CAT ISLAND, GREEN BAY WI



Tony Friona

Engineer Research & Development Center Liaison to the Great Lakes U.S. Army Corps of Engineers anthony.m.friona@usace.army.mil

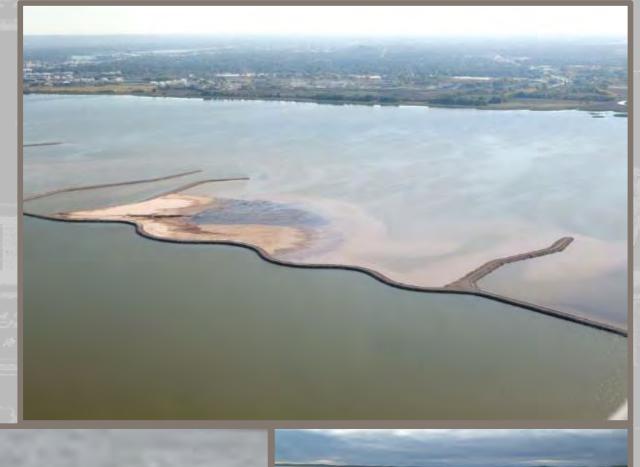
WEDA June 5, 2019

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."













Port of Green Bay, Wisconsin

- 1.8M tons per year
- Key commodities: coal, limestone, cement, salt, general cargo
- 14 miles navigation channel
- Requires maintenance dredging of 180,000 cubic yards per year
- Dredged material was historically confined to CDFs
- Over the years, material quality improved, in 2010, ~80% of material was determined suitable for open lake placement
- Suitable open lake placement site was too far away to be economical





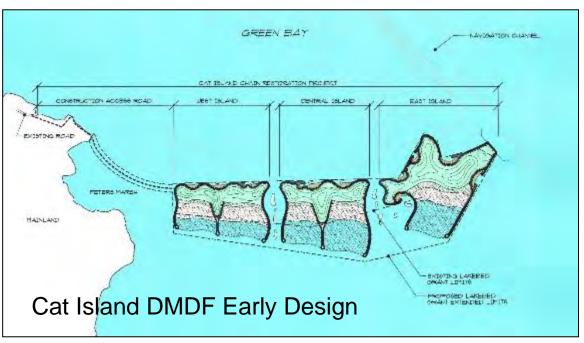


DREDGING CRISIS

- Early 2000s, running out of options
- Renard Island CDF at Capacity
- Expansion Denied
- Material Placed in Brown County CDF with tipping fee
- Not sustainable

Corps and Stakeholders
Recognize Cat Island
Project as Potential WinWin Solution in late 1990s







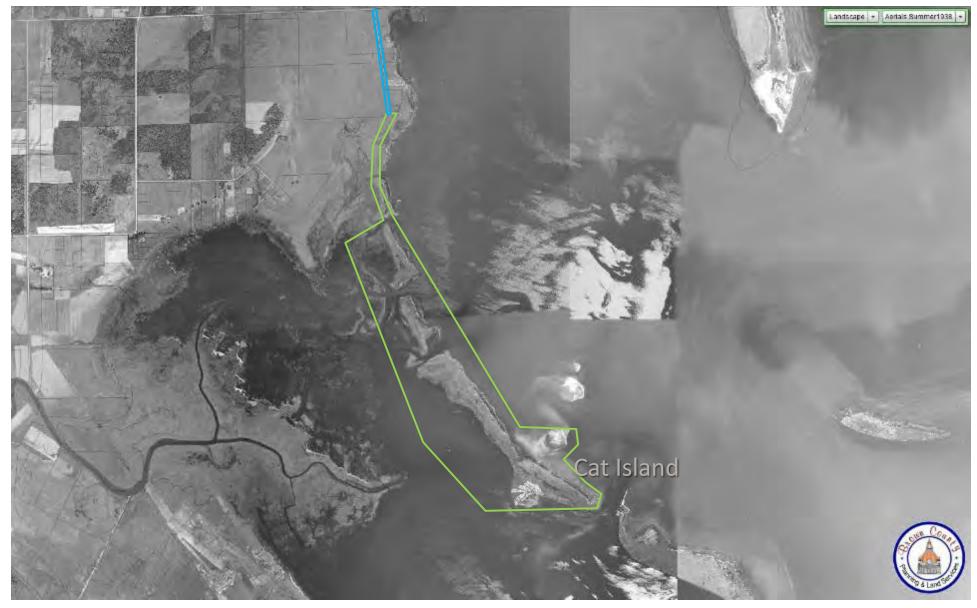
Due to high water levels, highway construction, increased development, 90% of Coastal Wetlands Were Lost from Southern Green Bay between the 1960s and 2000





1938



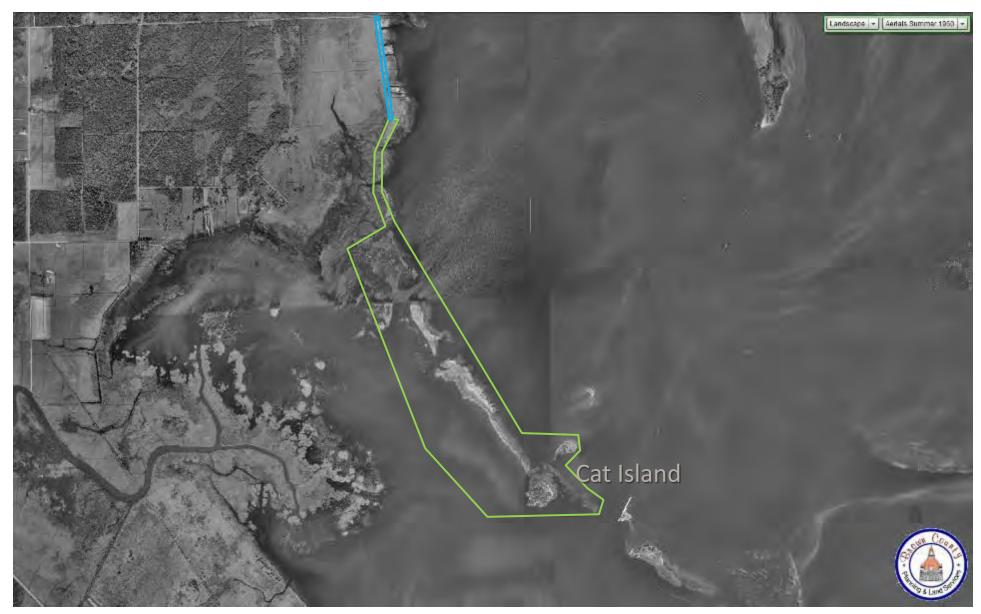


Brown County Aerial Photography, 1938



1960





Brown County Aerial Photography, 1960









2010

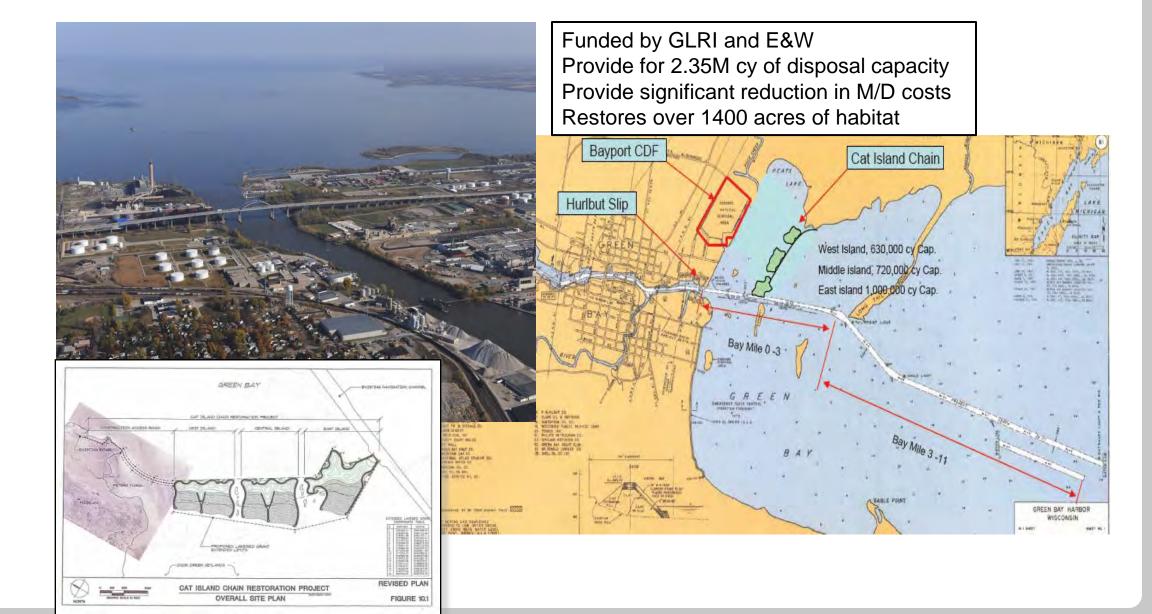






GREEN BAY - CAT ISLANDS







CAT ISLAND RESTORATION



Navigation project – cost effective dredged material management:

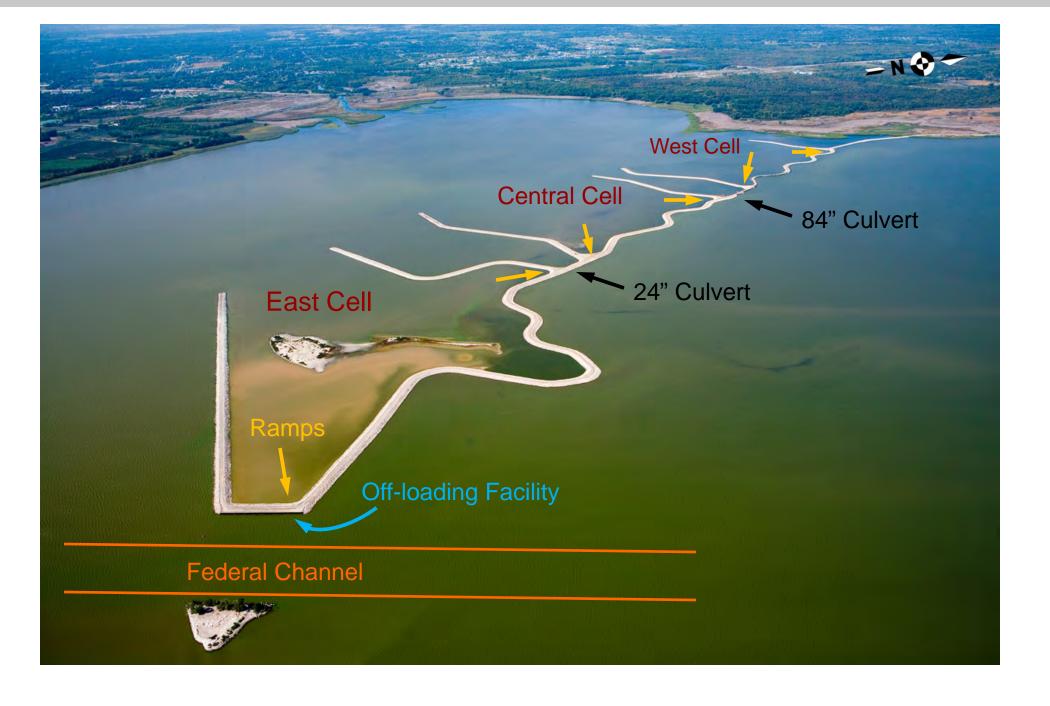
- Provides for 20 years of disposal capacity for maintenance dredging for the Federal channel
- Lower cost dredging due to closer proximity to dredging locations and no double handling or tipping fees
- Open ended cells

Environmental benefits:

- Re-creates the Cat Island chain (274 acres)
- Restoration of march and wetland habitat, providing 1,440 acres of wetland wildlife refuge







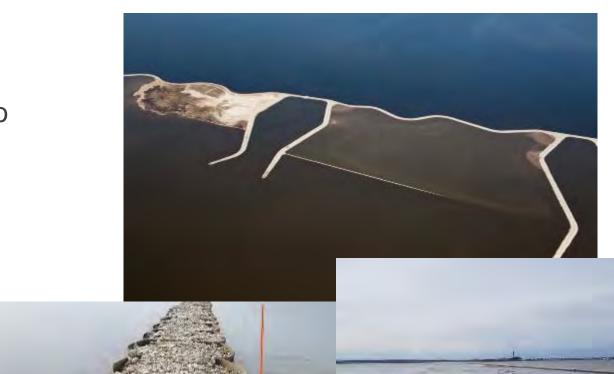




CONCERNS ABOUT TURBIDITY FROM CELLS

Hesco barrier placed at end of cell to help retain solids, reduce turbidity outside cells

Very effective and reducing turbidity leaving cells





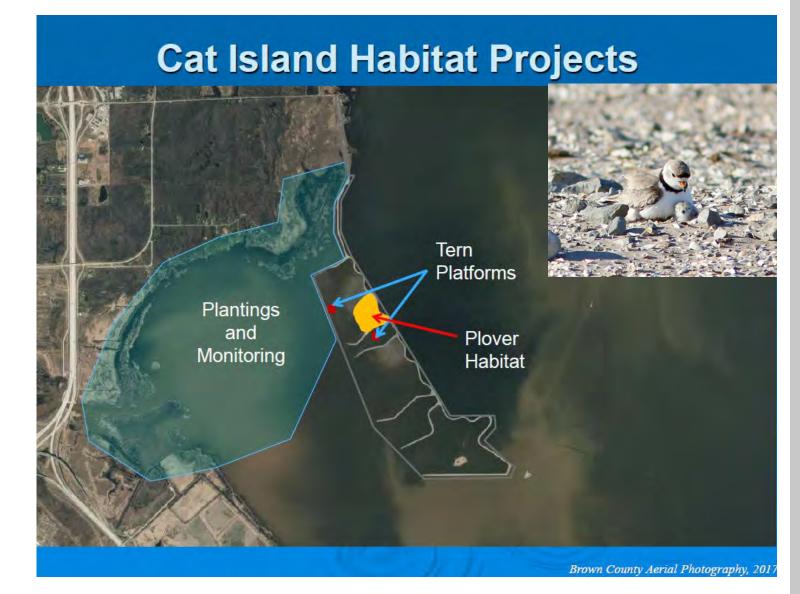
AGENCIES WORKING HABITAT PROJECTS IN AND AROUND DMDF



The DMDF has reestablished outstanding habitat

Piping plover endangered species – established

Agencies and environmental groups working on numerous habitat projects





GREEN BAY HARBOR DMDF CAT ISLAND CHAIN



Outstanding example of collaboration between Corps, environmental groups, agencies, and stakeholders

Very successful project - lowered dredging costs, dredging more yardage – benefit to navigation



