



Work Plan for 2018

Education

Community Outreach

GEAA staff presents lectures on the geology and hydrology of the Edwards and Trinity karst aquifers to Home Owners' Associations (HOA's), religious congregations, GEAA member organizations, and various other civic organizations. Lectures often address current events and issues and may be tailored to specific topics requested by the host organization. GEAA Executive Director is also invited as a featured speaker for conferences and panel discussions throughout the state and each semester presents lectures at UTSA, Trinity University, Our Lady of the Lake University, Texas State University, and St. Mary's University

Teachers In Service Program (not currently funded)

- Present workshops for Continuing Education credit in partnership with Region 20

Government Canyon Field Trips (not currently funded)

- 6 Field Trips for 90 students per semester during 2018 through 2019 school year

In School Demonstrations (not currently funded)

In partnership with Communities in Schools of San Antonio, GEAA staff teaches students about the mysteries of our karst groundwater system - the Edwards Aquifer, using our karst aquifer model and hands on lab exercises and trips to Government Canyon State Natural Area. GEAA also trains teachers to use our five part film, *Inside the Edwards Aquifer*, which incorporates lab exercises, vocabulary and resource materials consonant with the Texas Assessment of Knowledge and Skills requirements.

- No less than thirty presentations per semester by GEAA staff in class room, library, summer camp, and spring break programs during 2018 through 2019 school year
- Develop new curriculum and script for new Aquifer Learning Labs
- Secure funding to produce new DVD for high school, colleges, and adults
- Update "Inner View of the Edwards Aquifer" DVD for high school, college and adults

Permanent Protection

- Collaborate to secure funding through extension of bond issue for City of San Antonio and promoting bond funding in Bexar, Medina, Hays, and Comal Counties and the cities of San Antonio, Boerne, Grey Forest, and New Braunfels
- Present workshops on conservation easements in Comal County and City of Grey Forest
- Work with City of Grey Forest and City of Helotes to coordinate efforts to preserve and protect the Scenic Loop Road corridor
- Continue organizing citizens by facilitating monthly meetings and ad-hoc events that promote preservation of open space in Comal County
- Continue hosting and managing *Options for Land Preservation in Comal County* web page with information, current news, and opportunities to engage citizens of Comal County in advocacy measures to preserve available undeveloped land



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- Continue work with Texas Hill Country Conservation Network to secure funding and other resources to realize preservation of Hill Country land and watersheds

Permanent Protection of the San Geronimo Valley - The San Geronimo Valley is approximately 7,000 acres within Northwest Bexar County and proximal Medina County. The San Geronimo Creek and significant recharge features found in the upland areas are estimated to contribute approximately seven to fifteen percent of the entire recharge of the San Antonio segment of the Edwards Aquifer. The San Geronimo Valley is under immense pressure from encroaching development, with plans underway to provide roadways and flood control based on the scenario that the entire area will be developed out. Permanent protection of this area through the purchase of conservation easements would preempt plans for development, thus preserving this important region so that it will continue to contribute significant volumes of high quality recharge to the Edward Aquifer in perpetuity.

- Work with City of San Antonio (CoSA) staff to secure conservation easements in the San Geronimo Valley from existing Prop. 1 funds
- Work with CoSA staff on project that will include all major land holdings on the San Geronimo watershed in Bexar and Medina counties
- Work with the CoSA Edwards Aquifer Protection Program (EAPP) Citizens Advisory Board and Scientific Evaluation Team to revise evaluation criteria to reflect aquifer latest studies

Technical Program

Public Comment and Ad Hoc Issues - GEAA receives requests for technical assistance on a regular basis on a wide variety of issues from individual landowners, regional municipalities, and governmental agencies soliciting public comment on programs and policies relating to the region's ground and surface water systems. The expertise of our technical staff is critical to expanding our capacity to promote adequate protection of our water resources and is essential to accomplishing our goals. We rely upon the largess of several experts who have volunteered their time and the benefit of their expertise as needed on specific projects. Because of the recognized excellence of our work, GEAA is regularly called upon to research specific issues and projects, to comment on proposed projects, rules and programs, and to generate policy and regulatory recommendations and remedies.

The Greater Edwards Aquifer Alliance Technical Assistance Program provides our member groups, governmental agencies and policy makers, and the public with technical expertise and access to information on issues of regional and local concern as related to the preservation of the quality and quantity of the waters in the Edwards Aquifer, its contributing watersheds, and its indigenous plant and animal species. Citizens, news media, elected officials and public agencies rely on GEAA to technical expertise regarding the management and protection of the Edwards and Trinity karst aquifer formations.

GEAA provides practical guidance to the development and construction industries, enhancing our ability to further our goal of aquifer protection by furnishing expertise on proven methods and practices to developers referred to GEAA by government agencies to advise on specific projects. Additionally, GEAA



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will continue to work with municipalities within the Edwards Region to promote the adoption of sustainable development techniques into the Codes of municipalities and into State recommended Best Management Practices.

During 2018 GEAA will:

- Work with interns to complete report/ mapping TCEQ permits Issued in Comal County
- Advise citizens of Kendall County and Boerne on the Kendall County Gateway Study
- Advise citizens opposing two new Air Quality permits for two quarries in Comal County and a concrete batching plant in Kendall County
- Act as fiscal agent for group opposing Vulcan Air Quality permit in Comal County
- Continue working with coalition opposing TPDES permit for the City of Dripping Springs to discharge treated sewage effluent into Onion Creek
- Oppose new TPDES permits impacting the Edwards Aquifer as needed
- Monitor utility wastewater permits that might impact the Edwards and Trinity aquifers

Septic Regulation (OSSF) reform

- Write and vet regulations adequate for aquifer protection
- Work with member groups, water service providers, river authorities and groundwater districts for adoption of same on county by county basis for all counties within region.

GEAA Research on the Impact of Sub Surface Pollution on the Edwards Aquifer

The agencies tasked with oversight of water quality of the Edward Aquifer, most notably the TCEQ and the Edwards Aquifer Authority, rely on stormwater management as the chief strategy for protecting water quality of the Edwards Aquifer. Measures to address the quality of stormwater infiltrating the Edwards, however, provide no protection from the introduction of subsurface pollution of the aquifer from human sewage, which becomes particularly problematic with increased high density residential development of the Edwards Aquifer Recharge Zone.

The GEAA Technical Team, with the help of student interns from Trinity University, Texas State University, and Our Lady of the Lake University, is currently researching the Impact of On Site Sewage Facilities (septic tanks) vs Centralized Sewage Systems on the Edwards Aquifer Recharge Zone. Our goal is to produce a White Paper that will examine all aspects of regulation of sewage within the Edwards Aquifer Recharge Zone, including an overview and assessment of current regulatory and agency practices, recommendations for improvements, and estimates of leakage that might determine which method of sewage disposal poses the greatest threat to the Edwards Aquifer.

- Complete update of interactive sewage leak maps for both the San Antonio and Barton Springs segments of the Edwards Aquifer from 2012 through 2017 with team of students from Texas State University during the Spring 2018 and Fall 2019 semesters
- Produce report on findings of data collection efforts by the TSU mapping team

GEAA Low Impact Development Program for Edwards and Trinity aquifers

To address water quality, residential and commercial sites should be designed to minimize the need to irrigate during times of drought, provide maximum filtration on the Trinity Aquifer Recharge Zone and the Edwards Aquifer Recharge Zone, and enhance opportunities for infiltrating high quality water to recharge these aquifers. GEAA has taken the lead in initiating, administering, and contributing to a collaborative effort to implement Low Impact Development (LID) techniques specific to the Edwards Region of Central and South Texas.

- With Texas Interfaith Center for Public Policy, secure funding for LID education, outreach and community rain gardens program to engage church congregations within GEAA's service area
- With Environment Texas, continue to educate elected officials and the public on the benefits of LID/Green Infrastructure
- Promote incorporation of Low Impact Development/Green Infrastructure into CoSA UDC
- With San Antonio City Council District 1, will promote green roofs as a means of mitigating the heat island effect

Community Rain Gardens Project - GEAA works with HOA's in the Edwards Aquifer Region to create Community Rain Gardens. Through this program GEAA teaches homeowners how to maintain existing stormwater structures and educates them on the importance of protecting the Edwards Aquifer by engaging them in installing LID improvements to enhance filtration of stormwater before it enters the Aquifer. Landscape architects with expertise in LID are employed to design and help homeowners to properly install and maintain site specific LID enhancements.

- With Tetra Tech Engineering, will complete one large scale LID retrofit project on the Lorence creek watershed. Project funded by CoSA Edwards Aquifer Protection Program.
- With funding from San Antonio City Council District 2, will work with citizens of the district to incorporate LID features to protect Lakeside Park

Drainage and Low Impact Development for the City of San Antonio

- With interns from Trinity University, continue research on cost equity and effectiveness of San Antonio drainage projects
- With interns from Trinity University, create maps to illustrate CoSA drainage issues
- With team of volunteer experts and GEAA staff, complete report on drainage issues and stormwater management and develop ordinances to address issues to be incorporated into San Antonio's Unified Development Code (UDC)
- Educate policy makers and the public on need for drainage reforms through meetings with elected officials, presentations to City Council, and issuing press releases

Under Your Feet Campaign – Much of the recent growth in Bexar County has taken place over the Recharge and Contributing zones of the Edwards Aquifer, resulting in a trend of increased contamination of our water supplies and spring flows. Area homeowners must be educated about the geology of the Edwards Aquifer and how to live in this extremely environmentally sensitive area. A suite of



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presentations, on-line resources, social media, and print materials will encourage active participation in protecting our Aquifer, including how to handle and store hazardous materials, what common household practices pose a threat to the integrity of sewage systems, and how to plant and maintain landscaping in this unique region. Modeled on the successful “Under Your Feet” campaigns in Kentucky and Florida, GEAA will work with the creators of these programs to adapt them to the Edwards region. This project is funded by the National Fish and Wildlife Foundation.

Regulatory Reform

- Comment on current regulations as needed
- Work with various agencies to reform drainage, aquifer protection and land use ordinances and statutes
- Advocate LID, density limits, park set asides, and other measures proven to protect water quality
- Provide technical resources and expertise to GEAA member groups, county and municipal governments, and agencies as needed
- Facilitate partnerships between regulatory agencies and GEAA member groups to implement studies, plans and actions to protect specific watersheds

City of San Antonio and San Antonio Water Systems

- Advocate adoption of density limits to protect EA Contributing Zone
- Opposition to Expansion of San Antonio Water System Certificate of Convenience and Necessity – waste water service
- Continue to monitor and critique SAWS Vista Ridge Project
- Participate in CoSA Climate Action Planning Process

Edwards Aquifer Authority

- Advocate water quality regulations, comment on new rules presented by EAA staff through 2018.
- Promote ban on PAH sealants within the entire EAA jurisdiction

Barton Springs Edwards Aquifer Conservation District

- Comment as needed on studies and actions, work with staff to achieve adequate TCEQ regulations

Legislative Program

In support of our goal to serve as an educational resource for policymakers and to promote effective advocacy at the Texas Legislature, GEAA develops an agenda for each Texas Legislative Session. We analyze proposed legislation with an understanding of GEAA’s mission and purpose and developing written analysis of each relevant bill.

- Comment on relevant Interim Charges from the Governor
- Based on feedback from member groups, finalize agenda for distribution to legislators in 2018
- Advocate legislation to be filed in 2019 to prohibit issuance of TPDES permits on the Edwards Aquifer Contributing Zone, Partner in “No Drippin Sewage” collaborative
- Advocate legislation to grant limited land use authority for nine counties within the GEAA service area



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Press and Publicity

- Promote GEAA through partnerships, sponsorships, and advertising
- Work with GEAA member groups to obtain coverage on specific issues
- Work with Press to highlight issues of concern within GEAA's stated mission
- Represent GEAA on panels, forums and workshops, and as a presenter on issues of concern at various events
- Schedule appearances on TV and radio talk shows and editorial board meetings
- Draft and send action alerts to all GEAA members as needed

GEAA Member Groups

- Attend GEAA member group meetings as needed
- Provide services as needed to member groups
- Distribute information to member groups as needed for consensus on GEAA actions
- Provide support for and publicize GEAA member group events, issues, and initiatives
- Keep current on member group issues and actions
- Facilitate Annual Meetings of GEAA Member Groups

GEAA Participation in Public Processes

San Antonio River Authority Environmental Advisory Committee

Southern Edwards Plateau Habitat Conservation Plan for Bexar, Kendall, Medina and Bandera counties

Work with Bexar County staff to insure that all endangered species are included; that a well-defined consensus process will ensure that all stakeholders are included and fairly represented

GEAA formally represents our members on:

Region L Water Planning Group, Steering Committee alternate citizen representative

City of New Braunfels

- Technical Committee of New Braunfels Drainage Planning
- Environmental Committee of New Braunfels Master Plan stakeholder group
- Represent GEAA in Dry Comal Creek Watershed Protection Planning

Edwards Aquifer Habitat Conservation Plan - Alternate Steering Committee member

University of Texas at San Antonio Urban and Regional Advisory Council

City of San Antonio Climate Action Plan

- Steering Committee member of SA Climate Action Coalition
- Monitor and represent GEAA in CoSA Climate Action Process

Our Lady of the Lake University Political Science Advisory Council

San Antonio Water System Development Task Force

Texas Hill Country Conservation Network