Newsletter of Volunteer Environmental Monitoring in Texas Summer 2006

Texas Watch

River Systems Institute, Texas State University-San Marcos EPA Region 6 TCEQ

To our readers: *After wrapping up a long and fruitful affiliation with the Department of Geography, in April 2006, Texas Watch became a part of the River Systems Institute (RSI) at Texas State University-San Marcos. This move brings Texas Watch into closer collaboration with other water-related programs that are the focus of this newsletter issue. Along with the River Systems Institute, Texas State's Aquarena Center, the Texas Parks and Wildlife Department's Freshwater Resources Program, and the National Park Service's Rivers and Trails Program are all housed on the shores of Spring Lake at San Marcos Springs. Texas Watch will move its offices to the building known as the Landing at San Marcos Springs early this summer.*

Texas Watch Moves to the River Systems Institute

By Eric Mendelman, Texas Watch

Texas Watch is undergoing a very important organizational change that positions the program to grow and thrive in unprecedented ways. This past spring, Texas State University–San Marcos transferred Texas Watch from its home of seven years in the Department of Geography to its new home in the River Systems Institute. The decision to transfer Texas Watch was made as part of a water programs review at Texas State University–San Marcos. This special edition newsletter issue provides an overview of the programs that Texas Watch will work closely with in its new home.

As with most times of change, reflection and retrospective help to pave the way for productive and enlivening transitions. So in recent weeks, I've been compelled to review Texas Watch's organizational past and the many

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RSI Director Sansom Welcomes Texas Watch

The Rivers Systems Institute is happy to welcome Texas Watch as a part of our team here at Texas State. We look forward to building upon the relationship established between RSI and Texas Watch over the past several years and pursuing our common goals to preserve the quality and availability of water in Texas.

We believe that working together toward these common goals will be beneficial to both the university and the citizens of Texas.

–Andrew Sansom, Executive Director, River Systems Institute

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Texas Watch Moves to the RSI

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transitions that have brought it to the next threshold of change. The program's founding agency, the Texas Water Commission, was merged with other agencies in 1993 to form the Texas Natural Resource Conservation Commission, which was renamed the Texas Commission on Environmental Quality (TCEQ) in 2002. In 1999, the TNRCC supported the move of Texas Watch to the Department of Geography at Southwest Texas State University. Southwest Texas State University was later renamed Texas State University–San Marcos in 2003.

The view of Old Main across Spring Lake from Texas Watch's soon-to-be new offices at the Landing, part of Texas State's new Texas Rivers Center complex at San Marcos Springs.

Each of these transitions had a character of its own. Some were merely name changes, others resulted in major shifts in management, personnel, and organizational support. This latest transition to the River Systems Institute is significant for several reasons that are presented in this newsletter issue. In brief, the Institute, Texas State's leading water resources program, integrates academics and research with service programs like Texas Watch. The diverse nature of the Institute provides a rich and abundant organizational framework for Texas Watch to pursue its objectives of data collection and analysis, nonpoint source pollution education, and school-based environmental education. In addition, the Institute this year moved to the newly established Texas Rivers Center where it occupies the historic hotel at Aquarena Springs which was recently renovated as office space. Here, an outstanding collaborative environment includes Texas Parks and Wildlife's Freshwater Resources Program and the National Park Service's Rivers, Trails and Conservation Assistance Program, along with Texas State's Aquarena Center research and educational activities, which were assigned to the River Systems Institute in August 2005.

As you will see in this special edition of the Texas Watch newsletter, the diversity of education programs and water-related institutional support at the River Systems Institute will provide Texas Watch with an expanded platform from which to conduct its programs. In capturing the power of this organizational move, let me draw on a quote from the River Systems Institute's website. The home page quotes Loren Eisley, American essayist, philosopher, and literary naturalist, as saying, "If there is magic on this planet, it is contained in water." In contemplating Texas Watch's future at the River Systems Institute, I humbly propose the following adaptation of Eisley's profound words, "If there is magic on this planet, it is contained in the organizations working to protect our water."

TEXAS WATCH

2006, Vol. 7, No. 3

The mission of Texas Watch is to facilitate environmental stewardship by empowering a statewide network of concerned volunteers, partners, and institutions in a collaborative effort to promote a healthy and safe environment through environmental education, data collection, and community action.

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Subscriptions:
The purpose of the Texas Watch newsletter is to disseminate information about nonpoint source pollution and to encourage and facilitate the exchange of ideas and monitoring data between environmental monitors and supporting partners throughout the state of Texas. The newsletter is published three times a year. For a free subscription, call toll free at (877)506-1401 or send your e-mail request to texas_watch@geo.txstate.edu.

Contributions:
Contributions to the newsletter are welcomed and encouraged. Please send any articles, letters, or questions to Texas Watch at the postal address listed on the back cover or submit them via e-mail at texas_watch@geo.txstate.edu.

If you wish to reprint any material published in the Texas Watch newsletter, please notify the editor of your intentions and submit a copy of the final publication.

The River Systems Institute

Editor's note: This article is adapted with permission from a similar story appearing in the Winter 2004 edition of Hillviews, *a publication of Texas State University–San Marcos. The River Systems Institute's website can be found at: www.rivers.txstate.edu.*

Ensuring adequate supplies of drinking water is the most critical natural resource issue facing Texas in the 21st century, but until now, little has been done on a statewide level to address this issue.

In 2002, the River Systems Institute (originally called the International Institute for Sustainable Water Resources) was established at Texas State University–San Marcos to develop, promote, and facilitate the holistic management of the state's waters—everything from rivers and lakes to wetlands, aquifers, and bays. Ensuring their sustainable and equitable use is essential for long-term human and ecosystem water needs.

"Texans should be concerned about water because it is basically the source of all life—both economic and otherwise. And we're clearly running short," said Andrew Sansom, Executive Director of the Institute. "Many of our major cities in Texas are expected to be without sufficient supplies of water within the next 25 to 50 years."

The establishment of the Institute at Texas State shows that water issues are taken seriously both by the state and the university. Texas State's pre-existing expertise made it the natural choice to spearhead the state's water-planning efforts. Pre-existing local and regional water resource entities couldn't take that big picture approach, and that is one of the biggest differences the Institute will make. No single entity has provided the integrated perspective needed to effectively manage water resources for the future, and the Institute was created specifically to address this shortcoming.

"There are a lot of competing interests," Sansom concedes. "The level and intensity of that competition is going to increase as populations grow and water supplies are stretched thinner and thinner.

"The thing we have to avoid is to serve any one of these interests at the expense of the other. We have to approach this with the idea that all of the interests are legitimate and need to work together to sustain availability," he said. "An institution that operates statewide, as we do, can understand, explore, and find ways to proceed for all those interests."

Today, water planning and development activities in Texas focus on identifying water supplies needed for human, industrial, and agricultural uses. If a projected shortfall exists between available water supplies and future water needs, the traditional approach has been to focus on developing new water supplies. Unfortunately, the assumption that existing and potential water supplies are inexhaustible simply does not hold up in the long run. The Institute's operating philosophy does not exclude new development, but enhances it by facilitating use of existing water supplies.

The Institute's ability to promote effective stewardship of our water systems was strengthened this past year when the university assigned to it oversight responsibilities of Aquarena Center and Texas Watch. Both of these units should greatly enhance the Institute's public awareness efforts and environmental education activities.

"Texas must effectively address the looming water problems facing the state," said Sansom. "To ignore these problems can lead to some of our major cities running out of water, and just as equally disturbing, some of our rivers going dry. The Rivers Systems Institute is committed to not letting that happen."

Partnerships are Key to New Texas Rivers Center

In April 2006, Texas State University–San Marcos and Texas Parks and Wildlife Department (TPWD) completed $3.1 million in renovations to create a major educational and research facility devoted to Texas springs and aquifers and the river watersheds that feed them, as well as the lakes, bays, and estuaries into which rivers flow.

The new Texas Rivers Center is located at the site of the old Aquarena Inn on the shores of Spring Lake at Texas State. The project renovation work began in 2003 and took three years to complete.

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The Texas Rivers Center

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"This unprecedented partnership between the university and TPWD has resulted in a kind of rivers incubator, with scholars, researchers and biologists from Texas Parks and Wildlife, the National Park Service and the university all working together in the same building," said Texas State President Denise M. Trauth. "It marks a wonderful new era for a building that has historical significance for San Marcos, Texas State and Texas. The partnership is evolving toward permanent protection for one of the largest springs in the United States and a state of the art environmental education program for rivers and springs. Leaders of both TPWD and the university hold water resources as a core value."

One tangible result of the project is that Texas State is depositing 33,108 acre feet of San Marcos River headwaters water rights the university owns into the Texas Water Trust in perpetuity. A water rights permit to place the water into the trust has been approved by the Texas Commission on Environmental Quality. The Texas Water Trust was created by the Texas Legislature in 1997 as a way for water rights holders to voluntarily protect river instream flows, water quality, fish and wildlife habitat, or bay and estuary inflows.

"Making sure we have enough clean water for people and wildlife is the most important issue facing Texas over the long-term," said Robert L. Cook, TPWD executive director. "The Texas Rivers Center not only protects one of the most environmentally sensitive and important cultural resource sites in Texas, it provides a platform for public education and professional collaboration to conserve our most important resource—water."

San Marcos Springs on the property is the second-largest spring system in Texas, producing an average of 150 million gallons of water daily. The Texas Rivers Center at San Marcos Springs will serve as a research center and help educate the public about aquatic ecology and the important role that water plays in everyone's daily lives, including the need to protect and conserve Texas water resources.

Texas State purchased the Aquarena Springs resort theme park in 1994. Shortly thereafter, the university began conversion of the property from entertainment to educational use.

The former inn on the Aquarena property has been renovated and now provides space for exhibits on water resources and offices for the River Systems Institute, National Park Service, and TPWD Freshwater Resources Program. The site also includes interpretive venues with aquaria, glass bottom boats, and a floating wetlands boardwalk. Future work includes continued restoration of the old theme park to a more natural state, plus development of additional water resource exhibits and interpretive space and water related research space.

Distinguished guests from the State of Texas, the City of San Marcos, and Texas State University attended the grand opening celebration of the Texas Rivers Center at San Marcos Springs, April 26, 2006.

Aquarena Center Looks Forward to Collaboration With Texas Watch

By Deborah Lane, Aquarena Center

Aquarena Center welcomes Texas Watch to its new home at the Texas Rivers Center and Spring Lake. Aquarena Center is part of the River Systems Institute at Texas State University–San Marcos, which has just opened its new offices housed in the refurbished Aquarena Inn. The Rivers Center will serve as a research and education center helping to educate the public about aquatic ecology and the important role that water plays in everyone's daily life. Aquarena Center's mission is to enhance Texas State's educational, research, and service activities; to promote the protection and preservation of the San Marcos Springs and related ecosystems; and to foster an appreciation and stewardship of natural and cultural resources for the benefit of the citizens of Texas and the many other constituencies that we serve. This mission will be complemented by partnering with Texas Watch.

Since its transition from a theme park to an environmental nature center in 1994, Aquarena (www.aquarena.txstate.edu) has emerged as a leader in environmental education, conservation, and preservation, receiving approximately 100,000 visitors annually. Educational programs offer a variety of exciting opportunities for students of all ages to discover the interconnected ecology of the San Marcos Springs. The unique characteristics of San Marcos Springs, which have attracted human settlement for over 12,000 years, provide the perfect backdrop for interactive interpreter-led tours. Tours focus on the importance of fresh water and the Edwards Aquifer, the vanishing and endangered species that are found only in the San Marcos region of the Edwards Aquifer, and the importance of wetlands. In addition to the glass bottom boats, Aquarena has an aquarium with the native species in Spring Lake, an endangered species exhibit, an archaeology exhibit, and a wetlands boardwalk. Tours are offered to all ages spanning preschool to senior citizens and can be tailored to accommodate numerous interests.

Ethan Chappell, Aquarena's aquatic maintenance supervisor, inspecting Cream of Wheat springs in Spring Lake, part of the San Marcos Springs system.

Aquarena also serves as a training ground for Texas State University students studying geography, nature and heritage tourism, biology, education, anthropology, and recreation sports. Internships are offered each semester along with three graduate student fellowships for positions as Education Coordinator, Glass Bottom Boat Supervisor, or Aquarium Supervisor.

The unique and critical habitat of Spring Lake requires a carefully managed habitat conservation program. Aquarena's volunteer Scientific Diving program provides opportunities for individuals to participate in this important work. The "Diving for Science" class, offered to anyone who is a certified diver, is a two-day class that focuses on the Edwards Aquifer hydrology, history and archaeology, endangered species, and state and federal laws that govern diving in this unique ecosystem. Divers must complete an underwater obstacle course and demonstrate an understanding of where endangered species inhabit the lake so as not to impact their habitat. Once trained, divers may volunteer for maintenance projects or to assist federal, state, local, and university research projects.

The addition of Texas Watch to the River Systems Institute will allow Aquarena Center's educational programs an opportunity to enhance curriculum in such programs as "On the Water's Edge." This tour is for high school students who visit Spring Lake and the nearby river to gain an understanding of aquatic trophic levels, the impact of exotic species on diverse ecosystems, endangered plants and animals and specific chemical test values of water. Texas Watch has previously participated in large festivals at Aquarena, including the Groundwater Festival and Fall Fling. We look forward to their expertise and support in teaching students of all ages the importance of water quality in all our lives.

Texas Parks and Wildlife Department–
Freshwater Resources Program

By Lisa Korth, Texas Parks and Wildlife

Educational outreach is an important objective of the Texas Rivers Center that is shared by Texas Watch and the Texas Parks and Wildlife Department's Freshwater Resources Program. Texas Watch looks forward to many opportunities to collaborate with this outstanding research and education program.

Freshwater Resources (formerly River Studies) is an interdisciplinary river and stream assessment program of the Texas Parks and Wildlife Department (TPWD) that is based at the new Texas Rivers Center at Texas State University–San Marcos. As part of the Inland Fisheries Division's Ecosystem/Habitat Assessment Branch, the primary goal of the program is to assure sufficient quantity and quality of water to maintain the natural biodiversity of aquatic ecosystems and their associated wetlands and riparian lands. Program staff direct research toward the characterization of aquatic ecosystems, evaluation of impacts to those systems, and the determination of water quantity and quality needs to address policy and regulatory issues.

Karim Aziz leads a discussion of survey techniques used in instream flow assessments during a field course taught on the San Marcos River.

Led by Doyle Mosier, the program is divided into three teams: the River Assessment Team, the Stream Assessment Team, and the River Conservation Team. The teams have complementary expertise and work as a unit depending on the needs of particular research projects. Much of the Freshwater Resources Program's activities rely on field investigations and laboratory work, which are based at the A. E. Wood State Fish Hatchery in San Marcos. At the Texas Rivers Center, staff members participate in the review of policy, standards, and project assessments associated with water development, water planning, and water quality issues. Ongoing educational outreach activities inform the public, decision-makers, and others of the need to protect water quantity and quality to ensure that present and future generations can enjoy the natural heritage of Texas.

The River Assessment Team works closely with the Texas Commission on Environmental Quality (TCEQ), the Texas Water Development Board, and local partners to implement instream flow studies as mandated by the Texas Legislature. Information on the Texas Instream Flow Program can be found at: www.twdb.state.tx.us/instreamflows/index.html.

The River Conservation Team is responsible for public outreach activities such as environmental education and outreach, river access issues related to Senate Bill 1655, the TPWD's River Advisory Board, and Inland Paddling Trails. The first inland paddling trail was opened with much fanfare on the San Marcos River in Luling in March 2006.

The Stream Assessment Team works closely with the TCEQ and other state and federal agencies on water quality issues, such as the development and review of the state's water quality standards, receiving water assessments, and regionalization of indices of biotic integrity.

The Ecosystem/Habitat Assessment Branch's Contaminants Assessment Team (CAT) is also located in the Texas Rivers Center. The function of the CAT is to identify, monitor, and evaluate the effects of contaminants on fish and wildlife resources with the goal of minimizing adverse impacts to those resources.

Freshwater Resources is also developing an "experiential room" at the Texas Rivers Center adjacent to the exhibit area that will provide a self-guided educational experience on aquatic habitats of Texas' rivers and streams and the creatures that inhabit them. Texas Watch will be collaborating with Freshwater Resources in education and outreach programs associated with this interactive exhibit.

Freshwater Resources Program research activities can be found on the TPWD website at: www.tpwd.state.tx.us/landwater/water/habitats/rivers/fwresources/index.phtml.

The National Park Service Rivers & Trails Program–

Making a Difference in Texas' Rivers

By Steve Bonner, National Park Service

The Texas Rivers & Trails Program recently moved into new offices with the River Systems Institute at the Texas Rivers Center, Texas State University–San Marcos. This program shares with Texas Watch a common goal of connecting citizens with their local natural resources and empowering them to protect water quality and maintain healthy riparian systems.

The Rivers, Trails and Conservation Assistance Program, also known as Rivers & Trails or RTCA, works with community groups and local, state, and federal government agencies to conserve rivers, preserve open space, and develop trails and greenways. The Rivers & Trails program implements the natural resource conservation and outdoor recreation mission of the National Park Service in communities across America.

Rivers & Trails works in urban, rural, and suburban communities with the goal of helping communities achieve on-the-ground conservation successes for their projects. The program helps communities help themselves by providing expertise and experience from around the nation. The program provides wide-ranging assistance from downtown riverfronts and urban promenades to trails along abandoned railroad rights-of-ways or regional water trails. Local stream restoration, new park design or existing park renovation, riparian restoration and even city or regional master planning are all part of the Rivers & Trails repertoire.

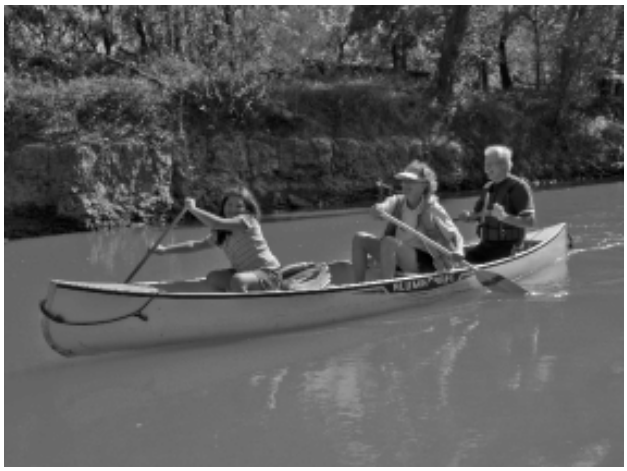
Rivers & Trails' contributions to the waters of Texas are equally wide ranging. When you say "stream restoration" to a Rivers & Trails staff member, they may think of the multi-million-dollar San Antonio River restoration or the restoration of a few hundred feet of Town Creek in Blanco for under $50,000, both projects supported by Rivers & Trails in recent years.

Recent paddling and water trail projects included the Colorado River from Austin to Bastrop and at Matagorda Bay, San Marcos River in Luling, San Antonio River in Goliad, and Oso Creek in Corpus Christi.

Water quality work included helping the citizens of Cleburne understand the link between clean water in Buffalo Creek and downtown economic development and working with the Texas Riparian Association (TRA) to bring the National Stream Team to Houston and San Antonio for training on healthy riparian systems. In fact, Rivers & Trails provided staff assistance to TRA for two years to help the organization get started and develop into a sustainable effort.

Rivers & Trails helps in many ways. They may provide organizational development support, planning facilitation, outreach and marketing support, fundraising advice and assistance, and expert technical consultation. But in every project, Rivers & Trails is helping to establish links of understanding between the needs and desires of people and the needs of natural resources. Whether facilitating a 100-person multi-day planning charette or helping a small group of people to think about the creek in their neighborhood, it is all about the balance between humans and nature, and seeking that balance through inclusive, broad-based community participation in projects.

Applying for assistance is easy, with applications accepted from April 1st through August 1st annually.



Rivers & Trails staffer Kathryn Nichols (center) surveys a new water trail route with stakeholders on the San Antonio River in Goliad.

Guidelines for application are available online at www.nps.gov/rtca, or from the Texas Rivers & Trails staff. It is important for applicants to remember that this is not a financial grants program, but technical assistance. Applicants are strongly encouraged to contact the Texas office prior to applying, and to consult with staff while preparing and submitting their applications.

For more information, contact the National Park Service, P.O. Box 688, San Marcos, TX 78666, (512) 245-7246 or (512) 245-7263.

Volunteer Spotlight–

A Young Veteran Monitor from Austin

By Elisabeth S. Welsh, Austin Youth River Watch

As the school year comes to a close, I think of the students who are graduating and of all the fun and interesting times we have had in the Austin Youth River Watch (AYRW). We have two main goals for our students: that they (1) stay in school until they graduate, and (2) learn to test the water. Each semester I ask all of my students to set personal goals.

In his eighth grade year, one student set a goal to become a Mentor, which is a student who has mastered the tests and who helps to teach newer students. After becoming a Mentor, he decided to commit to advancing his environmental and science education. He did this in AYRW by learning about native fish, birds, benthic macroinvertebrates, and plants. He also decided to attend a special high school, Austin's LBJ Liberal Arts and Science Academy (LASA). After six years of participation in the AYRW, Diego Dietche will graduate from LBJ LASA in May.

Diego Dietche assists other LBJ Liberal Arts and Science Academy students in identifying benthic macroinvertebrates on the Colorado River in Austin.

On April 24th, LBJ science teacher Tim Fennell brought his students, including Diego, to the City of Austin's Center for Environmental Research (CER) at Hornsby Bend for a field trip focused on water. The day began with a talk from CER director Kevin Anderson on Colorado River natural history. Then we all went to the Colorado River. Texas Watch educators Jason Pinchback and Julie Tuason led the students in chemical and meter-based water quality sampling. Also, LCRA Colorado River Watch Network educator Theresa Murray, AYRW board member Steve Box, and I led the students through benthic macroinvertebrate sampling. It was great to have an AYRW Mentor in the group.

Reflecting on our experience that day, the other volunteers and I discussed how rewarding it is to mentor the next generation of environmental professionals. On his last day of AYRW, Diego echoed that sentiment, saying that one of the rewards of participating in Austin Youth River Watch has been "better educating other members of society." Interaction with other students as well as adult members of our community has been rewarding.

Diego Dietche will be attending Reed University in the fall with an interest in the Environment and Forestry. About 20 of the 45 current AYRW students are graduating, and over half of them will pursue higher education in the fall.

Texas Watch by the Numbers

Volunteers trained since 1991: **3,756**

Cumulative number of sites monitored: **1,116**

Cumulative number of monitoring events: **20,976**

Number of sites monitored in 2005: **152**

Number of monitoring events in 2005: **917**

Number of monitoring "people-hours" in 2005: **3,492**

Estimated dollar value of Texas Watch volunteer monitor time in 2005: **$62,995.68***

**Independent Sector (a national leadership forum for charities, foundations, and corporate giving programs) has announced that the estimated dollar value of volunteer time is $18.04 per hour for 2005. See www.independentsector.org/programs/research/volunteer_time.html.*

The Great North American Secchi Dip-In

Ready to Dip In?

By Jason Pinchback, Texas Watch

Texas Watch invites you to take part in a national event beginning June 24 by participating in the 2006 Great North American Secchi Dip-In. This collaborative event is directed by Kent State University in Ohio and involves thousands of monitors from all over the United States and Canada. Whether or not you routinely monitor a local water body, the Secchi Dip-In offers a good reason to collect water quality data as a part of this snapshot event. Secchi disks, transparency tubes, temperature, and pH data are accepted and can be uploaded at their website (http://dipin.kent.edu).

Why participate? Transparency is a good indicator of the impacts from human activity on the land surrounding a water body. The depth of disappearance, called the Secchi depth, measures the transparency of the water. Transparency decreases as the amount of particulate materials like algae and suspended sediment increases. Water quality and aquatic species are affected by sewage treatment plants and other regulated discharges, as well as runoff over lawns, agricultural operations, and malfunctioning septic systems. Others activities like construction, stream bank instability, and the resulting erosion also contribute to decreasing transparency. Regular monitoring can eventually lead to detecting trends and relationships in various watersheds.

Texas Watch volunteer coordinator Jason Pinchback and members of the Rockport Sentinels measure Secchi depth in Little Bay near Rockport.

In addition to participating in the Secchi Dip-In, here are five things you can do to protect your stream and lake water quality:

- Organize a clean-up to collect trash and litter on the bank and shore.
- Recycle used motor oil.
- Clean off recreational equipment after use to stop aquatic hitchhikers.
- Use pump-out stations for boat waste.
- Let natural vegetation grow by the shore – mow and fertilize less.

To enroll your monitoring site, visit http://dipin.kent.edu. You can also find more information at: www.epa.gov/owow/lakes and www.epa.gov/owow/monitoring/volunteer or www.nalms.org.

Attention Monitors!

The Great North American Secchi Dip-In

June 24 - July 16, 2006

Join in and send your data!

Since July 1994, 9,399 volunteers have provided 32,539 transparency records on 6,622 waterbodies. The volunteers belong to:
394 programs,
both volunteer and professional, in
50 U.S. states,
9 Canadian provinces, and
6 other countries.

Texas Watch Named as Finalist in Texas EE Awards

On April 19, 2006, the Texas Commission on Environmental Quality announced the 2006 winners of the 14th annual Texas Environmental Excellence Awards. Texas Watch was named as one of three finalists (along with Austin Energy and Friends of Galveston Island State Park) in the Education category for its work in water quality monitoring. Commemorating Earth Day, the awards are given to 10 innovative projects across the state that demonstrate positive effects on air, water, and land resources.

Selected by a Blue Ribbon Committee of environmental experts from public and private industry, the awards honor individuals, businesses, and organizations who have created successful programs that conserve natural resources, reduce waste and prevent pollution. Created by the Texas Legislature in 1993, the awards program reflects the goals of the TCEQ itself: to protect Texas' human and natural resources and ensure clean air, clean water, and the safe management of waste.

For a list of all of this year's award winners and finalists, as well as past winners, go to: www.teea.org/winners/finalists.html.

Global Warming and Texas Water

Environmental Defense hosted a conference on "Global Warming and Texas Water" at the Lady Bird Johnson Wildflower Center in Austin on May 12, 2006. Texas water planners weigh population trends and projected water demands, but what effect will global warming have on the future of water in Texas? According to a report issued following the conference, "Hotter weather, more frequent and severe droughts and increased evaporation—on top of Texas' exploding population—will combine to put an unprecedented strain on Texas' already scarce water supply."

The full report, entitled "Fair Warning: Global Warming and the Lone Star State," is available online at: www.environmentaldefense.org/go/tx/texaswarming.

Texas Watch Summer 2006 Training Schedule

May 31-June 1: International Museum of Arts and Sciences/Arroyo Colorado project training (McAllen)

June 3: Lower Colorado River Authority workshop (Lake Buchanan)

June 3: Dos Laredos project training (Laredo)

June 7: Teaching Environmental Science, Texas Lutheran University (Seguin)

June 7: Teaching Environmental Science, Texas A&M (Corpus Christi)

June 7: Teaching Environmental Science, University of Houston (Clear Lake)

June 9: Teaching Environmental Science, Texas A&M International (Laredo)

June 14: Teaching Environmental Science, Lamar University (Beaumont)

June 16: Houston-Galveston Area Council workshop (Houston)

June 19–20: Teaching Environmental Science, Texas State University (San Marcos)

July 4: Secchi Dip-In (statewide)

July 12: Master Science Teacher workshop, Lamar University (Beaumont)

July 10-11: Learning Urban Watersheds project training (Houston)

July 24-25: Learning Urban Watersheds project training (Dallas)

Volunteers are welcome to join us and help out! Please contact Jason Pinchback (jp30@txstate.edu) if you are interested.

Wimberley Watershed Group Purchases Jacob's Well Spring

David Baker, Wimberley Valley Watershed Association

Jacob's Well in Wimberley is well known to Texas Watch. Over the years, it has been a favored site for water quality monitoring trainings and an annual outdoor watershed education workshop for fourth-grade children from nearby Bowen Intermediate School.

The Wimberley Valley Watershed Association (WVWA) has purchased Jacob's Well, one of the outstanding natural springs in the Texas Hill Country and the entire nation. The WVWA, in unifying the properties around the spring, has christened it the Jacob's Well Natural Area. Jacob's Well is believed to be the longest underwater cave in Texas and the primary source of water to Cypress Creek, which flows downstream through the cities of Woodcreek and Wimberley, through the famous Blue Hole swimming area, and into the Blanco River.

"This is the first time since the 1800s that Jacob's Well and the surrounding properties have been united under one single ownership," said Dr. Patrick Cox, President of the WVWA. "If water is the very life blood of our community, then Jacob's Well is the heart of this entire region," he added. The WVWA will begin working immediately to restore and protect the site. "Jacob's Well Natural Area will be utilized for research and environmental education and to serve as a model for how to protect environmentally sensitive areas in the Edwards Aquifer region," said Dr. Cox.

Fourth-grade students from Bowen Intermediate School in Wimberley learn about the unique hydrological, ecological, and cultural significance of Jacobs Well during a Texas Watch outdoor education workshop.

"The WVWA appreciates the help of the members of our organization, our local partners, and the Greater Edwards Aquifer Alliance members who have helped us accomplish this acquisition," Dr. Cox stated.

The land acquisition is a result of a multi-year effort by the WVWA to protect and consolidate dozens of parcels that had previously been privately owned. Now, the unified fifty-acre parcel known as the Jacob's Well Natural Area will be managed and restored as a nature preserve by the Wimberley Valley Watershed Association.

In order to purchase the land, the WVWA obtained a $2 million loan from a private conservation-minded lender to purchase the properties. Within the next two years the WVWA's goal is to repay the loan and raise additional funds for the management and restoration of Jacob's Well Natural Area. The total current appraised value of WVWA's land is over $3 million.

Jacob's Well is a karst spring very similar to Barton Springs or San Marcos Springs and is a perfect place to study and research the health of the aquifer. The WVWA has already established a water quality monitoring station managed by the United States Geological Survey at the spring to study the water quality and quantity of the aquifer. Realtime water quality data from Jacob's Well can be viewed online at: http://tx.usgs.gov/aquifer/projects/jacobswell.htm.

For information on how you can help protect Jacob's Well Spring, call the Wimberley Valley Watershed Association at (512)847-1582 or e-mail Jawell@aol.com.

Mark Your Calendar!

Austin Regional Meeting – Public Outreach Symposium

To be held September 12, 2006, as part of the Texas Water Monitoring Congress

The Commons,
Jake Pickle Research Center,
Austin, Texas

Congratulations to Our New Water Quality Monitors!

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