DEPARTMENT OF NATURAL RESOURCES

Funding Summary for Minnesota's Lake Superior Coastal Program

July 1, 2015 – June 30, 2018

Minnesota's North Shore is home to 216,268 people on 189 miles of coastline. Maritime activities employ almost 12,500 people, mostly in tourism and recreation, and generate approximately \$1.3 billion for the local economy¹.

In the last three years, the Minnesota Department of Natural Resources (DNR) and NOAA's Office for Coastal Management awarded more than **\$1.5 million** to the state's coastal communities. **Thirty-seven different grantees** (local governments, academic institutions, and nonprofits) completed **65 coastal management projects** to preserve, protect, develop, restore, or enhance coastal resources: the environment, economy, people, and places. For more information, visit our website <u>mndnr.gov/mlscp</u>.

Promoting Coastal Community Development (\$69,093; 10 projects) Help communities manage development along the Lake Superior coast in a sustainable way.

Expanding Public Engagement (\$71,500; 9 projects) Research, analyze, and share information that leads to better coastal land and water management by government and citizens.

Enhance Public Access (\$510,958; 14 projects) Create or improve public access to outdoor recreational opportunities within the coastal area for residents and tourists. Mitiga

Protecting and Restoring Coastal Habitat (\$398,468; 13 projects) Protect and restore the coastal area's natural resources and habitats.

Protecting Coastal Water Quality (\$339,838; 15 projects) Safeguard and restore water quality in Lake Superior and area streams. Mitigating Coastal Hazards (\$141,866; 4 projects) Protect lives and property in the coastal area by minimizing risk from natural hazards such as storms, flooding, and erosion.

¹ National Oceanic and Atmospheric Administration (NOAA), Office for Coastal Management. 2018. NOAA Report on the U.S. Ocean and Great Lakes Economy: Regional and State Profiles. Charleston, SC: Office for Coastal Management. Available at <u>http://www.coast.noaa.gov</u>.

Protecting Water, Trees, Birds, and Fish

Stream Inventory Updates



Hydrologists, fisheries and forest managers, planners, and other resource managers across Minnesota frequently use a stream inventory in their work. Despite changes in technology and on the landscape, the 1960s-era inventory remained mostly unchanged. As a result, they made decisions based on inaccurate information. The Coastal Program collaborated on a pilot project to update the stream inventory in two coastal watersheds and define a process for statewide use. Project personnel enhanced digital elevation models, derived from state's light detection and ranging (LiDAR) inventory, by adding current hydrologic features. State experts vetted and documented methods to create the Next Generation Hydrography data.

Common Tern Conservation



Common Terns are one of the most vulnerable protected species in the Great Lakes Region and are listed as threatened in Minnesota and endangered in Wisconsin. The University of Minnesota Duluth's Natural Resources Research Institute used tracking technology, and GPS tags to identify both long-distance and local-scale movement patterns as well as forage patterns of the Common Terns breeding in the Duluth-Superior Harbor. These findings are important contributions to understanding movement and connectivity dynamics of this species and will be useful to resource managers for conservation.

Forests and Streams



Sustaining forests and the integrity of freshwater ecosystems that depend on them is of particular concern within Minnesota's coastal zone. The Nature Conservancy piloted new approaches for sustaining water flows and quality in streams and rivers of Lake Superior's coast with tools to maintain and enhance forest cover. The project addressed critical information gaps by linking terrestrial dynamics and aquatic ecosystem responses under changing climatic conditions. Outcomes provided land managers with specific recommendations to maintain forest cover and sustain freshwater resources for eight coastal watersheds, and generalized recommendations for the entire coastal area.

At a Glance

- For every grant dollar, the local community provided **\$1.26 in match**.
- Of every \$100: **\$49 went to St. Louis County, \$23 Lake, \$5 Cook, and \$1 Carlton**; \$22 had impact on more than one county or the entire coast.
- Seven grant funded projects achieved goals of the Lake Superior North One Watershed, One Plan.
- Thirteen grant funded projects worked to create resilent communities in the changing climate.
- Coastal Program staff provided **hundreds of hours of technical assistance** to local resource managers and communities.