

UPPER LLANO RIVER WATERSHED PROTECTION PLAN NEWSLETTER

ISSUE 3

SEPTEMBER 2013



STATUS OF THE UPPER LLANO WATERSHED PROTECTION PLAN BY EMILY SELDOMRIDGE

Welcome to the third Upper Llano River Watershed Protection Plan (WPP) newsletter and thank you for your interest in preserving our valuable resource.

Since the release of the Spring newsletter, writing of the WPP started, the Texas Well Owner Network workshop was held (see page 4), another quarterly sampling was completed (results reviewed on page 5), and the Coordination Committee met (page 2).

The initial writing of the WPP began with a review of historic water quality, quantity, and biological (macroinvertebrate, fish, and habitat assessment) data in the Upper Llano Watershed. The report was approved by the Texas State Soil and Water Conservation Board, and is available for public viewing at: www.southllano.org. The Watershed Protection Plan continues to progress as the Working Groups identify and refine the issues of the Upper Llano Watershed.



Spring near the North Llano River with healthy Bushy Bluestem riparian vegetation.

Quarterly water quality sampling was conducted in June. Data from the June and previous samplings suggest the Upper Llano remains in a healthy condition. All water quality monitoring data are shared at Committee meetings and the presentations posted on the South Llano Watershed Alliance website. The next sampling will also include biological sampling and will begin in mid-September 2013. If you happen to see the Research Team in the field, feel free to stop and hear what we are learning about the river.

A quorum was not present at the June 1st Coordination Committee meeting following the Texas Well Owner Network. The Committee met again on August 1st, 2013. The majority of the Coordination Committee attended the August meeting, and voted to split into topic Working Groups. More information on of Working Groups can be found on the next page.

For more information on the WPP, visit the South Llano Watershed Alliance at southllano.org, or contact Tom Arsuffi at the Llano River Field Station. Thank you again for your interest and I look forward to seeing you at upcoming events!

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UPPER LLANO RIVER WPP WORKING GROUPS

On August 1st, 2013 the third meeting of the Coordination Committee of the Upper Llano River Watershed Protection Plan (WPP) was held to discuss how to proceed with the previously identified issues in the Upper Llano Watershed. The discussion centered on the structure of the stakeholders: Consensus or working groups. Coordination Committee members present at the meeting unanimously voted to proceed with working groups. Furthermore, the Committee voted to break into 5 working groups. Working group topics include:

1. Invasive species management
2. Riparian protection and management
3. Water quality, flow, and conservation
4. Water supply enhancement (brush control)
5. Upland management

Working groups and members are listed (right). Working groups will individually meet to discuss topics, evaluate options, and select a set of recommendations to be presented to the Coordination Committee. In about 6-9 months, the Committee will reconvene to vote on recommendations to be included into the WPP. Details will be announced for the upcoming Coordination Committee meeting. In the meantime, updated information on the WPP will be posted to: <http://southllano.org>.

1. Invasive Species

- ◆ Andrew Murr (Kimble County Judge)
- ◆ Carl Teaff (Sutton County Commissioner)
- ◆ Bob Brockman (Edwards Plateau Soil Water Conservation District)
- ◆ Fred Gregg (South Llano State Park)
- ◆ Brady Richardson/Daryl Stanley (Landowner)

2. Riparian Protection and Management

- ◆ Melissa Parker/Gary Garrett (Texas Parks and Wildlife Department)
- ◆ Znobla Wootan (South Llano Watershed Alliance)
- ◆ Art Mudge (Rancher)

3. Water quality, flow, and conservation

- ◆ Marty Graham (Texas State Soil and Water Conservation Board)
- ◆ Jerry Kirby (Kimble County Groundwater District)
- ◆ Marvin Ivy (City of Junction)

4. Upland Management

- ◆ Dandy Kothmann (Natural Resources Conservation District)
- ◆ Sam Silvers (Kimble County Extension Agent)
- ◆ Souli Shanklin (Edwards County Judge)

5. Water Supply Enhancement

- ◆ Marty Graham (Rancher)
- ◆ Tom Vandivier (Rancher)
- ◆ Souli Shanklin (Edwards County Judge)
- ◆ Brady Richardson (Rancher)
- ◆ Ward Whitworth (Upper Llanos Soil and Water Conservation District)
- ◆ Butch Taylor (Prescribed Burn Association)
- ◆ Bob Lyons (Extension)

LOOKING AHEAD: TIMELINE OF THE WATERSHED PROTECTION PLAN

At the August 1st meeting of the Coordination Committee, the Committee voted to divide into topic Working Groups to tackle the previously identified issues in the Upper Llano watershed. A tentative timeline of the Watershed Protection Plan (WPP) was discussed.

Within the next 1-2 months the working groups will meet individually to discuss the selected topics. Thereafter, groups will meet as frequently as needed to determine a set of management recommen-

dations to be included in the WPP. Tentatively, the Working Group meetings will take between 3 and 9 months to complete.

Within a year, the Coordination Committee will reconvene as a whole to vote on the presented Working Group recommendations to be included in the WPP. The approved recommendations will be compiled and incorporated into the WPP. The following few (3-4) months will be

used to write and revise the WPP. The final version of the WPP will be presented to the Committee for in the Fall/Winter of 2014.

The process will be facilitated by Emily Seldomridge, Tom Arsuffi, and Kevin Wagner. For questions, please see the contact information on page 6.

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SLWA NAMED 2013 LONE STAR LAND STEWARDS

The South Llano Watershed Alliance (SLWA) was named the winner of the Texas Parks and Wildlife Department (TPWD) 2013 Lone Star Land Steward Award for the Landowner Association category. For the past 18 years, the TPWD's Landowners Recognition Program has honored those individuals and organizations that have demonstrated dedicated stewardship of the land through habitat management and wildlife conservation.

The SLWA was given this prestigious award for their work in encouraging land and water stewardship through education

and community participation. The SLWA serves as a model of how landowners and stakeholders can work to achieve mutual benefits through voluntary efforts.

For the 2013 Lone Star Award, TPWD partnered with the Sand County Foundation, Texas Parks and Wildlife Foundation and Taking Care of Texas. Presenting sponsor is Toyota. Additional sponsors include Karen and Tim Hixon, Plains Capital Bank, Cammack & Strong, P.C., Capital Farm Credit, Dorothy

Drummer and Associates, Frost, Gardner Appraisal Group, Inc., Llano Springs Ranch, Ltd., Lower Colorado River Authority, Nature Blinds, Nueces River Authority, Oncor, San Antonio River Authority, Texas A&M Forest Service, Texas Agricultural Land Trust, Texas and Southwestern Cattle Raisers Association, Texas State Soil and Water Conservation Board, Texas Wildlife Association, and USDA, Natural Resources Conservation Service.

To read the full article, visit: <http://www.tpwd.state.tx.us/newsmedia/releases/?req=20130418a>.

SOUTH LLANO RIVER CLEANUP

On June 29, 2013 the South Llano Watershed Alliance hosted a South Llano River trash cleanup. Between 50 and 100 participants helped clean the river from Telegraph to Lake Junction. The cleanup was a huge success. The majority of trash removed from the River included soda and water bottles and cans, and cigarette butts. Remember, plastic water bottles can take hundreds of years to naturally break down.

The easiest solution to prevent trash from entering the river is to secure it while traveling the river, and properly dispose of it after leaving the river. If you're on the South Llano Paddling Trail,

trash receptacles are available at the launch/take out sites. In addition, through the Nueces River Authority project, the South Llano Watershed Alliance in conjunction with local partners has made trash pickup easy by making Up2U trash bags available for river trips. Before your next float trip, pick up a bag from Chief Ivy of the Junction Police Department. During your float, please take care and pick up a piece of trash.

For more information on the South Llano Paddling Trail, visit: <http://www.tpwd.state.tx.us/fishboat/boat/paddlingtrails/inland/southllano/>.



Participants of the South Llano River cleanup show off their Up2U trash bags that they filled during the June 29th cleanup event.

RENEWABLE ENERGY DEMONSTRATION AT LRFS BY: TOM ARSUFFI



A set of solar panels track the movement of the sun for optimal energy production. Installation of solar panels at LRFS were made possible through the Innovative Energy Demonstration Grant from the Office of the Texas Comptroller.

The Llano River Field Station (LRFS) received an Innovative Energy Demonstration Grant for \$230,000 from the Office of the Texas Comptroller. The energy demonstration grant funds will be used to install roof mounted solar photovoltaic panels on two buildings and a wind turbine at LRFS. The grant was awarded based on the location (abundant sun and wind) of LRFS and other criteria: a ready-to-go project; education and outreach value; and size, type, and cost per kilowatt hour (kWh) of the technology. The capacity of the solar system will have an estimated annual equivalent production of 59,510

kWh and the wind turbines is 28,120 kWh. Savings of \$425,000 in electricity costs are expected over a twenty-five year period. The renewable energy technology will provide education, public outreach, training, and research opportunities for the Hill Country region. For example, a renewable energy and conservation curriculum will be developed for TTU's "Outdoor School". LRFS will also be partnering with the Engineering; Arts and Sciences; Agriculture and Natural Resources; Education; and Architecture departments and colleges at the main TTU campus in Lubbock.

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LESSONS LEARNED FROM THE TEXAS WELL OWNER NETWORK

Private well owners are responsible for monitoring the quality of their wells, operating their water systems, and ensuring that their drinking water is safe. On June 1, the Texas Well Owner Network (TWON) workshop was held at TTU-LRFS to inform private well owners about Texas's groundwater resources, water quality, water treatment, proper location, construction, and maintenance of water wells. The purpose of TWON is to train Texans regarding water quality and best management practices for protecting their wells and surface waters, by averting

off-site transport of contaminants (bacteria and nutrients) to surface waters, prevent contamination of underlying aquifers, and safeguard the health of landowners and their families.

As part of the workshop, TWON tested 43 wells for bacteria, nitrates, arsenic, and total dissolved solids. Of these wells, 63% were positive for total coliform and 13% for *Escherichia coli*. On average, TWON finds about 40% of wells contaminated with bacteria. Most commonly, contamination

appears to come from storage tanks and untreated river water.

Private well owners are responsible for monitoring the quality of their wells. If you missed the workshop, additional water quality analyses are available for a fee from the Upper Guadalupe River Authority in Kerrville, TX.

The informational workshop booklet can be downloaded: <http://twon.tamu.edu/>.

NORTH LLANO RIVER FLOW GAUGE ALMOST DISCONTINUED

The Upper Llano watershed has 3 flow gauges maintained by the United States Geological Survey (USGS). Gauges are located on the South Llano River at Flatrock, on the North Llano near Junction, and on the Llano River near Junction.

On June 26, 2013, the USGS discontinued the North Llano River flow gage due to governmental sequestration (funding reductions). Gauging the flow on the North Llano River is important for predicting floods, assist in water supply allocation, aid in designing sound bridges and water crossings, forecast water infrastructure needs (help predict the dilution necessary

for wastewater treatment plants), documenting the severity of the drought, and are often used for recreation (kayaking, fishing, etc.).

Through the efforts of the Upper Llano Watershed Protection Plan, the Texas State Soil and Water Conservation Board provided funding to USGS to reinstate the gauge in September 2013.

To view the river flow in the Upper Llano, visit: <http://waterdata.usgs.gov/nwis>.



Flooding on the North Llano River, July 22, 1938 – peak discharge, 47,000 cubic feet per second. Photo: USGS

HIGH WATER CONSUMPTION IN CITY OF JUNCTION



To conserve water, adjust sprinklers to water only the lawn, and follow drought restrictions when applicable.

Within the Upper Llano watershed, the City of Junction is the only municipality that solely relies on surface water for the public drinking water supply. The City has a water right to withdraw 1,000 acre-feet of water a year from the South Llano River (about 1.4 cubic feet per second of flow, or 325 million gallons).

The City of Junction produces about 800,000 gallons of treated drinking water per day. However, the City wastewater treatment plant receives a fraction of the water produced, about

150,000 gallons. A large portion of the treated water is likely used for 1) outdoor irrigation, or 2) lost in transit from municipal infrastructure deficiencies.

If you think your home has a leak, check the water meter when you know the water is off. Check the meter again after about 2 hours. If the meter reading continues to increase, there is likely a leaking pipe.

The Water Quality, Flow, and Conservation Working Group will be addressing this topic.

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COMMON FISH OF THE UPPER LLANO WATERSHED BY: PRESTON BEAN

Monitoring efforts of the Watershed Protection Plan are well underway, which include water quality, flow, and biological sampling. Questions are often asked about the diversity of fish species in the North and South Llano rivers. This quick guide will identify a few common species. Similar fish species are found in both rivers and are described below.

The **Guadalupe Bass** is the official state fish, and a popular sport fish. It is a species of black bass that is found only in Texas, primarily in Hill Country rivers from the Brazos drainage to the Nueces drainage. The Guadalupe Bass can be identified by the combination of the dark vertical bars along its body and the presence of a tooth patch on its tongue. It is typically found in habitats with moderate water flow and primarily consumes aquatic insects, crayfish, and small fish.



The **Rio Grande Cichlid**, commonly called the Texas Cichlid, is the only cichlid species native to the United States, and within the U.S. is native only to Texas. It is a common aquarium fish. In adults, the back half of the body is typically very dark while the forward half of the body is lighter in color. The Rio Grande Cichlid does well in warmer waters and is also tolerant of pollution and habitat changes. When flows are very low and rivers are reduced to a series of warm pools, it is common to find large schools of Rio Grande Cichlids as one of the few remaining species.



The **Greenthroat Darter** is a small species of fish found in the Texas Hill Country. It is typically found in shallow riffle habitats with aquatic vegetation in rivers that have a large portion of the stream flow coming from springs. Male Greenthroat darters are brightly colored during their reproductive season and have a distinct bluish green patch along their throat. The darter species is highly sensitive to changes in water quality and its presence is a good indicator of a healthy ecosystem.



The **Warmouth** is one of the larger, predatory sunfish species found in the Llano River. It is one of the less commonly encountered species and generally occurs in heavily vegetated areas, such as backwaters with water willow. Unlike most other sunfish species, their diet consists largely of crayfish and small fish, rather than aquatic insects.



The **Central Stoneroller** gets its name from the behavior of the males moving gravel with their nose to construct nests for spawning. The adult male Central Stonerollers also develop tubercles, mainly on their head and also along their body. They are primarily herbivores and use a ridge of cartilage on their lower jaw to scrape algae from rocks.





Contact us!

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Recent and Upcoming Events

- ◆ **Texas Freshwater Mussel Identification and Sampling Workshop**
August 20-23, 2013 @ Texas Tech Llano River Field Station
Sponsors: Texas A&M and Texas Comptroller's Interagency Taskforce on Economic Growth and Endangered Species
<http://nrt.tamu.edu/schedule/aug-20-23-2013-mussel-workshop/>
- ◆ **Riparian Workshop:** October 16, 2013, 8AM-4PM @ Texas Tech Llano River Field Station
Hosted by Texas A&M AgriLife Extension. CEUs available.
For more information, contact Nikki Dictson at 979-458-5915.
RSVP: <http://naturalresourcestraining.tamu.edu/schedule/oct-16-2013-texas-riparian/>
- ◆ **Joint meeting of the Texas Riparian Association and Texas Society for Ecological Restoration:**
November 1-2, 2013 @ Texas Tech Llano River Field Station

