

Wimberley Valley Watershed Association

You are invited to become a "Friend of the Well" by supporting the WVWA. In return for your contribution you will receive "The Living Well" newsletter, as well as discounts on watershed seminars, special events and products. Together we will work to maintain the health of our community by supporting the health of our watersheds.

Water and the life it nourishes are at the heart of all communities. Join us to protect our water.

Name: _____
 Address: _____
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r Student	10.00
r Senior	15.00
r Individual	20.00
r Family	25.00
r Sustaining	50.00
r Business	100.00

All donations are tax deductible!

Make checks payable to:

Wimberley Valley Watershed Assoc.
P.O. Box 2354
Wimberley, TX 78676

For more information please call:
512-847-2868



1405 Mt. Sharp Rd
 Wimberley, TX 78676

SEE YOU IN CYBERSPACE!

The Wimberley Valley Watershed Association's website is a great place to find out what's going on in and around our community. Check out the news and views for the latest articles.

Choose the "Discuss it Forum" and be linked to the Wimberley Valley Community Forums where you will find open discussions on topics such as: civic information, environmental issues on water, land and air as well as animals and wildlife. You'll also find forums on community safety and general topics.

This is the place to become a member online and make a donation to the cause of watershed protection.

www.visitwimberley.com/water

FROM THE DIRECTOR DESK:

by David Baker

The WVWA was founded as a non-profit in 1996 by residents concerned about our water and the natural resources of our Texas Hill Country. The mission of WVWA is to "protect the water quality and quantity of the Wimberley Valley by promoting sustainable watershed management through community education, conservation, and land protection.

The WVWA has worked over the years educating the youth of our valley and our region through watershed awareness programs and outreach to local schools. We also offer water quality monitoring training through the Texas Watch Program.

Recently, we have initiated a program intended to educate local decision makers and the real estate development community through a series of Conservation Development Conferences. This seminar has now grown into a national venue hosted annually at the Ladybird Johnson Wildflower Center. For more information about next year's conference scheduled for August 12-14 go to visitwimberley.com/water.

This past year the WVWA has been working in partnership with the Village of Wimberley and the Guadalupe Blanco River Authority to monitor the water quality in the Blanco River and Cypress Creek. This partnership is creating the most comprehensive baseline of water quality data ever assembled on the important waterways running through our community. Read more about the study in Jason Pinchback's article.

The WVWA is developing a mapping project working with students from Texas State, using advanced geo-data technology to identify key habitat protection areas, regional greenspace locations and potential water quality protection areas. This information will assist local landowners and decision makers interested in preserving these critical features make strategic choices about the future of our land and water resources.

Working with the legal firm of Braun & Associates a land protection plan sponsored by the WVWA for the headwaters of Cypress Creek and including the Jacobs Well Natural Area has taken shape. The plan focuses primarily on private conservation through acquisition as well as government grant funding, non-profit fundraising and the donation of conservation easements as key strategies.

If you are interested in learning more about how you can be involved in this important conservation project please contact WVWA at 512-847-1582 or email .



The Living Well

Preserving the Jewel of the Texas Hill Country



December 2003

MARK YOUR CALENDARS:

2004 Statewide TX Land Trust Conference
"Common Ground, Gaining Ground: Tools for Shaping the Texas Landscape" is rapidly approaching! Make plans now to join us on Friday & Saturday, **February 27-28, 2004**, at the Holiday Inn-Airport South in Austin.

For more information contact:
 Carolyn.Vogel@tpwd.state.tx.us

Enrich Your New Year - Become a Wildflower Center Docent

Would you like to learn more about the natural world around you? Are you looking for a way to express your commitment to our environment? Do you enjoy sharing your love of nature with others? Then come join our docent team!

Our docents are a special group of dedicated volunteers who expand their knowledge of the Wildflower Center and the natural heritage of Central Texas through a special program of classroom and field study. Upon graduation, docents are prepared to lead adult tours, volunteer in our Visitors' Gallery, work with school groups, and represent the Center through a variety of public outreach events. No previous experience is required. All you need is a desire to learn and a pair of good walking shoes!

Core components of the program include: Mrs. Johnson's Legacy, The Center's History and Mission, Natural History of the Central Texas Hill Country, Botany, Plant Taxonomy and Environmental Science, Restoration Ecology and Plant Conservation, Native Plant Horticulture, Landscaping, and Gardening.

We form a new docent class each January. The 2004 class will begin on Thursday, January 15. To learn more about the docent program and register to join the class of 2004, call 292-4200 or visit www.wildflower.org

The Nature Conservancy launches the Blanco River Project in Wimberley

Local office opens in Wimberley

Wimberley – The Nature Conservancy of Texas, in cooperation with public and private partners, has initiated the Blanco River Project with the objective of conserving the Blanco River and its watershed.

Hays-Trinity Groundwater Conservation District Update

by Jack Hollon

On May 3, 2003, the voters in Western Hays County confirmed the Hays Trinity Groundwater Conservation District by 2 to 1. Five directors were also elected, and the board has been meeting monthly, with additional work sessions scheduled between regular meetings. The HTGCD covers the western half of Hays County – where wells produce water from the Upper, Middle, and Lower Trinity Aquifers.

Much of the District's early focus has been on getting organized and establishing priorities: Space for a small office was leased on Hwy 290, five miles east of RR 12, in the CenterLake Business Park (Bldg 100, Ste 212, ph 512-858-9253). Office, accounting, and reporting procedures were established; insurance coverage was obtained.

The District's financial resources are severely limited by the enabling legislation, so its work is carried out by one paid staff member and by board members and other volunteers. Each board member is responsible for one or more "functions" important to the District's mission. These functions reflect priorities and will be important in writing the District's Management Plan.

Early work on Operations and Research include: Adding wells to the network of monitoring wells; Establishing a data base on wells in the District to help understand aquifer geology, physical characteristics, and productivity; Continuing work on the District's Sustainability Project – aimed at better information on aquifer recharge and withdrawals (pumping and spring flows to area streams); Beginning work on a drought management plan; Work with drillers to standardize well reports and improve the quality of information in those reports; Continuing study of District Rules and other regulations which will lead to public hearings on these Rules and on the District's Management Plan – which the District's Rules must support.

Ultimately, this Plan will reflect the best science available, plus the values and goals of those who live in the District, gathered

in an open public process. The Plan must then be submitted to the Texas Water Development Board for approval and to insure that it is consistent with the State's regional water planning process.

A major event that occupied much director and staff time this past summer was an application by the Polo Country Club (on Hwy 290) for well permits to irrigate a new golf course. Data was gathered, golf course design and needs were studied extensively, hearings and staff/committee meetings were held, and, finally, a permit was issued that provides water to establish a conservation-style course, provides for important new data to be gathered by the District (particularly on the little-studied Lower Trinity Aquifer and possible surface pollution), and protects surrounding wells with a monitoring network and agreement to cut back pumping if harmful effects on neighboring wells are demonstrated.

One final note on the future Management Plan – of special interest to those who live in the watersheds of Cypress Creek or the Blanco River: It has been clearly demonstrated at Jacob's Well (main source of Cypress Creek) in the short drought of 1999-2000, and in other areas of the State, such as Comanche Springs near Fort Stockton, that over pumping can dry up major springs and streams, thus affecting quality of life, property values, wildlife, and all downstream users adversely. One important issue in the new district's management plan will be to determine the "balance" between production of water from wells and production of water from springs, such as those that sustain the Blanco River and Cypress Creek in SW Hays Co. The same can be said for the northern part of the HTGCD where residents are concerned about flows to Onion and Barton Creeks that ultimately feed the northern segment of the Edwards Aquifer and Barton Springs in Austin. One function of a GCD is to provide local control in managing these kinds of critical resources.

Stay tuned – and stay involved – as we proceed with this task.

For more information visit the HTCD on the web at www.haysgroundwater.com

See TNC, next page

The project will encourage voluntary collaboration among private landowners, community leaders, government agencies and non-governmental organizations to conserve the natural resources of the region. The Conservancy has opened a Blanco River Project office in Wimberley at 706 FM 2325, Suite D

“The Nature Conservancy recognizes the Blanco River as an important area for conservation,” said Steve Jester, the Conservancy’s field representative who will spearhead the project. “One of the Hill Country’s most treasured resources is its relative abundance of water, and this water is critical to the region’s plants, wildlife and people.

“The Nature Conservancy is eager to join with local community members to find creative ways to conserve this life-giving river.”

Steve Jester comes to the Blanco River Project as the Conservancy’s former director of the Fort Hood Project in Killeen. Educated as a wildlife biologist, Jester previously spent seven years with the Wildlife Division of the Texas Parks and Wildlife Department in north Central Texas. Prior to that he worked for the Armand Bayou Nature Center in Houston and the Florida Fish and Wildlife Conservation Commission.

In the Lone Star State, with 33 nature preserves and 38 additional conservation projects on private lands, The Nature Conservancy of Texas protects 250,000 acres of wild lands and, with partners, has conserved more than 800,000 acres for wildlife habitat across the state. Visit The Nature Conservancy of Texas on the Web at www.nature.org/texas

Those interested in learning more about The Nature Conservancy’s Blanco River Project or in stopping by the Wimberley office are encouraged to give Steve a call at (512) 847-0790.



A Hill Country Epiphany

by Mike Ridley

I can remember the exact moment of my commitment to conservation development. This epiphany occurred late on a hot July afternoon three years ago. Beryl Armstrong and I had devoted the majority of the day to a walking survey of the 550 acres that would eventually become the Trails of Lake LBJ, a residential subdivision west of Horseshoe Bay in Llano County.

Suddenly, Beryl exclaimed, "We are in a dead forest". Now those of you that know him are aware that Beryl possesses a wide breadth of knowledge and is entirely capable of unique observations. This one had me stumped. When pressed he explained that due to an over abundance of white tail deer, 1.5 per acre, there were no juvenile trees of any kind – no oaks, elms, cedars, or mesquites - nada. Had he taken a large tree limb and applied it forcefully to the side of my head, the effect could not have been more profound. Finally I got it . . . I got what he and the crew at Plateau had so eloquently been telling me for the past several months.

Fast forward to 3:30 a.m. the next morning when my reverie is broken by a ringing phone. I am in a completely dark construction trailer where I had been since leaving Beryl . . . contemplating the profundity of what had transpired eight hours before. For three and half decades I had developed real estate in a conventional manner and now I would find a more environmentally responsible approach. My mantra – minimal impact. By the way, it was my wife on the phone, more than a bit irritated.

Commencing early the next day, Plateau Integrated Land and Wildlife Management became my partner in planning the Trails that has been recognized by the Lady Bird Johnson Wildflower Center as one of the best conservation development in Texas. The Texas Forest Service and Lower Colorado River Authority utilize the Trails as the standard for fire management and non-point course pollution compliance. Plateau was ubiquitous in the planning process, developing seed blends for disturbed areas, advising on the trail system and the complex issue of recalculating water

WVWA FORMS A NEW ALLIANCE

The WVWA is proud to announce its new role in protecting the region’s water resources. We have joined forces with the Austin and San Antonio Chapters of the Sierra Club, the Save our Springs Alliance, Smart Growth San Antonio, the San Marcos River Foundation, and others to address a broad range of concerns about our roles in protecting the Edwards Aquifer.

The efforts of the new initiative will be united under the name of the Greater Edwards Aquifer Allinace (GEAA) and the WVWA has recieved funding by GEAA in recognition of its support.

from the lake into a natural stream, and when the county taxing authority objected to some interior fencing, Steve Bender designed – the Plateau fence.

Whenever I receive an accolade for developing the Trails, I accept it only after explaining that Beryl Armstrong, Steve Bender, David Braun, Kay Critz, Ivor Kincaid, Matt Prior and the entire Plateau staff must be included in any recognition. I can state without equivocation, the Trails could not have been developed in this manner absent Plateau.

If you are using Plateau to manage your wildlife exemption, good move. However, you are leaving big bucks on the table if they are not an integral part of your planning and development team. A post development analysis will reveal that the fees paid Plateau are the most cost effective dollars you will spend. In addition, they are just damn fun and interesting people.

Plateau Integrated Land & Wildlife Management out of Dripping Springs provides high quality ecological services to rural landowners. Included in their services is wildlife management planning, habitat evaluation, property tax consulting for wildlife management, biological surveys, land-use planning which incorporates critical ecological considerations, and services to the development community including pre-, post-, and intermediate consultations.

Beryl Armstrong is one of the founding partners along with David Braun (former Director of the Texas chapter of The Nature Conservancy). Together they provide leadership and years of experience in land conservation and wildlife habitat protection to the staff and partners of Plateau.

Mike Ridley is a client of Plateau and has made a career of land development. His recent conversion to conservation work has inspired him to create the TRIAD INITIATIVE, which is working in Central Texas creating unique and sustainable residential developments like The Trails at LBJ.

For more information check out: www.plateauwildlife.com

The quantity and quality of the Edwards Aquifer is currently being threatened by a variety of factors that include the rate of population growth along the I-35 corridor, the conventional high-impact mode of commercial and residential development, and the massive amounts of infrastructure needed to support this growth.

Reducing the amount of pollutants, managing for land-use patterns, identifying the preferred growth areas, and advancing the science which will allow for predicitive modeling of the long-term sustainability of the aquifer are all areas the GEAA group will be addressing.

Water Quality Partnership

by Jason Pinchback of TexasWatch

People, who assess the health of aquatic ecosystems, often say that the health of streams and rivers is directly connected to the patterns of land use and the collective actions taken by each of our communities. Water quality and land use are inextricably linked to the everyday actions of you and me. This is important for some very obvious reasons and some that are it seems not always so obvious.

The Wimberley Valley Watershed Association and the Village of Wimberley have been working together in a joint partnership to assess and protect the quality of the precious water resources of the Wimberley area. A fundamental aspect of this resource protection effort resides in the fact that we are now amidst a population boom and the resulting development could lead to adverse water quality and quantity conditions. By collecting this environmental information and publishing our findings we allow the community at large as well as its leaders to make scientifically valid, sound decisions about the legacy we will leave future generations.

The current water quality monitoring program collects data once a month from locations on the Blanco River and Cypress Creek. Environmental data collected during each sampling event includes: dissolved oxygen, pH, conductivity, suspended solids, water temperature, E. coli, fecal coliform, nitrate nitrogen, orthophosphate phosphorus, total phosphorus, ammonia nitrogen, land use and biological activity, and flow.

In addition to empowering local decision-makers, the water quality study also coordinates with the Guadalupe-Blanco River Authority (GBRA) and the Texas Commission on Environmental Quality to assist with larger statewide efforts. The gathered information is shared with the GBRA and TCEQ and is used in biennial water quality assessments, called the 305(b) report. This assessment report assists the state in managing overall water resources by ensuring all “designated uses are met”.

Achieving designated uses of the Blanco River and Cypress Creek means that we can “eat the fish” that we catch, our children can safely “swim in the water”, and the waterways as habitat continue to sustain “excellent” aquatic life. All of these narrative standards translate into specific, measurable, quantifiable numeric criteria.

The remaining portion of this article is a discussion of these criteria and the testing parameters currently examined by the Village of Wimberley and the Wimberley Valley Watershed Association’s water quality study.



Dissolved Oxygen (DO)

(there should be more than 6.0 mg/L)

As expected, low levels of DO rise from the aquifer at Jacob’s Well, which is located near the headwaters of Cypress Creek. As the water moves downstream oxygen is introduced through physical mixing and photosynthesis. The DO levels continually rise at each site as waters flow to the confluence with the Blanco River. Someof the DO levels observed at the “Cypress Creek at RR12” (1 mile north of downtown) site have been unusually low. Determining a cause and effect relationship is difficult due to the complexity of each environmental system, but the water quality program is looking into oxygen demanding materials that may be consuming available oxygen as the culprit. DO levels in the Blanco River are excellent.

Important Nutrients

(Nitrates, phosphorus & ammonia nitrogen)

Nutrients are vital to a productive ecosystem. While quantities sufficient to assist in the formation of a healthy ecosystem are desirable, high quantities can disrupt and impede richness, abundance, and overall biodiversity. Excess nutrients can lead to reductions in oxygen, water, habitat, and general aesthetics. Nutrients levels typically do not exceed the suggested narrative criteria, but slightly high trends are observed at the upstream Blanco River monitoring locations.

ENVISION CENTRAL TEXAS SURVEY RESULTS

More than 12,000 Central Texans completed the survey online and through newspaper inserts between October 6th and October 31st. The survey results indicate that people are very concerned about how we will maintain our quality of life if the region's population doubles, and there is consensus throughout the five-county region something must be done to prepare for growth.

Participants top five concerns for the region were transportation/congestion, air quality, cost of living, jobs and water quality. "The most striking thing about these results is they are consistent across the region. While counties ranked a few issues differently, they all had the same top concerns," said Neal Kocurek, ECT board chair and president of St. David's Health Care System. "For example, limiting development over the Edward's Aquifer was still a top priority in Bastrop and Williamson counties as well as Travis County. This shows people are really thinking regionally."

You can view a summary of all the survey responses by clicking on the "Summary of Results" document at <http://www.envisioncentraltexas.org/resources.php>. or contact Diane Miller Project Coordinator for ECT at (512) 916-6037

Conductivity

(within a range of 350 – 800 mhos/cm)

Conductivity values are higher at the Jacob’s Well site and decrease as waters move downstream. All conductivity values are within the expected range in both the Blanco River and Cypress Creek. Lower flows slightly increase conductivity while precipitation typically lowers the overall conductivity values

Bacterial Indicators

(E. coli and fecal coliform should be less than 394 and 400 colonies per 100 mL)

The presence of fecal coliforms and E. coli bacteria in samples indicates the presence of pathogens from warm-blooded animals in surface waters. Trinity Aquifer waters that surface at Jacob’s Well nearly meet bacteria criteria for drinking water. Indicator levels increase slightly as waters move downstream, and average values show levels peaking at 122 colonies / 100 mL, which is well below state standards. Although bacteria values are typically expected to increase after rain and higher flows, collected samples do not show this trend. “First flush” is the initial storm flow runoff that moves across the land and into streams.

In many cases, first flush waters will contain the majority of all pollutants that enter a water body. None of the data analyzed to date includes first flush collections.

pH Balance (pH)

(within a range of 6.5 – 9.0 su)

As anticipated, pH levels at Jacob’s Well are slightly acidic. The buffering capacity of the water and limestone bedrock causes pH levels to increase slightly at downstream sites and in the Blanco River. All values are within the expected range.

For more information contact: jason.pinchback@geo.swt.edu