



# Watershed Weeks In Review -

Waterstone, Axis Deer & Arundo edition

Editor: Linda Fawcett

What a whirlwind eight+ weeks it has been since a vigilant landowner alerted the LRWA about an impending TCEQ permit to dam the upper South Llano River! After a diligent search, public notification of this permit was found in the May

12 Rocksprings newspaper, a relatively small publication, geographically speaking just barely relevant to the permit, that started the clock ticking for public comments to the TCEQ. And once LRWA networking began, **KUDOs to our stakeholder members** who immediately realized the danger of the dam to the health of the Llano River watershed system, and who helped us create an online forum of ideas via the LRWA listserv and also sent comments to the TCEQ! **634 as of July 13 AND it**

**appears TCEQ is still accepting them, so if you haven't sent your comment yet, go ahead and do so. How, you ask? Go to <https://www14.tceq.texas.gov/epic/eComment/> and type **WRPERM 13524** in the **Permit Number** blank, then click **Next** to begin typing, or attach your document.**

**TCEQ COMMENT  
COUNT as of July 13:**

*“634 total, and it appears that TCEQ is still accepting them...”*





**MEANWHILE:** *Here is a synopsis of the events as they unfolded since May 12...*

**May 16** Texas State Rep. **Andrew Murr** requested a public meeting

On **May 18** LRWA Director **Scott Richardson** contacted Tom Hegger with the TPWD's sand and gravel division. He informed us that he is not aware of an application for a sand & gravel permit, which is needed before the proposed dam could be approved for construction. He was very helpful in sharing scientific information about possible ecological effects of the proposed dam on the S. Llano.

On **May 19** Scott contacted the Rocksprings newspaper and learned it had published the Permit notification on May 12

**May 19** LRWA board meeting with invited stakeholders attending. The LRWA board voted to begin posting all the current information on the TCEQ dam issue, including how to make public comments, post important deadline dates, etc on our list-serve and webpage, [llanoriver.org](http://llanoriver.org). LRWA now has over 530 members on the listserv. The Board also voted to pay for the TCEQ Waterstone Public Notice to be published on May 25 in the Junction, Mason, and Llano newspapers.

**Bill Neiman** contacted **Katherine Romans** of the **Hill Country Alliance**, who agreed to support our efforts by putting a template out for public comments and push it with their resources.

**May 23** the **City of Junction** called a special city council meeting to address the issue. Mayor **Russell Hammonds** read an official letter from TX Representative **Andrew Murr** requesting a TCEQ Public Meeting so his constituents within the district could express their concerns. Newly elected councilman **Doug Haynes** made a motion to file a **contested case** and request a public meeting. Junction's pro-active city council passed the measure unanimously. LRWA was effective in using its social media platforms to spread date and time of the hastily called meeting. City Hall was packed with over 60 stakeholders, many having driven long distances to attend and voice their concerns.

## 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 your river-bank, 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, LRWA consultants will do a FREE assessment of your vegetation to give suggestions on how to better achieve your objectives!*

**Meredith Allen**, KCGround-water Conservation District manager, emphasized that the permit application water rights contract with LCRA are temporary leases for only 10 years. This should be a major issue for approval because there will be a permanent structure still in place after the water rights could potentially expire or not be renewed.

**Scott Zesch** of Mason emphasized the need to watch for an application for the sand and gravel permit that

again, may only be posted as a Public Notice in the Rocksprings newspaper. Zesch believed that the S&G permit would most likely be denied, and noted that this is what stopped two dams on the James River. Zesch also has requested the City and County of Mason to have a public meeting in Mason.

On **May 27**, Hill Country Alliance staff sent for our approval a draft email template designed to encourage stakeholder participation by filing timely public comments. HCA started pushing this email blast on their list-serve and FB page during the week of May 30, 2022.

**Dr. Blake Grisham**, director of the TTU Llano Field Station at Junction and also LWRA Board Director, advised that he is consulting with aquatics experts on the TTU campus and at TPWD, and drafting an opinion as lead scientist from the field station. Grisham will be consulting with an advisory board member for the Field Station, including member [Tim Strickland](#).

*"... Due to rapid development and increased water usage, the Llano River has changed drastically over the years and its balance with nature has become most fragile. Every alteration or modification, no matter how insignificant the change is portrayed to be, creates a series of events that threatens, jeopardizes and affects the natural order of the entire Llano River and ecosystem all the way down to Lake LBJ, Marble Falls Lake and beyond, as well as all residents and property owners. Even the smallest negative impact on the fragile Llano River comes with too great a risk..."*  
(excerpt from June 3 TCEQ Comment letter by Patty Schneider Pfister, Llano, Texas.)

### **DID you REALIZE the Importance of Sand and Gravel and Gravel Bars for water conservation?**

Gravel bars are temporary or perennial instream structures which may or may not be attached to the bank of the river, consisting mainly of coarse material deposited by the river. THEIR BENEFITS:

- 1) Gravel bars enhance stream FLOW into the streambed and mixing with groundwater.
- 2) By promoting stream flow, gravel bars lower the temperature (of trapped water), thereby also reducing water loss through evaporation.
- 3) The natural bio-chemical filtering actions of gravel bars reduce the effects of contaminants.
- 4) Gravel-bed rivers and especially floodplains are focal points for biodiversity in maintaining viable aquatic, avian and terrestrial populations.

Meanwhile, LRWA learned of 4 new species that USFWS are proposing for the endangered species list, up for approval Fall 2022. The species are: 1) the [South Llano Springs Moss](#) (*Donrichardsia macroneuron*), 2) [Texas fatmucket mussel](#) (*Lampsilis bracteata*), 3) [Texas pimpleback](#) (*Cyclonaias petrina*), [False Spike](#) (*Fusconaia mitchelli*). **All have been found in the South and/or upper main Llano** and could be impacted by the dam. So, USFWS could definitely be a player in this issue.

**June 6** Rep. **Andrew Murr's** public comments about the dam issue are published. The **City of Llano** issues a resolution opposing the Waterstone Creek LLC permit, requesting a public meeting and contested hearing from the TCEQ.

**June 10** **Greg Walton**, President of Friends of Lost Maples, shared with LRWA their strategies of a fairly recent, successful campaign preventing a wastewater permit on the Sabinal River.

**June 11** **Amy Pfluger** hosted a tour of her and her sister's property below the proposed dam site to see it and to better understand the impact on their properties as well as those downstream.



**A PRISTINE POOL of WATER** located just downstream from the proposed dam on a neighbor's property (recent photo).

The LRWA will continue serving as a hub for gathering and distributing information and potential actions to all the stakeholders in and outside of the watershed. Along with HCA, we'll be pushing and encouraging participation through our list-serve, webpage, and Facebook page. Regardless of the number of public comments or public meetings granted, there's no way to know if this process will be enough to stop the TCEQ from granting the permit. As an organization, LRWA feels that it's our role to inform and encourage as many stakeholders as possible to follow this process. The LRWA does not have the resources for litigation or filing a contested case, but perhaps a coalition of the right stakeholders might.

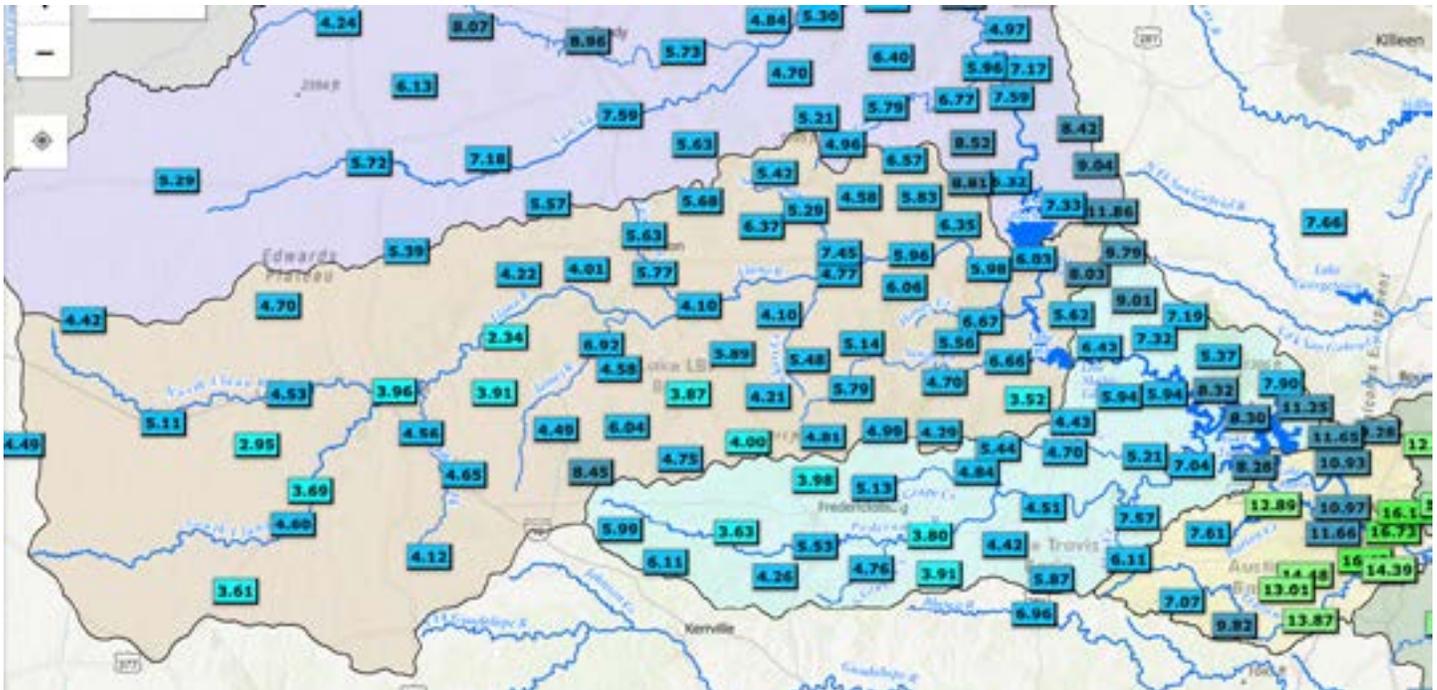
**June 11 end of 30 day Public comment period** - “ends” but **AS OF JULY 7**, the TCEQ appears to still be taking comments, confirmed by Llano LRWA member **Patty Pfister** after speaking with Brad Patterson from the TCEQ Office of the Chief Clerk.

**June 13** LRWA Director **Andrew Burnard** updates the Junction City Council of LRWA efforts, and checks on the City’s progress in their request for a contested hearing.

**June 14** the **Kimble County Commissioners Court** adopts Resolution No. 2022-07 opposing a dam and reservoir on the South Llano River and requests that the TCEQ deny the permit application or hold a public meeting.

**July 7** LRWA Board Meeting. It was noted that the TCEQ is still accepting public comments about the Waterstone Permit. Meanwhile, we are in the waiting period of the process and will remain alert to any significant changes. **LRWA emphasis for now is to resume planning a public half-day workshop (MARK YOUR CALENDARS: September 10), to educate attendees about riparian stewardship (especially during a drought). Main Speaker: Steve Nelle.** Details to follow in the next LRWA newsletter and also in special announcements on the listserv!

***LCRA Hydromet Rainfall for this year as of 713.22, with the LLano River system in beige***



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 stream-flow, river stage, rainfall totals, temperature and humidity. <https://hydromet.lcra.org>

# EXCERPTS FROM THE REPORT ON AXIS DEER RESEARCH AT LLANO RIVER FIELD STATION, May 3



**Presented by Matthew Buckholz, Ph.D. and Blake Leslie, TTU Campus**

**How many?** Since there have been no formal surveys, only anecdotal ones by Texas Parks and Wildlife every 5 years from 1966-1994, estimates vary widely. Fairly recent TTU Field Station survey estimates 61,078 axis deer in Kimble County (up from 5,000 estimated in 1994).

**Impacts on White-tail deer:** a “vortex effect” has been hypothesized. From relatively few numbers after initial introduction of 9 animals in 1959, axis densities have increased to be equal with white-tailed deer because axis deer are superior at **interference competition**, competing directly with the habitat, range, foraging, survival, and/or reproduction of white-tail. Axis deer have now been fully established as an invasive population (too late for preventive practices), with a concomitant shift to control strategies and minimization of impact.

Both species experience “bottlenecks” (loss of genetic diversity), but axis seem to resist negative impacts from inbreeding, and have adapted well to their “new” environmental conditions. For example, axis deer originally came from a wetland environment in India, therefore in the Hill Country **have concentrated in riparian habitats** to compensate.

Axis deer are classified as **intermediate feeders** (white-tail being browsers), meaning Axis opportunistically forage a broader variety of food than white-tail. In Kimble County, axis-preferred habitats comprise only 13.2%, while avoiding 68.1%. High densities of axis deer in any small area will damage resources, but especially so in their preferred, highly-sensitive riparian zones.

**Exclosure tests** (fencing protected areas) point to a conclusion that loss of grasses and introduction of undesirable forbs are indeed likely caused by axis density.

Evidence of **CWD (Chronic Wasting Disease)** in Axis has not been seen so far. Susceptibility could be lower than White-tail, but may depend on the Axis ‘variant,’ incubation times could be longer, as well as longer time from infection to death.

**INVASIVE SPECIES IN TEXAS**

# ARUNDO DONAX IMPAIRS CREEK HEALTH.

Invasive species like Arundo (giant cane), privet and others can harm Texas creeks and rivers. They devastate habitat and keep our waterways from providing essential ecosystem services, such as recreation, fresh water supply, and drought and flood protection.

DOCUMENTED IN

## 136+

Texas counties,  
most problematic in several  
Hill Country rivers and along  
the Rio Grande.

Arundo can grow up to  
**2 INCHES PER DAY**,  
crowding out and replacing  
native plants.

**FISHING & BOATING IMPACTS**

Arundo and other invasive plants degrade habitat for fish such as Guadalupe bass, the official state fish of Texas.

Blocks access for bank, wade, and kayak fishing, a **\$14-32 million industry** in the Hill Country.

**DAMAGE TO RIVER BANKS**

Arundo roots are very weak below the surface, causing river bank erosion.

They crowd out native grasses whose roots reach more than **6 times** deeper, stabilizing banks. An unmowed native buffer acts as a sponge and helps absorb water.

**DROUGHT & FLOOD RISK**

Arundo's high wax content makes it a wildfire hazard—particularly during drought.

Can increase the area impacted by flooding up to **10%**

Keep our creeks healthy. Prevent invasives:

1 **Don't mow, let it grow**
2 **Let woody debris be**
3 **Plant natives**

Join the Healthy Creeks Initiative: [tpwd.texas.gov/HealthyCreeks](https://tpwd.texas.gov/HealthyCreeks)

# 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 Initiative to Combat Arundo**