

The Guadalupe River Basin Steering Committee

A major communication vehicle for the CRP is the Basin Steering Committee. Composed of community leaders and interested citizens from throughout the basin, this group meets annually to review activities and advise the program on priorities for monitoring and special studies. The Steering Committee membership includes: representation from municipalities, counties, industries, homeowner organizations, TSSWCB, TPWD, chambers of commerce, and local regional environmental organizations. Steering Committee meetings are open to the public with the primary purpose of reviewing and approving achievable basin water quality objectives and priorities, considering available technology and economic impacts, and guiding work plans and the allocation of available resources. Notice of the Steering Committee meetings is made available by emailed notices, social media, and on the meeting page of the GBRA website (www.gbra.org).

Additionally, all water quality data collected by GBRA is available to the public. It can be found on the GBRA website (<https://www.gbra.org/environmental/water-quality/>) or on TCEQ's website (<https://www.tceq.texas.gov/waterquality/clean-rivers/data/crp-resources.html>).

Education and Outreach at GBRA

The GBRA Education program has been in existence since 1985, and has grown to be one of the most respected in the state. Over 13,000 students were reached in school year 2021-22 through a variety of in-school curriculum supplements, loaner trunks, and online and outdoor efforts. Approximately 7,400 of those were direct face-to-face instruction. The decades old award-winning Journey Through the Guadalupe River Basin program reached 4,000 students, and trunk loaner programs reached 5,400 students. In addition, monthly website analogs track thousands of people using GBRA online resources.

Use of in-school curricula supplements indicate the value of GBRA Education programming. Water Makes the World Go Round, a third grade supplement, introduces students to the world of water, focusing on properties, the water cycle, uses, and conservation. The fourth grade Journey program, correlated to state education standards, focuses on watersheds and water quality specific to the Guadalupe River Basin. The program also covers the water cycle, population growth, water uses in the basin, and water conservation.

The GBRA trunk program, initiated during the height of the COVID-19 pandemic, was an attempt to keep educators and students engaged during those trying times. Thousands of students have benefitted from use of these hands-on lessons. Trunk topics include weathering and erosion, the water cycle, water properties, watersheds, and

PUBLIC INVOLVEMENT



Middle School Students Explore River Ecology

groundwater-surface water interactions. Requests for the trunks remain strong.

Secondary efforts include the unique online program, "Waters to the Sea, Guadalupe River." This is a multi-media program used primarily at the middle school level throughout the river basin. This interactive learning program emphasizes relationships between human activities and water resources within the Guadalupe watershed from the river's headwaters to San Antonio Bay. Target engagement for high school students is through Aquatic Science and Environmental Science programs. GBRA's Interactive Learning section of the website provides opportunities to explore topics such as non-point source pollution, riparian systems, wastewater treatment, septic systems, etc.

Working outdoors with students is extremely impactful, so Education staff makes a concerted effort towards this in both the Plum and Geronimo Creek watersheds. Plum Creek watershed presentations and water quality testing (using Texas Stream Team methods) has taken place since 2007. In addition, GBRA presents lessons during Lockhart State Park school events. Those outdoor water quality lessons focus on issues in Plum Creek, including bacterial pollution, erosion and non-point source pollution. Impact at Plum Creek area schools during 2022 was just under 700 students.

Similar efforts are taking place in the Geronimo Creek watershed. GBRA Education has worked extensively with students and the public at the Irma Lewis Seguin Outdoor Learning Center since 2004. Most recently, extensive programming was possible through a 2018 non-point source grant from TCEQ. Extended through 2023, the grant provides opportunities for students from local school districts to learn about the Geronimo Creek watershed. Outdoor water quality lessons focus on issues in the creek, including non-point source pollution, bacterial pollution, riparian systems, and erosion. Student events include the use of various tools, including a stream trailer model and erosion kits. Impact during 2021-22 was over 2,600 students.

Education and Outreach at UGRA

Water Quality Monitoring

UGRA is an active Texas Clean Rivers Program partner and performs routine sampling at twelve sites quarterly and seven sites monthly. In addition, UGRA conducts multiple in-house sampling programs that focus on tributaries of the Guadalupe River, bacteria levels at popular recreation sites, and engage the community in water quality monitoring through a citizen science sampling effort.

Central to these diverse water monitoring programs is the nationally accredited UGRA Environmental Laboratory, a full-service laboratory serving the entire Hill Country. The laboratory is accredited according to the National Environmental Laboratory Accreditation Program and is one of the largest microbiological laboratories in the region.

In addition to evaluating routine water quality parameters, UGRA staff also contribute to monitoring of streamflow and the presence of invasive plants and animals.



Photo 2: Hunt School Receiving Funds for Rainwater Catchment System

stormwater runoff, UGRA encourages the practice of rainwater harvesting by offering a rebate up to \$500 on the purchase of rainwater harvesting equipment. In 2022, UGRA launched the Rainwater System Grant Program to promote the construction of higher capacity rainwater catchment systems by nonprofit organizations, schools, and public entities (Photo 2). UGRA is also preparing to introduce a rebate program to incentivize local use of low impact development strategies to manage stormwater runoff.

UGRA is privileged to support landowner activities that conserve water, prevent pollution, conserve soil, support native flora and fauna, and provide clean water for all. Learn more at www.ugra.org.

Public Education

Part of UGRA's mission is to facilitate the understanding of water issues and engage the community in maintaining and promoting the health and enjoyment of the Upper Guadalupe River Basin. UGRA staff prepares presentations for schools, clubs, organizations, and summer camps to teach about water quality, pollution threats, conservation, the water cycle, and the importance of the Guadalupe River to the community. UGRA's public awareness campaign keeps the community informed of water issues through newspaper features and radio announcements.

Watershed Stewardship

As a steward of the upper Guadalupe River in Kerr County, UGRA programs and activities focus on preserving the health of our watershed. Some programs focus on reducing the impact of a specific threat to water quality like litter, pet waste, or feral hogs. While others demonstrate beneficial practices like preventing erosion on hillsides, preserving riparian area function, and reducing stormwater runoff. UGRA also provides incentives for both urban and rural landowners to contribute to the health of the upper Guadalupe River watershed. UGRA provides financial assistance to aid in brush management efforts and coordinates free treatment by TPWD to assist landowners with managing invasive giant cane (*Arundo donax*) on their properties.

To promote water conservation and reduce



Photo 3: The UGRA EDUscape

The UGRA EduScape (Photo 3) continues to be an educational asset as a demonstration landscape. Through partnership with Riverside Nature Center, virtual and in person tours of the EduScape are conducted and many visitors also stop by for a self-guided tour. In 2022, UGRA was awarded funding through the Native Plant Society of Texas Monarch Garden Grant to install more native plants in the EduScape to promote monarch butterfly conservation.