



BEHIND THE SCENES OF TRINITY WATERS PROJECT

Partnerships and technology deliver cooperative conservation in the Trinity River Basin

The shores of Lake Livingston in the Trinity River watershed. Photo by Blake Alldredge.

A rapidly increasing population and growing water demands have troubled the Trinity River Basin, but a partnership between conservation-minded organizations and agencies is educating local stakeholders in an effort to maintain and restore the essential functions of the basin.

The *Building Partnerships for Cooperative Conservation in the Trinity River Basin* project (Cooperative Conservation) delivers educational materials and information about conservation to the public. In this way, the partnership hopes to protect the much-needed water resources of the Trinity River and build capacity for Trinity Waters, a nonprofit organization of Trinity River Basin landowners.

With more than 8 million residents, the Trinity is the most populated river basin in Texas. From its headwaters north of the Dallas–Fort Worth Metroplex, past Houston to its outlet into Galveston Bay, the 512-mile river and its 1,983 miles of tributaries drain an area of more than 18,000 square miles and support primary water needs for more than 40 percent of the state.

The river is directly affected by human activities, including urbanization, commercial and industrial development, and agricultural and timber production. Therefore, the project promotes responsible land stewardship and education to safeguard and improve the water and wildlife habitat resources of the Trinity River Basin for present and future generations.

The focus of the Cooperative Conservation project is to educate middle Trinity River Basin stakeholders between Dallas and Lake Livingston by promoting awareness of water quality issues and providing educational programs. Education and increased awareness are provided not only through traditional means but also through social media. These new tools provide rapid and effective ways to inform stakeholders on water quality issues and

conservation practices, thus guiding stakeholders to implement practices to improve the water and wildlife resources of the Trinity River Basin.

This project supports the *Trinity River Basin Environmental Restoration Initiative* initiated in September 2006 by Gov. Rick Perry. This initiative focused on building the capacity of organizations, such as Trinity Waters, committed to conserving the natural resources of the basin. Trinity Waters' mission is to "improve the quality of life, economic sustainability and ecological integrity of areas associated with the Trinity River Basin through a coalition of local communities, nongovernmental organizations and stewards of private and public lands."

History of Trinity Waters

In 2005, several landowners along the middle Trinity River formed the Trinity Basin Conservation Foundation. Recognizing the challenges associated with restoring the Trinity River, these landowners joined together to promote conservation through a broad-based coalition of local communities and municipalities, nongovernmental organizations and stewards of private and public lands, particularly local wildlife management cooperatives and associations (see sidebar on page 22).

In 2011, the foundation was renamed Trinity Waters, and Ken Klaveness of Dallas was hired as executive director. The Texas A&M AgriLife Extension Service's Department of Wildlife and Fisheries Sciences helped build Trinity Waters' capacity. Blake Alldredge, Extension associate, serves as the education and outreach coordinator and Dr. Jim Cathey, Extension wildlife specialist and associate department head, has worked with Trinity Waters since the early stages, and now serves as a board member. ⇨

Editor's note: txH2O asked Blake Alldredge and Danielle Kalisek, who help support the Trinity project, to give readers an inside look at how this grass-roots, wide-reaching effort could impact the water resources of more than a third of the state.



Social media and technology

In addition to building partnerships in person, Trinity Waters also uses online tools to spread the conservation message in the basin. Launched in July 2011, The Trinity Waters website (trinity-waters.org) is a resource for landowners and a clearinghouse of reliable information. It includes more than 400 publications and links related to water conservation, habitat restoration, wildlife and livestock management, and educational and economic resources. The website has contact information for water and land management experts, tips on becoming involved, information on ongoing conservation projects, financial incentives for implementing approved restoration and conservation practices, news updates and recreational opportunities in the basin.

Trinity Waters also reaches stakeholders through a Facebook page, Twitter account and Scoop.it! online newspaper. These social media outlets, as well as the Wild Wonderings blog (wild-wonderings.blogspot.com), provide connections to other agencies and resources outside of the Trinity River Basin.

The Cooperative Conservation project includes the updated Trinity River Information Management System (TRIMS) online mapping tool developed

by the Texas A&M Institute of Renewable Natural Resources. TRIMS gives stakeholders access to the latest aerial photographs of the basin and information such as elevation, soil types, hydrology and land use. Featured TRIMS tools help stakeholders measure acreage and lengths, such as property lines or points for building a fence. Wildlife and livestock managers can use these tools when developing management plans and determining implementation costs. These datasets and tools provide baseline support for projects addressing wildlife habitat management and water quality, particularly native grassland and wetland restoration, and bottomland hardwood establishment. Traditional agricultural operations also benefit from using TRIMS.

Trinity Waters is involved in multiple conservation projects:

Water As A Crop™

Developed by the Sand County Foundation in Wisconsin, the Water As A Crop™ project seeks to empower landowners to enhance their water resources by implementing conservation practices. Trinity Waters works as the local implementing and operating partner for Texas' Water As A

For more information about these projects and other Trinity-based projects, visit the Trinity Waters website at trinitywaters.org and visit the following links:

- Facebook.com/TrinityWaters
- Twitter.com/TrinityWaters
- Scoop.it/trinity-river-basin

Other members of the Trinity Waters coalition are:

- Texas Wildlife Association
- Texas A&M AgriLife Extension Service
- Texas Parks and Wildlife Department
- Texas A&M Institute of Renewable Natural Resources
- Texas Water Resources Institute
- Texas State Soil and Water Conservation Board
- USDA Natural Resources Conservation Service
- U.S. Army Corps of Engineers
- Tarrant Regional Water District
- Trinity River Authority
- Ducks Unlimited
- U.S. Fish and Wildlife Service
- Delta Waterfowl
- Holistic Resource Management of Texas
- Houston Wilderness
- Taking Care of Texas

Crop™ pilot project based in the Mill Creek watershed in Navarro County. Mill Creek is an important tributary of the Trinity River as it joins with Chambers Creek and eventually flows into Richland-Chambers Reservoir, a major source of water for urban residents of northeastern Texas.

Trinity Waters targets about 3,000 acres and numerous landowners along the creek to implement conservation practices, such as riparian buffers and fences for rotational grazing. Major financial contributors, including MillerCoors, Dixon Water Foundation, the Meadows Foundation and the Knobloch Foundation, provide landowners with financial incentives to implement conservation management practices.

Western Navarro Bobwhite Recovery Initiative

The discovery of remnant quail populations in Navarro County led to the development of the Western Navarro Bobwhite Recovery Initiative (WNBRI) to revive the quail populations in the western third of the county. Trinity Waters has been involved with WNBRI since its inception in 2006. Currently, 34 landowners are enrolled in WNBRI, creating a cumulative land base of 30,000 acres. Coordinated by Jay Whiteside, technical guidance biologist with Texas Parks and Wildlife Department, WNBRI was established to restore and maintain contiguous habitat of native bunchgrasses and forbs that quail need for food and shelter. Drought has challenged this restoration process, but as of 2011, 1,500 acres have been restored to native grassland.

Trinity Learning Across New Dimensions in Science

The Learning Across New Dimensions in Science (LANDS) program was developed by the Texas Wildlife Association, and together with Trinity Waters, it provides a natural resources conservation message to classrooms across the Trinity River Basin. Currently, four schools participate in this program, which introduces students to the basics of water quality and proper land management. Students then travel to two locations in the basin for hands-on learning opportunities about water quality sampling and land management practices.

National Water Quality Initiative

In May 2012, the Chambers Creek watershed of Ellis and Navarro counties was selected to participate in the National Water Quality Initiative to improve Texas waterways. The Natural Resources Conservation Service is providing \$5.4 million in financial assistance to farmers, ranchers and others who implement voluntary conservation practices that will benefit water quality and yield. Such practices include cover crops, riparian buffers, cross fencing for rotational grazing, filter strips and terraces. Trinity Waters was selected as a partner because of its work with landowners in the Water As A Crop™ project in the Chambers Creek watershed.

Looking ahead

The Cooperative Conservation project has produced several publications, with more coming soon. *Native Grassland Restoration in the Middle Trinity River Basin* was published early in August 2012 for landowners in the Blackland Prairie and Post Oak Savannah ecoregions. Publications currently available in the Texas A&M AgriLife Extension Bookstore include *Linking Water Conservation and Natural Resource Stewardship in the Trinity River Basin*, *Techniques for Wetlands Construction and Management*, and *Habitat Restoration in the Middle Trinity River Basin*.

Currently, project partners are conducting educational workshops to bring middle-basin stakeholders together to discuss and promote the motto: “All Things Trinity, All Things Conservation.” These workshops focus on topics such as water quality basics, effects of land management activities on water quality and quantity, and options for protecting water resources. The ultimate goal of these workshops is to equip stakeholders with the information needed to determine the best direction for managing basin watersheds. A capstone summit is planned for spring 2013 after the workshops have concluded.

The Building Partnerships for Cooperative Conservation in the Trinity River Basin project is funded by the Texas State Soil and Water Conservation Board through Clean Water Act funds from the U.S. Environmental Protection Agency. It is a partnership between the Texas Water Resources Institute, Texas A&M Institute of Renewable Natural Resources, Trinity Waters and AgriLife Extension. 