

# Cat Island Chain Background & Access Guide



## ***Brown County Port & Resource Recovery Department***

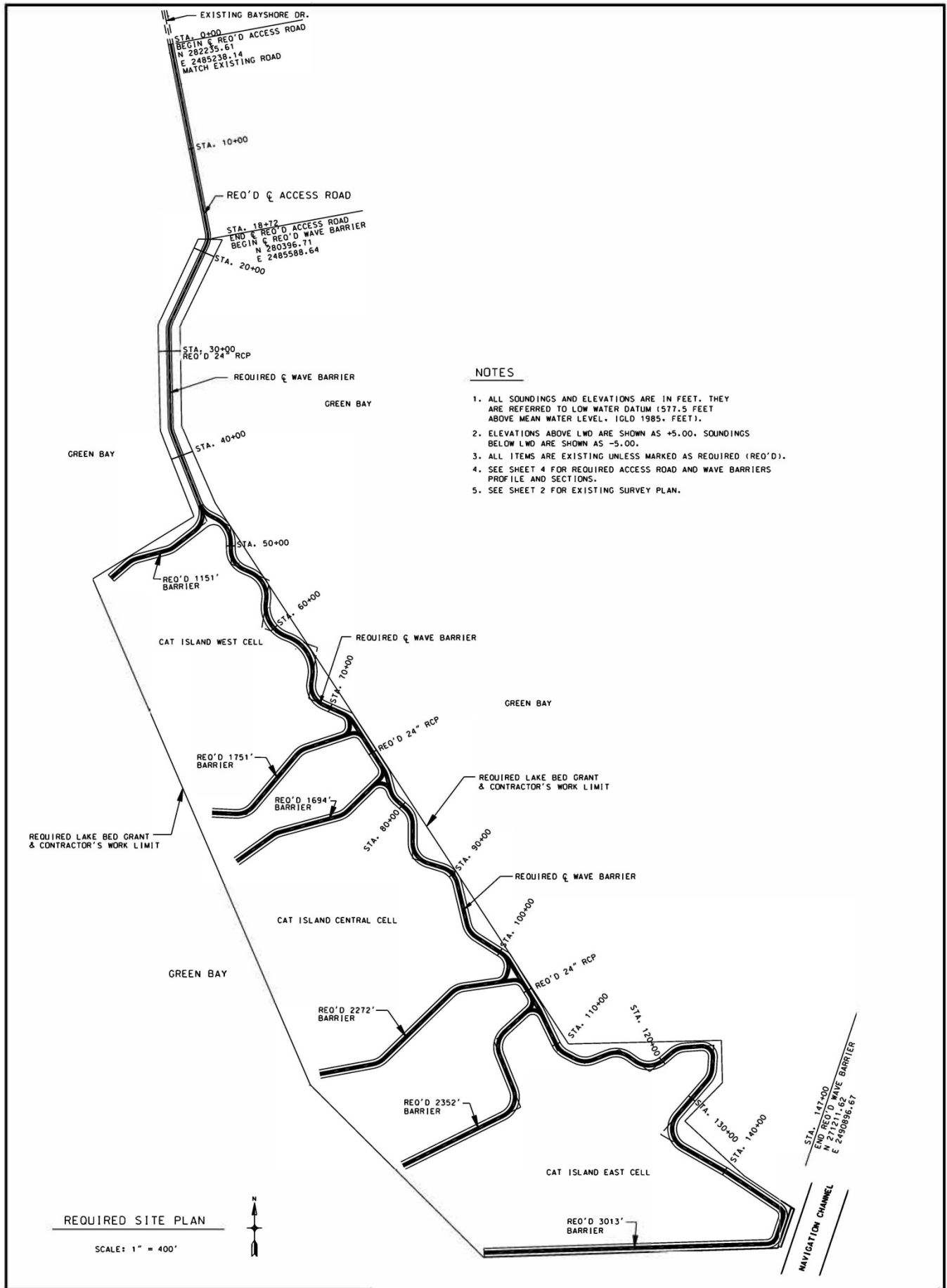
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**NOTES**

1. ALL SOUNDINGS AND ELEVATIONS ARE IN FEET. THEY ARE REFERRED TO LOW WATER DATUM (577.5 FEET ABOVE MEAN WATER LEVEL, IGLD 1985, FEET).
2. ELEVATIONS ABOVE LWD ARE SHOWN AS +5.00. SOUNDINGS BELOW LWD ARE SHOWN AS -5.00.
3. ALL ITEMS ARE EXISTING UNLESS MARKED AS REQUIRED (REQ'D).
4. SEE SHEET 4 FOR REQUIRED ACCESS ROAD AND WAVE BARRIERS PROFILE AND SECTIONS.
5. SEE SHEET 2 FOR EXISTING SURVEY PLAN.

REQUIRED SITE PLAN

SCALE: 1" = 400'



## Restoration of the Cat Island Chain

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The southern edge of Green Bay once contained one of the largest and most diverse wetland habitat complexes in the Great Lakes. These wetlands had historically been protected from high energy wave and storm actions by the Cat Island chain of barrier islands. The west shore of Green Bay also provides a “leading line” that guides and concentrates migrating birds from a broad northern opening to the southern tip of the bay. Shallow waters and extensive beds of submergent and emergent aquatic vegetation provide a major stopover for waterfowl and other migrating birds; as well as habitat for diverse populations of water birds, furbearers, invertebrates, and native fishes. According to U.S. Fish and Wildlife Service (USFWS) surveys conducted in the 1990s, the Cat Islands provided nesting habitat for 13 species of colonial nesting water birds, the highest species diversity of any island in the Great Lakes. During extremely high water levels in the mid-1970s, a series of severe storms during ice breakup resulted in catastrophic erosion and ice damage to the islands. While remnant islands and wetland habitat still remained, most of this habitat was lost or degraded due to erosion negatively affecting both habitat and water quality.

In 1988, as part of the development of the Lower Green Bay Remedial Action Plan, the restoration of the Cat Island chain was identified as the top priority for restoration of habitat in Green Bay. In 2005 Brown County as the Port of Green Bay received a Lake Bed Grant (2005 Wisconsin Act 390) from the Wisconsin Legislature to allow for reconstruction of the Cat Island Chain in Green Bay.

In addition to the environmental benefits, the islands provide the U.S. Army Corps of Engineers and Port of Green Bay a safe and beneficial place to deposit clean navigational sediments. Maintenance dredging of the Green Bay Harbor is the foundation of the economic vitality of the Port of Green Bay. A backlog of dredged material exists in the navigational channel in excess of one million cubic yards. The three islands are anticipated to provide disposal capacity of 20-30 years for clean dredged material from the outer harbor in Green Bay.

The primary goals of the Cat Island Chain Restoration Project are to:

- Reestablish the historic string of barrier islands and shoals to protect remaining wetland habitat, promote reestablishment of additional emergent and submergent aquatic vegetation and restore island habitat; and
- Provide disposal capacity for clean dredged material from the outer harbor in Green Bay navigational channel. Beneficially reusing the dredge material.

In 2012, after nearly 25 years of planning and searching for funding, the Brown County Port & Resource Recovery Department began reconstruction of the first portion of the Cat Island chain through funding provided by a \$1.5 million EPA Great Lakes Restoration Initiative (GLRI) Grant. Brown County completed the initial phase of the project through construction of a wave barrier extending 3,900 feet into the bay. Additional phases were funded through a cooperative effort between Brown County and the US Army Corps of Engineers (Corps). The remainder of the 2.5 mile wave barrier as well as the side dikes for the three islands were constructed by the Corps from 2012 to 2014 as was an offloading facility at the shipping channel. The chain has been designed as three open-backed islands with a connecting dike that serves as a wave barrier. The islands will be filled over the next twenty to thirty

years by the Corps of Engineers using clean dredge material from the maintenance of the Green Bay Harbor.

The project will reconstruct the Cat Islands protecting and restoring approximately 1,225 acres of shallow water and wetland habitat with construction of the wave barrier along the remnant Cat Island shoals. The wave barrier provides the base for filling the three islands with beneficially reused material dredged from the outer navigation channel. The islands total about 272 acres and are helping to recreate island habitat and, by blocking wave energy reestablishing aquatic plant beds in the lower bay. Restoring the islands is expected to lead to recovery of much of the important lower bay habitat and benefit sport and commercial fisheries, colonial nesting water birds, shorebirds, waterfowl, marsh nesting birds, amphibians, turtles, invertebrates, and furbearing mammals. The wave barrier will provide long term protection to the barrier islands and restored wetlands from future storm and ice damage.

While originally estimated at \$35 million to complete the project, the final cost was just under \$20 million with Port of Green Bay through the Brown County Port & Resource Recovery Department providing 35% or about \$6 million as a match for the construction phases that were completed by the US Army Corps of Engineers. The project is a partnership between the Port of Green Bay, Brown County, US Army Corps of Engineers, US Environmental Protection Agency, US Fish & Wildlife Service, Wisconsin Departments of Transportation and Natural Resources, Lower Fox River/Green Bay Natural Resources Trustee Council, UW Sea-Grant, UW-Green Bay and 14 Port terminal operators. Funding was provided from EPA Great Lakes Restoration Initiative grants, a Wisconsin DOT Harbor Assistance Program grant, a Natural Resources Damages Assessment grant, and funds collected by the Port of Green Bay.

Oversight for the project and future management decisions are provided by the Cat Island Advisory Committee (CIAC) which was established by the WDNR as part of the Water Quality Permit for the project. The permit establishes the CIAC as a five-member committee with one representative each from the WDNR, Port of Green Bay, Corps, USFWS and a citizen member. In addition advisory members from UW-Green Bay, UW Sea Grant and other organizations provide input to the committee on a variety of issues dealing with management of the islands.

The impact of the Cat Island Chain restoration has already been seen in improved water quality, re-vegetation of near shore areas and an increase in waterfowl species. The project is also seen as a model for beneficial reuse of dredge material. We expect to see impacts well into the future.

## Cat Island Restoration Site Access

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Due to public safety and ecological concerns, general or open public access to the Cat Island Chain Restoration Project is prohibited at this time. However, in recognition of the educational opportunity provided by the project, supervised access opportunities are granted on a case-by-case basis under the decision-making authority of the Cat Island Advisory Committee (CIAC) with direct consideration of upholding public safety and meeting project goals.

### **Allowable Activities**

- Research and educational activities.
- Wildlife and habitat monitoring and management.
- Dredge material management.

### **Prohibited Activities**

- All recreational activities are prohibited.
- No fishing, trapping, and hunting.
- No recreational motorized vehicles (e.g., ATVs, snowmobiles).
- No recreational non-motorized vehicles (e.g., bicycles).
- No pets and horses.
- No boat docking or landing.

### **Access Limitations**

- No access will be granted beyond the first leg of the westernmost island or the start of migratory bird habitat whichever is closer to shore from April to August annually.
- Access will be limited during any period in which the US Army Corps of Engineers is actively filling or managing existing dredge material (approximately every other year).
- All tour activities are limited to the hard surface of the causeway. Walking on any dredge material is prohibited.
- All tours must be led by a member of the Cat Island Advisory Committee or an approved alternate.



Cat Island Chain – June 15, 2012



Cat Island Chain- November 12, 2013



Cat Island – September 3, 2014



Cat Island – October 24, 2016



Cat Island – November 8, 2017