#### GBRA

- FY24-25 CRP Budget is a total of \$322,390.
- Changes will be made to the FY25 CMM schedule with the following:
  - Removal of ALM events at North Fork Guadalupe River near Camp Waldemar, Big
     Joshua Creek downstream of IH 10, and Honey Creek at Guadalupe River State Park.
  - ALM events to be added are Johnson Creek at SH 39 and Clear Fork Plum Creek at Lockhart State Park.
- TCEQ to release the 2024 Integrated report with updates the lists and categories of impaired waterbodies.
  - New Category 5R made to assign to Watershed Protection Plans under development or accepted by the EPA.
- The Guadalupe River basin has the following segments with impairments from the 2024 IR: 8 listed for bacteria, 3 for dissolved oxygen, 3 for fish community, 3 for microbenthic community, 1 for Mercury in fish tissue and 1 for total dissolved solids.
- New delistings from the 2024 IR: All of Elm Creek (1803A) was delisted for low dissolved oxygen, AU\_01 for Sandies Creek (1803B) was delisted for Low dissolved oxygen, Camp Meeting Creek (1806A) was moved from category 5a to 4a due to TMDL status.
- New listing for impairments from 2024 IR: Guadalupe River below Comal River (1804) impaired for bacteria, Upper San Marcos River (1814) impaired for total dissolved solids and Cypress Creek (1815) impaired for low dissolved oxygen.
- 4 Aquatic Life Monitoring events completed in FY23 and 2 added in FY24.

## **UGRA**

- Currently conducts CRP sampling at 12 stations quarterly (conventionals and field) 7 monthly (bacteria and field), and one ALM twice a year.
- Conducts bacteria sampling as part of the Swimablilty program for summer on the Guadalupe River.
- Last 15 years have been dry except for 2016 in Kerrville due to the ongoing drought in Texas. Summer 2023 had a 95% reduction in stream flow and continues to be low even with a lesser drought status in the area.
- Bacteria reduction plan developed in 2011 to address bacteria impairments in Kerrville. The plan
  haws been updated and now is meeting standards with the continuation of implemented BMPs
  to address the pollution sources. Sources are mainly due to humans, pets, wildlife and urban
  runoff. Some of the BMPs include preserving riparian areas and promoting green infrastructure.
- Watershed stewardship Programs In 2023:
  - Update to the Rainwater harvesting and now offers up to \$500 for landowners who install rainwater catchment systems.
  - Water resources scholarship was developed for college students in Kerr county majoring in a field related to water resources. 2 students from Shriner University were awarded the scholarships.

- The newest is the water resources preservation grant scholarship where building projects in the county can apply for a rebate up to \$150,000 for the design and construction of nature-based infrastructure
- Public outreach conducted involved community presentations, informational booths,
   Newspapers, radio and website. UGRA also conducts a Volunteer Summer Study, held the 20<sup>th</sup>
   River clean up, educates with EduScape tours and landscaping seminars using drought tolerant plants.

# WVWA/MCWE

- 13 routine stations monitored for CRP: 7 on the Blanco River and 6 in Cypress Creek.
- Upper Blanco River Sampling conducted due to concerns resulting from wastewater treatment plant discharge. All 3 stations had a geomean below the WQ standards of 126 MPN/ 100mL.
- Quarterly sampling in the upper Blanco River at 4 stations also had bacteria geomeans below the WQ standard. The more urbanized areas had a slightly higher geomean most likely due to Cypress Creek confluence.
- Cypress Creek E. coli geomeans (4 out of 6 stations) meet WQS except for RR12 and Blanco River confluence.
  - Dye Trace study from July 12<sup>th</sup> October 25<sup>th</sup>, 2023
    - To determine the influence of OSSFs. Dye deposited in Ozona bank OSSFs
    - Detected dye at RR12 stations (upstream and downstream) and most downstream station
    - E. coli was low for dye events. Downstream was high due to bats.
      - Septic systems do leach into Cypress Creek but not contributing to high E. coli counts.
      - During dry conditions, sources of bacteria due to bat colony and nonpoint source runoff.
- Created power of AI with Microsoft. Allows to visualize the data from the Blanco and Cypress creek sampling and connects the data and updates websites as the data is entered.
  - Can select all stations or just a few.
    - The data can be plotted with the WQ standards limits to see what exceeds and meets WQ standards for each sampling event.
    - Can look at parameters such as DO & Temp, flow and TDS, DO & Temp, etc.

### GBRA HCP

- GBRA was created in 1933 as a water conservation and reclamation district.
- Growing needs for Endangered Species Protection and remain in compliance with the ESA of 1973.
  - o Potential mussel/salamander species listing in the Guadalupe River basin.
  - Federally endangered Whooping Cranes
- Threats to endangered species includes loss and fragmentation of habitat, introduced species, climate change and changes to water quality and quantity.
- HCP can help to provide water services while simultaneously protecting the endangered species.
- What is an HCP?

- Framework to conserve and protect endangered and threatened species and their habitats both domestically and abroad.
- Incidental Take Permit Permit issued by U.S. Fish and Wildlife Service (USFWS) to parties conducting economic activities that result in take of threatened and/or endangered species.
- Benefits: regulatory assurances and long-term stability with 50-year permit.
- There are Many HCPs in country. Can be short- or long-term permits.
- No surprises Assurances introduced in 1998.
  - Assures that GBRA stays in good faith and follows plan, anything outside of the plan that happens will not be GBRA's fault.
- The basin has an anticipated 70% growth by 2070 which will increase water supply needs and wastewater treatment needs.
- GBRA Board of Directors in 2019 directed GBRA to create HCP that welcomed other entities to join HCP to Create a more holistic approach.
  - GRHCP started in 2020, now in the modeling and develop lists of covered species and activities phases.
  - o 2027 is start of the permit time for the HCP.
  - 3 freshwater mussels (False Spike, Guadalupe Orb, Guadalupe Fatmucket), 2 bird (Eastern Black Rail and Whooping Crane) and 1 fish species (Guadalupe Darter) covered for HCP.
    - Spring salamanders not covered. Most springs and cave systems are higher above sea level than WWTFs which creates a hydrological barrier from potential influences.
- Big Picture of the GRHCP overall:
  - Strategic conservation planning: GBRA's proactive approach demonstrates balancing operational needs with ESA stewardship.
  - Stability and sustainability: The GRHCP ensures water needs for current and future communities will be available.
  - Precedent for proactive conservation: GBRA's plan sets a roadmap for compliance and stewardship for other entities.

## <u>Upper San Marcos Watershed Protection Plan</u>

- WPP Formed in 2012 and accepted by EPA and TCEQ in 2018 due to former TDS impairment.
- Mission Statement: The Upper San Marcos Watershed Protection Plan (USMR) is a plan that seeks to reduce water resource concerns by addressing water quality and quantity issues in the Upper San Marcos River Watershed.
- Vision Statement: A healthy watershed that supports a clean, clear, and flowing San Marcos River for the future as it was in the past.
- City of SM lead implementor for the WPP with the help of MCWE.
- Sessom Creek Stream Restoration and sewer line rehab project
  - Phase 1 completed in May 2023
  - Phase 2 to start in Fall 2024.
    - Includes stream restoration, plant restoration and relocation of exposed sewer lines

- CoSM awarded \$120,000 FY24 CWA 319(h) grant through TCEQ NPS program
- Downtown Alley Reconstruction
  - Kissing Alley and Jacks Alley downtown
    - Project includes stormwater and electric utility upgrades
    - Permeable paver surface upgrades
    - Pilot study and funding from TCEQ NPS \$200,000.
- City of San Marcos Disposable beverage container ban and cooler size ordinance
  - Coolers larger than 30 quarts banned
  - No single use beverage containers within city limits and designated portions of city parks and will be in effect May 1<sup>st</sup> 2024.
  - o "Reuse at the river" campaign to focus on education and outreach.
- EAHCP Implementation
  - San Marcos and Comal Rivers
  - Continuing to implement endangered species habitat protection measures in the upper San Marcos River system.
    - This includes: Texas Wild Rice and Aquatic plant restoration, Litter removal, Non-native species management, Riparian restoration and water quality protection.

## Cypress Creek Watershed

- Mission Statement: The Watershed Association's mission is to promote conservation by
  ensuring communities are aware of their connection and responsibilities to their watershed and
  are supported in advocating for water policies and practices that promote ecological
  sustainability for future generations.
- Vision Statement: The Watershed Association envisions a world where all community members understand the many benefits that flow from a respectful relationship with the land: human health, ecological health, economic sustainability, enriched community life, and the renewal of the human spirit.
- Blanco Cypress WPP interlocal agreement
  - Federal funding ended in September 2023 for Cypress Creek Watershed Protection Plan.
  - Creation of interlocal agreement with Hays county, Wimberley and Woodcreek to produce the Implementation of the Blanco Cypress Watershed Protection Plan (BCWPP).
    - Helping to identify funding for the WPP
    - Watershed Coordinator position created through Hays County and lab costs to perform CRP water quality monitoring.
- Jacob's Well Groundwater Management Zone (JWGMZ)
  - Area where groundwater pumping influences flow from the well.
  - Curtailments in the JWGMZ were developed to keep well flowing during drought conditions.
- Drought and Groundwater Pumping Impacts on Jacobs Well flow
  - o The well stopped flowing for the 6<sup>th</sup> time in 2023 with less than average rainfall.
    - From April 2023 2024: 8 Months or 222 days of zero flow.
  - This impacts the flow from the Cypress Creek into the Blanco and Edwards Aquifer.

# Geronimo and Alligator Creeks Watershed

- Both Creeks are located in Seguin and New Braunfels.
- Significant population increase in the past 10 years
- There has been a bacteria impairment since 2008. The Geronimo and Alligator Creeks Watershed Protection Plan was initiated in 2009 and accepted by the EPA in 2012.
- Education Events
  - Free courses have been offered throughout the past year. Some include rainwater harvesting, livestock management, septic system maintenance which allows certification to maintain systems and low impact development.
- Outreach Events
  - Spring cleanup event held on April 20<sup>th</sup>, 2024
    - 170 participants and 11 sponsors contributed \$1300
      - Locations for the cleanup event in Seguin and New Braunfels
      - Partnered with Seguin ISD at the Irma Lewis Outdoor Learning Center
  - Farmers market booths (future involvement)
  - o GBRA BMP Project
    - GBRA 5 year Strategic plans have funding for BMP in the watershed.
    - Looking at Social BMPs or help from cities with urban BMPs.
  - BMP Survey will be sent out in the next couple months and a stakeholder meeting will be held later in 2024.

## Dry Comal Creek and Comal River Watershed

- Dry Comal was listed in 2010 for a bacteria impairment
- Comal was listed in 2016 for a bacteria impairment
- Bacteria Source Tracking was conducted in 2013 and 2016. 60% was from wildlife sources
  - o Wildlife management measures within the WPP to reduce bacteria loads
- City of New Braunfels enacted a city-wide ordinance for no feeding wildlife in 2018.
  - WPP advertising campaigns for this year will focus mainly on no feeding wildlife ordinance through the following outlets:
  - Social media, google
  - Videos on YouTube and local movie theaters
  - o Printed ads: Herald -Zeitung and the Community impact newspapers.
- BMPs addressing stormwater
  - Design work completed for helix filtration system to be installed at Bergfeld Ave.
  - Pilot study; Upstream and downstream continued to determine effectiveness of filter system BMP. 3 years of funding from TCEQ for maintenance.

#### Plum Creek Watershed

- Impaired for bacteria since 2004 with concerns for Nitrate Nitrogen, Ammonia Nitrogen, Total Phosphorus, impaired macrobenthic community, dissolved oxygen, impaired fish community and impaired habitat.
- There has been a 49% population increase since 2010 and 200% increase since 2000.
  - o 2 WWTF outfalls added in watershed since 2023 CRP Steering Committee

- Water Quality Trends from June 2013 June 2023:
  - Downstream has an increase in nitrates, middle watershed has a decrease in ammonia and a Decreasing trend in E. coli and nitrates in the upper watershed.
- Outreach and Engagement Data
- 1320 Subscribers on Constant Contact for the *Plum Creek Current* newsletter.
- Social Media has seen a 13% increase in likes on Facebook and 14% increase in subscribers on Instagram.
- Central Texas Feral Hogs Task force
- Since 2013 estimated 18,189 feral hogs have been removed
  - Last year had a direct removal of 291 Hogs in Hays in Caldwell counties
  - 2024, Caldwell County was not awarded funding for removal. However, the taskforce will continue education efforts.
  - A feral Hog Management Roundtable was held on July 25<sup>th</sup>, 2023
  - Experts from A&M and USDA partnered with Caldwell county and had 6 attendees.
- Texas Stream Team: Plum Creek Stewards
  - Currently there are 3 monitors in the group with 12 sites still available in the watershed and 2 monitoring kits are still available.
- Public Stakeholder Meetings resumed after 2-year hiatus addressing population growth and wastewater effluent concerns
  - o April 25<sup>th</sup> 2023 Kyle City Hall
  - July 13<sup>th</sup> 2023 Lockhart state park (hybrid)
  - October 19th 2023 Edgar Davis Clubhouse in Luling
  - o February 28<sup>th</sup> 2024 Kyle Public Library
- Texas Watershed Steward Workshop
  - Hosted with Texas Riparian Association and was held at Cabela's in Buda on August 15<sup>th</sup> 2023. This workshop offered potential CEU credits. Participants learned about how they may become involved in local watershed protection and management activities.
- Healthy Lawns Healthy Waters Workshop
  - Hosted by Texas A&M Agrilife Extension and Held at Cabela's in Buda on April 5<sup>th</sup> 2024.
     Participants learned about rainwater harvesting and turfgrass management. Training for both showed how best practices for watershed health can be done through residential landscapes.
- Lone star healthy streams workshop
  - o April 18th, 2024 at Lockhart state park and hosted by Texas A&M Agrilife Extension.
- KLB Annual Fall Cleanup
  - 25 volunteers, 238lbs of trash, 3 locations in lockhart. Participants learned about cattle/livestock grazing BMPs, weed management, feral hog management and reducing nonpoint source pollution. It offered individuals 2 IPM CEU credits.
- 39<sup>th</sup> Great Texas River Cleanup with City of Kyle
  - A total of 76 volunteers removed 8,980 lbs of trash and 470 lbs of recycling.
- Educational Outreach
  - Reached out over 1000 individuals through workshops, displays and presentations at events, school field trips and elementary school water quality project.
- Upcoming Events

- o Keep Lockhart Beautiful Arbor Day Cleanup on April 27<sup>th</sup> across from Lockhart City Park and Town Branch.
- o The return of the Plum Creek Page Turners Book Club
- o Plum Creek Coffee Hour to be scheduled later 2024.