# Northerly Island

Bob Foster Senior Project Manager Chicago Park District June 26, 2012









#### ORGANIZATIONAL PRINCIPLES



#### N EXPERIENCING THE ISLAND

The existing connection to Northerly Island from Solidarity Drive will be maintained as the primary access to the park. The north end of the island will be programmed to take advantage of the high number of people arriving from this direction. As visitors more from north to south, they experience the island's gradual

transition from a place of lively entertainment on a larger group scale, to the diverse ecology toward the island's tip that fosters quieter, more focused individual experiences.

#### HABITATS PARALLEL TO THE COASTLINE

The ecological zones on the island are organized in linear bands parallel to the coastline. This is representative of natural organization along the coast of Lake Michigan. A dense woodland on the west transitions to an open savannah, grassland prairie, emergent marsh, to lagoon and open lake water to the east.



#### FORMING REEF AND LAGOON

Topography has played a key role in shaping the identity of Northerly Island over the last hundred years. Historic underwater topographic maps reveal deep pits where land was dredged in the early 15,200 to construct the island. Other sources of fill to build up the land were not quite as local—these include building demolition debris and materials diverted from land fills.

Topography will continue to play a key role in shaping visitors' experiences and creating healthy ecologies at Northerdy Island Park.

A network of ridges dotted with peaks and valleys runs along the southwest edge of the island into Lake Michigan where they become the Northerly Reef. forming and protecting the Lagoon. This elevated loop connects fand and water activities and ecologies, thereby defining a new way of engaging the lake.

Gonstruction of these protective ridges will be composed of inexpensive shot rock, generally obtained for the 'first blast' at a quarty. This type of states is available in a uitable quartities and is less expensive than other types of fill material. The rock will be placed in several layers of different sized stone. Larger stones will be used on the outside of the reef where they will protect the reef against the Lake Michigan's powerful waves. Different sizes stores at the irmer lagoon will be selected based on needs of spawning fish and nurface wegetation.

A less identifiable, but not less important, benefit of the ridge network is the visual and acoustic buffer it provider. Visitors to Northerly will be able to stand on the edge of the wetland and lose all sense of the city, beyond. A short hile up the forested ridge will reveal views of Chicago's skyline and a bushing harbor nearby.



# Northerly Island Great Lakes Fishery and Ecosystem Restoration (GLFER) Project

Kirston Buczak, PMP USACE, Chicago District June 26, 2012



US Army Corps of Engineers BUILDING STRONG<sub>®</sub>

# Outline

# Background

## Proposed Project Features

## Status and Next Steps



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# Background

- 42 U.S.C. § 1962d-22.Great Lakes Fishery and Ecosystem Restoration (GLFER) Section 506 of Water Resources and Development Act (WRDA) 2000
- Section 506 provides the authority to plan, design, and construct projects that support the restoration of fisheries, ecosystems, and beneficial uses of the Great Lakes
- □ Cost share is 65% federal and 35% non-federal
- Local sponsor's share can be any combination of cash, and/or land and work in kind credits
- Projects are justified based on ecosystem benefits



# Background

- No recreation features allowed under the GLFER authority
- □ Project limit is \$10M federal funds (Total \$15M)
- □ Phases: Feasibility, and Design and Implementation (DI)
- Feasibility phase includes preparing a Feasibility Report and Environmental Assessment (EA)
- DI phase includes signing a Project Partnership Agreement (PPA), preparing plans and specifications (P&S), contract award, construction and oversight
- Great Lakes Restoration Initiative (GLRI) funds





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Lacustrine - This type would be enhanced to provide both lithophilic (stone loving) spawners and those fish species that spawn on submerged vegetation with locally scarce habitat.



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Pond – would be approximately 4.1-acres with depths to 4'. Bottom substrate would be sand, gravel, cobble, and boulders. Interstitial spacing provided by cobble and boulders to provide habitat for macroinvertebrates. Large flat slate rocks would promote establishment of *Necturus maculosus* (mudpuppy). The connection to Lake Michigan would block large invasive species such as *Cyprinus carpio* (common carp) and non-native Salmonids with a low profile fence.





Emergent Marsh – This type would be restored to provide aquatic emergent habitat for fish, insects, amphibians and birds.



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□ Wet Prairie – This type would be restored to provide aquatic prairie habitat for crayfish, insects, amphibians, reptiles, birds and small mammals.



Mesic Prairie – This type would be restored to provide prairie habitat for insects, amphibians, reptiles, birds and small mammals.



Savanna – This type would be restored to provide black oak savanna habitat for insects, amphibians, reptiles, birds and small mammals.



# Status and Next Steps

- Received approval to initiate the feasibility study in February 2012
- Preparing feasibility report and EA
  - Sent EA out for 30-day public review (June 7, 2012)
  - Respond to public comments received (anticipated July 7)
  - Sign Finding of No Significant Impacts (FONSI)
- Submit draft feasibility report and EA for project approval (anticipated in July 2012)
- □ Project approval anticipated in July 2012
- □ Sign PPA July/Aug 2012
- □ Construction contract award September 2012

