

Staff Update



Greg Hitzroth is IISG's new aquatic invasive species specialist. From the Chicago Botanic Gardens in Glencoe, IL, Greg works with IISG's Aquatic Invasive Species team to develop and implement programs that raise awareness of strategies to prevent the spread of invasive species in the Great Lakes region. His work specializes on aquatic species that enter Indiana and Illinois waterways through commercial trade. Greg came to Sea Grant from a research assistantship with the Botanic Garden's Plants of Concern Program. He holds an MS in Biology from Northern Arizona University.



IISG's new science writer is Anjanette Riley. She works with the communication team and researchers to create materials that communicate research results and inform the public of IISG's initiatives and outreach projects. Anjanette holds an MA in English Studies from Illinois State University. She brings the experience of a technical writer and journalist, having written for several newspapers and magazines across the country.

Large sprawling yards can lead to more runoff

Protecting water quality by converting low-density residential neighborhoods into urban areas sounds counterintuitive, but that is exactly what a researcher at University of Wisconsin-Eau Claire recommends after spending two years studying the relationship between land use practices, climate change patterns, and water quality.

Cyril Wilson's Discovery Grant study used simulations of different land use and climate scenarios to see what pollution levels in the Chicago-area Des Plaines River Watershed may look like in 2020 and 2030. Although results varied, the study reveals that changing climate patterns will increase the concentration of pollutants like phosphorous and sediment that enter waterways from soil erosion, stormwater run-off, and industrial waste.

Sediment levels are expected to be at their highest in winter months and in low-density areas, where there is less infrastructure designed to channel stormwater run-off and more open spaces that wash away in storms.

"When you get outside of the city, there are more undeveloped spaces and homes with large yards," Wilson said. "There is more sediment to be flushed into waterways. The more developed an area is, the less sediment there is to wash away."

For aquatic life living in the Des Plaines River Watershed, increased sediment means rising water temperatures and less oxygen to support biological diversity. Particulates can also clog fish gills, decrease resistance to disease, and reduce reproduction rates by suffocating eggs and newly-hatched larvae.