Helping communities plan, adapt and recover

For Sea Grant, resilience is more than a buzzword. Researchers and outreach specialists identify hazards not only from storms, but also from long-term coastal dynamics—geological, ecological and economic, just to name a few.

Resilient Communities and Economies

Sea Grant researchers and outreach specialists support cutting-edge research in:
- coastal processes
- hazards
- energy sources
- climate change
- managing storm water
- tourism

Meet Karen Bareford, Water Extension Liaison, Mississippi-Alabama Sea Grant

Bareford facilitates the delivery of resources that communities and organizations use to make vital planning decisions regarding the safety and security of their citizens and water resources. These plans ultimately protect citizens, water resources, property, and the long-term sustainability of public health, the economy, and daily lives.

39% of the nation’s population lives in a coastal area

Communities seek Sea Grant expertise to support and sustain diverse and vibrant economies. This includes effectively planning for, responding to and recovering from natural and technological hazards, and finding ways to effectively function within limits of their respective ecosystem.

269 communities improved hazard resilience*

24 Sea Grant Weather-Ready Ambassadors*

Partnership Highlight: Sea Grant and NWS

The Sea Grant Great Lakes Social Science Network provided key research results that helped the National Weather Service (NWS) make their warnings easier to understand. A new joint project between Wisconsin Sea Grant and the NWS is exploring why severe weather disproportionately impacts the economically disadvantaged, including factors such as how these warnings are accessed by communities.

More information at seagrant.noaa.gov/RCE

*Reported in June 2018 for work completed Feb 2018 to Jan 2019
Involving the community in community resilience

Improving community resilience requires residents to be invested in the process. Several Sea Grant programs show residents firsthand the necessity of planning for the future by involving them in the collection of data used to indicate potential hazards. From testing water samples for toxins to tracking the timing of annual biological events, like the appearance of flower buds, residents are involved in monitoring threats to their community. The data they collect are used to inform emergency management strategies and to improve weather and climate forecasts.

Preventing communities for sea-level rise

Thanks to Mississippi-Alabama Sea Grant’s community resilience index, coastal community leaders around the world are assessing their risk and preparing for the increasingly urgent threat of floods caused by sea-level rise. Sea Grant has trained over 200 volunteers to facilitate the use of the index around the US and in Mexico, Bangladesh and Macedonia. Similar efforts in other Sea Grant programs have led to more resilient communities and 30% lower premiums on flood insurance for residents.

Protecting the coastal economy

Alaska Sea Grant is protecting the future of commercial fishing by empowering young fishermen to enter the aging industry. They offer job shadowing and training, safety training, and provide resources through their website “FishBiz.” The website ensures new fishermen have the resources to start a business and seasoned ones have support for managing, growing, and eventually retiring from their business.

Recovering from oil spills

When oil spills happen, community members are often left feeling helpless. The Sea Grant programs of the Gulf of Mexico are helping to ease the burden by synthesizing and communicating oil spill science to the community and training emergency responders. They have released fact sheets in three languages that offer guidance and information about oil spills for people working, living, or vacationing on the coast.

Working with community leaders

Involving community leaders in resiliency planning is a necessary step to ensure long-term investment. Hawai’i Sea Grant has worked with local leaders to incorporate climate change resiliency strategies into official community plans. Molokai and Kauai have added chapters on climate and hazard resiliency into their community plans. Honolulu added a Hawai’i Sea Grant-funded office of climate change.