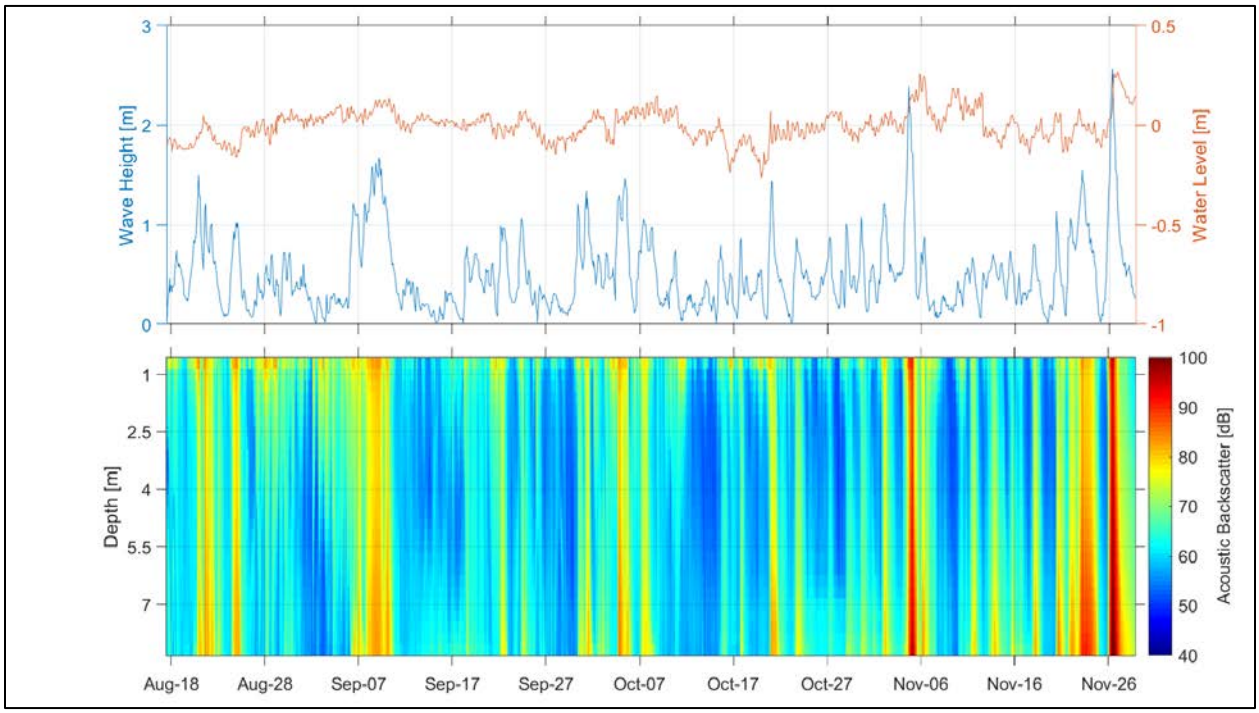
NOAA GLRI Webinar - Project Fact Sheet

Project Title	Sustainable nearshore management solutions to prevent critical habitat loss at Illinois Beach State Park
Project Lead	PI: Heather Stirratt Co-PIs, if applicable: Brandon Krumwiede
Funding amount ($) and years funded	FY18 - $485,000 (Phase I)
External partners, collaborators and/or sub-awardees	Multi-Agency (Illinois Coastal Management Program, Illinois State Geological Survey, Stantec, Woolpert, Michigan State University, U.S. Army Corps of Engineers, NOAA GLERL)
GLRI Focus Area	4 – Habitat and Species
GLRI Action Plan Primary Measure	**Objective:** 4.1 - Protect, restore and enhance habitats to help sustain healthy populations of native species
	Measure(s) of Progress: 4.1.1 - Acres of coastal wetland, nearshore, and other habitats restored, protected, enhanced. 4.1.2 - Miles of shoreline or riparian corridor restored.
Brief project description	Phase I. NOAA along with multi-agency partners deployed offshore current and sediment transport monitoring instrumentation (ADCP) to understand littoral fluxes. ISGS performed initial beach morphology analysis using LiDAR data, carbon dating, repeat aerial imagery collection and detailed beach topographic surveys at specific locations selected for beach nourishment. Beach response to the nourishment was tracked using aerial photography and high-resolution GPS surveys. (Completed) Phase II. NOAA alongside of our partners in IL will refine the sediment budget for the area and compile high resolution datasets to constrain the physical setting and temporal processes, enabling a better understanding of contextual coastal processes that drive this system. At least one pilot project will be implemented at a critical location at IBSP. This project lays the foundations for basin scale sediment management planning and understanding of Lake Michigan's nearshore physical processes. (In Progress) This project will work towards long term resilience strategies aimed at

	mitigating coastal erosion of critically unique coastal habitats and protection of shoreline sites vulnerable to lake level changes and coastal storms.



ADCP measured backscatter intensity, wave height and water level during deployment period in 2018 at Illinois Beach State Park. Of interest is the early and late November storm events identified by the increased acoustic backscatter and associated increase in wave height.