft.). The total volume displaced by the these islands was estimated to be 301 acre-ft. Based on the analysis, a loss of 301 acre ft. of floodplain storage from island creation has no significant impact on flood stages within the Chain O'Lakes. Since the Trinski's Island Project is designed at summer pool and clearly under the 1.8 acre ft estimate, its impacts to flooding are even less significant.

PROPOSED DESIGN SUMMARY:

Major Design Elements	Description
Hesco Baskets	7 ft x 5 ft ≈ 4,000 Linear Feet 4.5 ft x 4 ft ≈ 1,000 Linear Feet
Perimeter Rip Rap	Gradation 4 (8 to 10 inch diameter) limestone rock will be placed along the outside the island to dissipate energy and protect the integrity of the island landmass.
Water Control Structures	Three (3) Agri Drains equipped with removable stop logs. 6 ft. high with a 24 in. outlet pipe at each structure. Outlet pipes will discharge effluent when dredging and will control water levels after completion.
Observation Deck	12 ft x 24 ft partially covered platform, elevated to 6 feet in height above normal summer pool.

OPERATING PARAMETERS:

The following operating assumptions were used to complete the In-lake SDF design:

1) FWA operates a hydraulic cutter head dredge with a 10-inch diameter discharge pipe.
2) Dredge pumping capabilities will be approximately 3,500 gallons per minute.
3) Effective pumping operations will be approximately 8 hours a day for 4 days per week.
4) Sediment and water slurry averages approximately 10 - 15% solids by volume.
5) Approximately 320,000 cubic yards of sediment will be required to fill the island.
6) Additional sediment capacity is likely due to anticipated consolidation

Unlike most contractor based dredging projects, FWA has the ability to operate their dredging program with more flexibility to accommodate longer sediment settling and retention times.