

WATER RESOURCES

Salty or Fresh, Sea Grant addresses
LOCAL WATER ISSUES WITH
RESEARCH AND OUTREACH



★ ★ ★ ————— Hey America! Know Your Water! ————— ★ ★ ★

DO RAIN DROPS KEEP FALLING ON YOUR HEAD?

WETTEST LOCATION	DRIEST LOCATION	LARGEST CITIES		
<p>Mount Wai'ale'ale Kaya'i Hawaii</p> <p>Ⓐ 460.8 inches/year (1,170.4 centimeters)</p>	<p>Death Valley California & Nevada</p> <p>Ⓐ 2.4 inches/year (6.1 centimeters)</p>	<p>New York New York</p> <p>Ⓑ 8,175,000 people Ⓐ 50 inches/year (127 centimeters)</p>	<p>Los Angeles California</p> <p>Ⓑ 3,793,000 people Ⓐ 13 inches/year (33 centimeters)</p>	<p>Chicago Illinois</p> <p>Ⓑ 2,695,000 people Ⓐ 37 inches/year (94 centimeters)</p>

WHERE DOES OUR WATER COME FROM?

WHAT ARE WE DOING WITH OUR WATER?

SUPPLY SOURCES	TOTAL USE	AVERAGE HOUSEHOLD USE	AVERAGE INDOOR USE
Public Surface Water 54% Public Ground Water 32% Private Wells 14%	<p>355 BILLION GALLONS/DAY</p>	Outdoor 31% Indoor 69%	<ul style="list-style-type: none"> Other 3% Bath 5% Dishwasher 1% Leaks 14% Faucets 19% Shower 19% Washer 19% Toilets 20%

Sea Grant Rain Garden App available in 13 states

A tool developed by Connecticut Sea Grant to provide residents and businesses solutions for flood control and water quality has been adapted to serve 13 states in the U.S. The following states are currently included in the iOS (iPhone/iPad) version: CT, DE, GA, HI, MD, MA, MN, NJ, OH, PA, RI, SC, and VT.



The rain garden above, shown at installation (L) and a few years later (R) captures roof and yard run-off. By slowing water down, it provides stormwater flood control and filters out pollutants. Photos: Connecticut Sea Grant

A PLAN TO REDUCE GULF OF MEXICO HYPOXIA AT THE SOURCE

By most estimates, Illinois is the largest contributor of nutrients to the Gulf of Mexico hypoxia. More than 400 million pounds of nitrate-nitrogen and 38 million pounds of phosphorus from farm fields, city streets, and wastewater treatment plants are carried down the

Mississippi River to the Gulf each year down the Mississippi River. Illinois-Indiana Sea Grant worked with scientists and stakeholders to develop and implement a plan for reducing nutrient pollution. It outlines best management practices to reduce the amount

of nitrogen and phosphorus reaching Illinois waterways by 45 percent. The strategy marks the most comprehensive approach to nutrient loss reduction in the state's history.

SURVEY INFORMS DROUGHT RESPONSE IN TEXAS

Texas Sea Grant partially funded two national public water policy surveys in 2013 to determine U.S. and Texas citizens' concerns and preferences relating to their water resources and their state's water policies. Texas respondents said they were very concerned

about the quality and quantity of their water resources and about preserving water for environmental services, including inflows to Texas bays and estuaries. The study results prompted the Texas Legislature to put the water resources question to a public vote

Texans overwhelmingly approved releasing \$2 billion from the state's Rainy Day fund to support a low-interest loan program for water infrastructure and conservation projects in the state.

NORTH CAROLINA SEA GRANT RESTORES STREAMS

North Carolina Sea Grant's biggest urban stream restoration project is Rocky Branch. This creek runs more than a mile through the heart of the North Carolina State University campus. Once one of the state's most polluted streams, Rocky Branch is now a national model for urban stream restoration. A three-phased, multimillion-dollar endeavor, the project was designed to stabilize the creek, improve water quality as well as aquatic and wildlife habitat, and integrate the creek into the campus through greenway trails. The stream and greenways will function as a safe, accessible outdoor teaching laboratory and recreation area.

NEW JERSEY SEA GRANT TRAINS HOMEOWNERS

Stormwater Management in Your Backyard is a program that builds on Rutgers University Cooperative Extension efforts to deliver stormwater management education to local communities. The goal is to help homeowners be better water resource stewards by teaching them how to properly manage stormwater and reduce pollution on their properties. A major component of the program is the construction of demonstration rain gardens in high visibility public areas. Extension workshops led by the New Jersey Sea Grant Consortium's Water Resources agents are designed around the existing sites so residents can learn hands-on how to maximize the use of rain gardens.

OHIO SEA GRANT RESPONDS TO HARMFUL ALGAL BLOOMS

When a drinking water ban was issued in Toledo, Ohio in 2014, it was due to toxins from a harmful algal bloom (HAB). When the news broke, Ohio Sea Grant and Stone Lab, with decades of experience monitoring and preventing HABS in Lake Erie, jumped into action. Ohio Sea Grant worked with media and government officials to educate the public and with scientists to help manage the bloom and its impacts on Toledo residents. Ohio Sea Grant oversees \$4 million to address HABS, including 18 projects and 133 researchers tracking the problem from all angles, from the molecular level to basin-wide monitoring.

