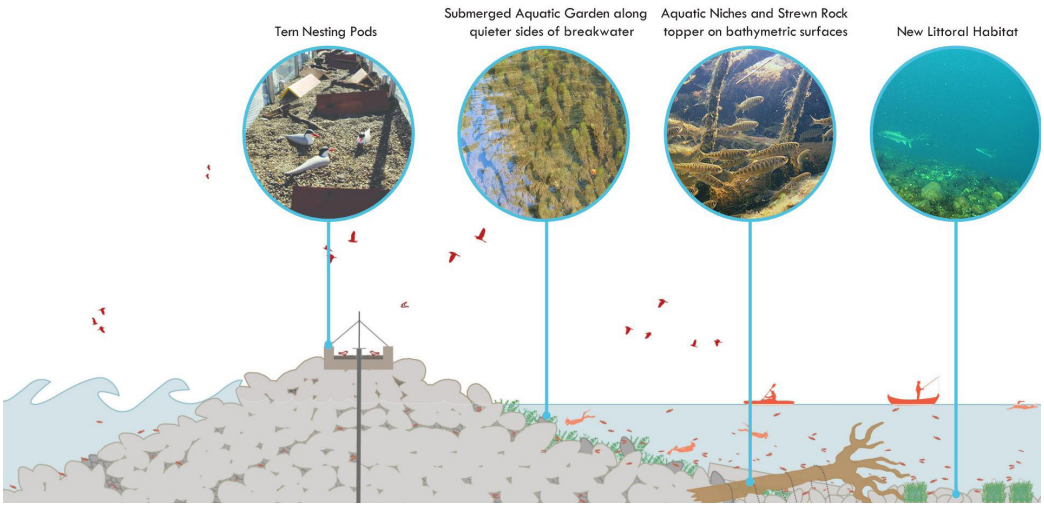
Illinois Beach State Park Shoreline Stabilization Project
Lake County, Illinois

The Illinois Beach State Park Shoreline Stabilization Project is the first freshwater project and 14th national project to earn WEDG Verification. Faced with chronic beach erosion from Lake Michigan's waves, the Illinois Department of Natural Resources and Capital Development Board with the Design Build Team members Michels Construction, Moffat & Nichol, and Living Habitats completed the final design for an innovative stone breakwater system to protect the last remaining natural shoreline in the state of Illinois. The project goes beyond the traditional protection that a breakwater provides by fostering habitat space within the stone structures.

MICHELS CONSTRUCTION, INC.

Beach and Breakwater Overview.



LIVING HABITATS

Breakwater Section.

- Large stone breakwaters reduce transmission of wave energy and protect shoreline and upland habitat from the dynamic natural littoral transport process and imminent erosion.
- The Kellogg Creek groin ensures that cobbles and stone are retained, and sand is deposited at the mouth of the creek when water level rises. As a result, sand is cleared and drained into the lake, reducing upstream flooding and restoring upland wetlands.
- The breakwater's rough surface provides habitation among aquatic and avian creatures. One breakwater will host ten tern nests to encourage colonial nesting behaviors with integrated predator deterrent components.
- Salvaged concrete blocks have been repurposed to serve as anchors and frames for coconut fiber coir logs to be attached, serving as a rooting media that will allow submergent plant species a place near the lakebed to gain a foothold.
- Renourishment and maintenance of the state's only remaining beach ridge shoreline protects direct connection to the water for park users. Purposefully arranged breakwaters allow for unobstructed waterfront views in between structures and their stone material provide a natural appearance.
- Repurposed driftwood and cut trees as natural windrows along the edge of the beach fill template will create a natural barrier, as opposed to a harder barrier, between the beach and sensitive habitats for construction and public access.

Resilience
Ecology
Access

0	Site Assessment & Planning	**25**/32
1	Responsible Siting & Risk Reduction	**21**/45
2	Community Access & Connections	**27**/69
3	Edge Resiliency	**22**/29
4	Natural Resources	**39**/63
5	Innovation	**12**/12
TOTAL		**146**/250

Verification is at +115 points