

Hays County Seeks Public's Ideas for Jacob's Well Natural Area

This is your chance to speak out about how you envision how the JWNA site should be used. Ideas range from a park to a wildlife sanctuary. Bring your suggestions to the public Open House, where RVI, developer of the Master Plan for the Jacob's Well Natural Area, will be introducing the project and soliciting input from the community. A steering committee, which has included citizen voices, has been leading the discussion to date, and staff and board have been informing the work with site tours and habitat information such as plant and wildlife surveys.

"We envision the property becoming a premier attraction for local residents and visitors and want to ensure that we have a comprehensive master plan that guides

development, activities and resource management for the 81-acre site," said Jeff Hauff, Grants Administrator for Hays County. "Hays County wants to hear from the public about features they'd like to see incorporated in the Natural Area, and we want to make sure residents have an opportunity to hear about the site analysis and associated factors that will help determine how the land should be used." For more information, contact Jeff Hauff at jeff.hauff@co.hays.tx.us or 512-393-2211.

Join us for this important meeting!
Thursday, January 19, 6:30-8:30 pm
 Wimberley Community Center

Blanco River Recharges Barton Springs During Drought

Information from Nico Hauwert, City of Austin Watershed Protection Department

The flow of the Blanco River experiences perhaps its biggest loss at the mouth of Halifax Creek. This flow loss fills up, or recharges, the Edwards Aquifer that supplies so many of our wells. This recharge also serves to sustain the flows of San Marcos Springs and Barton Springs. In fact, during droughts, it is the Blanco River that supplies between half to nearly all of the springflow to Barton Springs. If the baseflow to the Blanco River near Wimberley were to cease, Barton Springs could dry up in three months. This condition has never been documented in the past, even through the drought of the 1950's. As pumpage from the Trinity Aquifer increases, springs in the Blanco River watershed are expected to diminish in direct correlation to the amount of pumpage. Upland sinkhole basins, like the Blanco River Basin, also play an important role in providing recharge to the Trinity Aquifer and must be properly maintained to preserve their contribution.

Historically, the importance of recharge in sustaining our water sources wasn't well understood or appreciated. It is reported that in the late 1800's a sinkhole in the Blanco River at the mouth of Halifax Creek removed large amounts of river flow. This lack of river flow was seen as a problem for a mill that operated near the Lime Creek road crossing in Kyle, so the sinkhole was filled in. Even in recent

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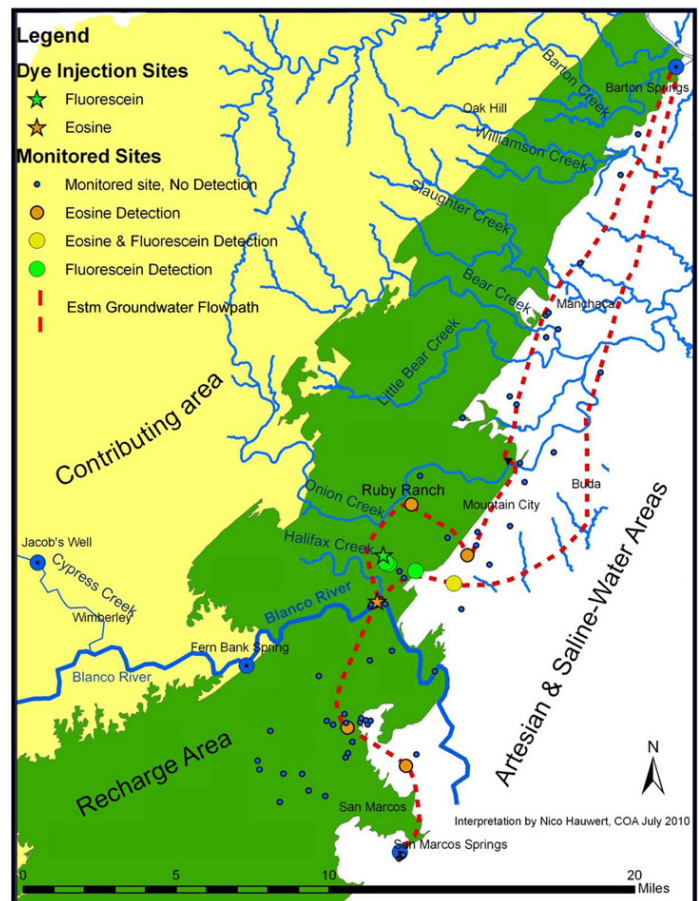


Figure 1. Groundwater-flow paths interpretation of Blanco River injections of 2008-2009. Eosine dye was injected at the mouth of Halifax Creek on four separate pulses.

times, sinkholes are frequently filled in for various reasons, including keeping livestock and people from falling in. This reveals little appreciation or understanding of the role of a sinkhole in sustaining water supplies.

The mouth of Halifax Creek doesn't look outstanding on photos - just a jumble of large rock blocks. Hauwert injected a traceable dye here in 2008. Later, on the south bank of the Blanco River, a few hundred feet upstream of the mouth of Halifax creek, he heard what sounded like a spring. Upon closer examination Hauwert observed the Blanco River losing flow, like water draining from a bathtub drain, and could actually see a depressed river surface where the



A sinkhole on the Blanco River

flow went down. Called Johnson Swallet, Nico and his team injected dye in at this site in 2009. This time the dye showed up in wells near San Marcos Springs and at Barton Springs.

In the 1990's, Grapevine Cave, located west of Wimberley near Burnet Ranch Road, had become a problem. Kids were reported going into the cave without experienced supervision – quite dangerous as it is essentially an underground canyon. They were drinking alcohol and throwing bottles at passing cars, and the landowner didn't live on the site and didn't know how to keep people out of the cave. Hauwert worked with a group of volunteer cavers



to install a gate on the cave. Before this, they had heard that the county had attempted to fill it in with concrete, but stopped because the caver told them that there were people inside the cave.

Nico Hauwert is a Sr. Hydrogeologist, Senior Environmental Scientist City with the Austin Watershed Protection Department. Nico shared time with JWNA volunteers at their holiday volunteer appreciation party.

For more maps and charts see this link: <http://savebartoncreek.org/blanco-river-recharges-barton-springs-during-drought/>

The Wimberley Valley Watershed Association had an impressive year

WVWA has just released their **2011 Year End Report**. The work done in 2011 is nothing less than extraordinary, and indicative of a community that cares about its resources. Thanks to all of our supporters in making this one of the most successful years we have ever had.

Around the Well

Jack Hollon and David Baker spoke about the DFC at the **Austin Chapter of the Sierra Club** at Scholz's Beer Garden this past Tuesday night. The crowd of about 40 was most enthusiastic about the work of WVWA, and has promised to support WVWA in protecting the Cow Creek Aquifer.

David Baker also spoke at a client seminar presented by Bartlett Tree Experts at the LBJ Wildflower Center on January 11. The work of the WVWA and JWNA was described as "the magnificent, coordinated effort that went into protecting the land that surrounds Jacob's Well." Mark Lundy of Bartlett Tree Experts said that "Mr. Baker's presentation brought attention to the need for regional planning in resource allocation and development that will impact our industry for years to come."

At last JWNA is **free of concrete**! Hays County will be removing the remaining impervious cover from Camp Jacob this week. The Restoration Rangers will be following behind to restore the damaged areas with plantings.

Let your planetary allies know that the next **Jacob's Well Volunteer Training** is coming up in early April. Email Barbara Attwell if you are interested.

Restoration Rangers Update: Fire, Water and Earth

by Anne Child

What an awesome way to start the year... above average temperatures and three projects tackled.

Water team - The "J"s (Jean McMeans, Jean Richmond and Janette Barlow) allowed one fellow (Tom) to join them taking water to all 50 trees. They filled several garbage barrels full of water in the back of Tom's truck and took the haul closer to the trees. Dipping their buckets into the barrels apparently worked very well. For trees



Jeff Vasgaard saws away at a limb.

near the creek they used spring water. Soon the thirst of all the trees was quenched. We hope for rain early next week too.

The Fire team – Mark Chonko, Louis Parks, and Garry Child -- also loaded up a tank full of water into a truck, but it was a safeguard for a fire. With the burn ban lifted, they took on burning one stack of lumber. It was mostly from the old sweat lodge but they started

with some brush hauled over from Dancing Waters late last year. The brush burned quickly but the lumber took longer. They burned carefully and got that large pile consumed without consuming the grass and trees nearby.

The Trail team – Jeff Vasgaard, Nancy Russell and Anne Child -- headed down the hill to fashion a trail along the cliffs upstream from the well. Jeff cleared the way with his chain saw. Nancy and Anne hauled the cut branches across the creek and lined the banks to protect them from erosion. Mattocks and rakes were used to smooth the river rocks (finding a few fine fossils among them) and the tree stumps into a walkable path. It follows the cliffs on a beautiful flat ledge then crosses between two wet areas.



Nancy Russell works on brush



Louis Parks, Mark Chonko and Garry Child at the work site

What's next?

There are two more brush piles to burn... plus a pile near our new stairs plus more over at Dancing Waters. The new creek trail needs to be cleared and marked better where it crosses between the two wet areas. Then there's the task of restoration along the old creek trail... perhaps putting in some native plants and distributing mulching branches to catch water and dirt and create havens for new plants.

But I can't guarantee such wonderful working conditions. After all, winter is only 2 weeks old.

The next workday will be Friday 1/20.

Earth Day

The Friends of Jacob's Well will be showing a movie on the evening of April 21 to celebrate Earth Day. More about this soon.



Native Lawns

Reprinted with permission from Ladybird Wildflower Center web site

<http://www.wildflower.org/nativelawns/>

A mix of native turf grasses makes a great lawn: Less mowing, less watering, and less weeding.

Americans love their lawns. But most of them are non-native grasses like St. Augustine that succumbs easily to pests and disease, or bermudagrass that needs constant mowing and can be invasive, or Kentucky bluegrass that needs a lot of water. Non-native lawns require a lot of time and money to keep that 'velvet carpet' appearance which most of us enjoy. As a solution, Wildflower Center ecologist Mark Simmons has been leading research on a mixture of drought-adapted native grasses that cut down on mowing, watering, weeding and feeding. These fine-leaved species grown together form a dense lush lawn that takes less effort to maintain a lawn of mixed native turf grasses than a non-native lawn.

The study published in the science journal Ecological Engineering draws from knowledge that America's native grasslands include many turf grass species already adapted to our climate and able to coexist as a stable plant community. Put together in a multi-species mix, these native grass species can provide the same appearance and function as non-native monocultures, without requiring a massive input of weed killer and watering, and with much lower rates of mowing.

The results from the Wildflower Center study have shown that the native HABITURF™ seed mix outperforms Bermudagrass in terms of rates of establishment, thickness of the turf, mowing rates and weed resistance (see example graphs below).

Once established it only needs watering twice a month and can tolerate up over 50% shade. The grasses in the mix are prevalent in the Great Plains of North America, including buffalo grass (*Bouteloua dactyloides*), blue grama, (*Bouteloua gracilis*), and curly mesquite (*Hilaria berlandieri*) and others. Some other species in the current mix may be replaced in the future as we learn what works best for other areas in Texas and expand our study to consider alternative native seed mixes for use in different regions of the country.

The grass mix HABITURF™ may be obtained from Douglas King Seeds. An article on how to prepare install and maintain this native lawn can be found here.



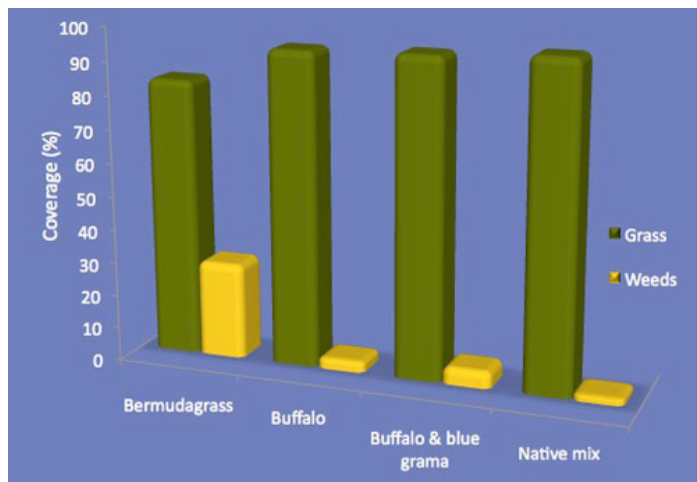
Buffalograss vs. Bermudagrass. The native mix (LEFT) grows much slower and has fewer weeds than bermudagrass (RIGHT)



Mount Vernon was the first house in North America to have a lawn as a part of the designed landscape.



Octagonal beds at the Center, where the characteristics of common Bermudagrass were compared to Buffalograss and a mixture of up to seven native grass species.



Native grasses are better at keeping out weeds than bermudagrass.

Volunteer Profile

Alicia Nelson: Nurse Practitioner, Gardener, Water Conservationist

Alicia Nelson is a recent recruit to the Jacob's Well Natural Area projects, having just completed the training in April last year. She comes to Wimberley from Austin, where she is a member of the Capital Area Master Naturalist program. "Since I still work full time," Alicia says, "I only had time for one organization's volunteer requirements and easily chose the Master Naturalist program."



Alicia lives in Austin now but plans to return soon to Wimberley to live in her original home there. "Jacob's Well has such a history, as well as being a unique and critical water feature, that I was drawn to volunteer there. It also helps the re-integration to Wimberley. I want to be a part of the community education on water and Jacob's well is a perfect spot for outreach and conservation," she says.

Alicia studied Art History and then returned to graduate school to become a nurse practitioner. She grew up in Ohio where water was not a concern. "Gardening was easy with deep soil, long summer days, and frequent rain," Alicia says. She became a Travis County Master Gardener several years ago and still likes to garden, but finds Texas "challenging."

In addition to helping out with water conservation projects at Jacob's Well, Alicia is part of the monthly Amphibian Watch for two ponds in south Austin. She finds it interesting (and sobering) to monitor the effect of water (and lack of it) on the diversity and ecology around a water source.



Alicia Nelson, right, worked with Nancy Russell and Mary Goulden at the Jacob's Well Festival last fall, demonstrating water conservation needs to festival visitors.

Alicia's e-mail address includes her ID as *angiosperms*. "My email name evolved through the process of elimination," she says. "I wanted it to symbolize something I was interested in and after Google rejected about 15 other names (ranging from the genre of garlic to opera), 'angiosperms' was accepted."

The diversity at Jacob's Well is often mirrored in the interests and skills of its volunteers!

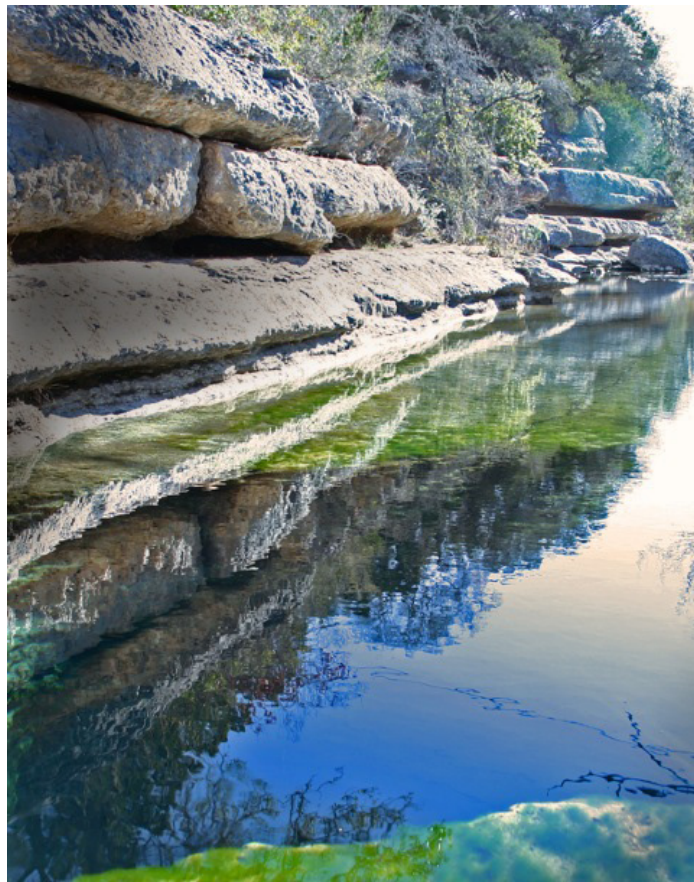


photo by Cade Ritter

CALENDAR

January 19	Open House with Master Planner, RVI, from 6:30pm – 8:30pm at the Wimberley Community Center
January 20	Restoration Rangers workday
February 3, 17	Restoration Rangers workday, and every other Friday past this
January 21, 28	Saturday Tours
February 4, 11	Saturday Tours
March 22	World Water Day
March 31	HCMN Volunteer Workday
April 21	Earth Day Event and Film Screening at the Corral; more information soon