

SUMMARY AND RESULTS OF THE LAKE MICHIGAN PILOT STUDY OF THE NATIONAL MONITORING NETWORK FOR U.S. COASTAL WATERS AND THEIR TRIBUTARIES

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ABSTRACT

Lake Michigan was selected as one of three pilot studies across the nation to test and improve upon the design of the National Monitoring Network for U.S. Coastal Waters and Their Tributaries. This presentation will provide background information and a summary of the results of the Lake Michigan Pilot Study as they relate to the goals and objectives of the National Monitoring Network.

The Great Lakes and Lake Michigan in particular, are in a period of changing conditions due to a wide spectrum of watershed stressors from toxic pollutants, nonpoint source pollution and water level fluctuations to invasive species disrupting the food web and ecosystem and rampant developmental pressures throughout the region. With these issues at the forefront, partners working on or around Lake Michigan – including federal and state agencies and academic institutions – have established a robust framework of research and collaborative monitoring efforts. The Lake Michigan Pilot Study enabled partners in the basin to better address these stressors and management issues. Moreover, the explicit linkage between upland, coastal and offshore waters necessitates a more coordinated monitoring network. Results of the Study are serving as a catalyst for assessing and improving upon observing, monitoring and reporting needs for the above-mentioned and other rapidly emerging ecological problems both in the Lake Michigan basin and in the Great Lakes region.

The Lake Michigan Pilot Study is also as an excellent surrogate for most coastal marine environments, with its focus on integrating observations of complex physical, chemical and biological processes and development of enhanced monitoring strategies. The Lake Michigan Pilot Study will ultimately generate a monitoring design that could be applied to the other four Great Lakes to better assess the ecological status of the entire Great Lakes basin, while complementary with monitoring parameters in other coastal regions of the United States through its cooperation in the National Monitoring Network for U.S. Coastal Waters and Their Tributaries.

KEYWORDS

Great Lakes, Lake Michigan, National Monitoring Network, Pilot Study.