GBRA

- 19 Routine monthly stations, 14 Quarterly, and 2 Aquatic Life Monitoring events in FY23
- CRP Budget increase in FY22-23
- Created the Basin Summary Report
  - WQ Trend and analysis over a 10 year period.
  - Completed every 5 years to identify trends and changes.
- Most significant trends overall were Chloride and Sulfates and could be influenced by:
  - Low rainfall totals
  - Nonpoint source pollution
  - Effluent discharges
- Major threats to WQ over time include:
  - Population growth, land-use changes, water availability

UGRA

- CRP Sampling: 12 quarterly and 7 monthly stations
- 23 water quality investigations across the county in 2022.
- 2022 Driest year on record for Kerrville
  - Drought can have an impact of WQ data (bacteria and other pollutant levels increased)
- Bacteria reduction plans
  - 2 sections impaired for bacteria
    - Plan has worked and now meeting water quality standards.
  - Ways to continue BMPs for bacteria reduction:
    - Education and outreach
    - Green infrastructure
    - Riparian restoration
- Water Resources Scholarships
  - College students in Kerr county majoring in water resources can apply for $10k and an internship with UGRA.
- Water Resources Preservation Grant Program
  - Projects in Kerr county can apply for a rebate up to $150,000 for design and construction of green infrastructure.

WVWA

- CRP Sampling: 3 monthly sites, 4 quarterly on upper Blanco river and 6 quarterly on Cypress Creek.
- Upper Blanco River:
  - Bacteria meeting Geomean for all 3 monthly sites; Strong correlation with flow
  - Dissolved oxygen is above WQ standards, could be due to increased nutrients
    - Increase of nutrients increases number of algae.
  - Total Phosphorus is non-detectable with some variability at downstream site (FM 165)
• Land application direct discharge above FM165 on Blanco River is increasing algae numbers after 2 years of not directly discharging.
• Upper Blanco quarterly stations:
  o bacteria levels were below WQ standards
    ▪ Higher colony counts in urbanized areas.
• Cypress creek Monitoring:
  o Dissolved oxygen grab samples were below WQ standards for RR12 and blue hole sites
  o Other 4 meet WQ standards
  o Dissolved oxygen lower this year (2023) than last year (2022) 24hr deployments at blue hole
    ▪ Most likely due to drought influences. However, 303d DO impairment kept
  o E. coli above WQ standards at RR12 and Blanco river confluence
    ▪ Working on bacteria study for publication
• Future Projects/Continuation on Cypress creek:
  o Dye tracing event for possible E. coli influences
  o Optical brightener study continuing

GBRA Mussel Survey

• About 24 mussel species in the Guadalupe River with 3 proposed for the Endangered Species Status in 2021.
• Large portions of basin have not been surveyed for mussels.
• Guadalupe River Basin Habitat Conservation Plan is in development.
  o Scheduled for completion in 2026
• Survey Goals:
  o Verify/confirm historical records
  o Assess rare species population and spatial variation in assemblages
  o Help inform the GBRA HCP
• 5 Segments studied in survey
  o 60 survey sites in total
    ▪ 55 wadeable, 5 non-wadeable
• Total of 13,015 mussels from 12 species observed
  o Guadalupe Orb was the 4th most abundant in all 4 study segments
  o San Marcos River segments had the higher diversity and species evenness.
• Guadalupe Orb populations healthier than previously documented
  o Evidence of subadult recruitment
• More distribution and abundance data needed for Guadalupe River Basin
Upper San Marcos River WPP

- **Sessom Creek WPP implementation**
  - Grant from 2020 ended in 2023 February.
  - Task 3: Riparian and stream restoration
    - Non-native terrestrial Invasive vegetation removal
      - Mulched to capture storm water
      - Trunks as sediment control
    - Seeding with Native American Seed
      - Native grasses, wildflowers, & deer resistant mixes
        - Seed slingers used for distribution
    - Live native plantings
      - Root plugs, trees and shrubs
  - Task 5: Sediment control berms
    - Runoff from small apartment complex mitigation
    - Trucks/slash material from invasive species
  - Task 6: Community trail plan
    - Guide people through implementation areas
  - Task 7: Education and outreach with signs in greenspace
    - 212 volunteers, 16.5 acres restored.

- **Sessom Creek Wastewater Collection System Relocation**
  - Removal of suspended waste water lines that we previously buried
    - City of San Marcos Replaced and reburied the lines under the creek.

- **Stream restoration Project of Sessom Creek to help handle high water flows**
  - Part of the EAAHCP; Phase 1 to be completed by May 2023.

- **Mermaid Society**
  - Environmental and cultural awareness along with stewardship towards the river.
  - Mermaid Chats and SPLASH programs
    - 16 events for education and outreach so far.

- **US ARMY Core San Marcos River Ecosystem Restoration Project**
  - Removal of non-native riparian vegetation
  - Native veg planting
  - Stormwater outfall improvements

**Watershed Association Program Updates**

- 319 grant funding until August 2023.
- Working on sustainability Plan
- Cypress on 303D list for Impaired DO and aquatic life.
- Drought impacting funds for Association
  - No flow means no tourism
- Drought and Urban growth impacting well pumping
  - Working with Aqua Texas to reduce spring flow impacts
  - Jacob’s Well has had 0cfs flow for the 5th time.
    - Impacts Cypress Creek and the inflows to the Blanco River and Edwards Aquifer.
• Land conservation  
  o Hays Co $75M parks and open space bonds  
    ▪ Waiting on funds for implementation  
• City of Blanco Water Reclamation Task Force  
  o Recommending from direct discharge to TLAP permit  
  o Lower the discharge amount for the future  
    ▪ Biologic surveys show negative impacts on WQ in the Blanco River.  
• Blue Hole Primary School  
  o Inspire and inform on One Water projects  

Geronimo Creek WPP Update  

• On 303d list since 2008  
  o Bacteria exceeds recreational use standards  
  o Nitrate-Nitrogen concerns  
• First 10 years  
  o WQ monitoring  
  o Stakeholder surveys  
  o Bacterial Source Tracking in 2020  
  o Cleanup events (10 events)  
• New Turfgrass management course  
  o 4-hour course with CEUs  
    ▪ Comal County Extension Office on March 24th, 2023.  
  o Help to address commercial sources of fertilizer and pesticide runoff  
• April 22nd, 2023 – 10th annual creek cleanup event  
  o Over 23,000 lbs. of trash removed since 2013  

City of New Braunfels  

• Dry Comal and Comal WPP  
  o Placed on the 303(d) list in 2010 and 2016 respectively  
  o Videos and local outreach to help with WQ issues  
  o Addition of city signage for watershed notification  
  o Hands-on learning activities for bacteria sample preparation and readings for classrooms or group projects.  
  o Wildlife waste removal  
    ▪ Service is twice a month  
    ▪ Over 3000 lbs. of waste removed  
• BMP Addressing Stormwater  
  o Design work for stormwater filtration system (occur in FY24)  
  o Pilot study will determine effectiveness from upstream and downstream data collection.  
  o 2 biofiltration beds monitored as well.  
• Future outreach with digital campaign, newspapers, and community impact.
Plum Creek WPP

- New Updates to WPP:
  - New Grant Cycle started January 1\textsuperscript{st} 2023.
  - New Watershed Coordinator: Sean Melvin
  - Former partner Polonia Water Supply merged with Aqua water supply company to become new funding partner.
- 1321 subscribers on constant contact for the Plum Creek Current Newsletter
  - Higher social media following over the last year.
- Plum Creek Stewards-Texas Stream Team
  - 5 monitors and 12 sites available within the Plum Creek watershed
  - 2 additional monitoring kits available
- Central Texas feral Hogs Task Force
  - Since 2012, ~24,500 feral hogs removed
  - Last year, 1,122 feral hogs removed in Hays and Caldwell County
    - Additional 2,850 removed by existing traps.
- Steering Committee Meeting held on June 3\textsuperscript{rd}, 2022
  - Youth Education was identified as a priority for the Steering Committee
  - Landowner outreach and wastewater was second importance.
- Steering Committee Meeting held on January 12\textsuperscript{th}, 2023.
  - Updating ground rules
  - Restructured from 5 work groups into 2.
- Texas Riparian and Stream Ecosystem training workshop held on May 12\textsuperscript{th}, 2022
  - Offered CEU credits
- Lone Star Healthy Streams Workshop
  - Seguin TX, June 1\textsuperscript{st} 2022.
- Upcoming Events
  - April 1\textsuperscript{st}, 2023-Lockhart sip and stroll
  - April 22\textsuperscript{nd},2023– Keep Lockhart beautiful earth day cleanup
  - Summer 2023 – Texas Watershed stewards workshops
  - Feral Hog Bounty claim collection
    - March 23\textsuperscript{rd}, April 20\textsuperscript{th}, May 18\textsuperscript{th}, June 15\textsuperscript{th}, July 20\textsuperscript{th}.
  - April 25\textsuperscript{th}- Kyle, TX Steering committee meeting