

LRWA Watershed Report

Editor/Layout: Linda Fawcett

DAM (-MIT) UPDATES

• James River (Mason County)... good news, then not so sure...

A quick review, compliments of **Scott Zesch**, retired attorney who lives on the James River and has been keeping a close eye on the status of this dam, a structure that impounds water for a private reservoir:

August of last year neighbors discovered an almost completed, unpermitted dam



James River dam: Showing impounded water (to the right) after late 2023 October rains.

across the James River (a major feeder river to the Main Llano River south of Mason). The new landowner (new since May 2023) was listed as **Neusch Mason**, a liability company with a history that includes building the Border Wall. TPWD and TCEQ officials were immediately contacted and made on-site visits. Construction was halted by August 24, as reported by email from **Jim Bryer**, attorney for Neusch Mason. County Commissioners Courts for both Mason and Llano Counties promptly passed resolutions against the private dam. **cont...**

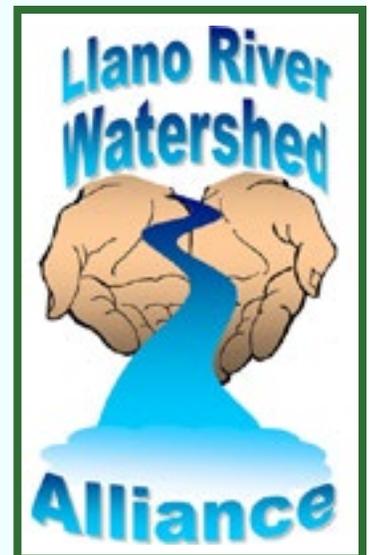
• Pedernales River (Gillespie County)

(Based on excerpts from Texas Rivers, Tributaries & Lakes Newsletter, 12/22/23; and Fredericksburg Standard article, 12/28/23.)



Pedernales River dam: Note the built up caliche/gravel now heaped in the riverbed downstream of the dam that was dredged out of the riverbed upstream in order to deepen the pool created by the dam.

Almost two years ago, residents of western Gillespie County upstream of LBJ State Park, began to realize that a neighbor, Josh Jones of R.L. Jones Co., San Antonio, had built a 4-5 foot dam on the Pedernales River, accessed by Pump Station Rd., cutting off water flow to their land. Jones says he was enlarging an existing dam for safety reasons. **cont...**



James River Dam Update cont...

Then on Sept. 19, TPWD sent a letter to the landowner citing multiple violations and asking for removal of the dam with full restoration to the riverbed. Neusch

Mason had 14 days to admit the receipt of the letter.

Downstream landowner Susan Keeling spoke with Sue Reilly of the Inland

Fisheries Division at TPWD. Reilly said the property owner, Bill Neusch, is trying to claim that his five-foot structure with no culverts is merely a "roadway," not a "dam." It looks like he's going to resist the TPWD order. TPWD granted an extension until December 20, to which Neusch complied. That letter/ restoration plan is currently under review by TPWD.

Scott Zesch filed an open records request on Dec. 22 for the draft restoration plan submitted to TPWD but in a reply on Jan. 11 they declared the requested information was confidential as it was related to litigation or settlement negotiations.

(It had been reported that TCEQ levied a \$10,000 fine, but otherwise no further action.) Meanwhile, Zesch contacted **Robyn Gaston**, area investigator for TCEQ for an update. She responded on Dec. 27 that their investigation was still ongoing so no completed report. [No surprise there.]

Pedernales Dam Update cont...

The results downstream were predictable and exacerbated by the following two years of drought: thirsty livestock and wildlife, dead fish and loss of a generational way of life along the river.

"It's just his fishing hole," said Kathleen Lewis. "We used to be able to fish as well, but no more."

There has not been much help from state agencies TPWD and TCEQ, even after site visits (TPWD: 11/30/22 and TCEQ (12/1/22) with cited violations. TCEQ sent an investigative report to Jones in May, 2023, only saying that he needed to apply for a permit (or else remove the dam). The landowner is now applying for that permit, a process that takes months at best.

Then there was a meeting between state officials and affected landowners on Dec. 20, 2023 at nearby Tivydale Cemetery. There have been several instances of original TPWD investigators replaced by new ones, the latest point person being Beth Bendik, a TPWD conservation ecologist. TPWD has so far been uncharacteristically canny about whether or not the dam's disturbance in the riverbed falls within their purview. No approximate date for their completed report.

The latest twist in this situation: it seems Jones is planning a tactical change, by pursuing a groundwater permit to pump water into his reservoir rather than ... **cont.**

Pedernales Dam Update continued from Page 2

... apply for a permit from the TCEQ for impoundment of Pedernales surface water. Neighbors are unimpressed, as such a move would also be detrimental to them because of depletion of the aquifer where their wells are located. **The point is: why does Mr. Jones have to have a large private reservoir?!**

- **Little Llano River and White Creek (Llano County), excerpted from Mason County News, article by Emily Hilley-Sierzchula, 12/6/23**

“TCEQ staff have recently completed two on-site investigations in Llano County regarding impoundments on the Little Llano River and White Creek,” according to the TCEQ’s press office email.

In both cases, the use of the impoundment was determined to be for domestic and livestock or wildlife and no information was found to indicate that the stream was navigable, so no violations were issued. In accordance with Chapter 11 of the Texas Water Code (and the) rules in Chapter 297 of the Texas Administrative Code, an impoundment up to 200-acre feet is allowed without a permit for certain uses including domestic and livestock and wildlife. If the size or use of the above impoundments change or additional information becomes available that the stream is navigable, the impoundments could require permits from TCEQ. TCEQ will continue to respond to complaints and monitor compliance with water rights requirements.”

Although TCEQ has finished its investigation, TPWD’s is ongoing.

DID YOU KNOW?

Hydrologist Jordan Furnans, PhD, P.E., P.G. did a study in the Upper Colorado Basin for the Texas Water Development Board. In analyzing satellite images of the San Saba, N. Concho, S. Concho and Elm Creek watersheds, he found 12,500 unregistered ponds holding back an estimated 35,000 acre-feet of water – nearly four times the size of Lake Marble Falls. Most of these are built on private property.



WASTEWATER NEWS... (note: to enhance networking and sharing of resources, LRWA has joined as organizational member of the [Greater Edwards Aquifer Alliance](#) (GEAA), the [Wastewater Conservation Coalition](#) (WCC) [formerly named No Dumping Sewage], and of course we remain allied with the [Hill Country Alliance](#).)

UPDATE ON the LIBERTY HILL second contested case...

In the last LRWA newsletter (Nov. 30), the TCEQ Second Contested Case results had just been announced, namely that

the SOAH (State Office of Administrative Hearings*) judges recommended that the City of Liberty Hill's wastewater permit renewal require a new phosphorus limit of .015 mg/L, otherwise known as 15 micrograms per liter. [*an office of advisors created to resolve disputes between Texas agencies, other governmental entities and citizens.]



This is much, much lower than Liberty Hill's previous TCEQ

permit limit of 150 micrograms per liter, so a huge deal, proven by Dr. Ryan King (Baylor University) and two other water ecology experts, Dr. Jan Stephenson and Dr. Lauren Ross, to be the absolute maximum to prevent exponential algae growth in a pristine river.

The South Fork San Gabriel River used to be pristine. But not so since the Liberty Hill wastewater plant began discharging treated wastewater into it, and today the algae-choked river cannot be used for any form of recreation for at least 3.83 miles downstream of the plant. This is why downstream landowners along the river have been fighting the wastewater plant's permit renewal since 2018.

Stay tuned for an LRWA list serve announcement when we know: the TCEQ commissioners decision will likely be scheduled for a vote at either their Feb 21 or March 6 meeting. In-person attendance can have effective impact.

The three politically-appointed TCEQ Commissioners have to make the final decision, whether or not to approve the renewal permit, and if so, what phosphorus limit to include. Since the release of the SOAH recommendation

to the second contested case on November 10, of course the lawyers for Liberty Hill have been fighting back, but so have the protestants:

For example, Liberty Hill argues that 1) the SOAH judges are "not seeking to prevent degradation but are trying to force this permit to improve water quality from current conditions, which is not appropriate when the law requires only the prevention of future degradation and the maintenance of existing water quality."

REBUTTAL from Lauren Ice, attorney for Stephanie Morris and the other landowners: "The Texas Surface Water Quality Standards prevent degradation of water to the point that it impairs uses such as recreation... **Degradation is measured from the highest water quality sustained since November 28, 1975** – long before the city [of Liberty Hill] started discharging



South Fork San Gabriel River, Before and After, due to increasing sewage discharge 3fold in the previous year

effluent – which is completely logical if you think about it. **The city doesn't get a pass today because they've already filled the river with algae for the past decade.**"

2) Liberty Hill lawyers argue that "the recommended permit limit [of 15 micrograms] is below what any accredited lab in Texas can detect, it is infeasible of implementation." Also "that there was no guarantee that the lowered phosphorus would prevent further algae growth."

REBUTTAL from Lauren Ice: "Two of the country's leading academic researchers who study the effects of nutrient enrichment on freshwater streams examined the scientific literature, their own research, and site-specific water quality data on behalf of the protestants and determined a TP limit of 0.015 mg/L is necessary to prevent excessive algal growth in the South Fork San Gabriel River." She also said there are labs that can test for the proposed lower limit of phosphorus in the water, according to a filing responding to the city's objections.

3) Liberty Hill lawyers said the city's taxpayers could not afford to build a new plant to meet these new "made-up" standards.

REBUTTAL: Lauren Ice countered that "the city could meet the proposed lower level of phosphorus by limiting its total amount of treated wastewater discharge into the river and trucking away the rest," according to the filing.

Lauren Ice (for the Protestants) summed it up, "the city's plan for growth is to simply sacrifice the South Fork San Gabriel to always be a river of algae."

Ongoing opposition to new discharge permit application: Gram Vikas Partners

(Medina County, to discharge treated wastewater into pristine Hondo Creek)

This case is important because it's the first draft permit on a pristine stream issued by TCEQ's staff since LRWA and our partners first started advocating for a ban on new discharge permits on pristine streams in 2021. Hondo Creek and the Llano River would both meet the criteria for this level of protection. Our fear is that if TCEQ's commissioners approve this harmful new discharge permit for Hondo Creek, it could easily do the same for the Llano River.

The developer, Gram Vikas Partners, has done this before, i.e. the buying of land for a subdivision in "the middle of nowhere" with instructions for their engineers to design infrastructure as cheaply as possible.

The Gram Vikas discharge permit application plans to dump 300,000 gpd into an already polluted sluice, that will connect to Hondo Creek via a manmade 2" culvert and crossing private property. It lists a high phosphorus limit of 50 mcg/liter, astonishing in lieu of growing evidence that pristine streams are ruined by more than 15 mcg phosphorus content (see previous Liberty Hill story).

Vaguely written, the permit cites no licensed operator of the facility and no licensed collection system, and also defies the TCEQ's instructions to use "Plain Language" in permit applications. Monitoring will be almost non-existent, since the only nearby water quality check station is located above the discharge point, so relevant water quality cannot be determined.

Retiring From the LRWA Board (sob!): SCOTT & MARTHA RICHARDSON



Departing LRWA Board members Scott & Martha Richardson (center) being presented a thank-you gift certificate by Linda Fawcett, President, and Melissa Burnard, Treasurer.

During our last LRWA Board Meeting on Nov. 30, we had to wave goodbye to Martha and Scott Richardson as retiring Board Members. (But don't worry, they will remain active as volunteer LRWA members!) As a way of thanks, they were presented a \$100 gift certificate from Native Seed.

Over the years, both have given many, many hours to the LRWA. In January 2009, Scott joined the LRWA (then called the South Llano WA) Board at its creation 2009 to 2013, serving as President 2011-2012. In 2018, Scott rejoined the Board, and became Vice-President 2022, at which time Martha also joined the Board as Recorder.

Scott has assisted or led several restoration activities in the watershed, especially at the South Llano State Park. He feels most proud of his lead role in coordinating the Oasis Pipeline Wildfire

Recovery Workshop in November 2011. The Oasis Pipeline Wildfire burned over 8,000 acres in April, 2011, immediately impacting the South Llano River watershed and the habitat of the Guadalupe Bass. In July of that year, in response and to address the threat to habitat, the Inland Fisheries division of TPWD held a tour of the burned land and a meeting of approximately 25 resource experts.

The group of experts suggested a workshop and a customized seed mix to help impacted landowners and the habitat recover. They asked LRWA under the leadership of Scott, as President, working with TPWD, to facilitate the workshop, which included a tour of recovery demonstration sites and indoor presentations by Recovery experts. In the following years, Scott coordinated two additional tours and workshops to observe and learn from the recovering impacted land.

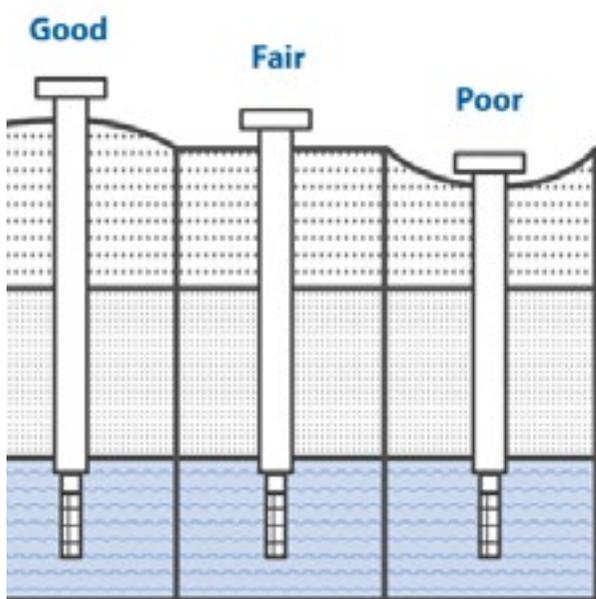
How often should I get my well water tested?

Properly functioning private water wells are essential to quality of life for many rural Texans. Private wells ensure that residents' home and agricultural water needs are met, and proper maintenance and upkeep are essential for long-term safe water use. But learning the ins and outs of well maintenance and water quality can be daunting.

How do I test my well water? Why should I test my well water? How do I protect my well water quality in the future?

These questions are just a few of the many that Joel Pigg and his colleagues operating the Texas Well Owner Network (TWON) hear often.

“TWON is a Texas A&M AgriLife Extension educational program; we go around the state and screen water wells and then provide an educational component with it,” said Pigg, a Texas A&M AgriLife Extension Service program specialist. “We screen for coliform bacteria, E. Coli bacteria, nitrates, salinity or total dissolved solids (TDS), pH and arsenic as needed based on the area.”



Water Well Topography

Typical TWON events are two parts: well-owners bring in samples of their well water to be tested, and then they return at a later time to receive results and attend an educational workshop for well owners. TWON provides two different types of educational programs: Well Educated and Well Informed.

Well Educated workshops are usually half-day trainings where well-owners learn about water well specifications, aquifers, septic systems and water quality and treatment options. Well Informed trainings are one-hour meetings that cover proper well protection and water quality issues that would affect local residents.

Pigg encourages all well-owners to get their wells tested annually if possible.

“For general purposes, we suggest that you test for bacteria on an annual basis, for the rest of the general chemistry we say as needed,” Pigg said. “If you see a change in color, odor or taste of your well water, then we recommend that you get it tested to see what’s going on.”

Generally, Pigg said, out of 100 well samples TWON receives, on average about 15-20% test positive for coliform bacteria, 3-5% test positive for E. coli, and 5-8% test above drinking water standards for nitrates.

“People don’t think about there being bad things in their well water,” Pigg said. “It tastes good. It looks good. It’s like everything’s fine. We just don’t think about water until something happens.”

TWON is not the only program available to well-owners to get their water tested. Many counties have county health departments or groundwater conservation districts that offer testing services.

How Do I Take Care of My Well?

To prevent possible contaminants and keep wells safe, Pigg had a few tips for well owners:

- Have your well house or well location winterized in September or October. Texas weather can be unpredictable, and no one wants to have to go work on water when a cold front comes and lines freeze. “There’s nothing worse than being cold and wet,” he said.
- Keep your well house clean. Get debris off the floor. It’s not the location to store fertilizer bags or pesticide containers; old paint cans, all trash and other things need to be in another barn, not by your well. “A gallon of gas will kill a million gallons of drinking water,” Pigg said.
- Water issues are a case-by-case scenario. Neighbors can have different issues, even if they pull water from the same source. Issues like casing cracking within a system or even how far down a well is pulling water from can cause issues for one well owner that their neighbor does not have. “It’s really not a one-size-fits-all, because every aquifer is a little different,” he said.
- Check your filtration system and read up on your system’s service directions. Some well owners put in filtration systems due to water taste but forget to change the filter or service it properly, Pigg explains. “You can grow bad bacteria while meaning to do a good thing; you can accidentally do something bad.”

While sometimes issues outside of human control can cause issues for well health, getting the water regularly tested and general awareness can play a large factor in keeping both the water and consumers healthy.

“Wells are a \$30,000-40,000 investment,” Pigg said. “Testing it now can potentially save you money later.”

To learn more about the Texas Well Owner Network, visit twon.tamu.edu.

Also check out: Texas Water Resources Institute, <https://twri.tamu.edu/>



Rare hissing mushroom spotted at Texas State park

For the second time this year, a rare hissing mushroom was spotted in Texas at a state park in the Hill Country. Known as the Texas Star Mushroom, the fungus is highly selective about where it grows, according to the Fort Worth Botanical Garden. The mushroom tends to grow on decaying cedar elm stumps in North and Central Texas. It has made appearances in more than a dozen Texas counties, including Dallas, Tarrant, Collin and Denton. It has also been spotted in Oklahoma and perhaps surprisingly, Japan, making it one of the world's rarest mushrooms.

Texas Parks and Wildlife shared photographs this week of the mushroom growing at Inks Lake State Park, about 70 miles northwest of Austin in Burnet County. The mushroom was last seen at the park in February.

“Don’t tell anyone ... but the Texas Star Mushrooms (*Chorioactis geaster*) have been spotted in the park again,” the department wrote on Facebook. “If you want to see one when you visit, ask at the headquarters when you check in.” The fungus typically appears in late fall as a fuzzy, dark brown capsule 3 to 4 inches in length. After rain, the mushroom explodes open, unfurling into a tawny-colored star that makes an audible hissing noise while puffing smoke. That has earned it the nickname “devil’s cigar.”

“That happens when the species explosively throws out its spores,” scientist Forrest Mims III previously told the state’s parks and wildlife magazine. “Because they’re under such high pressure, the spores are released like bullets.”

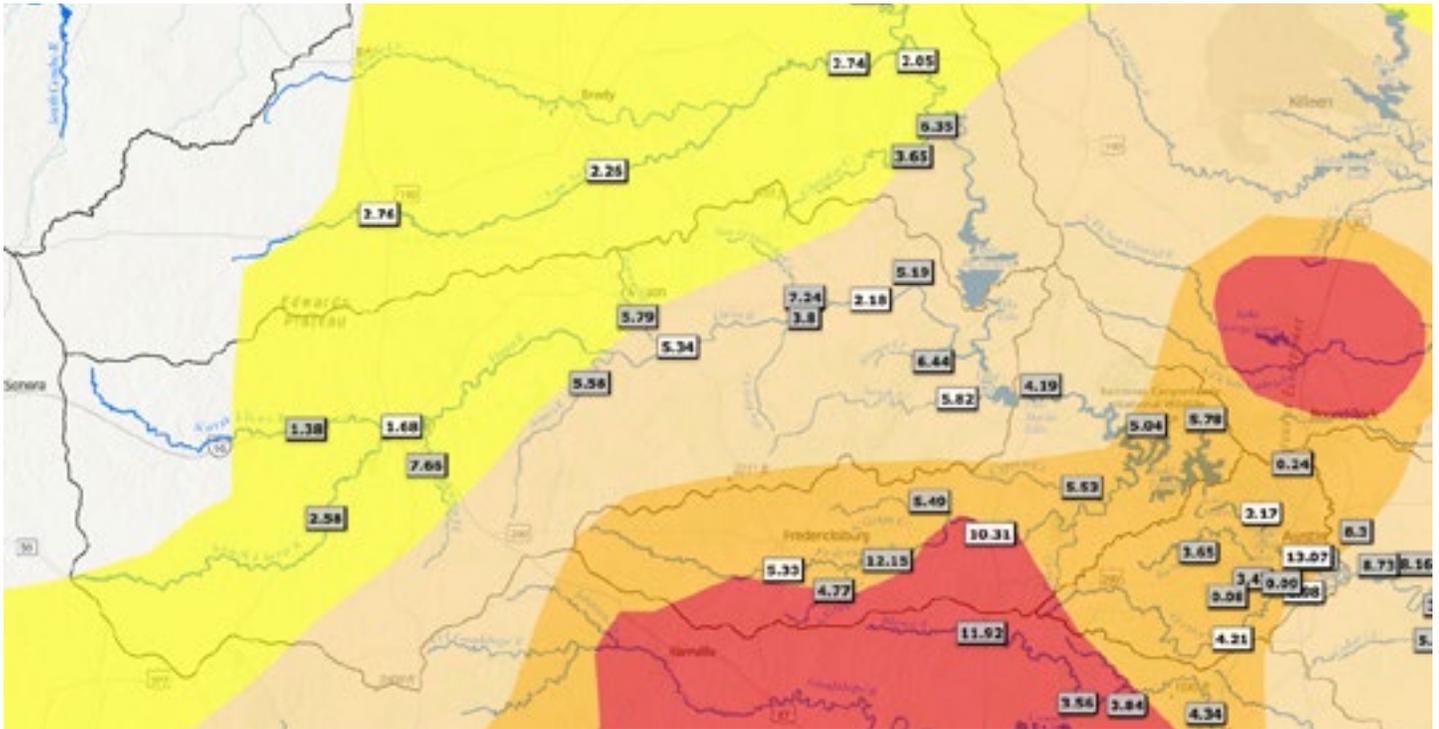
Only a few hundred people are likely to have ever seen the rare mushroom, according to Bob O’Kennon, a research scientist with the Fort Worth-based Botanical Research Institute of Texas.

Thanks to its popularity and elusiveness, the fungus was designated the official state mushroom of Texas in 2021. That declaration described the mushroom’s star shape “custom designed for the Lone Star landscape.”

“A poignant reminder of the natural diversity that surrounds us, the Texas Star mushroom is as uncommon and striking as the state that serves as its home.”



TOP: LCRA Hydromet River Stage and Drought Monitor for this year as of 1.24.24
BOTTOM: Stream Flow as of 1.24.24 (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>

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

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**