# Watershed Weeks In Review

**Junction Mural (!), TCEQ Primer (the permit process), the lowdown on phosphorus, wild turkey research, riparian demo Site at SLSP, and more!**

Editor: Linda Fawcett

## Junction Mural Release Date and Celebration Announced

Over the last few weeks, a team of volunteers and local artists have been busy at work on a new mural on Main Street. The mural on 7th and Main is part of a statewide campaign – called Texas Runs on Water – to spur conversations around water. *"Water is everything here in Junction. We drink it, we use it to irrigate our fields, we swim it, and we live all around it. This city sits at the junction of the South and North Llano Rivers, so it's really part of our identity,"* says **Melissa Burnard**, Junction local and treasurer of the Llano River Watershed Alliance.

This mural would not have been possible without the support of the community. "We are so grateful to the city, the tourism board, and the chamber of commerce, who all donated money to this project and helped make it a reality, " says Burnard. The local mural committee also received significant support from nonprofits Hill Country Alliance and Big Seed.

When completed, the mural will feature a scene from the Llano River. All artwork for this mural was created by Junction locals, **Oly Limon** and **Christan Powers,** with guidance from Big Seed's **Kristin LaRue**. The design took great inspiration from the community. *"One of the ways we involved the community in the design was to go to the local high school, and ask students to paint a picture of their connection to water. We received some beautiful drawings, which later inspired the final mural*

*design,"* says local artist and president of the Llano River Watershed Alliance **Linda Fawcett**. Some of these paintings will be on display at the mural release party.

To celebrate the completion of the mural, the Llano River Watershed Alliance and other volunteers involved with the mural are organizing a **reveal party on Saturday April 15th, 12-2PM** in front of the mural. Come join us after the Junction farmers market for a celebration - featuring free music, drinks, snacks, door prizes and more!

This event will be open to the public and all are encouraged to attend. To learn more about the event, CLICK HERE.

This event is part of the *Hill Country annual Spring Water Revival* - a month-long, spring-time celebration of water in the Hill Country. Learn more at www.springwaterrevival.org and join us for events, activities, and news celebrating the Hill Country's water—one of our most precious resources. **For more pictures of the mural as it progresses,** go to https://www.facebook.com/7thstreetmural !


## :: The Wastewater Permitting Process Through the TCEQ

(excerpts from a Webinar sponsored by the Hill Country Alliance, Feb. 1, 2023)

Presented by Lauren Ice, of Perales, Allmon & Ice, P.C. (www.txenvirolaw.com), of Austin, TX, lauren@txenvirolaw.com

*Introduction:*

- ◊ *The TCEQ participation process is OUR RIGHT, and you don't need to be an expert to weigh in.*
- ◊ *Public participation is effective and can get the attention of the agency of the applicant.*
- ◊ *It IS possible to at least win real improvements (to the permit) by the public's participation in the permitting process.*
- ◊ *A RULE OF THUMB – at any time during the process, never ever waive your right to any kind of hearing.*

The focus of this webinar will focus on Domestic wastewater permits (such as housing developments or summer camps, etc), non-industrial, non on-site (not septic tanks).

**The three permit options under this category are:**

1. **TPDES** (Texas Pollutant Discharge Elimination System), a Discharge permit that authorizes the placement of effluent placed directly into a stream.
2. **TLAP**, or Texas Land Application Permit, that allows for discharge on committed land, a dedicated disposal field. Potential problems include cracks that allow effluents to leak into the aquifer, or being located too close a waterway.
3. **Add-On**, a Reclaimed Water or 210 Reuse authorization, meant to be a "tack-on" to another granted permit, usually TLAP.

The KEY PLAYERS:

1. **The Applicant** – usually a private or local government. An important participant in the process.
2. **The Protestant(s)** – usually landowners, non-profit groups or even could be other cities.
3. TCEQ
   a. Three **Commissioners** appointed by the Texas Governor.
   b. **Chief Clerk**, who keeps the records and issues public notices – a good source for information sought by the public.
   c. **Executive Director (ED)** – who oversees the Staff, and has the authority to issue uncontested permits.
   d. **The Office of Public Interest Council (OPIC)**, a sort of a state office of helpful lawyers but who can answer questions but cannot represent the public.
   e. **Administrative Law Judge(s)** from the State Office of Administrative Hearings (SOAH) –lawyers who can be helpful to answer questions but who do not/cannot represent the public.

## :: THE TWELVE BASIC STEPS THE PUBLIC ought to know about when contesting a TCEQ Permit

1. The Applicant Submits the application, that first the ED looks over and finds mistakes, then issues a "notice of deficiency" [* Protestants should look for those.]
   Also related: Since November 2022 there has been in place a PIP - Public Involvement Plan, especially pertinent to low-income, and persons of color communities.
2. **First Notice – NORI** – Notice Of Receipt of the application and Intent to obtain the permit. Mailed to adjacent landowners and to those within 1 mile downstream. For TLAPs, it is within one mile from the facility as the crow flies. The applicant must also publish a bilingual public notice in a publication catering to the public.
   A TCEQ WQ (water quality) permit # is assigned.
3. **Second Notice – NAPD** – Notice of Application and Preliminary Decision, and a "Draft Permit" (non-binding) may be issued by the TCEQ after a second look at the application. There may also have been more NORIs in between the First and Second Notice if the application had repeated administrative errors. The applicant must again publish a bilingual public notice in a geographically relevant publication.

IMPORTANT: NOW THE 30-DAY PUBLIC COMMENT PERIOD BEGINS

4. **Public Comment Period**
   a. Public comments are very important in the process – responses to anything not liked in the Draft Permit. These comments can include POTENTIAL concerns and they can be questions to the applicant. Make sure the "right" people submit – those who are affected by the discharge.
   b. To continue reading the Webinar Wastewater Process TCEQ, Click Here

## WHAT'S WRONG WITH PHOSPHORUS IN PRISTINE STREAMS?

Phosphorus is a plant fertilizer.

Algae is a plant.

Pristine streams have very little phosphorus. Treated wastewater contains phosphorus.

Discharging treated wastewater with phosphorus into pristine streams with very little phosphorus will fertilize new and excessive algae growth.

This has already happened in some pristine streams in the Hill Country, notably the Blanco, South San Gabriel, and the Main Llano near Junction.

### PHOSPHORUS NUMBERS AT A GLANCE & HOW MUCH IS TOO MUCH:

All measurements shown are in micrograms per liter (mcg/L):

10 mcg/L - level of naturally occuring phosphorus in pristine streams.

15 mcg/L - level when excessive algae starts growing in pristine streams.

20 mcg/L - Level to which phosphorus in wastewater can be reduced using newest technology.

150 mcg/L (!) is the lowest phosphorus limit that TCEQ has included in any Approved or draft wastewater discharge permit.

Guess what?
The TCEQ permit granted to the City of Junction wastewater facility (2016, renewed 2021) has NO LIMITS on phosphorus! [the algae is happy]

TCEQ has not provided a scientific explanation for why a phosphorus limit of 150 mcg/L is sufficient to protect pristine streams from excessive algae. However, TCEQ has included the 150 mcg/L limit in several permits that it has approved or drafted for permits on pristine streams in the Texas Hill Country:

- Belterra, Austin, 2008, Onion Creek

***Liberty Hill**, near Austin* (2016) — approved permit on South San Gabriel River (150 mcg/L limit was included for Phase 4). **AT PRESENT BEING CHALLENGED in a Contested Case** in an unusual 2nd phase that we believe may demonstrate that the TCEQ is finally considering lowering this number! ⇨ (see inset below)

- Dripping Springs, 2019, (Onion Creek)
- Long Branch, Austin, 2021, draft permit on Barton Creek (application withdrawn)
- Diamante Ranch, Comal Cty (2022) — draft permit on Upper Cibolo Creek (pending)

BOTTOM LINE: TCEQ should make its decisions based on science, not politics. **THE ONGOING LIBERTY HILL contested case** could be crucial to our protection of pristine streams. A 2nd round of experts is expensive: please donate to a worthy cause. [Donations are processed through the Greater Edwards Aquifer Alliance (GEAA); please write San Gabriel in the Notes box in PayPal, or on your check.


## South Llano River State Park Streambank/Riparian Restoration Demonstration Site

**LRWA** has begun work on a Streambank/Riparian Restoration Demonstration Site, at the South Llano River State Park, funded by one of our grants. The site, located in the Main Day Use Area of the park, consist of an eroded cut bank, degraded soil, and sparse vegetation on top of the bank. The park a few years ago fenced the area off to help the area recover and to protect visitors from the cut bank. Most of the area has served as a drainage basin for storm runoff from the asphalt parking lot and has always drained out from a culvert onto the cut bank adding to the erosional issues.

To address this, LRWA submitted a proposed plan to TPWD to restore the site to a more functional riparian area and serve as a demonstration site for the public. TPWD approved the plan and recently LRWA has begun the first stages of the plan. First, the flow of storm runoff into the existing culvert has been restricted so more runoff remains in the basin area. Now we're in the process of covering the area with approximately 4" of mulch, produced from various right of way projects in the park. The mulch will be the first step in helping restore the degraded soil to better conditions by adding organic matter and reducing evaporation. Once the mulch is in place, LRWA will begin transplanting and harvesting seeds of various appropriate riparian native plants from within the park. LRWA volunteers will continue adding plants in the coming months. Following TPWD requirements, no mulch, plants, or seeds may come from outside the park.

This project was conceived from the concept of using rain gardens to capture storm runoff, but in this case will also serve to restore an area. Like all such projects, this will require ongoing maintenance, for which LRWA volunteers will be responsible. Most of the funding will go toward interpretive signage, since it is a demonstration site. Watch for updated reports on the progress in future newsletters. The following are partners in this project: LRWA, TPWD, USFWS, and Southeast Aquatic Resources Partnership.

--**Scott Richardson**

# REPORT FROM THE TTU FIELD STATION

Texas Tech University has started conducting Rio Grande wild turkey research in the Edwards Plateau ecoregion, based out of Junction. The university has partnered with the National Wild Turkey Federation, University of North Texas, and Tarleton State University to study wild turkey population dynamics, habitat connectivity, disease prevalence, and various riparian components related to Rio Grande wild turkey. Ian Mack is a Ph.D. student with Texas Tech University and the lead researcher for many of the Texas Tech wild turkey projects. Ian is stationed full-time at the Llano River Field Station at the Texas Tech University Center at Junction. He and his team have been working to secure access to properties across the Edwards Plateau region, with a primary focus on riverfront properties or ones that are near rivers and streams, as they are very important to Rio Grande turkey roosting areas and other components of wild turkey population dynamics in this area. As part of this research, the team is asking for hunter harvest samples from local hunters. If you, or anyone you know may be interested in helping collect samples for this project, please see the attached fliers or reach out to Ian Mack (ian.mack@ttu.edu or 806-834-2745) for more information.

HIGHLY RECOMMENDED FIELDGUIDE
for riparian plants:
***Your Remarkable Riparian,*** available from Nueces River Authority or locally at NCRS ($50) OR GET ONE FREE if you ask LWRA to do a FREE assessment of your vegetation to give suggestions on how to better achieve your objectives!

## MISCELLANEOUS NEWS:

**On March 24 in Kerrville, Linda Fawcett joined leaders from other grassroots water advocate organizations from throughout the Hill Country for a summit sponsored by the Hill Country Alliance.** Activities included a guided tour of the city of Kerrville's water plant, designated as the first Aquifer Storage and Recovery (ASR) Facility permitted in Texas, led by Grant Terry, Superintendent of the Water Production Division for the city.

Later, the group convened at Schreiner University for presentations on subjects such as strategies to implement doable local ordinances protecting sensitive areas from development, citing examples already in place around the Hill Country. In addition, HCA Program Director Cliff Kaplan announced an upcoming online guidebook of ***Best Practices for Cities,*** with emphasis on low impact development, conservation of natural resources, water reuse, open spaces, and more. Ben Eldredge of the Cibolo Center for Conservation, gave especially helpful tips: Best Practices for Civic Engagement, about how individuals can get local governmental policies changed.

The Mayor of Kerrville, Judy Eychner, also spoke of Kerrville's comprehensie growth plan and how it came about. One interesting aspect in the plan was the concept of **redeveloping** some areas of the city (for example, to accommodate greater density of population but in smart ways) instead of unlimited expansion into unincorporated areas. Also of note was hiring an engineer to develop methods to maintain natural riparian zones. That plus city water reuse and strict customer watering rules in dry times have done alot to conserve the city's need for water. As a matter of fact, even though Kerrville has doubled its population in recent years, its city use of water has not increased!

**LATE BREAKING: the deadline has been extended until April 14 for funding for watershed landowners, for more information, go to**
https://hillcountryconservancy.org/land-projects/land-projects-hchci/

## DID YOU KNOW? ... ABOUT the POTENTIAL IMPACTS OF LIMESTONE QUARRIES

**1) CARCINOGENIC DUST - rock quarries create invisible dust particles proven to cause silicosis - a progressive, incurable lung disease. Long-term exposure to particulate matter is strongly associatedwith heart disease, stroke, infertility and pregnancy complications.**

**2) WATER RESOURCES - Overpumping from the aquifer, blasting, disruption of natural underground stream flows, and contamination of the aquifer from hazardous chemical spills and leaks.**

**3) TRUCK TRAFFIC - Increased danger from large, heavy truck traffic on highways and unpaved roads.**

**4) PROPERTY VALUES - Studies have shown that homes and ranches within five miles of a quarry or gravel pit lose up to 20 percent of their market value. These studies have included the city limits of Bulverde as well as unincorporated areas with New Braunfels, Garden Ridge, Spring Branch and Canyon Lake...**

**For more details, go to www.stop3009vulcanquarry@gmail.com**

**FYI there is a quarry located near and west of Junction, north of I-10.**

# ALERT:

The Llano River Watershed Alliance NEEDS YOU TO HELP US HELP YOU (and the river!)

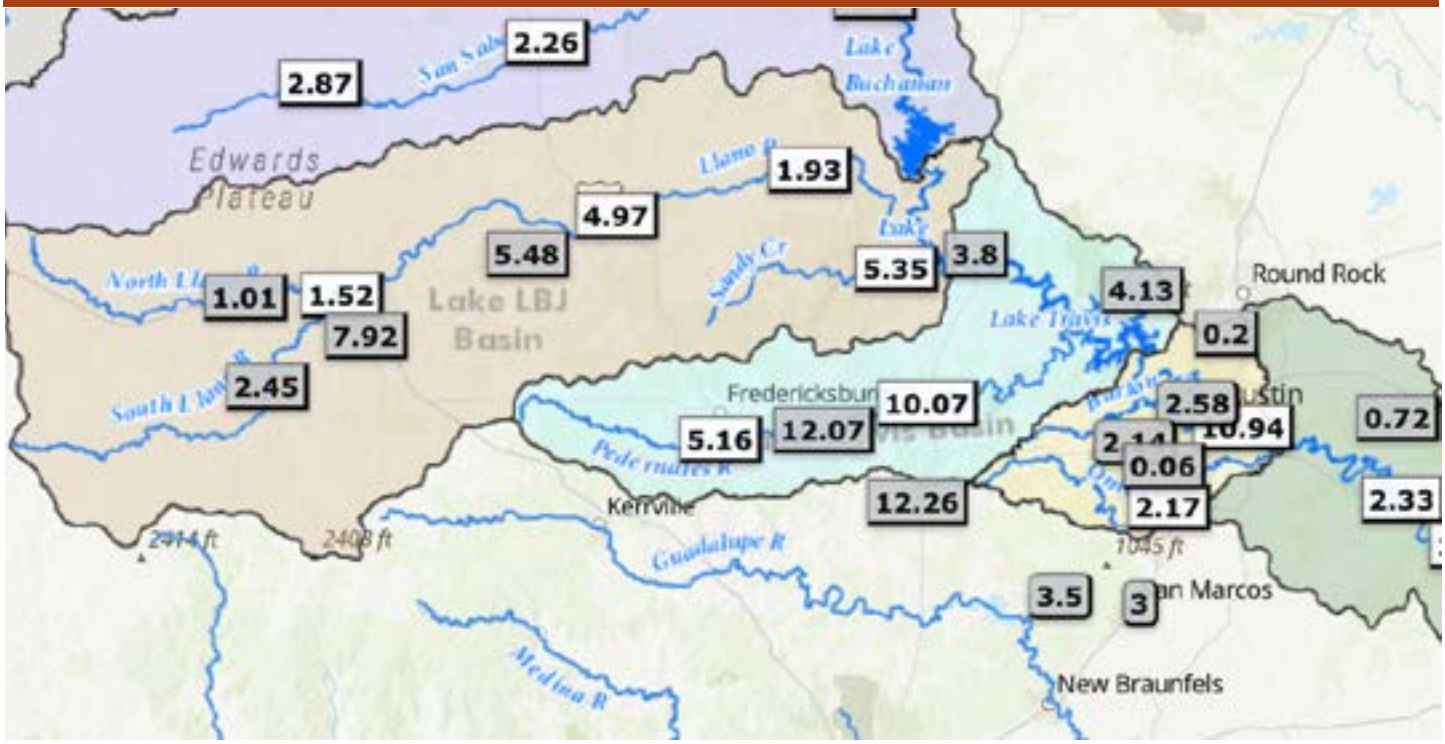
(and so we can deliver our grants)

1) If you live in Kimble County and have Arundo cane on or near your riverbank, please contact us so that we may visit with you about it *(see INFOGRAPHIC Last Page).

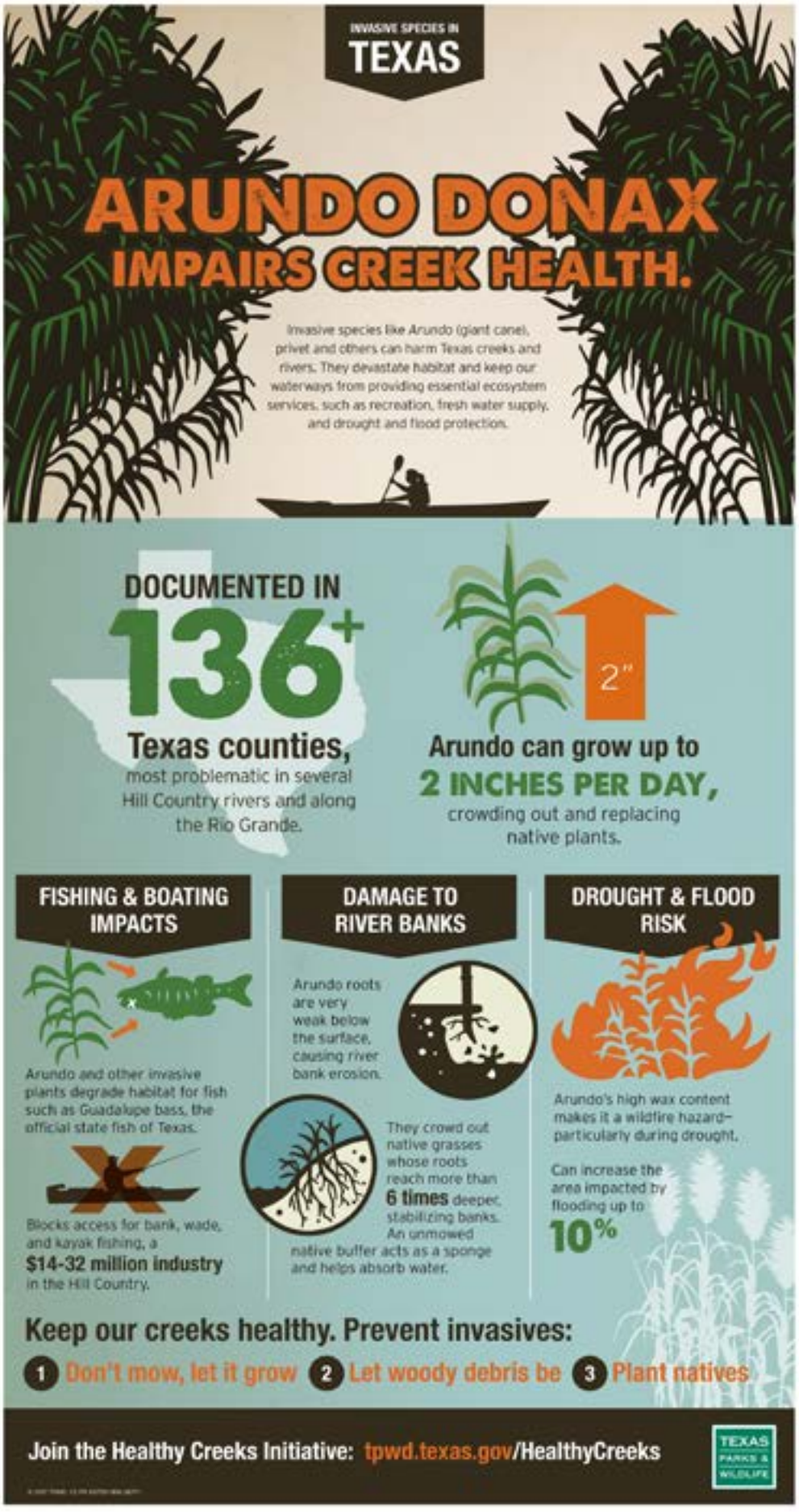
AND/OR

2) If you live anywhere along the Llano Rivers or their tributaries, LRWA consultants will do a FREE assessment of your riparian condition and vegetation to give suggestions on how to better achieve your objectives!

***BELOW: LCRA Hydromet River Stage as of 3.29***




Lower Colorado River Authority's Hydromet is a system of more than 275 automated river and weather gauges throughout the lower Colorado River basin in Texas. The website displays gauges maintained by the City of Austin and USGS. The Hydromet provides near-real-time data on streamflow, river stage, rainfall totals, temperature and humidity. https://hydromet.lcra.org




Healthy Creeks Initiative to Combat Invasive Arundo

FOR COMPLETE INFORMATION, Please go to https://www.llanoriver.org and then click on the link that reads: **Healthy Creeks Iniative to Combat Arundo**