Sea Grant serves a $12.6 billion Great Lakes port

The Duluth-Superior Port is the world’s largest inland facility and generates $12.6 billion in annual economic activity, which in turn provides 73,719 jobs and $3.2 billion in personal income. Wisconsin Sea Grant serves as a vital resource for the port’s longevity by advising on dredging activities and dredged material storage, updates to the port land-use plan, and the protection of critical infrastructure from freshwater corrosion of steel plates. In 2015, Wisconsin Sea Grant advised seven companies located around the port saving $6.1 million in infrastructure replacement costs.

seagrant.wisc.edu/home/Topics/PortsHarborsandMarinas.aspx

Sea Grant advises dredged material storage in the Duluth-Superior Port. Credit: John Karl
Sea Grant assists restoration efforts; endangered piping plover makes comeback in Green Bay

Wisconsin Sea Grant plays an integral role in the restoration efforts of 1,400 acres of barrier islands in Lake Michigan, known as the Cat Islands, that had previously disappeared due to high lake levels and storms. Wisconsin Sea Grant’s coastal engineer is advising on placement and type of dredged materials obtained from the shipping lanes of the Port of Green Bay to rebuild these islands.

In 2016, for the first time in 75 years, the endangered piping plover successfully nested on a restored island and fledged chicks. These tiny birds are a rare sight in the Great Lakes due to predation and habitat loss. Wild rice has also made a comeback and provides important ecosystem services in the form of critical habitat to the piping plover and an important food source for Native-American tribes. In addition to restoration efforts, Wisconsin Sea Grant provides advisory support for an access plan that balances the needs of birdwatchers and the restoration construction process. [seagrant.wisc.edu/home/Topics/HabitatsandEcosystems.aspx#Cat Island Chain Restoration](seagrant.wisc.edu/home/Topics/HabitatsandEcosystems.aspx#Cat Island Chain Restoration)

Sea Grant tool identifies mercury fingerprint; informs management to protect public health

Mercury can have toxic effects on people’s brains, kidneys and lungs. The Wisconsin Sea Grant director worked with partners from the U.S. Geological Survey and University of Wisconsin-Madison to develop a tool that identifies the source of mercury in a body of water.

This chemical “fingerprint” can distinguish between natural and industrial sources of mercury, which allows resource managers to determine the best strategies for keeping mercury out of local food sources. Wisconsin Sea Grant plans to work with resource managers to utilize this tool and determine the most effective ways to minimize inputs of mercury into the environment and protect public health. [seagrant.wisc.edu/home/Topics/Toxics.aspx](seagrant.wisc.edu/home/Topics/Toxics.aspx)

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