

Illinois-Indiana Sea Grant (IISG) is part of a national network of 34 university-based programs that promote better understanding, conservation, and use of coastal resources. We are funded through the National Oceanic and Atmospheric Administration, the University of Illinois, and Purdue University, but IISG also works with key organizations, institutions, and agencies in the region to multiply opportunities for success.

Through research, outreach, and education, we bring together scientists, educators, policy makers, community decision makers, residents, and others to work toward a healthy environment and economy in the southern Lake Michigan region.

### **Addressing the Threat of Emerging Contaminants**



We lead the way in tackling contaminants of emerging concern and pollution prevention in the Great Lakes region. IISG-funded research found microplastics in every major river flowing into the lake and in the fish as well. Other projects have assessed potential impacts of microplastics on aquatic organisms. When it comes to unwanted medicines, we engage directly with communities to help them establish collection programs to prevent these chemicals from ending up in local waterways or landfills.

### **Providing Tools to Help Protect Local Resources**



IISG assisted Indiana communities, counties, and park districts in addressing natural resource issues through comprehensive land use and action plans. Through a partnership with Purdue Extension, as well as curriculum, workshops, and IISG's Tipping Point

Planner decision support tool, local decision makers have the resources to develop and set in motion plans that guide the conservation and management of ecological resources.

## **By the Numbers**



**63,070**

**K-12 students reached  
in 2016-18**



**225,000**

**pounds of medicine  
collected since 2008**



**40**

**communities  
planned to protect  
natural resources  
in 2016-18**



**320,000**  
gallons of rainwater  
diverted to rain gardens  
in 2018



**2.5 million**  
buoy data points  
since 2012



**88,000**  
acres of coastal habitat  
protected, enhanced,  
restored in 2016-18



**9,200**  
workshop participants  
in 2016-18

## Reducing Flooding through Green Infrastructure

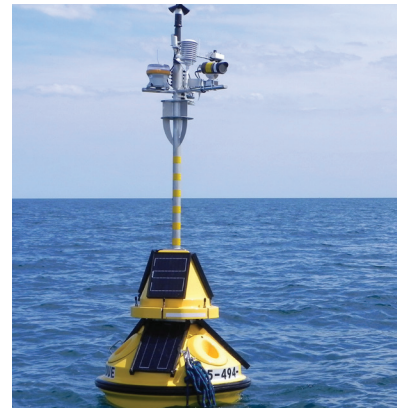
Green infrastructure, in the form of rain gardens, green roofs, and permeable pavement, offers an efficient and ecological way to reduce runoff and flooding after large storm events. IISG researchers mapped soil types in a Chicago suburb to help with its green infrastructure



placement. The results of this work will comprise a toolkit for other communities. IISG has also developed guidance and workshops to help Illinois and Indiana communities install and maintain rain gardens.

## Making the Lake Safer with Buoy Data

IISG maintains two real-time monitoring buoys in the nearshore waters of southern Lake Michigan—near Michigan City, Indiana since 2011, and near Wilmette, Illinois since 2015. Starting in 2018, we also helped deploy, provide support, and house data for for two more buoys in Waukegan and Winthrop Harbors in Illinois. Boaters and anglers have come to depend on buoy data to assess lake conditions, as have yacht clubs, sailing schools, and the National Weather Service.



## Improving Aquaculture Efficiency

Illinois and Indiana aquaculture producers compete for customers with suppliers of imported seafood, which comes at a much cheaper price. Local producers need the most up-to-date knowledge and technology to help ensure the profitability of aquaculture businesses. IISG visited aquaculture and aquaponics operations of all sizes in Illinois and Indiana. Through IISG guidance, several farmers have improved their processes, identified production bottlenecks, changed fish feed formulations, and improved capacity.

