



Edwards Aquifer Protection Program Update

B-Session Presentation

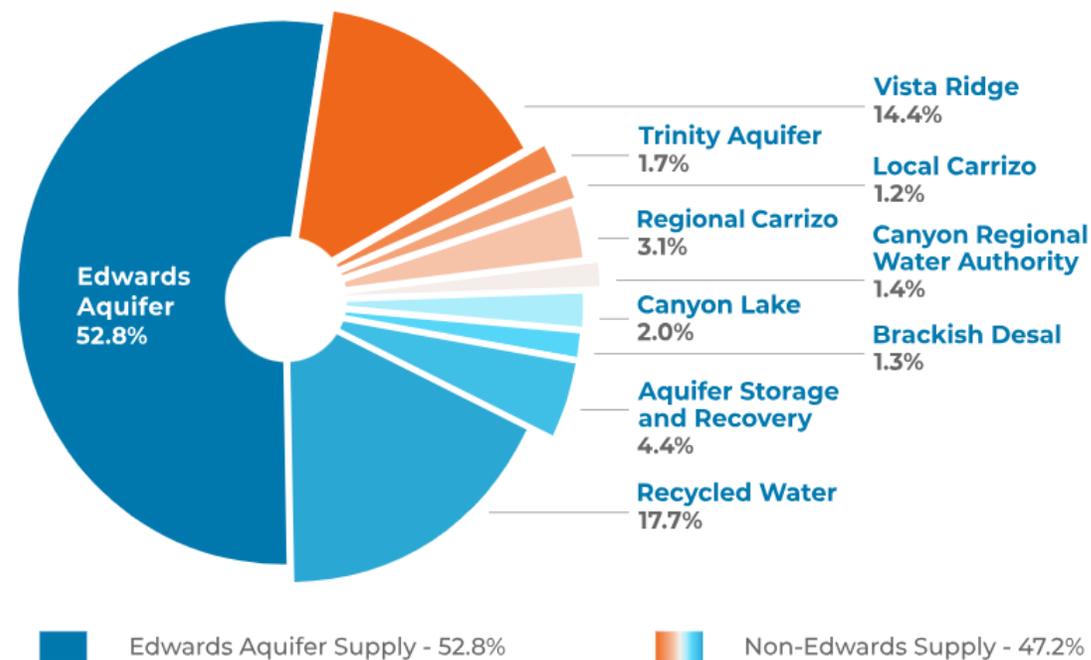
January 15, 2025

Presented by:

*Grant Ellis, Natural Resources Manager
Parks and Recreation Department*

Program Background

- In the 1970s, interested stakeholders began campaigning to protect the Edwards Aquifer
 - City's primary source of drinking water
- Purpose of the Edwards Aquifer Protection Program (EAPP) is to protect the quality & quantity of water recharging into the Edwards Aquifer
 - Land acquisition
 - Conservation easements
- EAPP activities are overseen by Conservation Advisory Board (CAB)



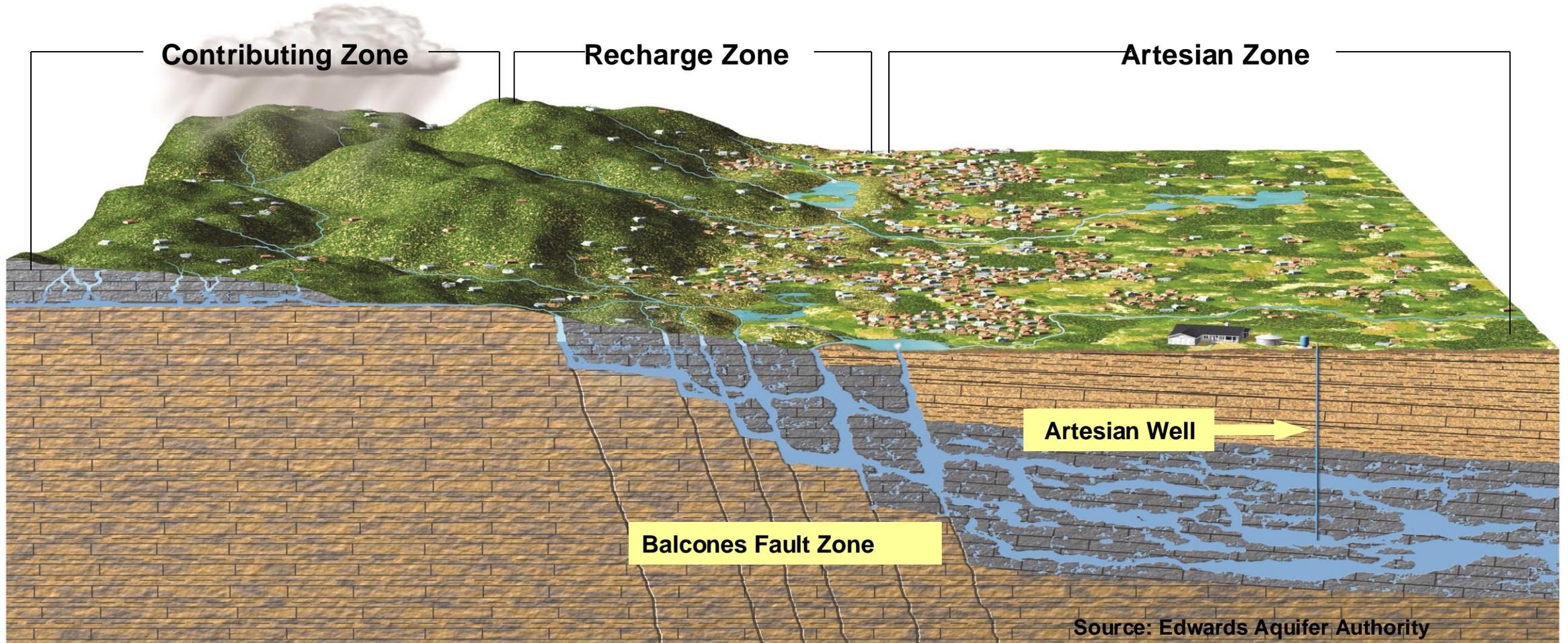
Graphic: saws.org

About the Edwards Aquifer

- The Edwards is a *karst* aquifer – meaning it is made up of porous, soluble limestone rock which allows water to flow through it like a system of underground streams and channels
- The aquifer naturally regenerates when water flows through specific zones via an elaborate network of recharge features such as fractures, fissures and sinkholes



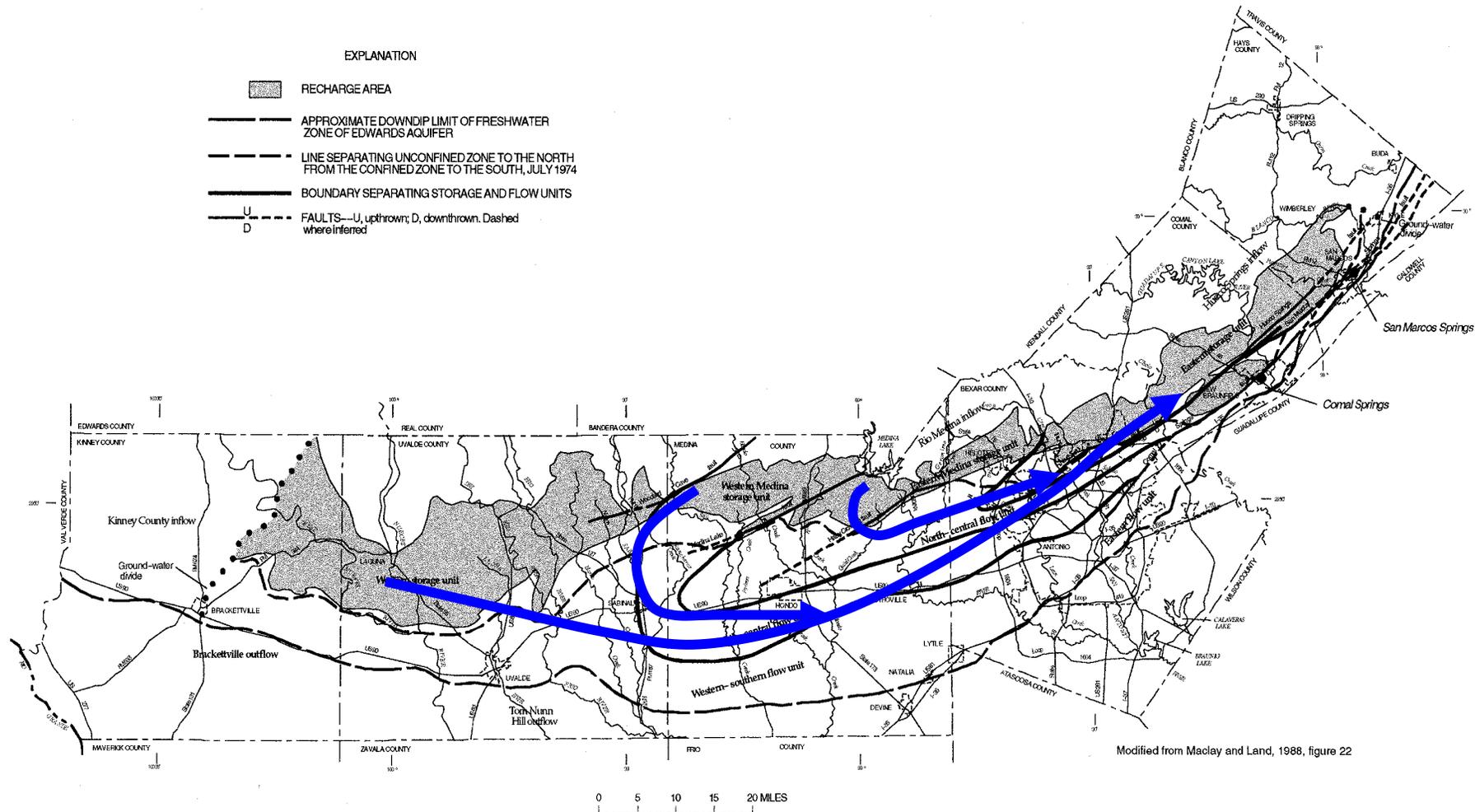
Generalized Cross Section of the Aquifer



Source: Edwards Aquifer Authority

Aquifer Flow Patterns

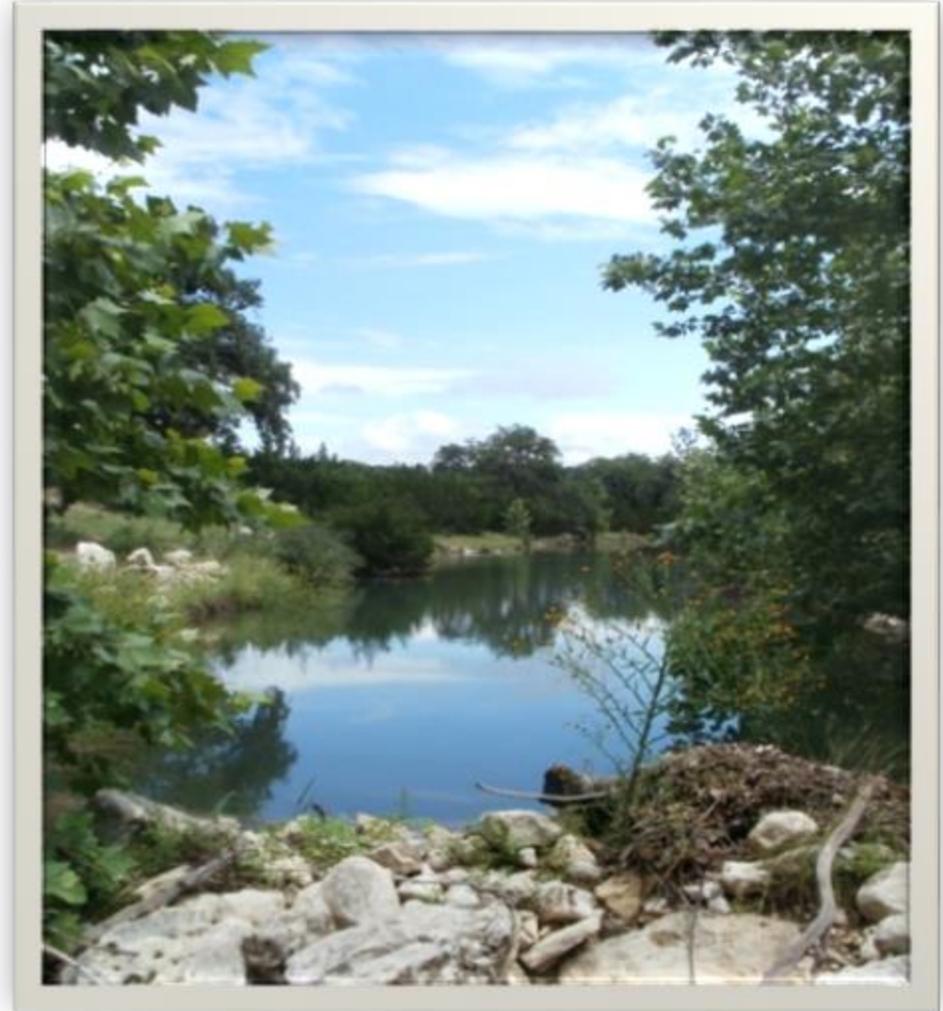
General Flow is West to East



Land Identification & Acquisition

To assist the EAPP with land identification and acquisition, two groups were established:

- Scientific Evaluation Team (SET)
 - SET is a science-based advisory group responsible for determining the weighting matrix for the GIS spatial model used to rank properties
- Land Acquisition Team (LAT)
 - LAT members assist with the negotiation of acquisitions and help coordinate necessary due diligence
 - Report to the CAB on the availability of property
 - Comprised of EAPP staff and two non-profit conservation organizations
 - Green Spaces Alliance of South Texas
 - The Nature Conservancy



Scientific Evaluation Team (SET)

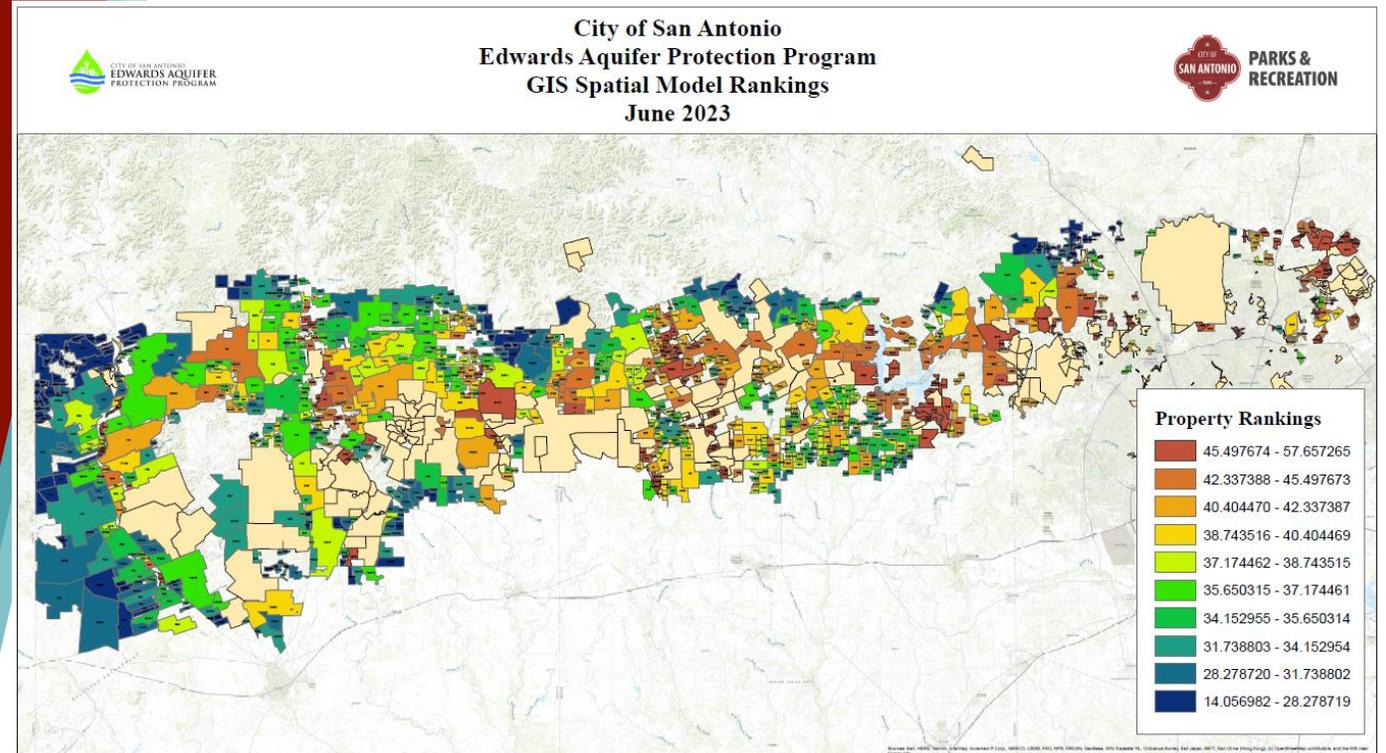


- SET is a science-based advisory group responsible for determining the weighting matrix for the GIS spatial model used to rank properties based on:

- *Water Resources*
- *Biology*
- *Property Size*
- *Location*

- Members include:

- *COSA Parks & Recreation Department*
- *Edwards Aquifer Authority*
- *US Department of Agriculture*
- *San Antonio River Authority*
- *San Antonio Water System*
- *Texas Parks & Wildlife Department*
- *US Fish & Wildlife Service*
- *US Geological Survey*
- *Southwest Research Institute*



EAPP Property Evaluation Process



PROPERTY MODELING & RANKING

GIS model ranks properties based on geological features, such as size and location



BOARD REVIEW

Conservation Advisory Board (CAB) considers properties



STAGE (1) DUE DILIGENCE

Geological assessment and property appraisal



STAGE (2) DUE DILIGENCE

Phase 1 Environmental Site Assessment completed and property negotiations



FINAL APPROVAL

Final CAB approval & City Council consideration

Acquisition Strategies



- Conservation Easements vs. Fee Simple Ownership
- 95% of property interests acquired by EAPP are conservation easements; 5% Fee Simple acquisitions
- Landowners retain ownership and certain land use rights, **but give up future development rights**
 - Limited to ½ of 1% of total square footage for future development
 - Landowner is compensated 30 – 50% of fair market value as established by appraisal
- All acquired properties are monitored on an annual basis by City and Edwards Aquifer Authority (EAA) staff under an Interlocal Agreement

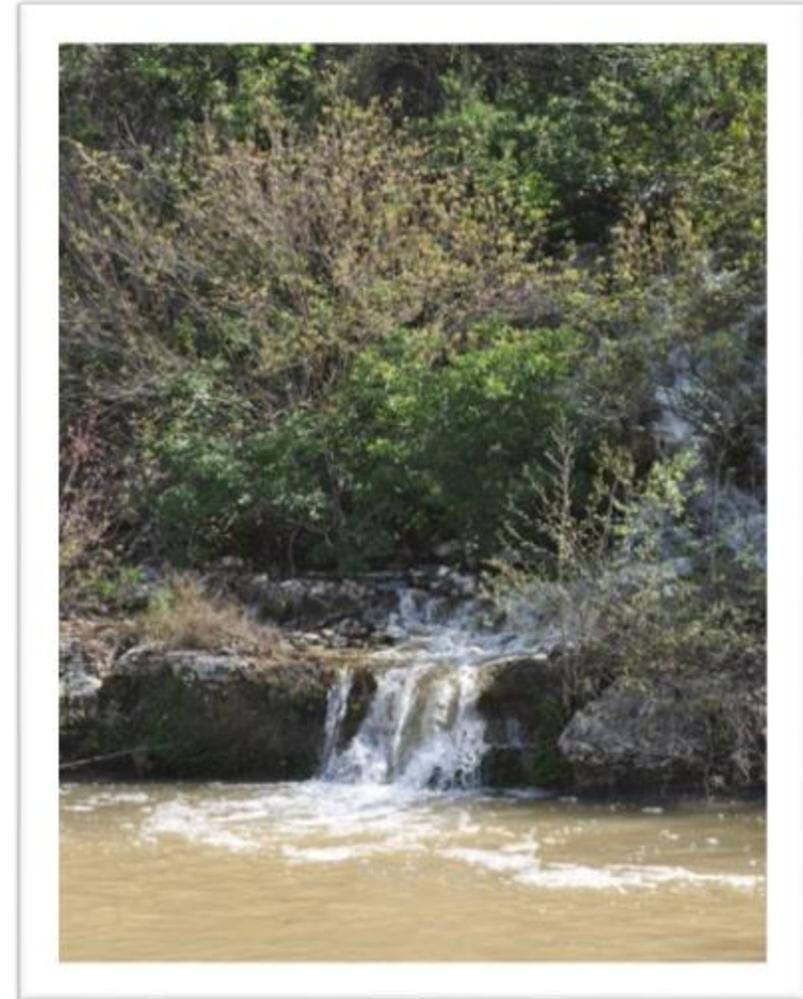


Conservation Advisory Board (CAB)



CAB consists of representatives from the following:

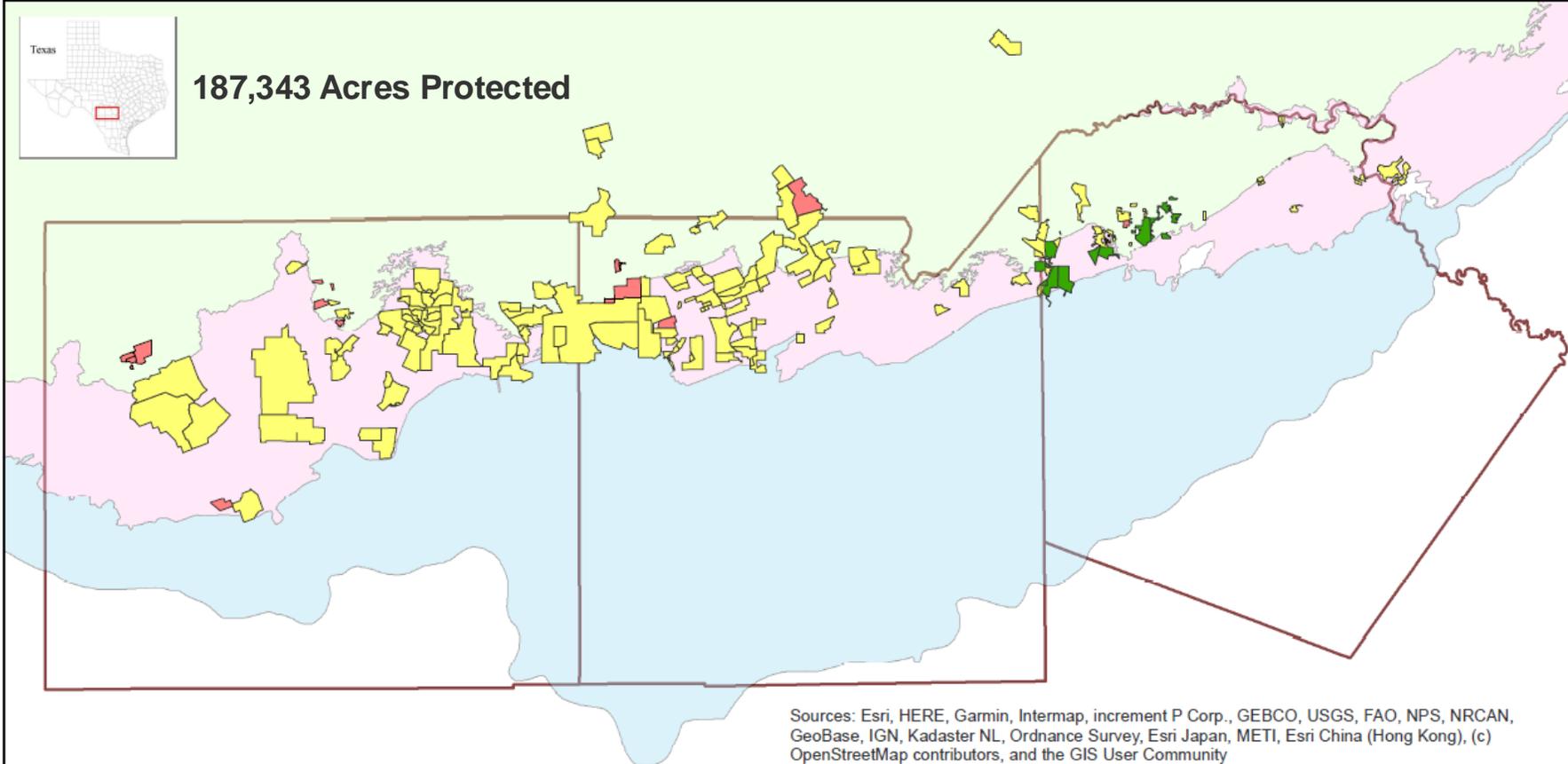
- COSA Parks and Recreation Director
- COSA Parks Advisory Board
- Edwards Aquifer Authority (EAA)
- Greater SATX
- San Antonio River Authority (SARA)
- San Antonio Water System (SAWS)
- Texas Parks and Wildlife Department
- Medina County
- Uvalde County



City of San Antonio Edwards Aquifer Protection Program



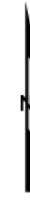
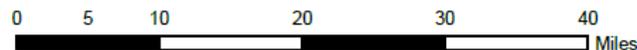
187,343 Acres Protected



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

- | | |
|--|---|
|  Proposition 3 Properties |  Edwards Aquifer Contributing Zone |
|  Proposition 1 Properties |  Edwards Aquifer Recharge Zone |
|  SAMFC* Properties |  Edwards Aquifer Artesian Zone |

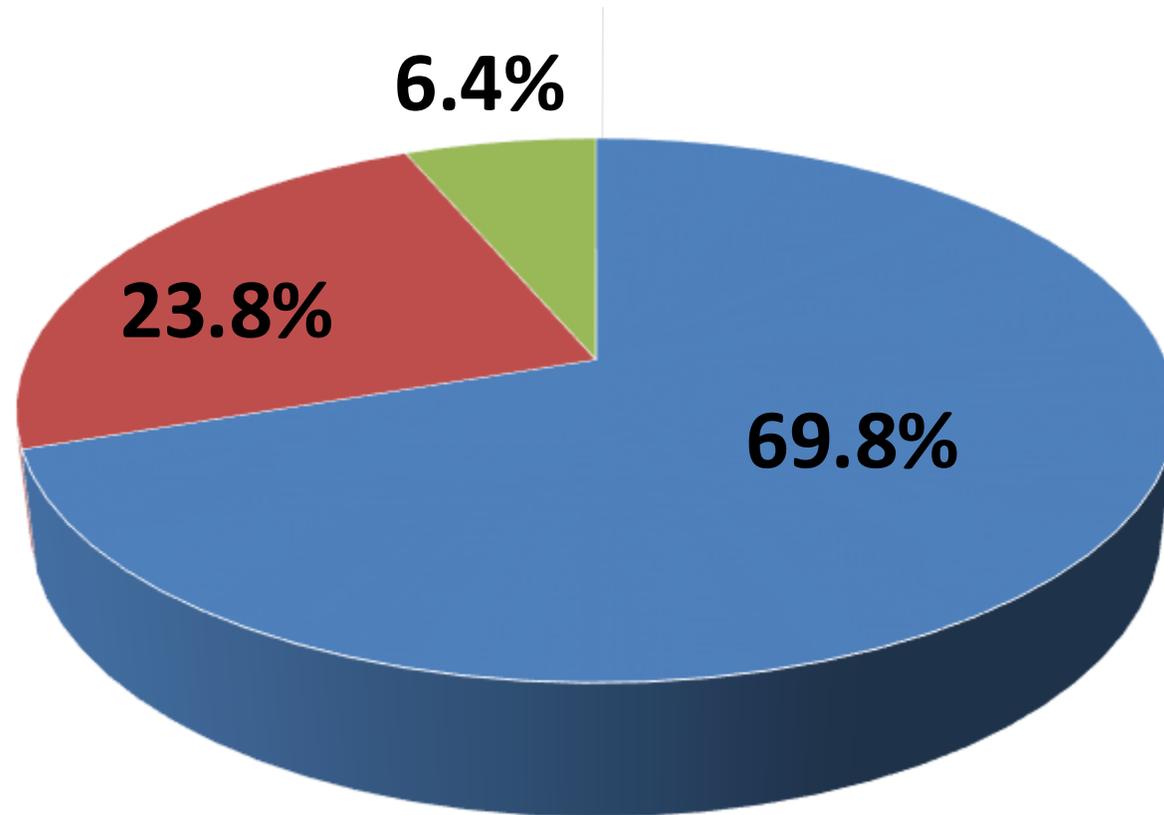
*San Antonio Municipal Facilities Corporation



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2000 – 2024 EAPP Acquisitions by Aquifer Zone



■ Recharge Zone: 130,825 ac

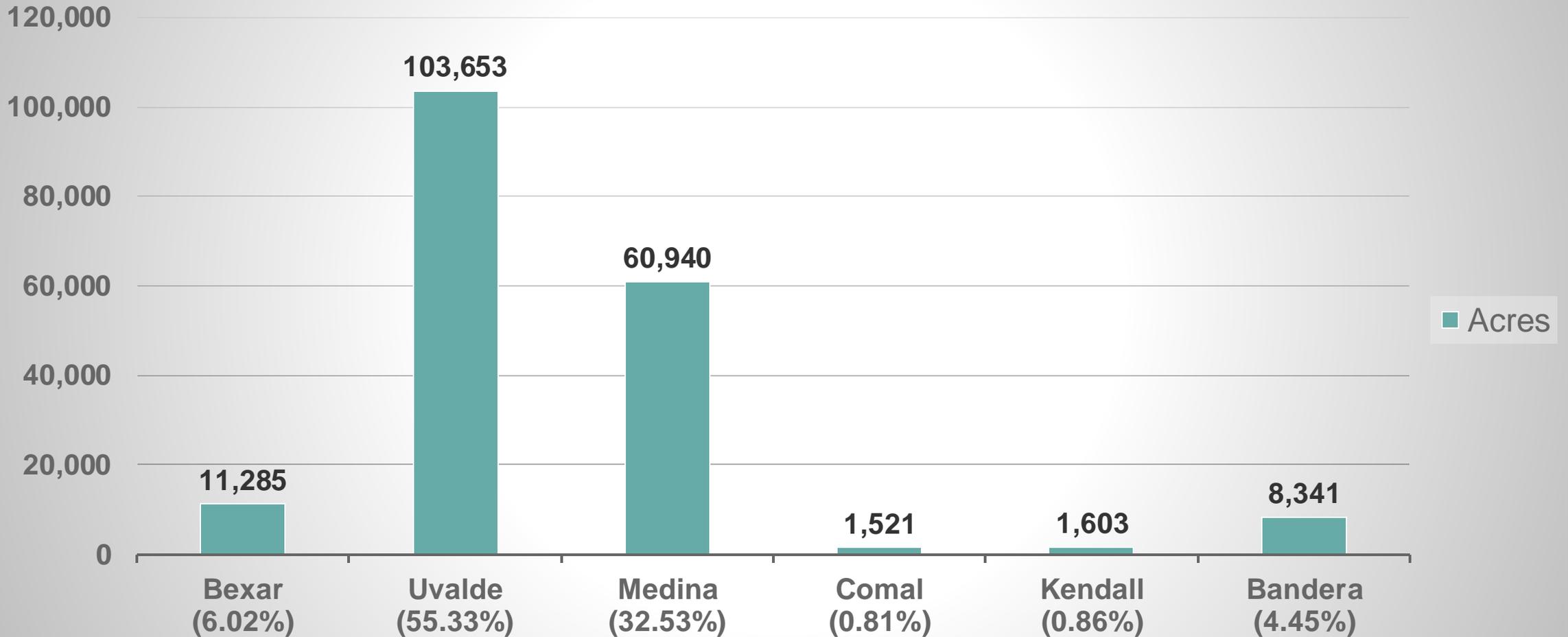
■ Contributing Zone: 44,553 ac

■ Artesian Zone: 11,965 ac

FY 2000 – 2025 EAPP Acquisitions by County



187,343 Acres Protected





Approved Funding Programs

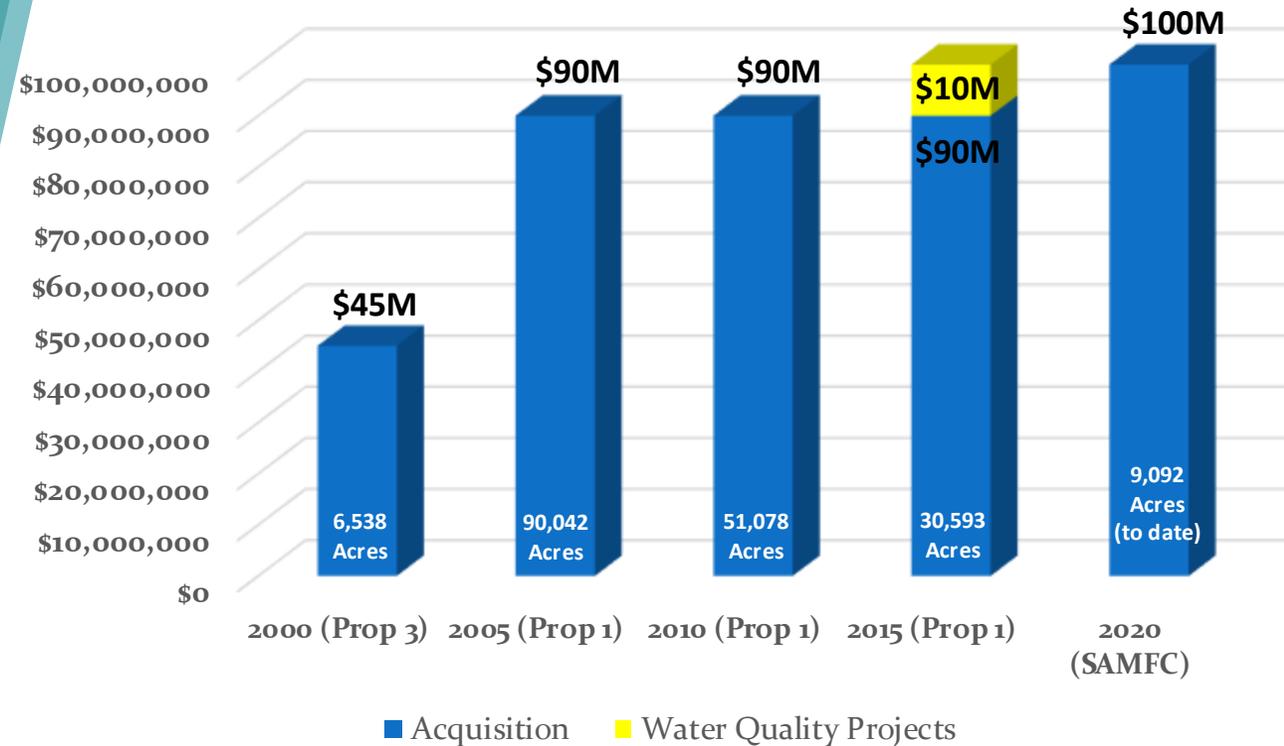
Sales Tax Propositions- \$325M

- Proposition 3 (2000)
- Proposition 1 (2005-2015)
- Fully Committed in FY2023*

* Includes \$10 million for 11 water quality projects- anticipate fully expensed in FY2026

SA Municipal Facilities Corporation- \$100M

- City Council Approved in September 2020
- 10-year plan; funds appropriated annually
- To date \$30M appropriated; \$6.5M uncommitted
 - FY23- \$798K expensed; 650 acres protected
 - FY24- \$13.4M expensed; 5,710 acres protected
 - FY25- \$9.3M expensed; 2,732 acre protected



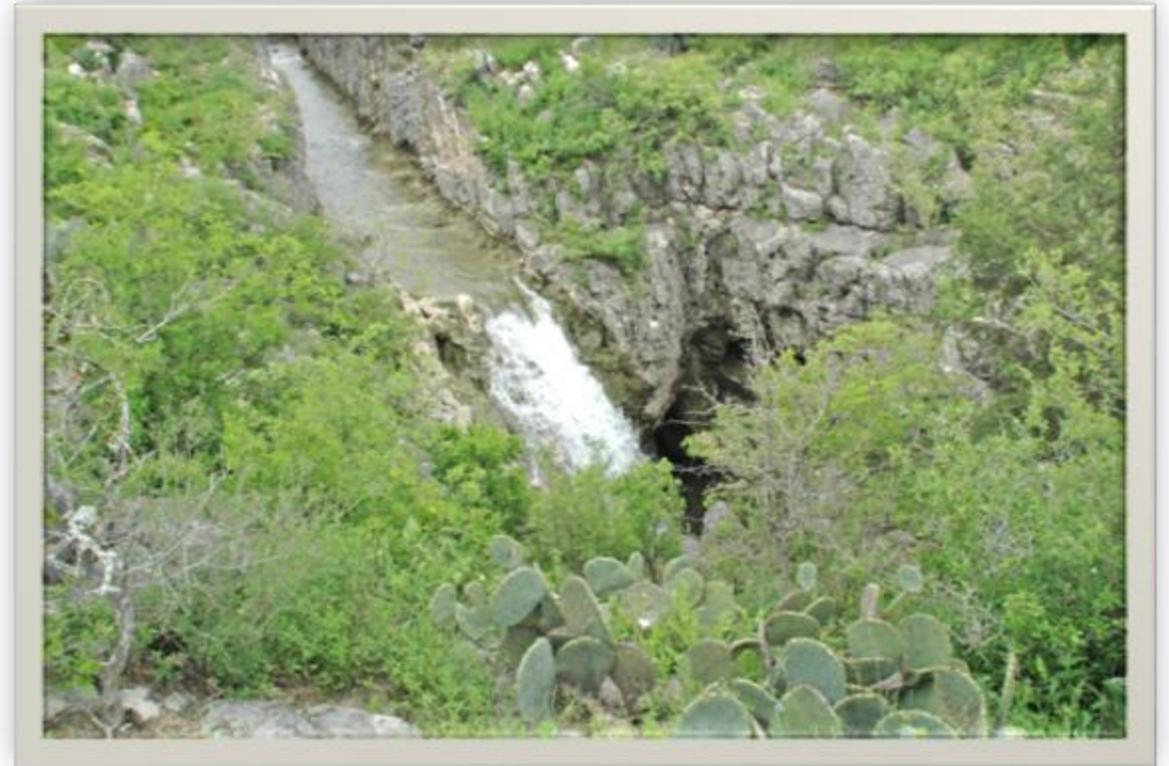
Acquired: 138 conservation easements and 25 fee simple projects
Protected: 187,343 acres

Leveraging Funds - \$32.65M



FY 2025 Plan and Strategies

- ✓ \$10 Million approved in adopted Annual Budget for FY 2025 acquisitions
- ✓ Continue to target properties over the sensitive Recharge and Contributing Zones in accordance with program funding
- ✓ Emphasize important watersheds
- ✓ Work to connect existing protected lands – fill in the gaps



Woot Cavern- Media Highlight



- “Woot Cavern” was discovered during EAPP’s evaluation process for 1,870-acre Seco Valley Ranch located in Medina County
- This newly discovered karst feature, which recharges the Edwards Aquifer, is 2,150 feet long and 213 feet deep making it the 69th longest cave and the 30th deepest cave in Texas!
- City Council approved the acquisition of the Seco Valley Ranch conservation easement in August 2024
- San Antonio Express-News highlighted the EAPP and this exciting acquisition in October 4th news article



Thank You