



**Barton Springs
Edwards Aquifer**
CONSERVATION DISTRICT

**ANNUAL REPORT
FISCAL YEAR 2021**

(Board-approved on November 18, 2021)

BOARD OF DIRECTORS (August 31, 2021)

Blayne Stansberry, President	Precinct 2	November 2014 – November 2022
Craig Smith, Vice President	Precinct 5	May 1998 - November 2022
Vacant	Precinct 3	
Dan Pickens, Director	Precinct 1	November 2020 – November 2024
Christy Williams, Secretary	Precinct 4	November 2020 – November 2024

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1.0 BACKGROUND

The Barton Springs/Edwards Aquifer Conservation District (District) Bylaws require the District Board President or the District General Manager to report on the status of the District and its programs annually to the Board and to the Texas Commission on Environmental Quality (TCEQ). This document is the Annual Report for Fiscal Year 2021, covering the period from September 1, 2020 to August 31, 2021.

According to District Bylaw 4-6, this report shall include:

- The status of the aquifer and the District's programs,
- A financial report to include the report of the annual audit and the security of any District investments,
- A review and evaluation of professional services rendered to the District,
- A status report of any capital projects of the District, and
- The evaluation of the District's long-range plans pursuant to §36.107 (now §36.1071) of the Texas Water Code (TWC).

This introductory section provides an overview of the District, and summarizes the mission and vision of the District and its Board-established critical success factors. Other major report sections that follow include a summary of the active programs in FY 2021; a recap of other specific information required by statute, including an assessment of performance in terms of objectives and performance standards identified in the prevailing Management Plan (MP); and a financial summary. The annual audit report conducted by an independent audit firm is included in its entirety as Appendix A. The Board's assessment of progress toward the MP's objectives by performance standards and the basis for that assessment are included as Appendix B.

1.1 General Information About the District

The District was created in 1987 by the 70th Texas Legislature, under Senate Bill 988. Its statutory authorities include Chapter 52 (later revised to Chapter 36) of the TWC, applicable to all groundwater conservation districts (GCDs) in the state, and the District's enabling legislation, now codified as Chapter 8802, Special District Local Laws Code (SDLLC). The District's legislative mandate is to conserve, protect, and enhance the groundwater resources located within the District boundaries. The District has the power and authority to undertake various studies, assess fees on groundwater pumpage and transport, and to implement structural facilities and non-structural programs to achieve its statutory mandate. The District has rulemaking authority to implement its policies and procedures and to help ensure the management of groundwater resources. The District is not a taxing authority. Its only sources of income are groundwater production fees, including a water use fee supplement paid by the City of Austin (CoA); administrative processing fees; and occasional grants from various local, state, and federal programs for special projects.

Upon creation in 1987, the District's jurisdictional area encompassed approximately 255 square miles and was generally defined to include all the area within the Barton Springs segment of the Edwards Aquifer with an extended area to the east to incorporate the service areas of the Creedmoor-Maha Water Supply Corporation (WSC), Goforth Special Utility District (SUD), and Monarch Utilities. In this area, designated as the "Exclusive Territory," the District has authority over all groundwater resources. In 2015, the 84th Texas Legislature House Bill 3405 expanded the District's jurisdictional area to include the portion of Hays County located within the boundaries of the Edwards Aquifer Authority (EAA) excluding the overlapping area in the Plum Creek Conservation District (see Figure 1). The newly annexed area designated as "Shared Territory," excludes the Edwards Aquifer and includes all other aquifers, including the underlying Trinity. The District serves southern Travis County, central and eastern Hays County, and portions of northwestern Caldwell County. The District's jurisdictional area including the Shared Territory encompasses approximately 420 square miles and includes both urban and rural areas.

Water from the Barton Springs segment of the Edwards Aquifer serves as the primary water source for public water supply, industrial, and commercial purposes in the District, and is a major source of high-quality base flow to the Colorado River via discharge through the Barton Springs complex. The Barton Springs complex provides the only known habitat for the listed endangered Barton Springs and Austin blind salamanders under the federal Endangered Species Act (ESA), requiring all activities that would or could adversely affect the species to represent optimal conservation efforts. The Trinity Aquifer, underlying the Edwards, is an important primary water resource in some parts of the District and is increasingly being developed as an alternative water supply to the oversubscribed Edwards Aquifer in both the Exclusive and Shared Territories. Some wells in the District also produce water from the Taylor and Austin Chalk formations as well as various alluvial deposits along river and stream banks.

A five-member Board of Directors (Board) governs the District. The Directors are elected in even-numbered years to staggered four-year terms from the five single-member precincts that comprise the District. As a result of legislation in 2011 and subsequent Board action in late FY 2011, director elections were moved from the May local elections date to the November general elections date.

The District held an election in FY 2021 (November 2020) for District Precincts 1, 3, and 4; one director resigned, one director had no opposition, and one incumbent director up for re-election had opposition.

In accordance with District Bylaws, the Board elects its officers for one-year terms in December of each year. At the time of this report, this has not yet taken place. The elected officers in December 2020 were Blayne Stansberry, President; Craig Smith, Vice President; and Blake Dorsett, Secretary. When Director Dorsett resigned, Christy Williams was appointed Secretary. As a local political subdivision of the State of Texas, all meetings of the Board are conducted in accordance with the Open Meetings Act, and the District's business is subject to the Texas Public Information Act.

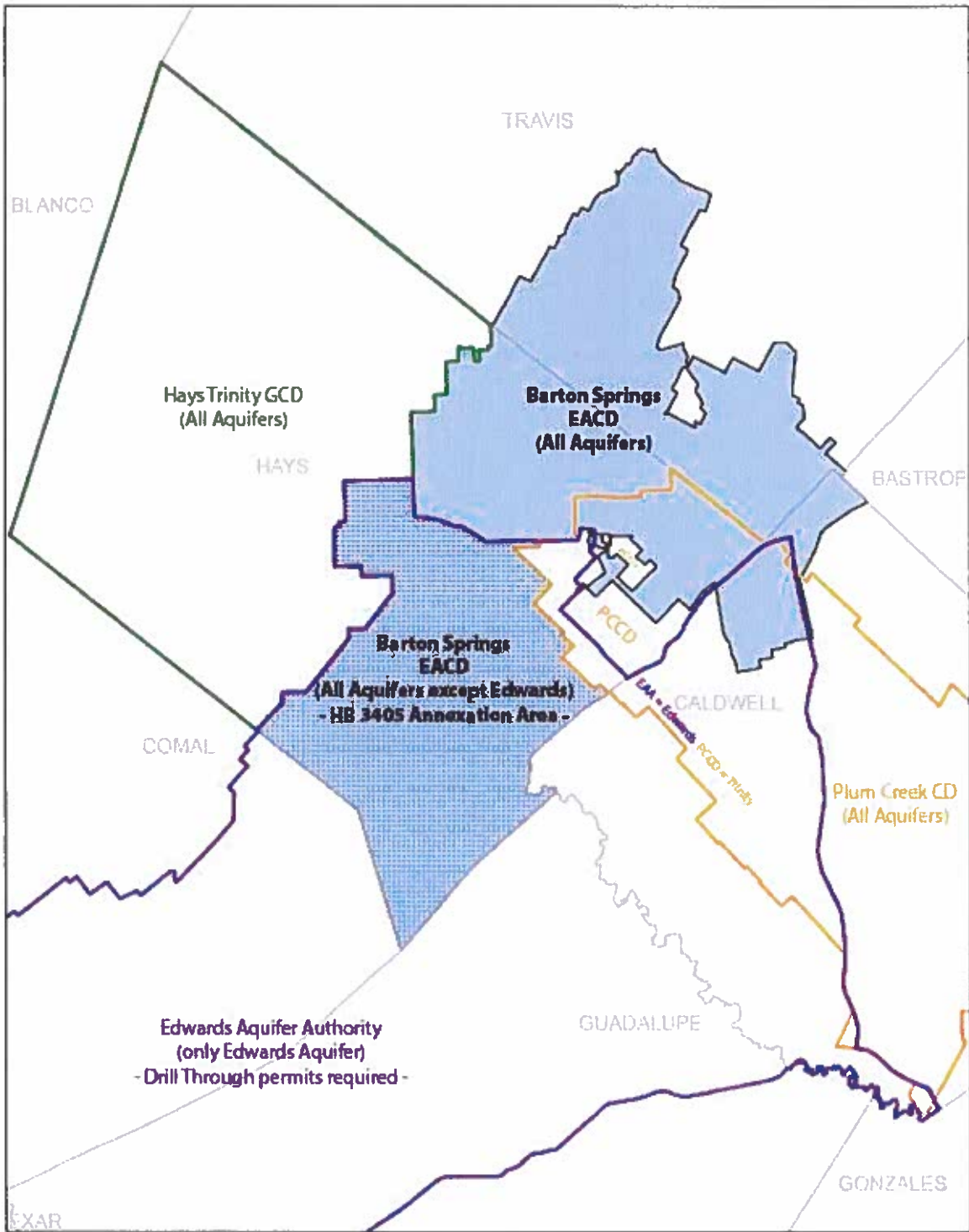


Figure 1 - The District's territory including the expanded Shared Territory and the adjacent Groundwater Conservation Districts and their respective jurisdiction over aquifers.

1.2 District Mission and Vision Statements

The District Board has assessed and articulated not only the mission of the District but also its vision and overarching strategic purpose.

The mission of the District is largely mandated by and adapted from its enabling legislation and statutes:

“The Barton Springs/Edwards Aquifer Conservation District, as the responsible public agency and authority, is committed to conserving, protecting, recharging, and preventing waste of groundwater and to preserving all aquifers within the District.”

The vision of the District provides a succinct statement of the ultimate, continuing goal of the District, describing the standard by which it will execute its mission:

“The Barton Springs/Edwards Aquifer Conservation District will excel in its operations and administration so that it is considered the model and standard for other groundwater districts.”

The overarching strategic purpose articulates more action-oriented direction consistent with the mission and vision:

“We will manage the District aquifers to optimize the sustainable uses of groundwater in satisfying community interests.”

1.3 District Critical Success Factors

The District has established a set of continuing “critical success factors” that flow from and are generally consistent with the goals and objectives of the MP. These critical success factors include:

- Providing sound science to support and form the basis of policy and tactical decisions made by the District that affect water supply users and endangered species habitats;
- Being highly efficient, accurate, and fair in administering staff activities related to all District programs;
- Developing and instituting an equitable and consistently administered regulatory program that is required to serve our mission;
- Becoming a respected and effective part of the state and local political landscape for water resource management and its stakeholder communities;
- Serving our permittees, stakeholders, and the public at large as a readily accessible source of first resort for reliable information about local water, groundwater, aquifer science, water use and conservation; and
- Providing the programmatic and resource basis for innovative, cost-effective solutions to augment the sustainable quantity of water in the District and to protect the quality of District waters required for various existing uses.

2.0 DISTRICT PROGRAM AREAS AND TEAM HIGHLIGHTS FOR FY 2021

The District continues to successfully use a team-oriented organizational structure in which all staff members are assigned to a primary team but also support other teams as needs arise. Each staff member works under the direct supervision and directly reports to their respective team leaders who are responsible for executing team-specific responsibilities and duties. Each team leader works under the supervision of and directly reports to the General Manager (GM). All staff members ultimately report to the GM for administrative supervisory purposes.

This section of the report summarizes the operational teams that existed throughout FY 2021, and provides some highlights and notable achievements for each. Appendix B contains more information and details on the work undertaken by these teams in support of the various goals, objectives, and performance standards identified in the applicable 2017 District MP.

2.1 General Management Team

Vanessa Escobar served as the District's GM through August 2021. She resigned September 3, 2021. The GM is responsible for the day-to-day business of the District and is an *ex-officio* member of all the other teams. The key areas of functional responsibilities for the GM include staff management and development, programmatic planning and execution, stakeholder relationship development and cultivation, and financial administration of the District. The GM:

- Ensures that the policies and direction of the Board are implemented effectively, appropriately, and efficiently;
- Provides leadership both inside and outside the District organization in accomplishing the mission, vision, and goals of the District; and
- Serves as an advocate for the staff with the Board, and an advocate for the Board with the staff.

In FY 2021, some highlights for the office of the GM:

- **Covid** – In February 2020, the GM and staff began to plan for a possible quarantine and office closure due to the increasing risks and rate of positive cases of Covid. The GM developed internal protocols and procedures related to modified remote working policies, adjusted work schedules, emergency leave, public interfacing, in-office sanitation protocols, and social distancing. In March to May 2020, the CoA, Travis County, Hays County, and the Governor's Office all issued public orders relating to lockdowns, school closures, quarantines, essential business operations, and mask requirements. The entire staff implemented the necessary operational adjustments and adapted to remote workplace setups for the rest of FY 2020 and into FY 2021. Staff has maintained excellence and a positive outlook during significant changes and transitions within the District.

During the Covid transition, staff was able to quickly adapt to new remote working operations and has maintained the objectives and goals of the District program areas in the following ways:

- Aiming for quality work and maintaining productivity.
- Maintaining engagements with colleagues and GM.
- Providing assistance to colleagues and contributing towards solutions on projects and compliance matters.
- Engaging through virtual meeting formats and participating in webinars and network meetings.
- Supporting the essential business and discussions of the Board meetings.
- Providing timely responses to District constituents, and continuing to engage remotely with regional partners to support the District's mission.

- **Cybersecurity Policy** – Last legislative session, HB 3834 passed amending the Government Code to require the establishment of state verified cybersecurity training programs. A Board resolution was approved at the June 11th Board Meeting and the District established internal policy guidance on the requirements for board and staff cybersecurity training. Each year the District must verify and report the employee completion of the training, and periodically audit to ensure compliance. The Administration Team keeps certification records and receipt of submission to the Texas Department of Information Resources (DIR). On April 29, 2021 the training certificates were officially submitted to the DIR.
- **Legislative Session** – During FY 2021, the 87th Legislative session convened. The GM worked with SledgeLaw Group to track bill activity that would affect the District and groundwater regulation in general. Furthermore, the GM and staff tracked legislative initiatives and participated in the multiple legislative subcommittees at TWCA and TAGD such as: Petitioning a GCD to Conduct Rulemaking; Permit Application Notices; Bed and Banks Permit vs “waste” definition; authority to use permit fees for mitigation; similar rules; permitting; and attorney’s fees. The District’s primary legislative matters of interest included:
 - H.B. 1718 – filed by Eddie Rodriquez relating to the equalization of the rates of production fees charged on certain wells by the District. The bill amended the enabling legislation for the District to prohibit the District from, before September 1, 2021, charging an annual production fee of more than 17 cents per thousand gallons of water authorized by permit if the water is permitted for any use other than agricultural use. The bill authorized the District to increase the annual production fee by not more than 10 cents per thousand gallons per year beginning September 1, 2021, for water permitted for nonagricultural purposes, until the annual production fee is equal to the maximum amount set forth in Section 8802.1045(b)(not more than the greater of: (1) 38 cents per thousand gallons; or (2) the raw surface water cost of other wholesale suppliers serving customers in the District). The bill did not go far and the last action on the bill was March 2021 where it was introduced and referred to the committee on House Natural Resources.
 - S.B. 152 - filed by Senator Perry that is an omnibus groundwater bill. This bill focuses on attorney’s fees, petitions to GCDs for rulemaking, and permit notices to affected persons. CSSB 152 removes the attorney’s fees component. S.B. 152 did not pass.
- Monitor the joint planning process for groundwater and the achievement of the desired conditions for aquifers by GCDs.
- Groundwater Regulatory Framework: Study the state's groundwater regulatory framework and make recommendations to improve groundwater regulation, management, and permitting.
- **Regional and Joint Planning** – The Regulatory Compliance Team Leader attended as the District Representative to Groundwater Management Area (GMA) 10 meetings, and became the chairman of GMA 10, including related interfaces with the TWDB. This year, discussions at meetings included desired future conditions (DFCs) monitoring activities, and discussions on adopting and approving GMA 10’s 2022 DFCs. The Regulatory Compliance Team Leader actively participated in regional water planning group activities and meetings which included presentations and discussions on the water management strategies, updates to non-Modeled Available Groundwater availability, and finalizing the 2022 water plans.
- **Strategic Planning Board Presentation** – The Board, GM and staff participated in strategic planning workshops on April 6, May 15, and May 29, 2021.

- **Elections Administration** – The GM supported the Administration Team in coordinating and verifying completion of the required election filing materials for the November 2020 Election. This six-month process involved discussions with Hays County to verify that coding correction errors were fixed, tracking paperwork, coordinating with the counties, and managing Board approval of resolutions and contracts. This year was especially unique due to the new protocols and expenses associated with Covid impacts.
- **Trinity Sustainable Yield Study and Planning** - In FY 2021, the GM and the Regulatory Compliance and Aquifer Science Teams continued to refine the process overview that outlines the timeline, milestones, and steps involved with completing the policy discussions, stakeholder aspects, and technical aspects of the sustainable yield effort. Furthermore, the GM and staff began to review research on sustainability goals, metrics, and thresholds. The GM and Regulatory Compliance staff had a kick-off meeting with the facilitator (Community Consulting) in December 2020 and had multiple meetings throughout FY 2021 to discuss the project timeline, communication, level of public participation, the fundamental objectives of the Advisory Work Group, the scope, and process and workflow to engage the participants and other components of an Advisory Work Group. The GM and Regulatory Compliance and Aquifer Science Teams also met multiple times to discuss how to work through the unreasonable impact factors and what data and information is needed to assess. Staff had the original goal of holding the first meeting with the Sustainable Yield Advisory Working Group in early summer 2021 but had to slow down the project effort while staff prioritizes other projects during the transition period. However, progress continues to be made on the development of modeling tools and on the workplan framework related to the stakeholder discussions.
- **Litigation** – The District was actively involved in the following litigation matters during FY 2021.
 - **Needmore Water, LLC** - In FY 2021, the District continued the ongoing implementation of the 2015 House Bill 3405 requiring work primarily related to the conversion of the temporary permit into a regular permit for Needmore. In FY 2017, this permit conversion was contested and referred by the Board to the State Office of Administrative Hearings (SOAH) to conduct a contested case hearing. In FY 2018, the SOAH Administrative Law Judge (ALJ) issued a ruling dismissing the protestant’s Motion for Summary Disposition in the contested case, granting Needmore and the District’s Motions, and cancelling the Hearing on the Merits. In FY 2019, the Board again referred the case to SOAH for further determination on the merits of the case, and the judge provided her decision. Based upon this decision, in July 2019, the Board conducted a hearing on the permit and subsequently approved it. During FY 2020, in October of 2019, Trinity Edwards Springs Protection Association (TESPA) filed a Motion for Rehearing requesting the Board to grant a new hearing on the Needmore matter and to deny the permit. In December 2019, the Board denied the request from TESPAs for a rehearing of the permit. In February 2020, TESPAs filed a lawsuit in Travis County against the District and Needmore as a necessary party/defendant. The core issues of this lawsuit are the same issues that TESPAs brought before the ALJ in the SOAH process as part of the contested case hearing, and the hearing before the Board. The District’s position, based on evidence provided by all parties, is still the same. The District filed a response in March 2020. A hearing on the merits was scheduled for September 2021. On May 4, 2021, TESPAs provided a settlement offer to the District and Needmore for consideration. On May 28, 2021 TESPAs, Needmore and the District representatives agreed on a settlement document to present and consider for signature. Under the agreement TESPAs will dismiss its lawsuit against the District and Needmore with the ability for TESPAs to refile the suit in the next six years (“reopener”) if Needmore or a successor changes the use of the water from what’s authorized under Needmore’s permit. After six years, TESPAs loses the right to refile the lawsuit even if the permit is amended.

- Electro Purification, LLC (EP) - In FY 2021, the recommended draft proposed permit for the EP application was no longer under review by the SOAH ALJ, and the GM issued a letter returning the application to EP. In July 2018, the Board referred the case to SOAH to conduct a contested case hearing. In FY 2020, the recommended draft proposed permit for the EP application remained in abatement at SOAH from October 2019 through August 2020. After a schedule postponement and period of abatement, the proceeding schedule commenced again in August 2020. The District submitted pre-filed testimony and a revised GM Position Statement in December 2020. Depositions were scheduled for January/February 2021. On January 11, 2021, EP filed a Notice of Nonsuit and request to remand the application back to the District. On Jan 15, 2021, the District filed a response to the applicant's Notice of Nonsuit and requested that the ALJs find that with a nonsuit, that EP has withdrawn the application. On January 25, 2021, EP filed a response disagreeing with the District's request that the ALJs find the application withdrawn. On Feb 4, 2021, the ALJs dismissed the EP matter and remanded the matter back to the District. The original hearing on the merits will no longer be set for the dates of April 12-16 and April 19-20, 2021. On March 9, 2021, the GM issued a letter to EP returning the July 17, 2017 application of EP and explaining that there is no further action that the GM intends to take in connection with the remand. On April 14, 2021, the GM and counsel met with EP to discuss their desired requests relating to amending their permit application request. The administrative processes and options relating to their permit request as well as the GM's current position statement were discussed.
- Kinder Morgan Permian Highway Pipeline - The District has been actively involved in evaluating potential risk to the local aquifer resources from the activities of the Kinder Morgan PHP construction project since early 2018. In January 2020, the Board voted to join as a plaintiff in a lawsuit against U.S. Fish and Wildlife Service (USFWS), U.S. Army Corp of Engineers, and Kinder Morgan for violation of the ESA stating that because there is not a reasonable assurance that the aquifers will be protected during the construction and operation of the pipeline, the PHP should not be located within the District or any other hydrologically-sensitive area.

Kinder Morgan filed a motion to dismiss on December 17, 2020. It argued that the protestants case is over (moot) because construction of the pipeline is finished. The protestants filed a response opposing these arguments. On March 25, 2021, Judge Pitman issued a final order in this case granting the motions to dismiss filed by Kinder Morgan and the federal government. The essence of the defendants' motions, and also of the Judge's order, is that because the construction of the PHP is substantially complete, the case is now moot. The Judge described in his rulings that he couldn't offer the plaintiffs relief when they sought a preliminary injunction because the harms hadn't happened yet, and then there was a delay in which the Judge did not rule on the plaintiff's motions for Summary Judgment for months during the pandemic. Finally, the Judge dismissed the plaintiffs motions for Summary Judgment because too much time had passed.

2.1.1 Board and Staff Training, and Open Meetings Act:

There were no Open Meetings Act violations in FY 2021. A summary of training for Board and staff included: Cybersecurity, MORFF Myers-Briggs, Strategic Workshops with the Board, Public Funds Investments, Modeling Support, TAGD 2020 and 2021 Texas Groundwater Summit, TWDB Water for Texas Conference – September 2021, National Cave and Karst Management Conference – October 2021, Annual National HCP Virtual Meeting - November 2020, Texas Groundwater Invertebrate Forum Virtual Meeting - October 2020, Texas Water Leaders – October 2020, GoTo Webinar – ASR-AR Suitability - February 2021, TWCA Annual Convention – March 2021, TAGD Business Meeting - June 2021, Kent Butler Virtual Summit, BSEACD Board Media Training – Video, Texas American Water Works Association And Rogue Water Lab Communication Webcast Series – April and May 2020, American Groundwater Trusty Texas Groundwater Conference – June and July 2021, AEK Karst Hazards Forum, Hays County Master Naturalists Presentation – August 2021, Field Trip to Borheim/Stoneledge Quarry and Antioch Cave for TWDB.

2.2 Administration Team

Ms. Dana Wilson, Senior Administrative Manager, serves as the Senior Administrative Team Leader, with Ms. Tammy Raymond, Senior Administrative Specialist, and Ms. Shannon DeLong, Senior Accountant Specialist, as team members for administrative programs support.

The Administration team is responsible for banking, accounting, timekeeping and payroll administration, records retention and management, facilities and vehicle fleet management, personnel and human resources administration, contracts administration, director compensation and reimbursement administration, and state/federal grant administration.

In FY 2021, some highlights for the Administration Team included:

- District Board and staff maintained their financial resources in a manner that maximizes liquidity while maintaining the greatest return on District fund balances by investing in securities or investment pools that operate in low risk investments and are backed by the state and/or federal government.
- Contracted for and participated in the independent annual financial audit, including the provision of all financial records, and preparation of the Management Discussion and Analysis. Year-end reports are submitted to the TCEQ and the State Pension Review Board, as required by law.
- Maintained District financial records to receive a clean financial audit in December 2021 (Appendix A).
- Developed and monitored the District annual budgets. In FY 2021, there were two versions. The initial budget was brought before the Board in a public hearing held on July 9, 2020 where it was approved. The Board approved a Budget Revision on May 13, 2021.
- Administrative staff is responsible for proper maintenance, management, retention, and disposition of all District records; inventory of District property (asset management); and capital depreciation. Administration preserved and protected all public documents in accordance with state and federal laws, the adopted District Records Retention Schedule, and with the Texas State Library regulations; and maintained the District's reference material library.
- Assisted the District's information technology (IT) consultant in making improvements to the IT infrastructure to standardize productivity tools and improved security, and resolving various staff IT issues.
- Continued monthly District transparency efforts, specifically in the area of finance (on the District's website Transparency tab), since achieving a Financial Transparency Star Award from the Texas Comptroller's office in FY 2017.

2.3 Aquifer Science Team

Dr. Brian Smith, P.G., Principal Hydrogeologist, serves as the leader of the Aquifer Science Team which is involved in various internally- and externally-funded groundwater research and assessment programs. The team is supported by Jeff Watson, P.G., Staff Hydrogeologist; Justin Camp, Hydrogeologic Technician; and from time-to-time other staff members, including interns.

To protect and manage the groundwater resources of the District's aquifers, the District continued an active research program that is designed to better understand the hydrogeology and hydrodynamics of aquifers in the District, and to advise the Board on policy-related decisions.

In FY 2021, the Aquifer Science Team worked on many projects, developed new technical reports and memos, presented technical talks, published technical papers, and attended technical conferences including:

- Brian Smith and Jeff Watson attended the Texas Alliance of Groundwater Districts (TAGD) Groundwater Summit (August 31-September 2, 2021) and Brian Smith served on a panel to discuss ASR issues.
- Jeff Watson attended the American Groundwater Trust Texas Groundwater Conference (June 30-July 1, 2021).
- Brian Smith virtually attended the AEG Karst Hazards Forum and made a presentation on caves and karst along the Mopac Intersections construction.
- Brian Smith participated in planning for the 16th Sinkhole Conference that was to be held in San Juan, Puerto Rico in April 2020. Because of Covid, the conference was initially postponed until April 2021, but was ultimately canceled. Brian Smith and Brian Hunt were the authors of a paper on the Jacob's Well management area that was to be presented at the conference. The paper was later published by NCKRI (see below).

Presented technical information and studies to the public and students:

- Jeff Watson gave a presentation to the Hays County Master Naturalists at Jacob's Well Spring Natural Area on the Hydrogeology of the Trinity Aquifer and Associated Springs (August 28, 2021).
- Aquifer Science staff led a field trip to Borheim/Stoneledge Quarry and Antioch cave for TWDB and Austin Water employees (May 7, 2021).

In FY 2021, other highlights for the Aquifer Science Team included:

- Maintained a monitor well network of about 42 wells with instruments that collect hourly data. The District's HOBO weather station at the District office also collects hourly data and reports to an online dashboard accessible on the District website.
- The District routinely measures water levels in the six multiport monitor wells that are completed in the Edwards and Trinity Aquifers.
- Field staff visited about 30 wells in the EP area for water levels and field parameter measurements. Some sites were visited multiple times.
- Determined and documented drought status, including keeping the District's drought monitor blog up to date.
- Participated with GMA 9 (November 18, 2019) and GMA 10 (September 16, 2019) in technical discussions.

- Worked cooperatively with the Ruby Ranch WSC for final permitting of the aquifer storage and recovery (ASR) project.
- Maintained the Antioch Cave Recharge Enhancement Project as an ongoing part of a 319(h) grant from the Environmental Protection Agency (EPA) and TCEQ.
- Implemented an annual sampling program in cooperation with Magellan Pipeline Company related to the operation of the Longhorn Pipeline that transports crude oil through the District. In July 2021, staff sampled about eight springs and well sites for hydrocarbon contaminants as a screening test for BTEX and TPH.
- Staff worked with Hays County and Wimberley Valley Watershed Association on locations for the installation of two new monitor wells upgradient of Jacob's Well.
- Collected water-quality data (major ions and isotopes) from about 15 sample locations in FY 2021 in cooperation with the TWDB.
- Continued collecting data at the Shield Ranch in southwest Travis County. Installed a telemetered flow station on Rocky Creek, a tributary to Barton Creek in 2020. In 2021, staff worked in cooperation with Shield Ranch and Southwest Travis County GCD staff to develop a stage- discharge relationship.
- Visited and assessed a WPAP site with a potential sensitive cave feature on Centex Quarry property with Centex staff, and followed up with TCEQ staff.
- Measured water levels in the saline Edwards multiport monitor well on May 21, 2021.
- Held the second annual meeting (December 16, 2020) between CoA and District staff to discuss the status of their respective Habitat Conservation Plan (HCP) projects.
- District staff hosted the HCP Management Advisory Committee (MAC) meeting on January 26, 2021 to discuss the accomplishments of the District's HCP projects.

Published Papers and District Documents:

- Smith, B.A., Hunt, B.B., Gary R.H., Wierman, D.A. and Watson, J.A., 2020, Springshed Delineation in a Karst Aquifer in Hays County, Central Texas: 16th Sinkhole Conference, NCKRI Symposium 8, San Juan Puerto Rico, April 12 to 16, 2021, conference was canceled due to Covid.
- Tian, L., Smith, B.A., Hunt, B.B., Doster, J.D., Gao, Y., 2020, Geochemical Evaluation of Hydrogeologic Interaction Between the Edwards and Trinity Aquifers Based on Multiport Well Assessment in Central Texas: 16th Sinkhole Conference, NCKRI Symposium 8, San Juan Puerto Rico, April 12 to 16, 2021, conference was canceled due to Covid.
- Hunt, B.B. and Smith, B.A., 2020, Development of a Steady-State Numerical Model Tool, versions 1.0 and 2.0, Middle Trinity Aquifer, Central Texas: BSEACD Technical Memo 2020-0930.
- Smith, B.A., Hunt, B.B., Posso, K., and others, 2021, Highway Construction in the Faulted, Karstic, Cretaceous Edwards Limestone of Southwest Austin, Texas: Association of Environmental and Engineering Geologists, Karst Hazards Forum, Austin, Texas, March 23 to April 1, 2021, abstract.

2.4 Communications and Outreach Team

Formerly the Education and Outreach Team, Mr. David Marino serves as the Communications and Outreach Manager and is the sole team member of the Communications and Outreach Team. Prior to Mr. Marino’s hiring in March of 2021, Ms. Jackie Vay served as Outreach Specialist. The Education and Outreach Team focused on the District’s educational programs, which included classroom visits, teacher-related communication, educational events, and well-owner communication. Under the Communications and Outreach Team, increased communication with the general public is the main priority, with the goal of educating a broader audience on the roles and responsibilities of the District. Because GCDs are complex in nature, ranging from regulatory responsibilities, aquifer science, alternative water supplies, well components, and various other projects, breaking down this information in a clear, consumable manner for the public serves both as an opportunity and a challenge. The former GM worked with the Communications and Outreach Team to ensure a smooth transition as Mr. Marino took the reins.

Communications and Outreach Plan: The Board approved the District’s official Communications and Outreach Plan (written by Communications and Outreach Team) in August 2021. Prior to approval, the Communications Committee (comprised of Directors Dan Pickens and Christy Williams, the GM, and David Marino) reviewed the plan. The plan serves as a navigation tool over the next five years when it comes to the organization’s communication efforts. The District has identified the following stakeholder and target audiences:

- General Public
- Residential Well Owners, Permittees
- Teachers and Students
- Colleagues, Collaborators, Stakeholders
- Legislators

The goals in the Communications and Outreach Plan align with the District’s Management Plan and its Objectives. The full Communications and Outreach Plan can be viewed here:

<https://bseacd.org/uploads/BSEACD-Communications-and-Outreach-Plan-APPROVED-DOCUMENT.pdf>

Social Media: The Communications and Outreach Team is focused on building engagement across the District’s social media channels. In FY 2021, the District has continued to grow its followers and likes across all social media platforms. The District also created a District Instagram channel to share additional pictures and videos. The table below shows the growth from September, 2020 to August, 2021.

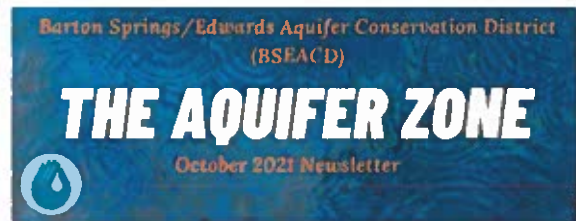
Social Media Channels FY 21	September 2020	August 2021
Twitter Followers https://twitter.com/BSEACD	698 Likes	714 Likes
Facebook Likes/Followers https://www.facebook.com/BSEACD	938 Likes 961 Followers	1,238 Likes 1,278 Followers
Instagram https://www.instagram.com/bseacd/		Newly Created – 10 Followers

Social Media Posts: Stage II Alarm Drought Reminder and Conservation Tips, Rainfall Amounts, TWDB Draft State Water Plan, TWDB Water Weekly reports, Water Wise Wednesday: Lawn and Garden Practices, Barton Springs Pool, shared information about Soil and Water Stewardship Week from Texas State Soil and Water Conservation Board, shared information on rain forecast from National Weather Service, Water Wise Wednesday – Irrigation Self-Audit, Rain Barrels Getting Rain, Science in 60 Seconds: Well Water Check, Drinking Water Week, Well Site Visit Video, Antioch gauge levels/Lovelady and Barton Springs Levels After Rain, Water Wise Wednesday: Pump Protector, Borheim Quarry Visit, Water Wise Wednesday: Rain Barrels, Reminder on State Water Plan Comments due May 26, Science in 60 Seconds: What is pH, Endangered Species Day, TWDB Draft State Water Plan Public Comment Period, Rain Provides Relief, But We Remain in Stage II Alarm Drought, Rain Barrel Action Video, Photo of Water Flowing at Bear Creek and 45 Toll Bridge, Summary of Water-Related Bills in the Texas Legislature, Multiport Monitoring Well Video, Article on Texas Groundwater Supplies Shrinking, Do-It-Yourself Rain Barrels, Types of Karst Features, Water Wise Wednesday: Self Irrigation Audit, Sinkholes are Karst Features, Drought Report, Aquarena Springs-Spring Lake Preserve Trail Photo, Geophysical Logs post, What is Karst?, Karst Regions, Throwback Thursday Barton Springs Photo, Deep in the Karst of Texas Campaign, Texas Karst Waters, Groundwater Modeling Video Preview, Barton Springs Salamander information, Groundwater Modeling Full Video, Onion Creek Peak at Driftwood and Pictures of Antioch Cave, Wise Wednesday: Use Least Toxic Method to Deal with Pests, District Press Release: Settlement Agreement Over Needmore Water LLC Permit Litigation, Environmental Defense Fund Webinar, Barton Springs and Lovelady Monitor Well Levels, Water Wise Wednesday: Native and Adapted Plants for Central Texas, Throwback Thursday: Cripple Crawfish Cave, Rain Video, Barton Springs Pool Closed, Jacob’s Well Visit – Pictures, Prescribed Burn by Austin Water, Groundwater Facts, Water Wise Wednesday: Lawn and Garden Practices, Barton Springs and Lovelady Well levels, Save Barton Creek Association “Explorers Guide to the Hill Country Oasis,” How Aquifers Work, Rain Video, District Weather Station, and Zara Environmental Well Barton Springs Salamander

Website: Communications and Outreach added a few new pages to the website in FY 2021. This includes the District Newsroom page (<https://bseacd.org/publications/bseacd-newsroom/>). This page includes all of the District’s latest press releases, videos, newsletters, drought status, and board agendas. A career opportunities page (<https://bseacd.org/careeropportunities/>) was created for current and future job openings. The District Weather station has also been added to the homepage of the website. Additional tweaks included more headers at the top of the page and an increase in spotlight stories. A **Website Redesign Committee** comprised of Justin Camp, David Marino, and the GM was formed in June of 2021. After the GM departure, it was decided to wait until a new GM is in place to continue the redesign process. Communications and Outreach plans to work with the District website manager, Brian Zavala, to make cosmetic and content changes in the future. The table below shows the total number of page views and unique page views on the District website for FY 2021. Website views are up from FY 2020. The home page and publications/maps pages were the most viewed pages.

Website Views FY 2021 September 2020 – August 2021	Website Views FY 2020	
Total Page Views	39,335	35,273
Unique Page Views (meaning people who have never visited our site)	32,123	28,309

Newsletter: The District’s quarterly newsletter was revamped and given a title. “The Aquifer Zone” has a new look and feel. Communications and Outreach has added more videos, articles, and pictures. Also added are additional links to the District’s social media channels in the newsletter, and have been used to promote all the District’s channels, including the website.



Communications and Outreach has also been promoting the newsletter more on the website and social media channels. The table below is a snapshot of the number of people the newsletter was sent to, along with the percentage of opens and clicks.

Aquifer Zone Newsletter	Sent to	Opens	Clicks
Fall 2020 Edition (https://bit.ly/3kwWrBM)	2.6K	13.8%	1.8%
Spring 2021 Edition (https://bit.ly/3nZWVTg)	2.6K	20.7%	2.3%
Summer 2021 Edition (https://bit.ly/3EG3wbt)	2.5K	21.7%	2.6%

Press Releases: During FY 2021, the District put out several press releases ranging from drought restrictions to staff changes. The list and links to those press releases are included below.

Aquifer District Declares Stage II Alarm Drought – October 9, 2020
https://bseacd.org/uploads/20201009_AquiferDistrict_StageII_AlarmDrought.pdf

Aquifer District Welcomes New and Returning Board Members – November 18, 2020
https://bseacd.org/uploads/20201118_AquiferDistrictWelcomesNewDirectors- FINAL.pdf

BSEACD and Needmore Water, LLC Enter Settlement Agreement with TESPAs (Trinity Edwards Springs Protection Association) over Needmore Water LLC Permit – June 9, 2021
<https://bseacd.org/uploads/BSEACD-Enters-Settlement-with-TESPA-Trinity-Edwards-Springs-Protection-Association-Over-Needmore-Water-LLC-Permit.pdf>

Aquifer District Lifts Drought Declaration, Reminds Permittees of Water Conservation Period; District Approves Changes to Rules and Bylaws – July 8, 2021
<https://bseacd.org/uploads/Aquifer-District-Lifts-Drought-Declaration-Reminds-Permittees-of-Water-Conservation-Period-FINAL-3.pdf>

Dorsett Resigns as Secretary of Barton Springs/Edwards Aquifer Conservation District; District Solicits Interest in Filling Precinct 3 Vacancy – July 12, 2021
<https://bseacd.org/uploads/Dorsett-Resigns-as-Secretary-of-Barton-Springs-Edwards-Aquifer-Conservation-District-District-Solicits-Interest-in-Filling-the-Precinct-3-Vacancy-.pdf>

General Manager Vanessa Escobar Leaving District to Take on New Career Opportunity; District Accepting General Manager Applications – August 6, 2021
<https://bseacd.org/uploads/General-Manager-Vanessa-Escobar-Leaving-BSEACD-to-Take-on-New-Career-Opportunity.pdf>

Media Coverage: The District received some media coverage in FY 2021. Coverage ranged from the November 2020 Board Election to the District's drought status. All the news stories and their links are included below.

Aquifer Conservation District: Larsen 'still not finished,' Williams ready to start – September 11, 2020 – Austin Monitor

<https://www.austinmonitor.com/stories/2020/09/aquifer-conservation-district-larsen-still-not-finished-williams-ready-to-start/>

Pipeline, Drought Key Issues in the Aquifer Conservation District Election – October 23, 2020 – The Austin Chronicle

<https://www.austinchronicle.com/news/2020-10-23/pipeline-drought-key-issues-in-the-aquifer-conservation-district-election/>

Williams ends Larsen's tenure at Aquifer District – Nov. 5, 2020 – Austin Monitor

<https://www.austinmonitor.com/stories/2020/11/williams-ends-larsens-tenure-at-aquifer-district/>

BSEACD board position open after director resigns – July 12, 2021 – Hays Free Press

<https://haysfreepress.com/2021/07/12/bseacd-board-position-open-after-director-resigns/>

Dorsett resigns as Secretary of BSEACD; District solicits interest in filling precinct 3 vacancy – July 15, 2021 – San Marcos Corridor News

<https://smcorridornews.com/dorsett-resigns-as-secretary-of-bseacd-district-solicits-interest-in-filing-precinct-3-vacancy/>

100-mile trail connecting Austin to San Antonio could spring \$55 million in benefits

<https://austin.culturemap.com/news/city-life/07-14-21-great-springs-project-touts-millions-in-benefits/>

Aquifer District removes drought restrictions – July 9, 2021 – Hays Free Press

<https://haysfreepress.com/2021/07/09/aquifer-district-removes-drought-restrictions/>

La Nina Returning in Fall – July 12, 2021 – Austin American-Statesman

<https://www.statesman.com/story/weather/2021/07/12/central-texas-ok-drought-wise-but-what-happens-when-la-nina-returns/7915364002/>

Legislative session failed to pass bills to address water conservation and preservation efforts – June 7, 2021 – KVUE-TV

<https://www.kvue.com/article/news/investigations/defenders/bills-to-address-water-conservation-and-preservation-efforts/269-3118d2f8-aae7-47b7-867f-670c679c9972>

Aquifer districts settle lawsuits: Needmore still allowed to pump 289 million gallons – Jun 15, 2021 – Hays Free Press

<https://haysfreepress.com/2021/06/15/aquifer-districts-settle-lawsuits-needmore-still-allowed-to-pump-289-million-gallons/>

Headlines/Quote of the Week – Austin Chronicle – Blake Dorsett Resigns – July 2021

<https://www.austinchronicle.com/news/2021-07-16/headlines-quote-of-the-week/>

Videos: Communications and Outreach has focused on building the District’s video presence. Videos drive engagement on social media and even on websites. Therefore this is an important priority in building the District’s following across its social media platforms. Using videos is also a great way to explain complicated scientific information in an easy way. That thought process led to the creation of the “Science in 60 Seconds” video segment. These segments are shared on the District’s YouTube channel, the District’s social media channels, and the website. Communications and Outreach has put together videos on numerous subjects, including groundwater modeling, Borheim Quarry, Drought Restrictions, and more. Included below are all the videos completed in FY 2021.

District YouTube channel: <https://www.youtube.com/channel/UCqiQIZ7y708Ar0yPB2Yd4Cg>).

Barton Springs Edwards Aquifer Conservation District Overview – Sept. 18, 2021
<https://www.youtube.com/watch?v=vtBXPFCZt2M&t=1s>

Kent S. Butler Groundwater Stewardship Scholarship Essay Contest – March 24, 2021
<https://www.youtube.com/watch?v=Y6IIBSHGEfw>

Happy Geologists Day – April 4, 2021
<https://www.youtube.com/watch?v=AqcQGGPkNMw>

BSEACD Social Media Channels – April 5, 2021
<https://www.youtube.com/watch?v=8H7t7j1LoD8>

What is the role of BSEACD? – April 6, 2021
<https://www.youtube.com/watch?v=lfAqk7sRY3M&t=3s>

The Antioch Cave- April 9, 2021
<https://www.youtube.com/watch?v=TYWSe7x2hsl&t=3s>

Barton Springs Pool – April 9, 2021
<https://www.youtube.com/watch?v=XHdRbb2iLVM>

Barton Springs/Edwards Aquifer Conservation District – April 14, 2021
<https://www.youtube.com/watch?v=Lc2lrwFqCmc>

The Barton Springs Pool: An Austin Icon – April 15, 2021
https://www.youtube.com/watch?v=xAh2wly_Q5I&t=17s

Happy Administrative Professionals Day – April 21, 2021
https://www.youtube.com/watch?v=BqvNkc_zGnA

Happy Earth Day – April 22, 2021
<https://www.youtube.com/watch?v=9r8DWXVxauA&t=3s>

Well Site Visits – May 3, 2021
<https://www.youtube.com/watch?v=FiZTle4UtZE&t=3s>

Happy Teacher Appreciation Day – May 4, 2021
<https://www.youtube.com/watch?v=xW6XmFk-olM>

Kent S. Butler Scholarship Winners – May 14, 2021
<https://www.youtube.com/watch?v=FO74-8slx5c>

Science in 60 Seconds: Water Well Check Up – May 17, 2021

<https://www.youtube.com/watch?v=qdN4wN7VNZA>

BSEACD Newsroom Website Page – May 18, 2021

https://www.youtube.com/watch?v=je_o-JgjT0A

Monitoring the Edwards and Trinity Aquifers – Barton Springs/Edwards Aquifer Conservation District – May 25, 2021

<https://www.youtube.com/watch?v=F1s-3nkqDJA>

Borheim Quarry- June 8, 2021

<https://www.youtube.com/watch?v=qAaOiR6b18M>

GET Decision Support Tool – Groundwater Modeling – June 16, 2021

<https://www.youtube.com/watch?v=MTfXvIVbuOk>

Fun Fact Friday – June 18, 2021

<https://www.youtube.com/watch?v=Ox6lnQEvj6Y>

Fun Fact Friday – June 25, 2021

<https://www.youtube.com/watch?v=EH2yg7Ws8ck>

How Groundwater Modeling Works – July 6, 2021

<https://www.youtube.com/watch?v=GJr7OfGgH70>

Residential Limited Production Permitted Wells – July 12, 2021

https://www.youtube.com/watch?v=dtDflt_PBrI

Drought Declaration Lifted/Drought Outlook

<https://www.youtube.com/watch?v=cQzruGzv3ns>

Science in 60 Seconds: Turbidity – July 19, 2021

<https://www.youtube.com/watch?v=bs2ILaIRfek>

BSEACD Seeking Precinct 3 Director Candidates – July 20, 2021

<https://www.youtube.com/watch?v=Pk22aCXO4DY&t=12s>

How to Learn More About BSEACD – July 22, 2021

<https://www.youtube.com/watch?v=5TAegYVzYi0&t=3s>

Science in 60 Seconds: What is pH – July 30, 2021

<https://www.youtube.com/watch?v=fjIqFZaXCuo>

Water Conservation Period – Aug. 5, 2021

<https://www.youtube.com/watch?v=4lnZeukpNI0>

Job Posting: General Manager – Aug. 13, 2021

https://www.youtube.com/watch?v=zCHD_SGSYbo

BSEACD Weather Station – Aug. 20, 2021

https://www.youtube.com/watch?v=7y_vlAvWs0s

Programming/Events/Collaborations: Covid has prevented the District from doing much in the way of in-person events, as many programs were either canceled or have gone virtual. Communications and Outreach did take part in two virtual classroom presentations, the virtual rainwater revival event in 2020, and supported the Kent Butler Summit planning efforts, Hill Country Explorer Guide Collaboration, college scholarships, TAGD Collaboration and Sponsorship for Groundwater Summit, Collaboration with Travis County Commissioner Ann Howard for Earth Day Week, Central Texas Water Efficiency Network virtual meetings, worked with members of the Hydrogeologic Atlas of Southwest Travis for well owner education in Travis County, National Protect Your Groundwater Day postings, GenThrive Mapping Participation (EcoRise), partnered with the Wimberley Valley Watershed Association and TESPAs Deep in the Karst of Texas Campaign, UT Bureau of Economic Geology, UT Jackson School of Geosciences video shoot, TWDB Borheim Quarry visit, and teamed up with My Point TV to share District videos.

The District has a collaborative relationship with the following organizations and plans to collaborate more with municipalities like the City of Buda, City of Kyle, and City of San Marcos: Austin Youth River Watch, Austin Nature and Science Center, Central Texas Water Efficiency Network (CTWEN), Texas Master Naturalists (Capitol area and Hays County), Capitol Area Council of Governments, Cave Sim Children in Nature Collaborative of Austin, CoA Wildlands, CoA Watershed Protection, CoA Parks and Recreation, City of Sunset Valley, Colorado River Alliance, EAA, Expedition School, Texas State Edwards Aquifer Research and Data Center, Girl Scouts, Greater Edwards Aquifer Alliance, Hays County and Hays County Parks, Hays Trinity Groundwater Conservation District (HTGCD), Hill Country Alliance, Hill Country Conservancy, Jacobs Well Natural Area, Keep Austin Beautiful, Lady Bird Johnson Wildflower Center, Lower Colorado River Authority, Natural Bridge Caverns, Texas State Meadows Center, Travis County, Save Barton Creek Association (SBCA), Shield Ranch and El Ranchito, Southwest Travis County GCD, Splash! Exhibit, Texas Cave Management Association, Texas Parks and Wildlife Department (TPWD), Texas River School, TWDB, University of Texas's Bureau of Economic Geology, University of Texas Jackson School of Geosciences, and Westcave Outdoor Discovery Center.

In FY 2021, some highlights for the Communications and Outreach Team included:

- Communications and Outreach Manager served on TAGD's Information and Education Committee. TAGD is using the District Communications and Outreach Plan as a template for other GCDs.
- Official Communications and Outreach Plan was approved by the Board in August 2021.
- District Kent Butler College Scholarships were awarded to three high school winners with the highest scoring groundwater essays. There was no Aquatic Summer Camp this year due to Covid, but the camp will return in 2022.
- Co-Sponsored TAGD's Birthday party at the water summit.
- Attended TAGD Water Summit Conference.
- Attended Texas AWWA and Rogue Water Lab Utility Communication Webcast Series.
- Created the District Newsroom page on the District website to have all District communication in one place.
- Created the District Instagram channel.
- District Twitter posts totaled over 32,000 combined impressions, more than doubling the Twitter impressions for FY 2020 (12,400).
- District website pages were viewed over 39,000 times in FY 2021.
- Increased the District video content. Between March and August 2021, 38 videos were created on the District's YouTube channel. These videos were shared on District's social media channels, website, and some of them were shared in "The Aquifer Zone" newsletter.
- The District has teamed up with My Point TV (<https://mypoint.tv/>). MyPoint.TV is a new online news company in Austin that uses the public and eyewitness reporting to give everyone the opportunity to publish stories that matter to them. The District is sharing videos and news of importance on their site,

like the Science in 60 Seconds segments and drought information. This gives the District access to a broader audience and allows the District to educate more than just our jurisdiction on aquifer/water related issues.

- Created a Media Training Presentation for the Board.
- Worked with the GM to create an Employee Satisfaction Survey.

2.5 Regulatory Compliance Team

The Regulatory Compliance Team consists of two Regulatory Compliance Coordinators and one Regulatory Compliance Specialist who are responsible for a wide range of District responsibilities including drought management, pumpage tracking/compliance assessment, rulemaking, rule and well construction standard interpretation, permitting, enforcement, well inspections, well pluggings, and drilling oversight. Michael Redman serves as the Team Leader; with Kendall Bell-Enders, Senior Regulatory Coordinator and Policy Manager; and Erin Swanson, Regulatory Compliance Specialist, completing the team. Regulatory Compliance Team members have also actively attended and participated in community outreach and regional development and planning groups, and served as District liaisons to local municipalities, political subdivisions, permittees, and licensed drillers and pump installers in the area.

In FY 2021, some highlights of the Regulatory Compliance Team included:

- Development Activities Over Recharge & Contributing Zones - The District continues to monitor for proposed Texas Pollutant Discharge Elimination System (TPDES) permits in the contributing and recharge zones of the Barton Springs segment of the Edwards Aquifer. Furthermore, the District continues to track legislation regarding wastewater discharges in the Edwards Aquifer Contributing Zone.
- EP Applications - In July 2017, EP submitted a Production Permit application, a Hydrogeologic Report, and seven Well Modification applications. Staff reviewed the applications and all supporting documents, and requested additional information from the applicant. Through a comprehensive review, the District determined that the proposed production had the potential to cause unreasonable impacts to existing wells. In February 2018, the District provided EP with notice of the GM's Preliminary Finding on the Production Permit application. The applicant was granted a 90-day extension to the application review period to provide additional application requirements and/or options such as a Compliance Monitoring Plan and Mitigation Plan. After extensive review of the additional submitted plans, the District determined the application administratively complete and issued a General Manager's Statement of Position (draft permit) on May 21, 2018. On June 18, 2018, staff held a public information session on the draft permit for EP at the Wimberley Community Center. During the 20-day comment period, the District received 12 requests for a contested case hearing and 312 comment letters on the application. In July 2018, the Board referred the permit application to SOAH to conduct the contested case hearing. A SOAH preliminary hearing was held on September 17, 2018 to determine standing.

The original dates for the hearing on the merits of the application were scheduled for late spring 2019. Given that schedule, the parties, including the protestants, the District, and the applicant, met in Austin for a SOAH-ordered mediation in March 2019. The parties were unable to reach agreement on any issues pertaining to the draft permit and discontinued mitigation discussions. After an attempted mediation in March 2019, stakeholder discussions, and additional staff research, staff continued to move forward with improvements and revisions to the 2018 draft permit and issued a May 2019 Revised Draft Permit. On June 12, the District submitted prefiled testimony in response to the applicant's and the protestant's previously filed testimonies. The hearing on the merits was then rescheduled for September 19-27, 2019.

On June 26, 2019, EP and TESPAs asked to modify the hearing schedule to allow them to adjust their testimonies to address the updated special provisions. The District had no objection to the modified hearing schedule. On July 2, 2019, the ALJ granted the modified schedule, reset the prehearing conference to April 24, 2020 at 10:00 am, and reset the hearing on the merits to convene at 9:00 am on April 27 – May 5, 2020 at SOAH, 300 W. 15th Street, Fourth Floor, Austin, Texas.

On September 25, 2019 the Protestants filed a Motion for Summary Disposition that asked the ALJs to dismiss EP's application on the basis that (1) the phase-in of production volumes should not be permitted without notice and an opportunity for a hearing, and (2) the application is not supported by reasonable non-speculative demand. Before responses to the Motion were due, EP requested and the ALJs granted a schedule abatement because the properties for which EP seeks a production permit are subject to a condemnation proceeding by the PHP.

On March 31, 2020, EP filed a motion before the ALJ to continue abatement until August 17, 2020. In August of 2020, EP and Kinder Morgan finalized the terms and conditions for a settlement, and the abatement ended. SOAH issued a new schedule for hearing and EP filed a supplemental prefiled testimony. The hearing on the merits was scheduled for April 2021.

On February 4, 2021, EP filed for a nonsuit, dismissal, and remand in SOAH Docket No. 457-18-4589. This sent EP's application back to the District and canceled the SOAH proceedings.

On March 9, 2021, staff returned EP's application back to EP due to the District considering EP's withdrawal from SOAH as a withdrawal of the application. On March 11, 2021, EP declared that the application was not withdrawn and that the application was waiting for a Board hearing.

As of August 31, 2021, there has not been a hearing on the EP application.

- Needmore Water, LLC Application - At the beginning of FY 2016, staff issued an administrative completeness letter to the applicant for the conversion of a Temporary Production Permit (H.B. 3405) to a Regular Permit. The GM developed a Preliminary Decision which entailed information on the technical evaluation of the aquifer test data. The application was contested and sent to SOAH. In March 2018, a contested case hearing was held on the limited motion for summary disposition filed by the protestant (TESPA). In June 2019, the ALJ ruled on the matter and granted Needmore's motion. On July 23, 2018, the ALJ issued a proposal for decision (PFD) agreeing with the District and Needmore. However, the PFD did not include a recommendation for permit issuance.

In October 2018, the Board remanded the issue back to SOAH requesting the PFD to include a recommendation for the permit issues based on findings of fact and conclusion of law. On April 10, 2019 the District received the ALJ's response, which describes that SOAH does not have jurisdiction to issue a revised PFD on whether the Board should issue the Needmore permit, and the ALJ did not weigh in on the uncontested portions of the permit. A public hearing was held on July 29, 2019, for the Board to consider the application for conversion of a Temporary Production Permit to a Regular Historic Production Permit to authorize the withdrawal of an annual permitted volume of 289,080,000 gallons/year from the Middle Trinity Aquifer for agricultural uses. The Board voted to grant Needmore a Regular Permit with special provisions. In August 2019, TESPAs requested a finding of facts and conclusions of law, which the Board issued. TESPAs then filed a motion for rehearing.

On October 2, 2019, TESPAs filed a Motion for Rehearing requesting the Board to grant a new hearing on the Needmore matter and to deny the permit. On December 12, 2019 at its Regular Meeting, the Board denied the request from TESPAs for a rehearing of the Needmore permit. Therefore, the permit is active for the full volume of 289,080,000 gallons/year. Protestants filed an appeal of the Needmore permit. The District filed a response in March 2020.

A hearing on the merits was scheduled for September 2021. On May 4, 2021 TESPAs provided a settlement offer to the District and Needmore for consideration. On May 28, 2021 TESPAs, Needmore, and the District representatives agreed on a settlement document to present and consider for signature. Under the agreement, TESPAs will dismiss its lawsuit against the District and Needmore with the ability for TESPAs to refile the suit within the next six years ("reopener") if Needmore or a successor changes the use of the water from what is authorized under Needmore's permit. After six years, TESPAs loses the right to refile the lawsuit even if the permit is amended.

- DFC Planning – Staff actively collaborated in DFC planning discussions with neighboring GCDs, GMA 9 and GMA 10 representatives, and TWDB staff. Staff also worked on preparing a timeline and planning strategy for immediate and long-term goals related to DFC revisions and DFC monitoring compliance, as well as, attended multiple GMA 9 and GMA 10 meetings, developed presentations, and updated the Board on DFC planning. Michael Redman became the chair of GMA 10. Staff spent a significant amount of time revising the explanatory reports, and on preparing documentation to remove the District from GMA 9 and to be put wholly in GMA 10, which was approved by the TWDB on May 20, 2021.
- Trinity Sustainable Yield - In FY 2021, staff continued to refine the process overview that outlines the timeline, milestones, and steps involved with completing the policy discussions, stakeholder aspects, and technical aspects the sustainable yield effort. Regulatory Compliance staff had a kick-off meeting with the facilitator (Community Consulting) in December 2020 and had multiple meetings throughout FY 2021 to discuss the project timeline, communication, level of public participation, the fundamental objectives of the Advisory Work Group, the scope, process, and workflow to engage the participants and other components of an Advisory Work Group. Staff also met multiple times to discuss how to work through the unreasonable impact factors and what data and information is needed to assess. Staff had the original goal of holding the first meeting with the Sustainable Yield Advisory Working Group in early summer 2021 but had to slow down the project effort while staff prioritized other projects during the transition period. However, progress continues on the workplan framework related to the stakeholder discussions.
- Habitat Conservation Plan - On December 16, 2020, staff held the annual HCP ILA meeting with the CoA. The District and the CoA agreed to collaborate and coordinate on routine and planned communication and activities including flow/aquifer level measurements and monitoring, and regional issues.

Regulatory Compliance staff assisted in drafting the first USFWS HCP Annual Report. Staff also held the second Management Advisory Committee (MAC) meeting since the issuance of the HCP on January 26th to provide an overview of the annual report and to solicit feedback. Staff compiled the feedback and made warranted changes to the annual report. The annual report was submitted to USFWS on February 18, 2021.

- Management Plan - Per statutory requirements, the District staff and programmatic teams actively worked towards implementing the objectives of the MP. In November 2017, the Board adopted the updated MP, and in January 2018, the TWDB approved the plan. Staff is starting to review the MP for the 2022 renewal deadline.
- Database Development and Upgrade – In FY 2021, the project team made significant progress on the data management system. Additional work remains to be completed on the various components of the database system but the project team had multiple module meetings and discussions with Intera throughout FY 2021. The expected database deployment was December 2019 – February 2020. While the project is over schedule, the project team is due to wrap up their tasks in early FY 2022 and the project is projected to be completed in FY 2022.

- External Communication and Coordination - Work groups and projects involving staff participation included:
 - SH 45 SW and MoPac: Coordination with TxDOT and CTRMA
 - ASR Technical Discussions
 - Edwards Aquifer recharge and contributing zone development activity coordination
 - Regular meetings of the Regional Water Quality Protection Plan workgroup
 - Texas Department of Licensing and Registration (TDLR) - Well Construction Standards
 - TAGD – Legislative Subcommittees
 - TWCA – Groundwater Subcommittee
 - GMA 10
 - BRATWURST Technical Committee
- Implementation and Compliance of Existing Rules - Staff reviews permit compliance of each permittee, and monitors existing wells for compliance with the Rules, and Well Construction Standards. Through required meter readings reports, performing regular inspections of wells, and reviewing pumpage compliance at regular intervals, staff is able to ensure that permitted wells and well systems are operated as intended. Staff also maintains an open dialogue with Permittees when compliance matters arise, and facilitate solutions through pre-enforcement discussions.
 - Inspections and Investigations - During FY 2021, staff conducted a number of inspections relating to the processing of permit applications. Staff completed a total of 15 inspections related to special investigations, site permittee inspections, and well permit applications. Staff collected three water quality samples during routine permit inspections or from new well construction inspections. There were no formal enforcement actions initiated in FY 2021.

Barton Springs Pool Plume Event – An event occurred between December 18-20, 2018, where three separate, discrete, and visible discharges of turbidity from Barton Springs into Barton Springs Pool were observed. CoA staff worked with District staff to identify the likely source of turbidity as sediment produced from the drilling of boreholes for a geothermal system in the Barton Hills area about ¼ of mile (4,000 ft) SSW from Barton Springs. Once the source was identified, the CoA and the District worked together to develop additional drilling protocols within proximity to Barton Springs to minimize future turbidity plumes related to drilling activities.

In FY 2021, staff continued coordination with CoA staff to ensure drilling protocols developed in FY 2019 for the Risk Management Zone were followed to minimize future turbidity plumes related to drilling activities.

A summary of the inspections, investigations, and site visits conducted in FY 2021 is provided below.

Inspections/ Investigations/ Visits	FY 2020	FY 2021
Exempt Well Inspections	5	0
Limited Production Permit Inspections	12	5
Individual Production Permit Inspections	5	3
Test Well Inspections	0	0
Plugging Inspections	2	2
Special Investigation Inspections	2	5
Other Permittee Meetings/Visits *	2	0
<i>*Multiple meetings were held with some permittees.</i>		
TOTAL	28	15

- Meter Reporting - Monthly meter readings were collected from all individual permittees each month with the large majority reported in a timely manner. Permittees failing to submit timely reports were provided with notices of the District's intent to collect meter readings. Most delinquent permittees were generally responsive once the notice was received. Meter readings not received after the notice was provided were collected by staff, and a fee was assessed to those permittees, in accordance with the Rules.

The annual meter reading requirement for all Limited Production Permits (LPPs) were due in September 2021. Email correspondence and notifications were provided to the nonexempt domestic users in an effort to ensure compliance; however, approximately 15% did not timely submit a meter reading.

- User Drought Contingency Plans, and User Conservation Plans (UDCPs and UCPs) - In FY 2019, staff worked with interns to update 136 permit records in order to incorporate updated drought planning documents into their records. According to the District MP, all permittees must update their UDCP and UCP plans at least every five years. Therefore, since all UDCPs were updated in FY 2019, staff did not update them in FY 2021.
- Right Sizing and Alternative Sources - After notice and an opportunity for a hearing, the Board may renew a permit with a reduced amount of the authorized production if the authorized withdrawal volume is no longer commensurate with reasonable non-speculative demand, or actual production from a well is substantially less than the authorized permit amount for multiple years without any rationale that reasonably relates to efforts to utilize alternative water supplies, conserve, or improve water use efficiency. Staff typically conducts an overpumpage analysis every few years and conducted the analysis in FY 2019, therefore staff did not conduct an overpumpage analysis in FY 2021.

The District has been actively encouraging alternative source projects to reduce the dependency on the aquifers during drought. Staff has collaborated with water suppliers on ASR projects in providing regulatory and technical guidance. Staff has been working with the City of Buda on ASR feasibility. The Ruby Ranch ASR project was approved and has been in operation since the summer of FY 2021. Staff also assisted in assessing the feasibility of Lower Trinity Aquifer for water supply.

- Drought Compliance - The District implements a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages. The District declared Stage II Alarm Drought on October 8, 2020 and remained in Stage II drought through July 8, 2021. The District has implemented all drought-related rules and curtailments in accordance with the District's enforcement plan and drought management protocols. Drought enforcement measures were assessed for Stage II Alarm Drought for the entire duration of the drought. A monthly drought compliance report for all individual permittees was provided during the months of November 2020 through June 2021 to the Board during District-declared drought, and those reports are found on the drought management website pages.
- Well Registration - Staff processed and reviewed all well registrations, permit renewals, and applications for permits, permit amendments, and authorizations in accordance with the Rules, Well Construction Standards, and other District guidelines in accordance with specified procedural timeframes. All newly drilled or modified exempt and nonexempt wells were automatically registered at the time of application and were in compliance with District Rules, including Well Construction Standards.

During FY 2020, the District continued with an online registration system to receive well registration applications from well owners. The online registration system was implemented in June 2015 in response to recent annexation efforts associated with the passage of HB 3405. Staff received and processed one online registration form in FY 2021.

- Application Reviews - To ensure that all firm-yield production permits are evaluated with consideration given to the District's demand-based and non-speculative permitting standards, staff completed comprehensive administrative and technical reviews of permit application requests. A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments, is provided below.

A summary of the new wells drilled in FY 2021 is provided in the table below.

New Wells Drilled	FY 19	FY 20	FY 21
New Exempt Wells	10	2	7
Limited Production Permits (Nonexempt Domestic Wells)	15	7	11
Individual Wells	1	4	2
Test Wells	0	0	0
Replacement Wells	0	0	0
TOTAL	26	13	20

A summary of the processed permit applications in FY 2021 is provided in the table below.

Processed Permit Applications	FY19	FY20	FY21
Minor Amendment	5	3	4
Major Amendments	0	0	0
New Exempt Well	10	2	9
Limited Production Permit (Nonexempt Domestic Wells)	16	9	15
Individual Production Permit	3	5	1
Individual Well Drilling Authorizations or Well Modification	8	2	1
Test Well	1	0	0
Well Plugging	5	6	5
Replacement Well	0	0	0
TOTAL	48	28	35

A summary of the individual production permits processed in FY 2021 is provided in the table below.

	Annual Volume (gpy)	Production Permits Processed	Permit Type	Use Type	Aquifer
1	700,000	Spicewood, LLC	Historical Trinity	Commercial	Trinity

2.5.1 Permit Summary:

A summary of the active individual production permits to date in FY 2021 is provided in the table below.

Active Individual Permits	FY 19	FY 20	FY 21
Conditional A Edwards	22	22	22
Conditional B Edwards	2	2	2
Conditional C Edwards	4	5	5
Conditional D Edwards	0	2	2
Historical Edwards	74	74	74
Historical Trinity	31	33	34
Historical Chalk or Alluvial	2	2	2
Transport Permits	2	2	2
Total	137	142	143

A summary of the active general permits to date in FY 2021 is provided in the table below.

Active General Permits	FY 19	FY 20	FY 21
Limited Production Permits (LPP)	156	164	175
Test Permits	1	0	0
Monitoring Permits	0	0	0
Total	157	164	175

2.5.2 Production Summary and Exempt Estimates:

Staff monitors annual withdrawals from all nonexempt wells through required monthly or annual meter reports to ensure that groundwater is used as efficiently as possible for beneficial use. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone is provided below.

A summary of the permitted production volumes for each Management Zone is provided below.

FY 2021 Permitted Pumpage by Management Zone			
Edwards MZs	Gallons	cfs	acre-feet
Historical (Individual)	2,309,582,596	9.79	7,086
Historical (LPP)	2,500,000	0.011	8
Total Historical	2,311,082,596	9.80	7,092
Conditional (Individual)	352,794,948	1.50	1,083
Conditional (LPP)	58,000,000	0.25	178
Total Conditional	410,794,948	1.74	1,261
Total Edwards	2,721,877,544 gal	11.54	8,353

Trinity MZs	Gallons	cfs	acre-feet
Historical (Individual)	616,456,117	2.61	1,892
Historical (LPP)	26,000,000	0.11	80
Total Trinity	642,456,117	2.72	1,972

Other Aquifers MZs	Gallons	cfs	acre-feet
Historical (Individual)	2,500,000 gal	0.01 cfs	8 ac ft
Historical (LPP)	0	0	0
Total Other Aquifers	2,500,000	0.01	8

Total Permitted	3,366,833,661	14.27	10,332
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A summary of the actual versus permitted production volumes for each Management Zone is also provided below.

FY 2021 Production from Individual Permittees		
Production Zone	Actual Production	Permitted Individual Production
Edwards	1,536,470,419	2,661,877,544
Trinity	211,451,009	616,456,117
Austin Chalk or Alluvial	48,116	2,500,000
Total (Gallons)	1,747,969,544	3,280,333,661
	(5,364.32 ac ft)	(10,067 ac ft)

FY 2021 Production from Limited Production Permits		
Production Zone	Actual Production*	Permitted Limited Production
Edwards	12,641,596	60,500,000
Trinity	5,432,596	26,000,000
Austin Chalk or Alluvial	0	0
Total (Gallons)	18,074,192	86,500,000
	(55.47 ac ft)	(265.46 ac ft)

**Actual production is a volume estimate calculation described in the findings and conclusions of the BSEACD Staff Report 2010. Average Annual exempt well production is approximately 104,473 gpy*

A summary and description of the estimated exempt well production volumes for the Edwards and Trinity Management Zones is also provided below.

Edwards Aquifer – Estimated Exempt Wells Production		Trinity Aquifer – Estimated Exempt Wells Production	
Average Annual Volume per Exempt Well (gpy)	104,573	Average Annual Volume per Exempt Well (gpy)	104,573
Total Est Volume of Exempt Well Production (gpy) *	105,618,730	Total Est Volume of Exempt Well Production (gpy) *	120,363,523
<i>Est # of wells</i>	1010	<i>Est # of wells</i>	1151
<i>cfs</i>	0.45	<i>cfs</i>	0.51
<i>% of Permitted Production</i>	3.88%	<i>% of Permitted Trinity Production</i>	22.9%
<i>Permitted Edwards Production(gpy)</i>	2,719,277,544	<i>Permitted Trinity Production (gpy)</i>	525,881,557

*2010 BSEACD Staff Report – Avg Exempt Well Use=104,573 gpy

*2010 BSEACD Staff Report – Avg Exempt Well Use=104,573 gpy

Edwards Aquifer Exempt Use Estimates

The most current estimate for Edwards exempt well production is described in a 2010 District report (Banda et al., 2010). The methodology findings are fully described and involve using GIS to count the total number of potential exempt water wells within the District, and determine how to add them to existing databases of wells. A volume of annual estimated production from exempt wells was based upon water-use profiles and metered data. The 2010 report findings conclude that the estimated production volumes for Edwards Exempt wells was 104,050,000 gal (0.44 cfs) and the estimated number of exempt wells was 995. This volume was approximately equal to 5% of the permitted volume at that time, and was thought to be a proportion that could be applied going forward. However, considering that the current estimate of exempt Edwards wells is about 1009, the number, and therefore volumetric use of exempt Edwards is relatively constant, and substantiates the use of the 0.44 cfs.

Trinity Aquifer Exempt Use Estimates

Very few exempt Trinity wells existed in the District prior to the HB 3405 annexation. After annexation of a large portion of Hays County, the total number of exempt Trinity wells within the District was largely unknown due to the complexity of geology, aquifer completion, and lack of available information. In 2019, staff developed a method to help estimate the number of exempt wells completed in the Trinity Aquifer in the District that focused on the annexation area. The results of the methodology are briefly described in the District Staff Report 2019 (Gary et al., 2019). The methodology estimates the number of exempt Trinity wells using GIS, and considers existing well completions, water service areas, geology, and County Appraisal District information. Results estimated that the number of exempt wells was 1150 wells. Considering meter data and average annual household use, the estimated production volumes for Trinity Exempt wells are approximately 120,260,000 gal (0.51 cfs).

3.0 REQUIRED DATA AND INFORMATION

The District Bylaws, and MP require a number of specific items to be included in the Annual Report. This information is included in the following subsections of the Annual Report.

3.1 Aquifer Status

FY 2021 began with a status of No Drought due to a very wet May 2020 that narrowly kept spring flow and aquifer levels from dipping below Stage II thresholds. However, below-average rainfall during the summer wasn't enough to keep levels from declining towards Stage II Drought thresholds. By early October 2020, Barton Springs and Lovelady crossed under their Stage II Drought thresholds and the Board declared an Alarm Stage II Drought on October 8, 2020. Levels declined throughout the fall and winter as La Niña conditions - beginning in July 2020 - brought warmer and drier climate to the Hill Country.

Calendar year 2021 began with a combined 3.5 inches of rain from January to March (3 inches below historical average), perpetuating the downward spring flow and water-level trend. While some relief came with over 3 inches of rainfall in April, little recharge was seen as the dry soils soaked most of it up. The increased soil moisture from April rain set the stage for 8 inches of rain in May to generate enough recharge to reverse the downward spring flow and water level trends. The Climate Prediction Center (CPC) officially declared the end of La Niña in May 2021, beginning an ENSO-neutral (neither La Niña or El Niño) period that allowed for above average mid-spring and summer rainfall totals of 20.4 inches. Barton Springs and Lovelady water levels began to rise on May 1st for the first time since July 2020.

A combined 15 inches of spring rain fell in March through June 2021, providing enough recharge to overcome the dry La Niña winter and reverse the falling spring flow and aquifer trend. With both Barton Springs and Lovelady water levels rising above their respective Alarm Stage II Drought thresholds, the Board declared "No Drought conditions" on July 8, 2021. An additional 7 inches fell in July and August. On August 25, Lovelady water levels began to decline, looking as if the No Drought period would be short-lived. The CPC officially declared the return of La Niña on October 14, 2021, which oddly coincided with up to 6 inches of rainfall in the Hill Country the day before. This brought considerable recharge as stream gauges on all area creeks showed rises. Spring flow and water levels showed a rising response.

To summarize, the Austin/Hill Country area has received an average 33 inches of rainfall so far in 2021 (through November 2nd), just 2.5 inches below the annual average, which means that 2021 could finish with an above-average year. This may be due to the 6-month ENSO-Neutral period from March to October 14, 2021. While this might get close to the 35.5 annual average, La Niña has officially developed again and is expected to continue into 2022. This could bring drier and milder-than-normal conditions across Central Texas, which will likely result in further declines as 2022 gets underway. Hopefully, spring of 2022 will bring its usual upward swing of recharge to keep the aquifers well-supplied.

3.2 Grant Programs

During FY 2021, Aquifer Science staff worked on a grant from Hays County to install two monitor wells near Jacob's Well. Additional funding for these wells was provided by Hays Trinity Groundwater Conservation District and the District. One of these wells will be a Westbay multiport well that will be completed into the Lower Trinity Aquifer with about eight monitor zones. Because of delays related to Covid, and postponing drilling to after the swim season at Jacob's Well, it is likely that the wells will be installed in FY 2022.

3.3 Professional Services

The District expended \$228,314 for professional services in FY 2021.

This amount included legal fees of \$92,511 for general counsel support provided by Bickerstaff, Heath, Delgado & Acosta LLP of Austin, and included involvement of the District and its attorneys in the following main billing categories: General Matters/Personnel \$39,610; EP \$44,870; DSWW TPDES 3,493; and an additional \$550 on smaller matters.

In addition, the District expended \$3,989 for litigation support from Intera Incorporated.

There were no legal services associated uniquely with grant projects as grant-billable costs.

Additional professional services for FY 2021 also reported in the above amount include the District's third-party retirement plan administrator, The Standard, for \$30,205; and \$92,597 in the Elections category.

The District retained Montemayor Britton Bender PC early in 2016 to perform its annual financial audits. The fee for these professional services is \$13,000 for FY 2021, and is also included in the professional services total above.

Not included in the professional services total above, the District expended \$36,000 for the lobbying services of SledgeLaw Group for the 86th Legislative Session. The District has changed the timing of when legislative issues are addressed from a biennial expense to an ongoing expense according to a new term of agreement dated July 1, 2016, being a flat-fee structure bifurcated between legislative session months and legislative interim months spread across 24 months. During legislative months – November of even-numbered years through June of odd-numbered years, the fee will be \$4,000 per month. During legislative interim months – July of odd-numbered years through October of even-numbered years, the fee will be \$1,000 per month, therefore one year there will be \$36,000 in legislative expenses, and the following year there will be \$12,000 in legislative expenses.

These professional services do not include the contracted labor that comprises programmatic support to various team initiatives and that is budgeted as part of the individual team budgets.

3.4 Capital Projects

There were no District capital projects in FY 2021.

3.5 Financial Report

As authorized in the District Bylaws, the Board utilizes the Texas Treasury Safekeeping Trust Company (commonly referred to as "TexPool") as a depository for its funds not required by its current operations. There are several built-in controls and safeguards in the TexPool account mechanisms. The District has established and maintains funds in three TexPool accounts to further minimize risk and to partition funds designated for certain potential uses. To facilitate payments and timely deposits, the District also maintains both checking and payroll accounts with Branch Banking and Trust Company (BB&T)/now Truist, which are FDIC-insured. Monies are moved electronically between these Truist accounts and the TexPool accounts, generally keeping funds not required by current operations in TexPool, and therefore the cash balances in the operating bank accounts as small as prudently feasible. The District has no additional monetary investments other than its cash fund accounts.

End-of-the-year cash and account balances and an independent assessment of financial controls will be found in the Annual Audit Report, included as Appendix A, upon completion of the financial audit.

3.6 Evaluation of District's Long-Range Plan Pursuant To §36.1071

3.6.1 Background

TWC §36.1071 requires all GCDs to establish and maintain a long-range comprehensive plan for groundwater management in the District. This long-range plan is a ten-year plan called the District Management Plan. The MP must be reviewed, revised as necessary, readopted, and reapproved at least once each five years. The current plan was adopted in November of 2017. Pursuant to the code provisions, all GCDs are required to assess progress quantitatively toward the objectives in their prevailing MP at least annually. This assessment is summarized in the following Section 3.6.2, and elaborated on in Appendix B of this Annual Report.

3.6.2 Board Evaluation of Goals, Objectives, and Progress Assessment

Section 2.0 of this report highlights some activities for each of the operational teams. A more comprehensive and detailed listing of the activities of the District is included in Appendix B, which was prepared by staff to assist the Board's evaluation of the progress made in FY 2021 toward the goals, objectives, and performance standards identified in the prevailing District MP.

On November 18, 2021, the Board reviewed the information in Appendix B, discussed its conformance with the plan objectives and their subsidiary performance standards, and then took action to evaluate progress made by the District toward these strategic objectives, as specified in the metrics for each of the objectives. Following a proper motion and second, and discussion in a properly noticed Open Meeting, the Board unanimously approved the progress toward each and all objectives in FY 2021 as being satisfactory. The basis for that decision-making is included in this Annual Report as Appendix B.

This assessment for FY 2021 measured the progress towards the goals and objectives of the current MP, which was approved by the TWDB on November 21, 2017, and will serve as the basis for the Board's next evaluation of the plan's objectives in FY 2022.

APPENDIX A

Independent Annual Financial Audit Report

(To be Board-approved in November 2021)



Montemayor Britton Bender PC

CERTIFIED PUBLIC ACCOUNTANTS

**BARTON SPRINGS/ EDWARDS AQUIFER
CONSERVATION DISTRICT**

**INDEPENDENT AUDITOR'S REPORT
AND
FINANCIAL STATEMENTS**

31 AUGUST 2021

**BARTON SPRINGS/EDWARDS AQUIFER
CONSERVATION DISTRICT**

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Montemayor Britton Bender PC
CERTIFIED PUBLIC ACCOUNTANTS

Board of Directors
Barton Springs/Edwards Aquifer Conservation District

INDEPENDENT AUDITOR'S REPORT

We have audited the accompanying financial statements of Barton Springs/Edwards Aquifer Conservation District (District) as of and for the year ended 31 August 2021, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the District as of 31 August 2021, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 8 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Montemayor Britton Bender PC

3 December 2021
Austin, Texas

Barton Springs / Edwards Aquifer Conservation District

Management's Discussion and Analysis

Fiscal Year Ending August 31, 2021

The following **Management's Discussion and Analysis** narrative provides an overview and summary-level analysis of the significant activities and situations that have financial reporting consequence for the fiscal year. This information is provided in conjunction with our financial statements that follow. The percentages shown in the Management's Discussion & Analysis narrative are based on the comparisons of the Statements of Revenues, Expenses and Changes in Fund Net Position.

OVERVIEW OF THE FINANCIAL STATEMENTS

Since the activities of the District are financed primarily by fees charged to external parties, such activities are reported as an enterprise fund and are considered a "business-type activity." The financial statements required for an enterprise fund are the Statement of Net Position; the Statement of Revenues, Expenses, and Changes in Fund Net Position; and the Statement of Cash Flows.

The Statement of Net Position presents the District's assets and liabilities, with the difference between the two reported as net position, as of the end of the fiscal year. Over time, increases or decreases in net position are one indicator of whether the financial position of the District is improving or deteriorating.

The Statement of Revenues, Expenses, and Changes in Fund Net Position presents information showing the operating revenues and expenses of the District for the fiscal year, using the accrual basis of accounting. Therefore, revenues are recognized when earned, and expenses are recognized when incurred, regardless of when cash is received or paid.

The Statement of Cash Flows provides information about the cash receipts and cash payments of the District during the fiscal year, summarized by operating, capital and related financing, and investing activities.

Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

CONDENSED FINANCIAL INFORMATION

The following table presents comparative condensed financial information on assets, liabilities and net position.

Condensed Statement of Net Position August 31, 2021, 2020, and 2019

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Current assets	\$1,724,157	\$1,373,908	\$1,052,553
Capital assets	<u>338,646</u>	<u>397,453</u>	<u>456,188</u>
Total assets	<u>\$2,062,803</u>	<u>\$1,771,361</u>	<u>\$1,508,741</u>
Total liabilities	<u>\$465,767</u>	<u>\$264,632</u>	<u>\$209,109</u>
Net position:			
Net investment in capital assets	338,646	397,453	456,188
Unrestricted	<u>1,258,390</u>	<u>1,109,276</u>	<u>843,444</u>
Total net position	<u>1,597,036</u>	<u>1,506,729</u>	<u>1,299,632</u>
Total liabilities, and net position	<u>\$2,062,803</u>	<u>\$1,771,361</u>	<u>\$1,508,741</u>

The following table presents comparative condensed financial information on revenues, expenses, and changes in fund net position.

Condensed Statement of Revenues, Expenses and Changes in Fund Net Position Years Ended August 31, 2021, 2020, and 2019

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Operating revenues	\$1,699,890	\$1,787,686	\$1,659,028
Operating expenses	<u>1,610,477</u>	<u>1,593,822</u>	<u>1,903,511</u>
Operating income	<u>89,413</u>	<u>193,864</u>	<u>(208,483)</u>
Non-operating revenues(expenses)			
Interest income	896	13,231	29,110
Interest expense	<u>0</u>	<u>0</u>	<u>0</u>
Total non-operating rev/(exp)	<u>896</u>	<u>13,231</u>	<u>29,110</u>
Change in net position	90,309	207,095	(179,373)
Beginning net position	<u>1,506,727</u>	<u>1,299,632</u>	<u>1,479,005</u>
Net position end of year	<u>\$1,597,036</u>	<u>\$1,506,727</u>	<u>\$1,299,632</u>

FINANCIAL HIGHLIGHTS OF CHANGES IN OPERATING REVENUES

The discussion that follows is based on August 31, 2021 (FY 2021) financial reports.

Permittees' Production Fees and Annual Permit fees, Transport (export) fees, and City of Austin/Austin Water Utility Water Use fees (exclusive of conservation credits), together increased by \$24,558 in FY 2021 from the prior year to \$1,741,989 from \$1,717,431. This small increase is about 1% and directly attributed to the City of Austin Water Use Fee that was assessed in the amount of \$993,017 for FY 2021 and assessed in the amount of \$982,284 for FY 2020 (1.1% increase); and to the small increase of \$4,827 (0.8%) in permittee production fees. The City of Austin water use fee was calculated for FY 2021 based on an extensive analysis of the projected permitted pumping in accordance with the statutory formula.

Included in the production revenue above are transport permit fees. There continue to be two District transport permits that generated \$124,000 in transport fees revenue in both FY 2021 and FY 2020.

All "Other Fees" includes revenue derived from variable sources such as well development fees, well application and inspection fees, well pluggings, meter reading and late fees, and drought management fees (fees applicable only during a District-declared drought). Revenue from Other Fees was budgeted to be \$9,800 for FY 2021. Actual Other Fees earned at fiscal year-end were \$20,763 which was a \$10,963 (2.79%) increase to what was budgeted.

The four reasons for the increase over what was budgeted are the drought management fees of \$4,700; the additional \$2,450 received in well application revenue; the \$900 received for meter reading fees and late payment fees (which are never budgeted); and a \$2,500 permit special provision received (that in FY 2022 has a specific expense line item associated with this special provision, under Professional Services/Shared Territory (Special Provisions).

Relative to FY 2020, Other Fees increased in FY 2021 by \$6,867 which is also due to the DMFs of \$4,700, and also the additional \$3,000 received in well development and application fees.

Drought management fees (mentioned above) are assessed for permittee noncompliance only during a District-declared drought of three months or longer. In FY 2021, the District declared Stage II Alarm Drought on October 9, 2020, which means the three-month period to begin assessing drought management fees began in January 2021. The District waived fees for the month of February due to the winter storm which affected many pipes causing unexpected water leakages. This drought ended when the District declared no-drought on July 8, 2021.

The District was in No Drought status for the entire FY 2020, therefore there were no drought management fees assessed or collected for FY 2020.

Interest income in FY 2021, as expected, continued to be minimal but is a substantial decrease (93.2%) from FY 2020. Actual interest income received for FY 2021 was \$896 compared to \$13,231 in FY 2020.

FINANCIAL HIGHLIGHTS OF CHANGES IN OPERATING EXPENSES

The discussion that follows is based on August 31, 2021 (FY 2021) financial reports.

Expenses for personnel salaries and wages for FY 2021 were \$843,998 which is \$56,410 less than the FY 2020 expenses for personnel salaries and wages of \$900,408 (and \$24,063 less than what was budgeted). The decreased salary total in FY 2021 was a result of employee resignations, new hires, and the vacancy time in-between the two.

This 6.3% salary decrease in FY 2021 also affected the payroll taxes with a small decrease of 5.7%, from \$67,179 to \$63,371; and a noticeable decrease of 16.9% to the District's retirement contribution, from \$62,467 in FY 2020 to \$51,917 in FY 2021 (and \$9,083 less than budgeted). This decrease is due to two employees that were eligible participants in the retirement plan that resigned, and that the two new hires were not yet eligible to participate.

Actual expenses for employee group insurance benefits in FY 2021 were \$131,366 which is \$7,376 less than the FY 2020 expense of \$138,472. This includes employee health premiums, 25% of employee dependent health premiums, employee dental, employee life, and employee vision. This line item usually increases annually. In FY 2021, there was a required-Plan change that increased the premiums but that was offset somewhat by the time that positions were vacant during the new hire process.

Actual expense for directors' compensation for meetings in FY 2021 was \$21,100 which is less than the FY 2020 actual expenses of \$24,000 (a 12.1 % decrease). In this category, the statutory maximum annual amount, is \$9,000 per director per fiscal year, in which \$40,000 was budgeted. The 52.8% less than budgeted is primarily due to one Board vacancy in Precinct 3, and one board member that does not take compensation.

Direct expenses associated with the ongoing work of the various programmatic teams (Aquifer Science, Communication and Outreach, and Regulatory Compliance) are not meaningfully comparable on a year-on-year basis, because the work programs of each vary, and also cross over fiscal years. These teams' efforts were judged by the Board to have made sufficient progress towards achieving the District's Management Plan goals (Appendix B of the draft Annual Report) and within their budget and schedule constraints, which are the more meaningful management measures.

Since the District holds elections no more often than every two years (in odd-numbered fiscal years, if and when election contests warrant), the Elections account typically shows large percentage differences from year to year. Similarly, the majority of expenses for legislative support services tend to be biennial with the Texas Legislative Regular Sessions in odd-numbered fiscal years. So, year-on-year expenses will vary. The majority of election expenses are incurred in the fiscal year building up to November elections in even-numbered calendar years.

The District held an election in FY 2021 (November 2020) for District Precincts 1, 3, and 4; one director resigned, one director had no opposition, and one incumbent director up for re-election had opposition. The total election expense of \$92,597 was extraordinarily high compared to any other previous election that the District has held, due to pandemic-related issues that all entities holding elections also experienced. The election expense is included in the Professional Services expenses.

The District contracts for legislative support services every year, following a flat-fee structure bifurcated between legislative session months and legislative interim months spread across 24 months. During legislative months (November of even-numbered years through June of odd-numbered years), the fee will be \$4,000 per month. During legislative interim months (July of odd-numbered years through October of

even-numbered years), the fee will be \$1,000 per month. So, legislative support service expenses will cycle biennially with \$36,000 incurred in the year with legislative months and \$12,000 in the following year with legislative interim months. Therefore in 2021, legislative expenses were \$36,000 compared to the \$12,000 in FY 2020.

In FY 2021, actual Professional Services expenses (excluding legal expenses which are characterized below) were \$135,802 as compared to \$40,140 in FY 2020 (a 238.3% increase). These professional service expenses include the annual financial audit, the Standard retirement plan administration, and election expenses (mentioned above). Retirement plan administration increased in FY 2021 to \$30,205 from \$24,293 in FY 2020 (a 24.3% increase). This is directly related to the employee retirement fund balances (current eligible employees and ex-employees that have chosen to leave their funds in our Plan, which we have no control over), and any market affects to those balances.

Other professional services are team-specific and are included in team budgets as contracted support expenses.

Legal Services expenses for FY 2021 were \$89,391 compared to \$96,945 in FY 2020; a small decrease of 7.8%. The District budgeted \$135,000 but only expended 66% of this amount due to a contested case ending. This contested case was associated with the HB 3405 annexation of the Shared Territory, and a refund of the remaining deposit for SOAH-EP has been made.

Several expense accounts or sub-accounts showing large percentage changes reflect small dollar amounts in one or both years leading to relatively large proportional changes.

KEY FACTORS INFLUENCING CAPITAL ASSETS

Capital assets subject to depreciation include building, vehicles, and equipment with an original cost that is greater than \$5,000 and with a life exceeding one year. Land is not depreciated.

There were no facilities upgrades in FY 2021 nor FY 2020.

In Facilities Repairs and Maintenance for FY 2021, \$3,506 was spent on septic maintenance, shed repair, and landscaping vine removal. In FY 2020, \$5,000 was spent on a new HVAC system.

KEY FACTORS INFLUENCING CHANGES IN CASH FUNDS

The available cash funds (two Truist [name change from merge of BB&T and Suntrust] accounts and one TexPool General account, excluding the TexPool Contingency and TexPool Reserve funds) at the end of FY 2021 totaled \$888,599 which is \$215,607 more than the \$672,992 total at the end of FY 2020. Differences in these funds are mostly attributable to the timing of receipts of water use fee payments from permittees and the City of Austin/Austin Water Utility, and their resulting deposits. But in this instance, it may be directly attributable to the \$200,000 moved into the Cash Flow Reserve sub-account in TexPool General that increased the Cash Flow Reserve fund balance from \$150,000 to \$350,000. (This account balance was reduced to \$175,000 in FY 2022. It is intended to keep this account balance between \$175,000 and \$200,000 as a budget security for unknown and unforeseen circumstances that may occur.)

ANTICIPATED CHANGES FOR FY 2022:

The following events and initiatives affecting the revenue, cost, and financial management have not occurred yet or have not yet substantially impacted the financial performance of the District, but are expected or potentially expected to occur and be significant to financial performance and/or condition in FY 2022.

- Installation (completion) of Hays County multiport wells – Jacobs Well Project.
- Implementation of stakeholder discussions for Sustainable Yield.
- Sustainable Yield Modeling Efforts.
- Creation of a Board three-year Fiscal Policy.
- Redistricting.
- Filling two vacant executive positions, General Manager and Assistant General Manager.
- Implementation of the new District Communications Plan.
- Five-year District Management Plan Evaluation and Review, with consideration of the District HCP.

CONTINGENCY PLANNING ASSETS

The cash assets include \$504,771 designated by the Board for certain unanticipated legal expenses and other contingencies. This was the balance of the Contingency Account at the end of FY 2021. In FY 2020, the balance of this account at the end of the year was \$598,092, so there was a decrease of \$93,321 mostly attributable to the unexpected and unbudgeted election expense.

The Texas Legislature has by statute declared Groundwater Conservation Districts (GCD) as the preferred method of groundwater management in the state (Texas Water Code, §36.0015(b)). Chapter 36 also affirms that groundwater is private property. The common law further affirms that groundwater, as private property in place, is constitutionally protected from regulatory takings and that any lawful GCD action that is determined by a court to be a taking of private property will require just compensation.

While taking claims are very fact-specific and complex to litigate, the possibility exists that the District may take a lawful action that limits a landowners access to their private property (groundwater) that may be determined by a court to be a regulatory takings. Such a determination will require substantial expense to litigate and/or pay for such just compensation to remedy the takings. This potential legal risk is relatively low but is planned for by the Board by reserving certain funds as a contingency for this scenario or other matters that may require substantial expense by the District.

Additionally, annexation of the Shared Territory in Hays County resulting from HB 3405 has increased the District's jurisdictional area and the number of permits that are processed and issued by the District. The increased number of permits also increases the probability of potential contested cases and the associated legal expenses.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT
STATEMENT OF NET POSITION PROPRIETARY FUND
31 AUGUST 2021

ASSETS

Current assets

Cash	\$314,750
Short-term investments (including \$504,771 designated by the Board for future legal expenses)	1,403,692
Other	<u>5,715</u>
	<u>1,724,157</u>

Noncurrent assets

Nondepreciable capital assets	201,758
Depreciable capital assets	<u>136,888</u>
	<u>338,646</u>
	<u>2,062,803</u>

LIABILITIES

Current liabilities

Accounts payable	7,403
Conservation credits payable (Note 5)	44,741
Accrued payroll	66,911
Unearned project revenue	83,000
Unearned permit and fee revenue	<u>263,712</u>
	<u>465,767</u>

NET POSITION

Net investment in capital assets	338,646
Unrestricted	<u>1,258,390</u>
	<u>\$1,597,036</u>

The accompanying notes are an integral part of this financial statement presentation.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT
PROPRIETARY FUND
STATEMENT OF REVENUE, EXPENSES, AND CHANGES IN FUND NET POSITION
YEAR ENDED 31 AUGUST 2021

OPERATING REVENUE	
Water permits and fees	\$1,697,248
Other	<u>2,642</u>
	<u>1,699,890</u>
OPERATING EXPENSES	
Personnel and related	1,097,615
Professional services	135,802
Legal	89,391
Depreciation and amortization	58,808
Legislation	36,000
Aquifer science	29,163
Director compensation	21,100
Utilities	18,652
General management	17,863
IT maintenance	12,000
Maintenance	11,835
Rent	9,342
Regulatory Compliance team	5,398
Communication and Outreach team	4,284
Other	<u>63,224</u>
	<u>1,610,477</u>
OPERATING INCOME	<u>89,413</u>
NONOPERATING REVENUE	
Interest income	<u>896</u>
CHANGE IN NET POSITION	90,309
BEGINNING NET POSITION	<u>1,506,727</u>
ENDING NET POSITION	<u>\$1,597,036</u>

The accompanying notes are an integral part of this financial statement presentation.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT
PROPRIETARY FUND STATEMENT OF CASH FLOWS
YEAR ENDED 31 AUGUST 2021

CASH FLOWS FROM OPERATING ACTIVITIES

Receipts from water permit and other use fees	\$1,891,373
Other cash receipts	2,642
Payments to employees for services	(1,118,329)
Payments to suppliers for goods and services	<u>(426,195)</u>
	<u>349,491</u>

CASH FLOWS FROM INVESTING ACTIVITIES

Purchases from sale of short-term investments	(146,886)
Interest received on short-term investments	<u>896</u>
	<u>(145,990)</u>

NET CHANGE IN CASH	203,501
BEGINNING CASH	<u>111,249</u>
ENDING CASH	<u>\$314,750</u>

Reconciliation of operating income to net cash provided by operating activities:

Net operating income	\$89,413
Depreciation and amortization	58,808
Change in accounts receivable	(23)
Change in prepaid expense	160
Change in accrued payroll liabilities	386
Change in accounts payable	6,599
Change in conservation credits	23,239
Change in unearned fees related to water fees	<u>170,909</u>
	<u>\$349,491</u>

The accompanying notes are an integral part of this financial statement presentation.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 1: ORGANIZATION

The Barton Springs/Edwards Aquifer Conservation District (District) is a Groundwater Conservation District created in 1986 by the Texas Water Commission, validated in 1987 by the 70th Legislature of the State of Texas (Senate Bill 988), and confirmed by the voters on 8 August 1987. As a Groundwater Conservation District, the District's statutory purpose and adopted mission is to conserve, preserve, protect, enhance recharge, and prevent waste of groundwater and preserving all aquifers within the District.

Upon creation, the District's jurisdictional area encompassed approximately 255 square miles and was generally defined to include all the area within the Barton Springs segment of the Edwards Aquifer with an extended utility service area to the east. In 2015, the 84th Texas Legislature (House Bill 3405) expanded the District's jurisdictional area to include the portion of Hays County located within the boundaries of the Edwards Aquifer Authority excluding the overlapping area in the Plum Creek Conservation District. The newly annexed area, designated as "Shared Territory," excludes the Edwards Aquifer and includes all other aquifers, including the underlying Trinity. The District's jurisdictional area now encompasses approximately 420 square miles and includes both urban and rural areas in southern Travis County, central and eastern Hays County, and portions of northwestern Caldwell County.

The District's statutory authority is derived primarily from the enabling legislation creating the District, Senate Bill 988, 70th RS, now codified at Special District Local Laws Code Chapter 8802, and Chapter 36 of the Texas Water Code. The enabling legislation creating the District provides that the District may assess fees "on an annual basis, based on the size of column pipe used in the wells, the production capacity of the well, or actual, authorized, or anticipated pumpage." The House Bill 2294 in the 74th Legislative Session further provided that the City of Austin can be required to pay a water use fee not exceeding 60% of the sum of (1) the total production fees received from all permitted users, and (2) the water use fee of the City of Austin. House Bill 3405 (HB 3405) further amended the District's enabling legislation by setting limits on the total annual water use fee assessed to the City of Austin.

The financial statements of the District are prepared in accordance with generally accepted accounting principles (GAAP). The Governmental Accounting Standards Board (GASB) is responsible for establishing GAAP for state and local governments through its pronouncements (Statements and Interpretations). Governments are also required to follow the pronouncements of the Financial Accounting Standards Board (FASB) issued through 30 November 1989 (when applicable) that do not conflict or contradict GASB pronouncements. Although the District has the option to apply FASB pronouncements issued after that date, the District has chosen not to do so. The more significant accounting policies established in GAAP and used by the District are discussed below.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

MEASUREMENT FOCUS AND BASIS OF ACCOUNTING

The District's business-type activities are presented on the accrual basis of accounting. Fees and charges and other exchange revenues are recognized when earned and expenses are recognized when incurred.

REPORTING ENTITY

These financial statements present the operations of the District alone, and include no component units. As defined by GASB Statement No. 14 the *Financial Reporting Entity*, and GASB Statement No. 39, *an Amendment to Statement No. 14*, component units are legally separate entities that would be included in the District's reporting entity because of the significance of their operating or financial relationships with the District. Based on the specific criteria in the Statements, the District has no component units and is not a component unit of any other reporting entity as defined by the Statements.

GOVERNMENT-WIDE AND FUND FINANCIAL STATEMENTS

Basic financial statements of a governmental entity normally include both government-wide and fund financial statements. However, because the District only has one fund, only fund financial statements are presented.

The District's operations are accounted for in the proprietary fund type called an enterprise fund. Enterprise funds are required to be used to account for business-type operations for which a fee is charged to external users for goods or services. The focus of proprietary fund measurement is upon determination of operating income, changes in net position, financial position, and cash flows.

CAPITAL ASSETS

Capital assets purchased or acquired with an original cost of \$5,000 or more are reported at historical cost or estimated historical cost. Additions, improvements and other capital outlays that significantly extend the useful life of an asset are capitalized. Other costs incurred for repairs and maintenance are expensed as incurred.

Well monitoring access rights are capitalized at costs incurred by the District and amortized on a straight line basis over the useful life stated in the well right agreement. Well monitoring access rights with an indefinite life are not amortized; however, they are evaluated for impairment annually. The well monitoring access rights will enable the District to perform tests and collect data on the saline portion of the Edwards aquifer that will assist in evaluating the effects of pumping, and inform its feasibility as an alternative water supply.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

CAPITAL ASSETS

Depreciation/amortization on all assets is provided on the straight-line basis over the following estimated useful lives:

<u>Description</u>	<u>Years</u>
Building and improvements	25-30
Office furniture and equipment	3-10
Field equipment	5-7
Database	5
Vehicles and finite life well monitoring access rights	5

UNEARNED REVENUE

Unearned revenue consists of water permit fees received in the current fiscal year which are applicable to the succeeding fiscal year. These fees will be recognized as revenue in the fiscal year to which they apply.

OPERATING REVENUE AND EXPENSES

The District proprietary fund type distinguishes between operating and nonoperating revenues and expenses. Operating revenues and expenses consist of charges for services (consisting of fees assessed for permittees' permitted pumpage) and the costs of providing those services, including depreciation. All other revenues and expenses are reported as nonoperating. There were no significant nonoperating revenues or expenses during the year.

NET POSITION

Net position represents the difference between assets, deferred outflows, liabilities, and deferred inflows. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowing used for the acquisition, construction or improvements of those assets.

ESTIMATES

The preparation of financial statements in conformity with U.S. generally accepted accounting principles require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 2: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

ACCRUED PAYROLL

The District accrues accumulated unpaid vacation leave and the related payroll taxes and retirement contributions earned by the employee.

NOTE 3: DEPOSITS AND INVESTMENTS

At 31 August 2021, the carrying amount of the District's cash deposits was \$314,750, and the bank balance was \$71,386. Short-term investments of \$1,403,692 are invested with TexPool. TexPool investments are carried at amortized cost, which approximates fair value.

Chapter 2256 of the Texas Government Code (the Public Funds Investment Act) authorizes the District to invest its funds in a manner that primarily emphasizes safety of principal and liquidity, addresses investment diversification, yield, and maturity and addresses the quality and capability of investment personnel.

TexPool is a local government investment pool. The State Comptroller oversees TexPool, with Federated Investors managing the daily operations of the pool under a contract with the State Comptroller. TexPool allows shareholders the ability to deposit or withdraw funds on a daily basis. Such funds seek to maintain a constant net asset value of \$1.00, although this cannot be fully guaranteed. TexPool is rated AAAM (the highest rating a local government investment pool can achieve) and must maintain a dollar weighted average maturity not to exceed 60 days, which is the limit. At 31 August 2021, the TexPool portfolio had a weighted average maturity of 31 days. However, the District considers the holdings in this fund to have a one day weighted average maturity because the share position can usually be redeemed each day at the discretion of the shareholder, unless there has been a significant change in value. The District has adopted an investment strategy to pursue limited investment risk, the objectives of which are safety of principal, maintenance of adequate liquidity, maximization of return on investments and maintain public trust from prudent investment activities. The District is authorized to invest in its depository accounts with banks or invest in TexPool. During the year, the District complied with its investment policy.

NOTE 4: RISK MANAGEMENT

The District is exposed to various risks of loss including general liability, property damage, and workers' compensation. The District insures against risk through commercial insurance.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 5: CONSERVATION CREDITS PAYABLE

The District supports and encourages a permittee's efforts to conserve water and to reduce annual pumpage as a result of conservation efforts by providing a credit to the permittee's account for the ensuing fiscal year. To be eligible for the credit, the permittee's reported pumpage volume must be less than the maximum amount pumped on an annual basis in the last three fiscal years, and the permittee must meet other requirements regarding submission of timely payments and meter readings. Conservation credits awarded for fiscal year ending 31 August 2021 amounted to \$44,741.

NOTE 6: CONCENTRATION

59% of the District's total revenue for the year is from the City of Austin.

NOTE 7: RETIREMENT PLAN

Effective 1 September 1991, the District's Board of Directors established a defined benefit contribution retirement plan, which is a money purchase pension plan and trust, known as the Barton Springs/ Edwards Aquifer Conservation District Retirement Plan and Trust (the Plan). The Plan is administered by Standard Retirement Services, Inc. and provides retirement benefits for all full-time employees who are at least twenty-one years of age and have twelve months of service.

The administrator separately accounts for each employee participant's interest in individual accounts, and investments are participant directed. The required employee contribution rate is 7.5% and is matched by the District in the same amount. Upon entry to the Plan, employees are 50% vested in the District's contributions. After two years of service, eligible employees become 100% vested. Forfeitures are allocated first to pay Plan administrative expenses, then used to reduce employer contributions. For fiscal year ended 31 August 2021 the District's contribution to the Plan was \$51,917.

NOTE 8: OPERATING LEASE

The District has entered into leases for equipment which expire in 2026. For the fiscal year ended 31 August 2021 rent expense was approximately \$9,300. Future minimum lease payments for the operating leases are \$9,160 a year for the fiscal years ending 31 August 2022 through 31 August 2025 and \$8,043 for the fiscal year ending 31 August 2026.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 9: CAPITAL ASSETS

	<u>Beginning Balance</u>	<u>Increase</u>	<u>Decrease</u>	<u>Ending Balance</u>
Capital assets not depreciated/amortized:				
Land	\$165,415	\$0	\$0	\$165,415
Well monitoring access rights, indefinite life	<u>36,343</u>	<u>0</u>	<u>0</u>	<u>36,343</u>
	<u>201,758</u>	<u>0</u>	<u>0</u>	<u>201,758</u>
Depreciable/amortizable assets:				
Building and improvements	268,588	0	0	268,588
Office furniture and equipment	33,253	0	0	33,253
Database	95,016	0	0	95,016
Field equipment	386,809	0	0	386,809
Vehicles	52,363	0	0	52,363
Well monitoring access rights, finite life	127,705	0	0	127,705
Accumulated depreciation/amortization:				
Building and improvements	(180,200)	(8,704)	0	(188,904)
Database	(19,033)	(19,003)	0	(38,036)
Office furniture and equipment	(33,253)	0	0	(33,253)
Field equipment	(381,027)	(5,558)	0	(386,585)
Vehicles	(52,363)	0	0	(52,363)
Well monitoring access rights, finite life	<u>(102,162)</u>	<u>(25,543)</u>	<u>0</u>	<u>(127,705)</u>
	<u>195,696</u>	<u>(58,808)</u>	<u>0</u>	<u>136,888</u>
	<u>\$397,454</u>	<u>(\$58,808)</u>	<u>\$0</u>	<u>\$338,646</u>

NOTE 10: LITIGATION

The District was not actively involved in any litigation during fiscal year (FY) 2021. However, there were other legal matters beyond general matters (discussed below) that required material expenditures for legal services in FY 2021.

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT

NOTES TO FINANCIAL STATEMENTS

NOTE 10: LITIGATION

In FY 2021, the recommended draft proposed permit for the Electro Purification LLC (EP) application is no longer under review by the Administrative Law Judge (ALJ) at State Office of Administrative Hearings (SOAH). The District submitted pre-filed testimony and a revised General Manager (GM) Position Statement in December 2020. Depositions were scheduled for January-February 2021. On 11 January 2021, EP filed a Notice of Nonsuit and request to remand the application back to the District. On 15 January 2021, the District filed a response to the applicant's Notice of Nonsuit and requested that the ALJ find that with a nonsuit, that EP has withdrawn the application. On 25 January 2021, EP filed a response disagreeing with the District's request that the ALJs find the application withdrawn. On 4 February 2021, the ALJs dismissed the EP matter and remanded the matter back to the District. The original hearing on the merits will no longer be set for the dates of April 12-16 and 19-20, 2021. On March 9th the GM issued a letter to EP returning the 17 July 2017 application of EP and explaining that there is no further action that the GM intends to take in connection with the remand. On April 14th the GM and counsel met with EP to discuss their desired requests relating to amending their permit application request. The administrative processes and options relating to their permit request as well as the GM's current position statement were discussed.

APPENDIX B

Assessment of Progress toward Management Plan Goals and Objectives

(To be Board-approved in November 2021)

FY 2021

Appendix B

**Assessment of Progress Toward
Management Plan Goals and Objectives**

Board-approved November 18, 2021

GOAL 1 - PROVIDING THE MOST EFFICIENT USE OF GROUNDWATER

31 TAC 356.52(A)(1)(A)/TWC §36.1071(A)(1)

Objective 1-1. Provide and maintain on an ongoing basis a sound statutory, regulatory, financial, and policy framework for continued District operations and programmatic needs.

Performance Standards

Develop, implement, and revise as necessary, the District Management Plan (MP) in accordance with state law and requirements. Each year, the Board will evaluate progress towards satisfying the District goals. A summary of the Board evaluation and any updates or revisions to the MP will be provided in the Annual Report.

In FY 2021, the District continued to implement its MP that was approved by the Texas Water Development Board (TWDB) on November 21, 2017. No revisions or amendments were presented or made.

In order to achieve the goals, management objectives, and performance standards adopted in the MP, on November 18, 2021, the District's Board of Directors (Board) evaluated progress made, and approved the District's FY 2021 Annual Report and Appendix B (Assessment of Progress toward Management Plan Goals and Objectives). Appendix A (the annual financial audit) will be presented at the December 9, 2021 Board Meeting.

Review and modify District Rules as warranted to provide and maintain a sound statutory basis for continued District operations, and to ensure consistency with both District authority and programmatic needs. A summary of any rule amendments adopted in the previous fiscal year will be included in the Annual Report.

During FY 2021, Board and staff worked on amendments and additions to the District Rules and the Enforcement Plan. These changes were discussed and considered at the Board meetings in July and August 2021. There were nine topic areas that the proposed rule changes addressed:

1. General Changes – These changes will update the Table of Contents and Title Pages;
2. Definitions – The addition of two definitions; Notice of Violation, and Enforcement Plan;
3. Fee Schedule – Changes to fee language;
4. Conservation Credits – Removal of the Conservation Credit Program;
5. Authorized Drilling Extensions – Adding language that the permittee must file an extension letter with the District 30 calendar days before the drilling authorization expires;
6. Drought Management Fees – Change language to where permittees can pay their Drought Management Fees with their current billing cycle;
7. Drought Enforcement and Penalties – Removal of language from this section and changing of penalties;
8. Annual Overpumpage Enforcement and Penalties – Language added for annual overpumpage enforcement and penalties; and
9. Board Meetings – Language change to how many times the Board can meet.

Objective 1-2. Monitor aggregated use of various types of water wells in the District, as feasible and appropriate, to assess overall groundwater use and trends on a continuing basis.

Performance Standard

Monitor annual withdrawals from all nonexempt wells through required monthly or annual meter reports to ensure that groundwater is used as efficiently as possible for beneficial use. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone (MZ) and permit type will be provided in the Annual Report.

A summary of the actual versus permitted production volumes for each MZ is also provided below.

FY 2021 Production from Individual Permittees		
Production Zone	Actual Production	Permitted Individual Production
Edwards	1,556,550,119	2,661,877,544
Trinity	211,230,909	616,456,117
Austin Chalk or Alluvial	48,116	2,500,000
Total (Gallons)	1,767,829,144	3,280,333,661
	(5,425.27 ac ft)	(10,067 ac ft)

FY 2021 Production from Limited Production Permits		
Production Zone	Actual Production*	Permitted Limited Production
Edwards	12,641,596	60,500,000
Trinity	5,432,596	26,000,000
Austin Chalk or Alluvial	0	0
Total (Gallons)	18,074,192	86,500,000
	(55.47 ac ft)	(265.46 ac ft)
<i>*Actual production is a volume estimate calculation described in the findings and conclusions of the BSEACD Staff Report 2010. Average Annual exempt well production is approximately 104,473 gpy</i>		

Objective 1-3. Evaluate quantitatively at least every five years the amount of groundwater withdrawn by exempt wells in the District to ensure an accurate accounting of total withdrawals in a water budget that includes both regulated and non-regulated withdrawals, so that appropriate groundwater management actions are taken.

Performance Standards

Provide an estimate of groundwater withdrawn by exempt wells in the District using Texas Department of Licensing and Regulation (TDLR) and TWDB databases, and District well records; and update the estimate every five years with the District’s MP updates.

This is a joint effort between the Aquifer Science, Communications and Outreach, and Regulatory Compliance Teams. The next estimation of exempt wells is expected to take place with the next update of the District’s MP (2022).

In the interim years between MP updates, the most current estimates of exempt well withdrawals will be included in a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each MZ and permit type that will be provided in the annual report.

A summary table of the [estimated exempt well production volumes](#) for the Edwards and Trinity MZs is provided below.

Edwards Aquifer – Estimated Exempt Wells Production		Trinity Aquifer – Estimated Exempt Wells Production	
Average Annual Volume per Exempt Well (gpy)	104,573	Average Annual Volume per Exempt Well (gpy)	104,573
Total Est Volume of Exempt Well Production (gpy) *	105,514,157	Total Est Volume of Exempt Well Production (gpy) *	120,258,950
<i>Est # of wells</i>	1009	<i>Est # of wells</i>	1150
<i>cfs</i>	0.45	<i>cfs</i>	0.51
<i>% of Permitted Production</i>	4.26%	<i>% of Permitted Trinity Production</i>	23%
<i>Permitted Edwards Production(gpy)</i>	2,719,277,544	<i>Permitted Trinity Production (gpy)</i>	525,881,557

*2010 BSEACD Staff Report – Avg Exempt Well Use=104,573 gpy

*2010 BSEACD Staff Report – Avg Exempt Well Use=104,573 gpy

Objective 1-4. Develop and maintain programs that inform and educate citizens of all ages about groundwater and springflow-related matters, which affect both water supplies and salamander ecology.

Performance Standards

Publicize District drought trigger status (Barton Springs ten-day average discharge and Lovelady Monitor Well water level) in monthly eNews bulletins and continuously on the District website.

The drought status graphic on the District home page was updated frequently to indicate drought trigger levels and associated drought conditions. In addition, both the Lovelady and Barton Springs levels are now shared weekly on the District’s social media channels and under the spotlight section of the website. The Aquifer Science/Drought Status website page was visited approximately 1,238 times throughout FY 2021. Drought stage updates were shared as press releases (sent to media) and were sent through the District’s eNews both as stand-alone press releases and in the District newsletter. Drought status updates were shared across all District social media channels (Twitter, YouTube, Facebook, Instagram) in written and visual form. The District incorporated video where staff was interviewed about drought status and the impacts to the District. Drought status was also incorporated as a banner on the District’s website and was shared on the newly-created District newsroom website page.

When the District came out of drought in July 2021, it was also announced that the regular Water Conservation Period, which extends from May through September, became active. The conservation period was publicized through drought status icons on the District website, included as a banner on the website, and shared in articles in the District’s newsletter. Conservation information was also shared on our newly-created District newsroom page and was shared across all social media platforms in written and video form.

Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.

- Communications and Outreach Manager serves on TAGD's Information & Education Committee. TAGD is using the District's Communications and Outreach plan as a template for other water districts.
- Two virtual classroom presentations.
- Partnered with Wimberley Valley Watershed Association and Trinity Edwards Springs Protection Association (TESPA) for Deep in the Karst of Texas Campaign. (July/August 2021)
- Worked with members of the Hydrogeologic Atlas of Southwest Travis County GCD for well owner education in Travis County.
- National Protect Your Groundwater Day Campaign/Postings. (September 2020)
- Collaborated with Travis County Commissioner Ann Howard for Earth Day. (April 2021)
- Assisted and attended Central Texas Water Efficiency Network Virtual meetings.
- Co-Sponsored Hill Country Explorer Guide Collaboration. (July 2021)
- Co-Sponsored Virtual Rainwater Revival and Hill Country Alliance Event. (October 2020)
- Official Communications and Outreach plan approved by the Board in August 2021.
- District Kent Butler College Scholarships were awarded to three high school winners with the highest scoring groundwater essays. There was no Aquatic Summer Camp this year due to Covid, but the camp will return in 2022. (April 2021)
- Co-Sponsored TAGD's Birthday party at the water summit. (August 2021)
- Attended TAGD Water Summit Conference. (August 2021)
- Attended Texas American Water Works Association (AWWA) and Rogue Water Lab Utility Communication Webeast Series. (April 2021)
- Created the District Newsroom page on the District website to have all District communication in one place. (June 2021)
- Created the District Instagram channel. (August 2021)
- District Twitter posts totaled over 32,000 combined impressions, more than doubling our Twitter impressions for FY 2020 (12,400).
- District website pages were viewed over 39,000 times in FY 2021.
- Increased the District video content. Between March and August, 38 videos were created on the District YouTube channel. These videos were shared on the District's social media channels, website, and some of them were shared in "The Aquifer Zone" newsletter.
- The District has teamed up with My Point TV (<https://mypoint.tv/>). MyPoint.TV is a new online news company in Austin that uses the public and eyewitness reporting to give everyone the opportunity to publish stories that matter to them. The District is sharing videos and news of importance on their site, like our Science in 60 Seconds segments and drought information. This gives access to a broader audience and allows the District to educate more than just its jurisdiction on aquifer/water related issues. (August 2021)

This summary may also be found in the Education section of the Annual Report.

Objective 1-5. Ensure responsible and effective management of District finances such that the District has the near-term and long-term financial means to support its mission.

Performance Standards

Receive a clean financial audit each year. A copy of the auditor's report will be included in the Annual Report (as Appendix A).

The Board expects to receive and approve the FY 2021 Annual Financial Audit report provided by the District's financial auditor at its Board Meeting on December 9, 2021. It will be included in the Annual Report as Appendix A.

Timely develop and approve fiscal-year budgets and amendments.

In FY 2021, there were two budget versions. The initial budget was brought before the Board in a properly-noticed public hearing held on July 9, 2020 where it was approved. The Board approved Budget Revision 1 on May 13, 2021.

Objective 1-6. Provide efficient administrative support and infrastructure, such that District operations are executed reliably and accurately, meet staff and local stakeholder needs, and conform to District policies and with federal and state requirements.

Performance Standards

Maintain, retain, and control all District records in accordance with the Texas State Library and Archives Commission-approved District Records Retention Schedule to allow for safekeeping and efficient retrieval of any and all records, and annually audit records for effective management of use, maintenance, retention, preservation and disposal of the records' life cycle as required by the Local Government Code. A summary of records requests received under the Public Information Act (PIA), any training provided to staff or directors, or any claims of violation of the PIA will be provided in the Annual Report under the General Management Team Highlights.

The Administration Team is responsible for proper maintenance, management, retention, and disposition of all District records; inventory of District property (asset management); and capital depreciation. Administration preserved and protected all public documents in accordance with state and federal laws, the adopted District Records Retention Schedule, and with the Texas State Library regulations; and maintained the District's reference material library.

District records were maintained effectively, and there were no violations of the PIA.

Develop, post, and distribute District Board agendas, meeting materials, and backup documentation in a timely and required manner; post select documents on the District website, and maintain official records, files, and minutes of Board meetings appropriately.

The Administration Team developed, posted, and distributed all materials and backup documentation for all 12 District Special Meetings (which are regular board meetings that were virtual) held in FY 2021. There were also four Work Sessions and three Public Hearings. All meeting minutes were approved by the Board at a subsequent meeting. Administrative staff maintained the officials records of each meeting on the District's website and in the District's library.

Objective 1-7. Manage and coordinate electoral process for Board members.

Performance Standard

Ensure elections process is conducted and documented in accordance with applicable requirements and timelines. Election documents will be maintained on file, and a summary of elections-related dates and activities will be provided in the Annual Report for years when elections occur.

The District holds elections no more often than every two years (in odd-numbered fiscal years, if and when election contests warrant).

The District held an election in FY 2021 (November 2020) for District Director Precincts 1, 3, and 4; one director resigned, one director had no opposition, and one incumbent director up for re-election had opposition.

Having no opposition in Precincts 1 and 3, the election was cancelled for those two precincts, and an election was held for Precinct 4, which is in both Travis and Hays counties.

GOAL 2 - CONTROLLING AND PREVENTING WASTE OF GROUNDWATER

31 TAC 356.52(A)(1)(B)/TWC §36.1071(A)(2))

Objective 2-1. Require all newly drilled exempt and nonexempt wells, and all plugged wells to be registered and to comply with applicable District Rules, including Well Construction Standards.

Performance Standard

A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will also be provided in the Annual Report.

To ensure that all firm-yield production permits are evaluated with consideration given to the District's demand-based and non-speculative permitting standards, staff completed comprehensive administrative and technical reviews of permit application requests. A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments, including approved use types and commensurate permit volumes for production permits and amendments, is provided below.

A summary of the [processed permitting applications](#) in FY 2021 is provided in the table below.

Processed Permit Applications	FY19	FY20	FY21
Minor Amendment	5	3	4
Major Amendments	0	0	0
New Exempt Well	10	2	9
Limited Production Permit (Nonexempt Domestic Wells)	16	9	15
Individual Production Permit	3	4	1
Individual Well Drilling Authorizations or Well Modification	8	2	1
Test Well	1	0	0
Well Plugging	5	6	5
Replacement Well	0	0	0
TOTAL	48	26	35

A summary of the [individual production permits processed](#) in FY 2021 is provided in the table below.

	Annual Volume (gpy)	Production Permits Processed	Permit Type	Use Type	Aquifer
1	700,000	Spicewood, LLC	Historical Trinity	Commercial	Trinity

Objective 2-2. Ensure permitted wells and well systems are operated as intended by requiring reporting of periodic meter readings, making periodic inspections of wells, and reviewing pumpage compliance at regular intervals that are meaningful with respect to the existing aquifer conditions.

Performance Standards

Inspect all new wells for compliance with the Rules, and Well Construction Standards, and provide a summary of the number and type of inspections or investigations in the Annual Report.

During FY 2021, the Regulatory Compliance Team conducted a number of inspections relating to the processing of permit applications. Staff completed a total of 15 inspections related to special investigations, site permittee inspections, and well permit applications. The Regulatory Compliance Team collected 3 water quality samples during routine permit inspections or from new well construction inspections. There were no formal enforcement actions initiated in FY 2021.

FY 2021 Inspections/ Investigations/ Visits	
Exempt Well Inspections	0
Limited Production Permit Inspections	5
Individual Production Permit Inspections	3
Test Well Inspections	0
Plugging Inspections	2
Special Investigation Inspections	5
Other Permittee Meetings/Visits *	0
<i>*Multiple meetings were held with some permittees.</i>	
TOTAL	15

Provide a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each MZ and permit type in the Annual Report.

A summary of the actual versus permitted production volumes for each MZ is provided above in the [Objective 1-2 Performance Standard update](#).

Objective 2-3. Provide leadership and technical assistance to government entities, organizations, and individuals affected by groundwater-utilizing land use activities, including support of or opposition to legislative initiatives or projects that are inconsistent with this objective.

Performance Standards

In even-numbered fiscal years, provide a summary of interim legislative activity and related District efforts in the Annual Report. In odd-numbered fiscal years, provide a legislative debrief to the Board on bills of interest to the District, and provide a summary in the Annual Report.

- During FY 2021, the 87th legislative session convened. The GM worked with SledgeLaw Group to track bill activity that would affect the District and groundwater regulation in general. Furthermore, the GM and staff tracked legislative initiatives and participated in the multiple legislative subcommittees at Texas Water Conservation Association (TWCA) and TAGD such as: Petitioning a GCD to Conduct Rulemaking; Permit Application Notices; Bed and Banks Permit vs “waste” definition; authority to use permit fees for mitigation; similar rules; permitting; and attorney’s fees. The District’s primary legislative matters of interest included:
 - H.B. 1718 – filed by Eddie Rodriquez relating to the equalization of the rates of production fees charged on certain wells by the District. The bill amended the enabling legislation for the District to prohibit the District from, before September 1, 2021, charging an annual production fee of more than 17 cents per thousand gallons of water authorized by permit if the water is permitted for any use other than agricultural use. The bill authorized the District to increase the annual production fee by not more than 10 cents per thousand gallons per year beginning September 1, 2021, for water permitted for nonagricultural purposes, until the annual production fee is equal to the maximum amount set forth in Section 8802.1045(b)(not more than the greater of: (1) 38 cents per thousand gallons; or (2) the raw surface water cost of other wholesale suppliers serving customers in the District). The bill did not go far and the last action on the bill was March 2021 where it was introduced and referred to the committee on House Natural Resources.
 - S.B. 152 - filed by Senator Perry that is an omnibus groundwater bill. This bill focuses on attorney’s fees, petitions to GCDs for rulemaking, and permit notices to affected persons. CSSB 152 removes the attorney’s fees component. S.B. 152 did not pass.

Provide a summary of District activity related to other land use activities affecting groundwater in the Annual Report.

Development Activities Over Recharge and Contributing Zones:

The District continues to monitor for proposed Texas Pollutant Discharge Elimination System (TPDES) permits in the contributing and recharge zones of the Barton Springs segment of the Edwards Aquifer. Furthermore, the District continues to track legislation regarding wastewater discharges in the Edwards Aquifer Contributing Zone.

Objective 2-4. Ensure all firm-yield production permits are evaluated with consideration given to the demand-based permitting standards including verification of beneficial use that is commensurate with reasonable non-speculative demand.

Performance Standard

A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will be provided in the Annual Report.

To ensure that all firm-yield production permits are evaluated with consideration given to the District's demand-based and non-speculative permitting standards, staff completed comprehensive administrative and technical reviews of permit application requests. A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments is provided below.

A summary of the processed permitting applications in FY 2021 is provided in the table below.

Processed Permit Applications	FY19	FY20	FY21
Minor Amendment	5	3	4
Major Amendments	0	0	0
New Exempt Well	10	2	9
Limited Production Permit (Nonexempt Domestic Wells)	16	9	15
Individual Production Permit	3	4	1
Individual Well Drilling Authorizations or Well Modification	8	2	1
Test Well	1	0	0
Well Plugging	5	6	5
Replacement Well	0	0	0
TOTAL	48	26	35

A summary of the individual production permits processed in FY 2021 is provided in the table below.

	Annual Volume (gpy)	Production Permits Processed	Permit Type	Use Type	Aquifer
1	700,000	Spicewood, LLC	Historical Trinity	Commercial	Trinity

GOAL 3 - ADDRESSING CONJUNCTIVE SURFACE WATER MANAGEMENT ISSUES

31 TAC 356.52(A)(1)(D)/TWC §36.1071(A)(4)

Objective 3-1. Assess the physical and institutional availability of existing regional surface water and alternative groundwater supplies, and the feasibility of those sources as viable supplemental or substitute supplies for District groundwater users.

Performance Standard

A summary of District activity related to this objective will be provided in the Annual Report.

Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer while increasing regional water supplies; and evaluate feasibility by considering available/proposed infrastructure, financial factors, logistical/engineering factors, and potential secondary impacts (development density/intensity or recharge water quality).

Staff worked cooperatively and closely with the Ruby Ranch Water Supply Corporation (RRWSC) and their consultants to conduct phase four of aquifer storage and recovery (ASR) pilot testing initiated in 2017 and ending in 2019 with an ASR application to the TCEQ (the 4th in Texas). The District assisted with hydrogeologic evaluations, and water level and water chemistry sampling throughout all phases of pilot testing. In FY 2020, RRWSC was given a Conditional D permit for Edwards groundwater to inject into the Trinity Aquifer. In FY 2021, RRWSC began their first Conditional D permitted ASR recovery in September 2020 and from June-August 2021, with a total of 3,117,700 gallons recovered from Trinity formations. Water-quality data collected by RRWSC was shared with the District and evaluated by Aquifer Science staff. https://bseacd.org/uploads/RubyRanchASR_Status-Report_FINAL.pdf

Objective 3-2. Encourage and assist District permittees to diversify their water supplies by assessing the feasibility of alternative water supplies and fostering arrangements with currently available alternative water suppliers.

Performance Standard

A summary of District activity related to this objective will be provided in the Annual Report.

Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies; and evaluate feasibility by considering available/proposed infrastructure, financial factors, logistical/engineering factors, and potential secondary impacts (development density/intensity or recharge water quality).

Staff met with City of Buda staff and their consultant as they prepared a permit application for an ASR system. Staff participated in collecting cuttings and core samples from the ASR test well that Buda installed. In FY 2021, the District received an ASR Pilot Test Plan which was reviewed and found satisfactory by staff to prove the feasibility of the project. Aquifer science staff will work with Buda during the pilot test to ensure adequate data is collected during the test, including monitoring of water levels with the District's Antioch Westbay well to observe potential impacts during pumping from the Buda Trinity ASR well.

Regulatory Compliance and Aquifer Science Teams had discussions with Bill Walters (Gragg Tract) on additional testing of the Lower Trinity Aquifer. Staff continues to assist with data collection and pump testing.

Objective 3-3. Demonstrate the importance of the relationship between surface water and groundwater, and the need for implementing prudent conjunctive use through educational programs with permittees and public outreach programs.

Performance Standards

Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.

This information has been presented in the monthly status report section of the Board backups, generally in the first meeting of each month. Visit <https://bseacd.org/transparency/agendas-backup/>, click on the Agenda hyperlink beneath the month of interest, the page number of the Status Report is listed under the GM Report section of the meeting agenda. Please see bulleted list in Objective 1-4 for a schedule of events and programs.

Summarized outreach activities and estimate reach is in the Annual Report.

Objective 3-4. Actively participate in the regional water planning process to provide input into policies, planning elements, and activities that affect the aquifers managed by the District.

Performance Standard

Regularly attend regional water planning group meetings, and annually report on meetings attended.

In FY 2021, staff attended meetings of the Lower Colorado Regional Water Planning Group (RWPG K) and reported on any key updates at the Board Meetings. Medina County GCD GM served as the liaison to GMA 10 from September 1, 2020 to the end of December 2020. The District GM and the alternate served as the GMA 10 representative on the RWPG through August 31, 2021 and continues to serve as the liaison.

JULY 21, 2021

https://static1.squarespace.com/static/601d9dd86690083c71aedc59/t/60ef4dbc10eba709c1ab7620/1626295742909/2021_7_21_RegionK_Mtg_Agenda.pdf

JANUARY 27, 2021

https://static1.squarespace.com/static/601d9dd86690083c71aedc59/t/60f856c315f8971b4a472fad/1626887876084/2021_1_27_Region_K_Mtg_Agenda.pdf

OCTOBER 14, 2020

https://static1.squarespace.com/static/601d9dd86690083c71aedc59/t/602195811198460bc0111aac/1612813697587/2020_10_14_Region_K_Mtg_Agenda.pdf

SEPTEMBER 15, 2020

https://static1.squarespace.com/static/601d9dd86690083c71aedc59/t/6021b7f3130c690d90e5e017/1612822515806/2020_9_15_Region_K_Mtg_Agenda.pdf

GOAL 4 - ADDRESSING NATURAL RESOURCE ISSUES WHICH IMPACT THE USE AND AVAILABILITY OF GROUNDWATER, AND WHICH ARE IMPACTED BY THE USE OF GROUNDWATER

31 TAC 356.52 (A)(1)(E)/TWC §36.1071(A)(5)

Objective 4-1. Assess ambient conditions in District aquifers on a recurring basis by (1) sampling and collecting groundwater data from selected wells and springs monthly, (2) conducting scientific investigations as indicated by new data and models to better determine groundwater availability for the District aquifers, and (3) conducting studies as warranted to help increase understanding of the aquifers and, to the extent feasible, detect possible threats to water quality and evaluate their consequences.

Performance Standards

Review water-level and water-quality data that are maintained by the District and/or TWDB, or other agencies, on a regular basis.

Staff visits approximately 42 monitor wells quarterly, in addition to numerous other wells throughout the year, including six multiport monitor wells. Data is collected and organized into individual spreadsheets and databases. Staff also regularly samples wells and springs for detailed geochemical analyses as a cooperator for the TWDB (15 sites in FY 2021). All data has been compiled in the TWDB database that is publicly available. In addition, staff has repeatedly visited and sampled numerous wells in areas reporting or anticipating problems such as the Electro Purification LLC (EP), Summer Mountain Ranch, and Permian Highway Pipeline (PHP) areas.

Improve existing analytical or numerical models or work with other organizations on analytical or numerical models that can be applied to the aquifers in the District.

Staff provided key technical support in the development of a conceptual model for the aquifers of the Blanco River watershed. That report (Martin et al., 2019¹) was published at the end of FY 2019. Since then, staff have continued to work with the modeling team to help with logistics for project start-up. The District took a key role in applying for a grant from the U.S. Bureau of Reclamation to provide some portion of the funding for the model, however, that grant was not awarded to the District.

Aquifer Science staff began development of an in-house numerical groundwater model of the Trinity Aquifer in FY 2020. The model domain covers parts of Travis, Hays, Blanco, and Comal counties. A steady-state version of the model was completed in late 2020. In FY 2021, staff have worked to transition the model from steady-state to transient state. Transient models are substantially more complex than steady-state, and allow for simulation of the aquifer system under changing conditions such as prolonged drought and/or increases in localized pumping. Once completed, the in-house model will provide a valuable tool which will allow policy makers and stakeholders to evaluate the potential impacts of management decisions on the Trinity Aquifer. In addition, development of the in-house Trinity model will be a valuable training exercise for Aquifer Science staff, who will be better equipped to evaluate and interact with other groundwater models which are currently under development (such as the Blanco River Aquifer Assessment Tool and the new TWDB Hill Country Trinity Groundwater Availability Model).

Staff completed Phase 2 of a cooperative study with Travis County on the groundwater resources of Southwestern Travis County. Results provide key insights into the Middle and Lower Trinity Aquifers within and adjacent to the District. These studies will help inform conceptual and numerical models of the region.

- <https://bseacd.org/2020/08/data-compilation-and-database-structure-for-the-geodatabase-accompanying-the-hydrogeologic-atlas-of-southwest-travis-county-central-texas/>
- <https://bseacd.org/2019/11/blanco-river-aquifer-assessment-tool-a-tool-to-assess-how-the-blanco-river-interacts-with-its-aquifers-creating-the-conceptual-model/>
- <https://bseacd.org/projects/travis-county-groundwater-study/>

No significant changes in water-quality data were observed during FY 2021. Aquifer conditions began in “No Drought,” but Barton Springs flow and aquifer levels were quickly declining due to a very dry summer 2020. In early October, Barton Springs and Lovelady crossed under Stage II Drought thresholds and the Board declared Stage II Drought on October 8, 2020, and remained in Stage II Drought until above average rainfall in the spring and summer 2021 helped lift Barton Springs and the Lovelady water level above their respective Alarm Stage II Drought thresholds, and the Board declared “No Drought” conditions on July 8, 2021. Additionally, FY 2021 fall rains have bolstered spring flow and water levels in the Edwards and Trinity Aquifers.

Objective 4-2. Evaluate site-specific hydrogeologic data from applicable production permits to assess potential impact of withdrawals to groundwater quantity and quality, public health and welfare, contribution to waste, and unreasonable well interference.

Performance Standard

This involves evaluations of certain production permit applications for the potential to cause unreasonable impacts as defined by District rule. To evaluate the potential for unreasonable impacts, staff will (1) perform a technical evaluation of the application, aquifer test, and hydrogeological report; (2) use best available science and analytical tools to estimate amount of drawdown from pumping and influence on other water resources; and (3) recommend proposed permit conditions to the Board for avoiding unreasonable impacts if warranted.

- The Aquifer Science Team continues to collect data in the EP and Needmore areas, and are working with Hays County and Hays Trinity Groundwater Conservation District (HTGCD) to install additional monitor wells near Jacobs’s Well. In FY 2021, Aquifer Science staff assisted Hays County with design and overseeing drilling of a new monitoring well south of the EP wellfield. The well will be added to the District water-level monitoring network. As additional data become available, further analyses will be conducted.
- As indicated above, development of numerical models is underway to assist in the evaluations of potential impacts from pumping from the EP wells and from other pumping and drought scenarios.
- The Aquifer Science Team discussed and presented suggested revisions to the Trinity desired future condition (DFC) statement to increase the ability to accurately monitor and assess its compliance considering large permit requests.

- The Aquifer Science Team continued data collection and analysis on the Trinity Aquifer to further expand the conceptual understanding of the Trinity groundwater system within. These data will be crucial for informing the District’s ongoing efforts to develop a sustainable yield policy framework for managing the Trinity Aquifer.

Objective 4-3. Implement separate MZs and, as warranted, different management strategies to address more effectively the groundwater management needs for the various aquifers in the District.

Performance Standards

Increase the understanding of District aquifers by assessing aquifer conditions, logging wells, and collecting water quality data. A summary of the number of water quality samples performed will be provided in the Annual Report.

To increase the understanding of District aquifers and water level conditions, staff collects groundwater data from selected wells and performs field assessments such as logging wells, and collecting water quality samples.

- The Aquifer Science Team collected 32 samples from sample sights including wells and springs from the Edwards and Trinity Aquifers for major ions and isotopes.
- The Regulatory Compliance Team collected 3 water quality samples during routine permit inspections or from new well construction inspections.

A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each MZ and permit type is provided in the Annual Report.

To ensure that all firm-yield production permits are evaluated with consideration given to the District’s demand-based and non-speculative permitting standards, staff completed comprehensive administrative and technical reviews of permit application requests. A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments is provided below.

A summary of the processed permitting applications in FY 2021 is provided in the table below.

Processed Permit Applications	FY19	FY20	FY21
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Major Amendments	0	0	0
New Exempt Well	10	2	9
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Individual Production Permit	3	4	1
Individual Well Drilling Authorizations or Well Modification	8	2	1
Test Well	1	0	0
Well Plugging	5	6	5
Replacement Well	0	0	0
TOTAL	48	26	35

A summary of the individual production permits processed in FY 2021 is provided in the table below.

	Annual Volume (gpy)	Production Permits Processed	Permit Type	Use Type	Aquifer
1	700,000	Spicewood, LLC	Historical Trinity	Commercial	Trinity

Objective 4-4. Actively participate in the joint planning processes for the relevant aquifers in the District to establish and refine DFCs that protect the aquifers and the Covered Species of the District Habitat Conservation Plan (HCP).

Performance Standard

Attend at least 75% of the GMA (groundwater management area) meetings, and annually report on meetings attended, GMA decisions on DFCs, and other relevant GMA business.

Staff attended 100% of the GMA 9 and GMA 10 meetings that were held in FY 2021. The GMA discussions included the following main topics:

- Resolutions regarding administrative boundary of the northern Medina County and the Western boundary of the District.
- Annual review of individual GCD management plans.
- Discussions on possible revisions to the GMA 9 and GMA 10 DFCs, as well as standardization of monitor well analysis and reporting occurred.
- Discussion on the further standardization of monitor well analysis and reporting to aid monitoring compliance of DFCs.
- Administrative work and the selection of consultants to compile the next Explanatory Report.
- Timeline and schedule for proposed DFCs and Explanatory Report.
- Approving and adopting DFCs for GMA 10.

Objective 4-5. Implement the measures of the HCP and Incidental Take Permit (ITP) from the USFWS for the Covered Species and covered activity to support the biological goals and objectives of the HCP.

Performance Standard

Prior to ITP permit issuance, a progress report summarizing activities related to the United States Fish and Wildlife Service (USFWS) review of the ITP application will be provided in the Annual Report. Upon ITP issuance, the HCP annual report documenting the District’s activities and compliance with ITP permit requirements will be incorporated into the Annual Report by reference.

The USFWS approved the District’s HCP in July 2018, and published the Record of Decision and the final Environmental Impact Statement (EIS). On September 20, 2018, the USFWS issued a 20-year ITP. On April 11, 2019, the Board approved an Interlocal Agreement (ILA) between the District and the City of Austin (CoA) to collaborate and coordinate on routine and planned activities relative to each entity’s respective HCP. On December 10, 2019, the CoA Technical Committee staff and District staff met to discuss commitments of the ILA and exchange scientific research. On February 15, 2020, the first HCP Annual Report was submitted to the USFWS. On January 26, 2021, the CoA Technical Committee staff and District staff met to discuss commitments of the ILA and exchange scientific research. On February 18, 2021, the second HCP Annual Report was submitted to the USFWS.

GOAL 5 - ADDRESSING DROUGHT CONDITIONS

31 TAC 356.52 (A)(1)(F)/TWC §36.1071(A)(6)

Objective 5-1. Adopt and keep updated a science-based drought trigger methodology, and frequently monitor drought stages on the basis of actual aquifer conditions, and declare drought conditions as determined by analyzing data from the District's defined drought triggers and from existing and such other new drought-declaration factors, especially the prevailing dissolved oxygen (DO) concentration trends at the spring outlets, as warranted.

Performance Standards

During periods of District-declared drought, prepare a drought chart at least monthly to report the stage of drought and the conditions that indicate that stage of drought. During periods of non-drought, prepare the drought charts at least once every three months.

Staff monitored the District's two drought trigger sites (the Barton Springs and Lovelady monitor wells) plus numerous other indicators of drought conditions relating to the Edwards Aquifer. The District contracts with the United States Geological Survey (USGS) for the Lovelady Well to maintain equipment, collect, and host as real-time data on their website. The CoA contracts with the USGS to maintain the data for Barton Springs.

Staff frequently verified water level values measured by the equipment at the Lovelady monitor well (which has recorded data since 1949) and verified discharge measurements made at Barton Springs. During periods of District-declared drought, and preceding potential drought, staff provided timely updated reports of aquifer conditions at each Board meeting. Data from Trinity monitor wells were also collected and evaluated at these times.

Staff evaluated the current drought trigger methodology as it relates to the Middle Trinity Aquifer. Results were published in a memo, and found that the triggers are indeed representative of drought conditions, regardless of the aquifer.

A summary of the drought indicator conditions and any declared drought stages and duration will be provided in the Annual Report.

FY 2021 began with a status of No Drought due to a very wet May 2020 that narrowly kept spring flow and aquifer levels from dipping below Stage II thresholds. However, below-average rainfall during the summer wasn't enough to keep levels from declining towards Stage II Drought thresholds. By early October 2020, Barton Springs and Lovelady crossed under their Stage II Drought thresholds and the Board declared an Alarm Stage II Drought on October 8. Levels declined throughout the fall and winter as La Niña conditions - beginning in July 2020 - brought warmer and drier climate to the Hill Country.

Calendar year 2021 began with a combined 3.5 inches of rain from January to March (3 inches below historical average), perpetuating the downward spring flow and water level trend. While some relief came with over 3 inches of rainfall in April, little recharge was seen as the dry soils soaked most of it up. The increased soil moisture from April rain set the stage for 8 inches of rain in May to generate enough recharge to reverse the downward spring flow and water level trends. The Climate Prediction Center

(CPC) officially declared the end of La Niña in May 2021, beginning an ENSO-neutral (neither La Niña or El Niño) period that allowed for above average mid-spring and summer rainfall totals of 20.4 inches. Barton Springs and Lovelady water levels began to rise on May 1st for the first time since July 2020.

A combined 15 inches of spring rain fell March - June 2021, providing enough recharge to overcome the dry La Niña winter and reverse the falling spring flow and aquifer trend. With both Barton Springs and Lovelady water levels rising above their respective Alarm Stage II Drought thresholds, the Board declared "No Drought conditions" on July 8, 2021. An additional 7 inches fell in July and August. On August 25, Lovelady water levels began to decline, looking as if the No Drought period would be short-lived. The CPC officially declared the return of La Niña on October 14, 2021, which, oddly coincided with up to 6 inches of rainfall in the Hill Country the day before. This brought considerable recharge as stream gauges on all area creeks showed rises. Spring flow and water levels showed a rising response.

To summarize, the Austin/Hill Country area has received an average 33 inches of rainfall so far in 2021 (through November 2nd), just 2.5 inches below the annual average, which means FY 2021 could finish with an above-average year. This may be due to the 6-month ENSO-Neutral period from March to October 14, 2021. While this might allow getting close to the 35.5 annual average, La Niña has officially developed again and is expected to continue into 2022. This could bring drier and milder-than-normal conditions across Central Texas, which will likely result in further declines as 2022 gets underway. Hopefully, spring of 2022 will bring its usual upward swing of recharge to keep the aquifers well-supplied.

Objective 5-2. Implement a drought management program that step-wise curtails freshwater Edwards Aquifer use to at least 50% by volume of 2014 authorized aggregate monthly use during Extreme Drought, and that designs/uses other programs that provide an incentive for additional curtailments where possible. For all other aquifers, implement a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages.

Performance Standard

During District-declared drought, enforce compliance with drought management rules to achieve overall monthly pumpage curtailments within 10% of the aggregate curtailment goal of the prevailing drought stage. A monthly drought compliance report for all individual permittees will be provided to the Board during District-declared drought, and a summary will be included in the Annual Report.

The District implements a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages. The District was in Alarm Drought status from October 8, 2020 – July 7, 2021 and provided the Board with a monthly compliance spreadsheet that showed which permittees were under or over curtailment targets. The District was in No Drought stage July 8, 2021 – August 31, 2021.

Objective 5-3. Inform and educate permittees and other well owners about the significance of declared drought stages and the severity of drought, and encourage practices and behaviors that reduce water use by a stage-appropriate amount.

Performance Standards

During District-declared drought, publicize declared drought stages and associated demand reduction targets in monthly eNews bulletins and continuously on the District website.

The District came out of Stage II Alarm Drought in July 2021 (and had been in drought since October 2020). Once out of Stage II Alarm Drought, it was announced that the regular Water Conservation Period which extends from May through was now active. The conservation period was publicized through drought status icons on the District website, included as a banner on the website, and shared in articles in the District newsletter. Conservation information was also shared on the newly created District newsroom page and was shared across all social media platforms in written and video format.

A summary of drought and water conservation related newsletter articles, press releases, and drought updates sent to Press, Permittees, Well Owners and eNews subscribers will be provided in the Annual Report.

Articles included:

- September/October 2020 – District Drought Update: Meteorological vs. Hydrological, Ruby Ranch ASR Approved, Spooky Water Leaks, 2020 BSEACD Director – General Election
- November/December 2020 – Welcome New Directors, Winterize Your Well, Annual Report, Staff Update
- March 2021 – Latest Drought Status
- Spring 2021 (April, May) – Drought Conditions, Groundwater Scholarship Essay Contest, Planning for Future Water Needs, Antioch Cave, Staff Update, District Operations Update, Role of the District, District Social Media Channels
- Summer 2021 (June, July) – Aquifer District Lifts Drought Declaration, Aquifer Conditions, Spikes in Turbidity, Groundwater Modeling and the District’s Trinity Aquifer Sustainable Yield Study, Meter Reporting, Scholarship Winners, District Newsroom Website Page, Edwards and Trinity Aquifers Monitoring, Borheim Quarry Visit, Science in 60 Seconds: Well Water Check-Up, Residential Limited Production Permitted Wells: Meter Readings Due Between Aug. 15 – Sept. 5,
- August 2021 – District Weather Station Now Online, Job Posting: General Manager

Press Releases included:

- Press Release: Aquifer District Declares Stage II Alarm Drought – October 9, 2020
- Press Release: Aquifer District Welcomes New and Returning Board Members – November 18, 2020
- Press Release: BSEACD and Needmore Water, LLC Enter Settlement Agreement with TESPA over Needmore Water LLC Permit – June 9, 2021
- Press Release: Aquifer District Lifts Drought Declaration, Reminds Permittees of Water Conservation Period; District Approves Changes to Rules & Bylaws – July 8, 2021
- Dorsett Resigns as Secretary of Barton Springs/Edwards Aquifer Conservation District; District Solicits Interest in Filling Precinct 3 Vacancy – July 12, 2021
- General Manager Vanessa Escobar Leaving District to Take on New Career Opportunity; District Accepting General Manager Applications – August 6, 2021

Social Media posts included:

- Stage II Alarm Drought Reminder and Conservation Tips, Rainfall Amounts, TWDB Draft State Water Plan, TWDB Water Weekly reports, Water Wise Wednesday: Lawn and Garden Practices, Barton Springs Pool, shared information about Soil and Water Stewardship Week from Texas State Soil and Water Conservation Board, shared information on rain forecast from National Weather

Service, Water Wise Wednesday – Irrigation Self-Audit, Rain barrels Getting Rain, Science in 60 Seconds: Well Water Check, Drinking Water Week, Well Site Visit Video, Antioch gauge levels/Lovelady and Barton Springs Levels After Rain, Water Wise Wednesday: Pump Protector, Borheim Quarry Visit, Water Wise Wednesday: Rain Barrels, Reminder on State Water Plan Comments due May 26, Science in 60 Seconds: What is pH, Endangered Species Day, TWDB Draft State Water Plan Public Comment Period, Rain Provides Relief, But We Remain in Stage II Alarm Drought, Rain barrel Action Video, Photo of Water Flowing at Bear Creek and 45 Toll Bridge, Summary of Water-Related Bills in the Texas Legislature, Multiport Monitoring Well Video, Article on Texas Groundwater Supplies Shrinking, Do It Yourself Rain Barrels, Types of Karst Features, Water Wise Wednesday: Self Irrigation Audit, Sinkholes are Karst Features, Drought Report, Aquarena Springs-Spring Lake Preserve Trail Photo, Geophysical Logs post, What is Karst?, Karst Regions, Throwback Thursday Barton Springs Photo, Deep in the Karst of Texas Campaign, Texas Karst Waters, Groundwater Modeling Video Preview, Barton Springs Salamander information, Groundwater Modeling Full Video, Onion Creek Peak at Driftwood and Pictures of Antioch Cave, Wise Wednesday: Use Least Toxic Method to Deal with Pests, BSEACD Press Release: Settlement Agreement Over Needmore Water LLC Permit Litigation, Environmental Defense Fund Webinar, Barton Springs & Lovelady Monitor Well Levels, Water Wise Wednesday: Native & Adapted Plants for Central Texas, Throwback Thursday: Cripple Crawfish Cave, Rain Video, Barton Springs Pool Closed, Jacob’s Well Visit – Pictures, Prescribed Burn by Austin Water, Groundwater Facts, Water Wise Wednesday: Lawn and Garden Practices, Barton Springs and Lovelady Well levels, Save Barton Creek Association “Explorers Guide to the Hill Country Oasis”, How Aquifers Work, Rain Video, BSEACD Weather Station, Zara Environmental Well Barton Springs Salamander

Videos included:

- What is the role of BSEACD – April 6, 2021
- The Antioch Cave – April 9, 2021
- The Barton Springs Pool: An Austin Icon – April 15, 2021
- Well Site Visits – May 3, 2021
- Science in 60 Seconds: Well Water Check Up – May 17, 2021
- Monitoring the Edwards and Trinity Aquifers – May 25, 2021
- Borheim Quarry – June 8, 2021
- GET Decision Support Tool - Groundwater Modeling – June 16, 2021
- How Groundwater Modeling Works – July 6, 2021
- Residential Limited Production Permitted Wells – July 12, 2021
- Drought Declaration Lifted/Drought Outlook – July 15, 2021
- Science in 60 Seconds: Turbidity – July 19, 2021
- What is Dye Tracing and How Is It Used in Groundwater Research – July 23, 2021
- Science in 60 Seconds: What is pH? – August 30, 2021
- Water Conservation Period – August 5, 2021
- BSEACD Weather Station – August 20, 2021

Objective 5-4. GM Assist and, where feasible, incentivize individual freshwater Edwards Aquifer historic-production permittees in developing drought planning strategies to comply with drought rules, including (1) pumping curtailments by drought stage to at least 50% of the 2014 authorized use during Extreme Drought, (2) “right-sizing” authorized use over the long term to reconcile actual water demands and permitted levels, and (3) as necessary and with appropriate conditions, source substitution with alternative supplies.

Performance Standards

Require an updated User Conservation Plan and User Drought Contingency Plan (UCP/UDCP) from Permittees within one year of each five-year MP Adoption.

In FY 2019, the Regulatory Compliance Team worked with interns to update 136 permit records in order to incorporate updated drought planning documents into their records. According to the District MP, all permittees must update their UDCP and UCP plans at least every five years. Therefore, since all UDCPs were updated in FY 2019, staff did not update them in FY 2021.

Provide a summary of any activity related to permit right sizing or source substitution with alternative supplies that may reduce demand on the freshwater Edwards Aquifer in the Annual Report.

After notice and an opportunity for a hearing, the Board may renew a permit with a reduced amount of the authorized production if the authorized withdrawal volume is no longer commensurate with reasonable non-speculative demand, or actual production from a well is substantially less than the authorized permit amount for multiple years without any rationale that reasonably relates to efforts to utilize alternative water supplies, conserve, or improve water use efficiency. Staff typically conducts an overpumpage analysis every few years, and conducted the analysis in FY 2019, therefore staff did not conduct an overpumpage analysis in FY 2021.

The District has been actively encouraging alternative source projects to reduce the dependency on the aquifers during drought. Staff has collaborated with water suppliers on ASR projects in providing regulatory and technical guidance. Staff has been working with the City of Buda on ASR feasibility. The Ruby Ranch ASR project was approved and has been in operation since the summer of FY 2021. Staff also assisted in assessing the feasibility of Lower Trinity Aquifer for water supply.

Objective 5-5. Implement a Conservation Permit that is held by the District and accumulates and preserves withdrawals from the freshwater Edwards Aquifer that were previously authorized with historic-use status and that is retired or otherwise additionally curtailed during severe drought, for use as ecological flow at Barton Springs during Extreme Drought and thereby increase springflow for a given set of hydrologic conditions.

Performance Standard

A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each MZ and permit type including the volume reserved in the freshwater Edwards Conservation Permit for ecological flows will be provided in the Annual Report.

A summary of the actual versus permitted production volumes for each MZ is provided in Objective 1-2. The amount of historical Edwards Aquifer permitted water that has been retired since 2009 is 82,025,125 gallons per year that can be targeted for a conservation permit. Additionally, 1,200,000 gallons per year of Historical Trinity Aquifer permitted water has been retired; no Conditional A permitted water has been retired.

GOAL 6 - Addressing Conservation and Rainwater Harvesting where Appropriate and Cost-Effective

31TAC 356.52 (a)(1)(G)/TWC §36.1071(a)(7)

Objective 6-1. Develop and maintain programs that inform, educate, and support District permittees in their efforts to educate their end-user customers about water conservation and its benefits, and about drought-period temporary demand reduction measures.

Performance Standards

A summary of efforts to assist permittees in developing drought and conservation messaging strategies will be provided in the Annual Report.

Each permittee is required to have an approved UDCP that outlines conservation actions to be taken under each drought stage. Staff provides bill inserts and road signs to all permittees upon request in drought declaration to help them comply with messaging requirements set forth in the UDCP. Staff actively promotes aquifer status through eNews, press releases, the District website, and social media platforms. Permittees are encouraged to share this information with their end users.

Publicize declared drought stages and associated demand reduction targets monthly in eNews bulletins and continuously on the District website.

Due to Covid, Well Water Checkup and Neighborhood Site Visits were cancelled in FY 2021. However, free educational handouts, well owner education, and information on well analysis is provided on the District website and has been shared on social media. There are also hard copies in the office.

The District was in Stage II Alarm Drought from October 9, 2020, through July 9, 2021. When the District came out of drought in July 2021, it was also announced that the regular Water Conservation Period, which extends from May through September, was now active.

The voluntary conservation period was publicized through drought status icons on the District website and included as a banner and articles in the regular eNews. Conservation education webpages were updated regularly with new resources and shared on District social media platforms.

See Objective 5-3 for a summarized list of Articles and Press Releases.

Objective 6-2. Encourage use of conservation-oriented rate structures by water utility permittees to discourage egregious water demand by individual end-users during declared drought.

Performance Standard

On an annual basis, the District will provide an informational resource or reference document to all public water supply permittees to serve as resources related to conservation best management strategies and conservation-oriented rate structures.

The District is part of the CTWEN and sponsors the annual Water Conservation Symposium. Permittees are encouraged to attend. This year the theme was: "Proactive Water Conservation Programs: In It For The Long Haul." Due to Covid, this year's symposium was conducted virtually. The symposium provides water utilities with the information needed to implement successful water conservation programs, effectively engage customers, and plan for the future. This program provides conservation-oriented strategies (including conservation-oriented rate structures) for mayors, city councils, board members of Municipal Utility Districts (MUDs), Regional Water Authorities, City Managers, Water Utility directors and staff, water conservation managers, program staff and other relevant staff, CFOs, finance directors, sustainability directors, business and community leaders, consultants, and advocates.

Objective 6-3. Develop and maintain programs that educate and inform District groundwater users and constituents of all ages about water conservation practices and the use of alternate water sources such as rainwater harvesting, gray water, and condensate reuse.

Performance Standard

Summarize water conservation related newsletter articles, press releases, and events in the Annual Report. Summary will describe the preparation and dissemination of materials shared with District groundwater users and area residents that inform them about water conservation and alternate water sources.

The District sponsors and supports a number of events promoting water conservation and alternate water sources such as the Rainwater Revival and Hill Country Living Festival, the Central Texas Water Conservation Symposium, Austin Cave Festival, LBJ Wildflower Center (LBJWFC) Nature Nights Rocks-Water-Mud, and Groundwater to the Gulf: A Summer Institute for Educators. Conservation education webpages were updated regularly with new resources, and shared on District social media platforms. The District also created a District Newsroom website page with all news/conservation/drought related information.

See Objective 5-3 for a list of summarized Articles and Press Releases.

GOAL 7 - ADDRESSING RECHARGE ENHANCEMENT WHERE APPROPRIATE AND COST-EFFECTIVE

31TAC 356.52 (A)(1)(G)/TWC §36.1071(A)(7)

Objective 7-1. Improve recharge to the freshwater Edwards Aquifer by conducting studies and, as feasible and allowed by law, physically altering (cleaning, enlarging, protecting, diverting surface water) discrete recharge features that will lead to an increase in recharge and water in storage beyond what otherwise would exist naturally.

Performance Standard

Maintaining the functionality of the Antioch system will be the principal method for enhancing recharge to the freshwater Edwards Aquifer. Additional activities may be excavating sinkholes and caves within the District. A summary of all recharge improvement activities will be provided in the Annual Report.

Antioch Cave is a recharge feature on District property that is capable of contributing a significant amount of water to the Edwards Aquifer when Onion Creek is flowing. A vault constructed over the cave entrance, and automated valves allow for clean creek water to enter the cave, and contaminated stormwater to be kept out. This system was maintained by staff in FY 2021 so that the amount of clean creek water entering the cave was maximized. A regular reporting item has been added to the GM Report special topics list to provide a monthly oral update on these and other Aquifer Science activities, and satisfies this reporting requirement.

Operational equipment and hardware at Antioch Cave to improve the operation and performance of the BMP are fully functional and in good performance. Equipment is collecting water-quality readings every 15 minutes and reporting to an organized database via telemetry.

Objective 7-2. Conduct technical investigations and, as feasible, assist water-supply providers in implementing engineered enhancements to regional supply strategies, including desalination, ASR, effluent reclamation and re-use, and recharge enhancement of surface water (including floodwater) to increase the options for water-supply substitution and reduce dependence on the Aquifer.

Performance Standard

Assess progress toward enhancing regional water supplies.

In FY 2021, the District worked with other entities in the area, such as City of Buda, City of Kyle, and RRWSC, to evaluate the potential for the Trinity Aquifers as reservoirs for ASR facilities. Staff met with City of Buda staff and their consultant as they prepared a permit application for an ASR system. Staff participated in collecting cuttings and core samples from the ASR test well that Buda installed. RRWSC was given a Conditional D permit for Edwards groundwater to inject into the Trinity Aquifer.

https://bscaed.org/uploads/RubyRanchASR_Status-Report_FINAL.pdf

GOAL 8 - ADDRESSING THE DESIRED FUTURE CONDITIONS OF THE GROUNDWATER RESOURCES

31TAC (A)(1)(H)/TWC §36.1071(A)(8)

Objective 8-1. Freshwater Edwards Aquifer All-Conditions DFC: Adopt rules that restrict, to the greatest extent practicable, the total amount of groundwater authorized to be withdrawn annually from the Aquifer to an amount that will not substantially accelerate the onset of drought conditions in the Aquifer; this is established as a running seven-year average springflow at Barton Springs of no less than 49.7 cfs during average recharge conditions.

Performance Standards

A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each MZ and permit type will be provided in the Annual Report.

A summary of the actual versus permitted production volumes for each MZ is provided in Objective 1-2.

Upon ITP issuance, the HCP annual report documenting the District's activities and compliance with ITP permit requirements will be incorporated into the Annual Report by reference.

The USFWS issued the District's ITP in September 2018. The District submitted its second annual report to USFWS on February 18, 2021.

Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the Annual Report.

FY 2021 began with a status of No Drought due to a very wet May 2020 that narrowly kept spring flow and aquifer levels from dipping below Stage II thresholds. However, below-average rainfall during the summer wasn't enough to keep levels from declining towards Stage II Drought thresholds. By early October 2020, Barton Springs and Lovelady crossed under their Stage II Drought thresholds and the Board declared an Alarm Stage II Drought on October 8. Levels declined throughout the fall and winter as La Niña conditions - beginning in July 2020 - brought warmer and drier climate to the Hill Country.

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A combined 15 inches of spring rain fell March - June 2021, providing enough recharge to overcome the dry La Niña winter and reverse the falling spring flow and aquifer trend. With both Barton Springs and Lovelady water levels rising above their respective Alarm Stage II Drought thresholds, the Board declared "No Drought conditions" on July 8, 2021. An additional 7 inches fell in July and August. On August 25, Lovelady water levels began to decline, looking as if the No Drought period would be short-lived. The CPC officially declared the return of La Niña on October 14, 2021, which, oddly coincided with up to 6 inches of rainfall in the Hill Country the day before. This brought considerable recharge as stream gauges on all area creeks showed rises. Spring flow and water levels showed a rising response.

To summarize, the Austin/Hill Country area has received an average 33 inches of rainfall so far in 2021 (through November 2nd), just 2.5 inches below the annual average, which means FY 2021 could finish with an above-average year. This may be due to the 6-month ENSO-Neutral period from March to October 14, 2021. While this might allow getting close to the 35.5 annual average, La Niña has officially developed again and is expected to continue into 2022. This could bring drier and milder-than-normal conditions across Central Texas, which will likely result in further declines as 2022 gets underway. Hopefully, spring of 2022 will bring its usual upward swing of recharge to keep the aquifers well-supplied.

Objective 8-2. Freshwater Edwards Aquifer Extreme Drought DFC: Adopt rules that restrict, to the greatest extent practicable and as legally possible, the total amount of groundwater withdrawn monthly from the aquifer during Extreme Drought conditions in order to minimize take and avoid jeopardy of the Covered Species as a result of the Covered Activities, as established by the best science available. This is established as a limitation on actual withdrawals from the aquifer to a total of no more than 5.2 cfs on an average annual (curtailed) basis during Extreme Drought, which will produce a minimum springflow of not less than 6.5 cfs during a recurrence of the drought of record (DOR).

Performance Standards

A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each MZ and permit type will be provided in the Annual Report.

A summary of the actual versus permitted production volumes for each MZ is provided above in Objective 1-2.

Upon ITP issuance, the HCP annual report documenting the District's activities and compliance with ITP permit requirements, will be incorporated into the Annual Report by reference.

The USFWS issued the District's ITP in September 2018. The District submitted its second annual report to USFWS in February 2021.

Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the Annual Report.

Please see Objective 8-1 above.

Objective 8-3. Implement appropriate rules and measures to ensure compliance with District-adopted DFCs for each relevant aquifer or aquifer subdivision in the District.

Performance Standard

Develop and implement a cost-effective method for evaluating and demonstrating compliance with the DFCs of the relevant aquifers in the District, in collaboration with other GCDs in the GMAs. Prior to method implementation, provide a summary of activities related to method development in the Annual Report. Once developed, provide a summary of data for each District-adopted DFC for each relevant aquifer indicating aquifer conditions relative to the DFC, and provide in the Annual Report.

For the Trinity Aquifer in GMA 9, GCD representatives shared drawdown levels and discussed which way all districts could calculate drawdown that would be consistent with one another. On May 20, 2021, the TWDB granted the GMA 9 and GMA 10 boundary change which removed the District from GMA 9, and now the District is located wholly in GMA 10. Staff will continue to attend GMA 9 meetings.

For the Trinity Aquifer in GMA 10, to determine compliance with the Trinity Aquifer DFC, the data must show that the average regional well drawdown does not exceed 25 feet during average recharge conditions including exempt and nonexempt use. In FY 2021, Michae Redman took the role as GMA 10 Coordinator, and is looking into multiple models that are being developed to determine a better way to measure the Trinity DFC. The District is also looking into completing a sustainable yield study on the Trinity which would give the District more management tools to create a more suitable DFC.

The average daily springflow at Barton Springs over the time period of September 1, 2014 to August 31, 2021 was 77 cfs. The DFC expression is springflow at Barton Springs during average recharge conditions shall be no less than 49.7 cfs over an 84-month period.

For the Saline Edwards, Northern Subdivision, the DFC expression is no more than 75 feet of regional average potentiometric surface drawdown due to pumping when compared to pre-development conditions. Currently, there are no approved permits in the Saline Edwards.

For a summary of aquifer conditions, see Objective 8-1 above.

Performance Standards and Objectives

General Management (9 objectives)	Administration (3 objectives)	Education & Outreach (6 objectives)	Aquifer Science (8 objectives)	Regulatory Compliance (7 objectives)
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GOAL 1 - Providing the Most Efficient Use of Groundwater – 31 TAC 356.52(a)(1)(A)/TWC §36.1071(a)(1)

		Performance Standards		
1-1	<p>Management Plan Objectives</p> <p>Provide and maintain on an ongoing basis a sound statutory, regulatory, financial, and policy framework for continued District operations and programmatic needs.</p>	<p>Performance Standards</p> <p>A. Develop, implement, and revise as necessary, the District Management Plan in accordance with state law and requirements. Each year, the Board will evaluate progress towards satisfying the District goals. A summary of the Board evaluation and any updates or revisions to the management plan will be provided in the <u>annual report</u>.</p> <p>B. Review and modify District Rules as warranted to provide and maintain a sound statutory basis for continued District operations and to ensure consistency with both District authority and programmatic needs. A summary of any rule amendments adopted in the previous fiscal year will be included in the <u>annual report</u>.</p>		
1-2	<p>Monitor aggregated use of various types of water wells in the District, as feasible and appropriate, to assess overall groundwater use and trends on a continuing basis.</p>	<p>Monitor annual withdrawals from all nonexempt wells through required monthly or annual meter reports to ensure that groundwater is used as efficiently as possible for beneficial use. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.</p>		
1-3	<p>Evaluate quantitatively at least every five years the amount of groundwater withdrawn by exempt wells in the District to ensure an accurate accounting of total withdrawals in a water budget that includes both regulated and non-regulated withdrawals, so that appropriate groundwater management actions are taken.</p>	<p>A. Provide an estimate of groundwater withdrawn by exempt wells in the District using TDLR and TWDB databases and District well records, and update the estimate every five years with the District's management plan updates.</p> <p>B. In the interim years between management plan updates, the most current estimates of exempt well withdrawals will be included in a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type that will be provided in the <u>annual report</u>.</p>		
1-4	<p>Develop and maintain programs that inform and educate citizens of all ages about groundwater and springflow-related matters, which affect both water supplies and salamander ecology.</p>	<p>A. Publicize District drought trigger status (Barton Springs 10-day average discharge and Lovelady Monitor Well water level) in monthly eNews bulletins and continuously on the District website.</p> <p>B. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup.</p> <p>C. A summary of outreach activities and estimated reach will be provided in the <u>annual report</u>.</p>		

1-5	Ensure responsible and effective management of District finances such that the District has the near-term and long-term financial means to support its mission.	<p>A. Receive a clean financial audit each year. A copy of the auditor's report will be included in the annual report.</p> <p>B. Timely develop and approve fiscal-year budgets and amendments. The dates for public hearings and Board approval of the budget and any amendments will be provided in the annual report.</p>
1-6	Provide efficient administrative support and infrastructure, such that District operations are executed reliably and accurately, meet staff and local stakeholder needs, and conform to District policies and with federal and state requirements.	<p>A. Maintain, retain, and control all District records in accordance with the Texas State Library and Archives Commission-approved District Records Retention Schedule to allow for safekeeping and efficient retrieval of any and all records, and annually audit records for effective management of use, maintenance, retention, preservation and disposal of the records' life cycle as required by the Local Government Code. A summary of records requests received under the PIA, any training provided to staff or directors, or any claims of violation of the Public Information Act will be provided in the annual report.</p> <p>B. Develop, post, and distribute District Board agendas, meeting materials, and backup documentation in a timely and required manner; post select documents on the District website, and maintain official records, files, and minutes of Board meetings appropriately. A summary of training provided to staff or directors or any claims of violation of the Open Meetings Act will be provided in the annual report.</p>
1-7	Manage and coordinate electoral process for Board members.	Ensure elections process is conducted and documented in accordance with applicable requirements and timelines. Elections documents will be maintained on file and a summary of elections-related dates and activities will be provided in the annual report for years when elections occur.

GOAL 2 - Controlling and Preventing Waste of Groundwater – 31 TAC 356.52(a)(1)(B)/TWC §36.1071(a)(2))

	Management Plan Objectives	Performance Standards
2-1	Require all newly drilled exempt and nonexempt wells, and all plugged wells to be registered and to comply with applicable District Rules, including Well Construction Standards.	A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will be provided in the <u>annual report</u> .
2-2	Ensure permitted wells and well systems are operated as intended by requiring reporting of periodic meter readings, making periodic inspections of wells, and reviewing pumpage compliance at regular intervals that are meaningful with respect to the existing aquifer conditions.	<p>A. Inspect all new wells for compliance with the Rules, and Well Construction Standards, and provide a summary of the number and type of inspections or investigations in the <u>annual report</u>.</p> <p>B. Provide a summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type in the <u>annual report</u>.</p>
2-3	Provide leadership and technical assistance to government entities, organizations, and individuals affected by groundwater-utilizing land use activities, including support of or opposition to legislative initiatives or projects that are inconsistent with this objective.	<p>A. In even-numbered fiscal years, provide a summary of interim legislative activity and related District efforts in the <u>annual report</u>. In odd-numbered fiscal years, provide a legislative debrief to the Board on bills of interest to the District and provide a summary in the annual report.</p> <p>B. Provide a summary of District activity related to other land use activities affecting groundwater in the <u>annual report</u>.</p>
2-4	Ensure all firm-yield production permits are evaluated with consideration given to the demand-based permitting standards including verification of beneficial use that is commensurate with reasonable non-speculative demand.	A summary of the number and type of applications processed and approved for authorizations, permits, and permit amendments including approved use types and commensurate permit volumes for production permits and amendments will be provided in the <u>annual report</u> .

GOAL 3 - Addressing Conjunctive Surface Water Management Issues – 31 TAC 356.52(a)(1)(D)/TWC §36.1071(a)(4)

	Management Plan Objectives	Performance Standards
3-1	Assess the physical and institutional availability of existing regional surface water and alternative groundwater supplies and the feasibility of those sources as viable supplemental or substitute supplies for District groundwater users.	Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies, and evaluate feasibility by considering: <ol style="list-style-type: none"> 1. available/proposed infrastructure, 2. financial factors, 3. logistical/engineering factors, and 4. potential secondary impacts (development density/intensity or recharge water quality). A summary of District activity related to this objective will be provided in the <u>annual report</u> .
3-2	Encourage and assist District permittees to diversify their water supplies by assessing the feasibility of alternative water supplies and fostering arrangements with currently available alternative water suppliers.	Identify available alternative water resources and supplies that may facilitate source substitution and reduce demand on the Edwards Aquifer, while increasing regional water supplies, and evaluate feasibility by considering: <ol style="list-style-type: none"> 1. available/proposed infrastructure, 2. financial factors, 3. logistical/engineering factors, and 4. potential secondary impacts (development density/intensity or recharge water quality). A summary of District activity related to this objective will be provided in the <u>annual report</u> .
3-3	Demonstrate the importance of the relationship between surface water and groundwater, and the need for implementing prudent conjunctive use through educational programs with permittees and public outreach programs.	A. Provide summaries of associated outreach and education programs, events, workshops, and meetings in the monthly team activity reports in the publicly-available Board backup. B. Summarize outreach activities and estimate reach in the <u>annual report</u> .
3-4	Actively participate in the regional water planning process to provide input into policies, planning elements, and activities that affect the aquifers managed by the District.	Regularly attend regional water planning group meetings and <u>annually report</u> on meetings attended.

GOAL 4 - Addressing Natural Resource Issues which Impact the Use and Availability of Groundwater, and which are Impacted by the Use of Groundwater – 31 TAC 356.52 (a)(1)(E)/TWC §36.1071(a)(5)

	Management Plan Objectives	Performance Standards
4-1	<p>Assess ambient conditions in District aquifers on a recurring basis by:</p> <ol style="list-style-type: none"> 1. sampling and collecting groundwater data from selected wells and springs monthly; 2. conducting scientific investigations as indicated by new data and models to better determine groundwater availability for the District aquifers; and 3. conducting studies as warranted to help increase understanding of the aquifers and, to the extent feasible, detect possible threats to water quality and evaluate their consequences. 	<ol style="list-style-type: none"> A. Review water-level and water-quality data that are maintained by the District and/or TWDB, or other agencies, on a regular basis. B. Improve existing analytical or numerical models or work with other organizations on analytical or numerical models that can be applied to the aquifers in the District. C. A review of the data mentioned above will be assessed for significant changes and reported in the <u>annual report</u>.
4-2	<p>Evaluate site-specific hydrogeologic data from applicable production permits to assess potential impact of withdrawals to groundwater quantity and quality, public health and welfare, contribution to waste, and unreasonable well interference.</p>	<p>This involves evaluations of certain production permit applications for the potential to cause unreasonable impacts as defined by District rule. To evaluate the potential for unreasonable impacts, staff will:</p> <ol style="list-style-type: none"> A. Perform a technical evaluation of the application, aquifer test, and hydrogeological report; B. Use best available science and analytical tools to estimate amount of drawdown from pumping and influence on other water resources; and C. Recommend proposed permit conditions to the Board for avoiding unreasonable impacts if warranted. <p>A list of permit applications that are determined to have potential for unreasonable impacts will be provided in the <u>annual report</u>.</p>
4-3	<p>Implement separate management zones and, as warranted, different management strategies to address more effectively the groundwater management needs for the various aquifers in the District.</p>	<ol style="list-style-type: none"> A. Increase the understanding of District aquifers by assessing aquifer conditions, logging wells, and collecting water quality data. A summary of the number of water quality samples performed will be provided in the <u>annual report</u>. B. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.

4-4	<p>Actively participate in the joint planning processes for the relevant aquifers in the District to establish and refine Desired Future Conditions (DFCs) that protect the aquifers and the Covered Species of the District HCP.</p>	<p>Attend at least 75% of the GMA meetings and annually report on meetings attended, GMA decisions on DFCs, and other relevant GMA business.</p>
4-5	<p>Implement the measures of the District Habitat Conservation Plan (HCP) and Incidental Take Permit (ITP) from the U.S. Fish & Wildlife Service (USFWS) for the covered species and covered activity to support the biological goals and objectives of the HCP.</p>	<p>Prior to ITP permit issuance, a progress report summarizing activities related to the USFWS review of the ITP application will be provided in the <u>annual report</u>. Upon ITP issuance, the <u>HCP annual report</u> documenting the District's activities and compliance with ITP permit requirements will be incorporated into the <u>annual report</u> by reference.</p>

GOAL 5 - Addressing Drought Conditions – 31 TAC 356.52 (a)(1)(F)/TWC §36.1071(a)(6)

	Management Plan Objectives	Performance Standards
5-1	<p>Adopt and keep updated a science-based drought trigger methodology, and frequently monitor drought stages on the basis of actual aquifer conditions, and declare drought conditions as determined by analyzing data from the District’s defined drought triggers and from existing and such other new drought-declaration factors, especially the prevailing DO concentration trends at the spring outlets, as warranted.</p>	<p>A. During periods of District-declared drought, prepare a drought chart at least monthly to report the stage of drought and the conditions that indicate that stage of drought. During periods of non-drought, prepare the drought charts at least once every three months.</p> <p>B. A summary of the drought indicator conditions and any declared drought stages and duration will be provided in the <u>annual report</u>.</p>
5-2	<p>Implement a drought management program that step-wise curtails freshwater Edwards Aquifer use to at least 50% by volume of 2014 authorized aggregate monthly use during Extreme Drought, and that designs/uses other programs that provide an incentive for additional curtailments where possible. For all other aquifers, implement a drought management program that requires mandatory monthly pumpage curtailments during District-declared drought stages.</p>	<p>During District-declared drought, enforce compliance with drought management rules to achieve overall monthly pumpage curtailments within 10% of the aggregate curtailment goal of the prevailing drought stage. A monthly drought compliance report for all individual permittees will be provided to the Board during District-declared drought, and a summary will be included in the <u>annual report</u>.</p>
5-3	<p>Inform and educate permittees and other well owners about the significance of declared drought stages and the severity of drought, and encourage practices and behaviors that reduce water use by a stage-appropriate amount.</p>	<p>A. During District-declared drought, publicize declared drought stages and associated demand reduction targets in monthly eNews bulletins and continuously on the District website.</p> <p>B. A summary of drought and water conservation related newsletter articles, press releases, and drought updates sent to Press, Permittees, Well Owners and eNews subscribers will be provided in the <u>annual report</u>.</p>

5-4	<p>Assist and, where feasible, incentivize individual freshwater Edwards Aquifer historic-production permittees in developing drought planning strategies to comply with drought rules, including:</p> <ol style="list-style-type: none"> 1. pumping curtailments by drought stage to at least 50% of the 2014 authorized use during Extreme Drought, 2. “right-sizing” authorized use over the long term to reconcile actual water demands and permitted levels, and 3. as necessary and with appropriate conditions, the source substitution with alternative supplies. 	<p>A. Require an updated UCP/UDCP from Permittees within one year of each five-year Management Plan Adoption.</p> <p>B. Provide a summary of any activity related to permit right sizing or source substitution with alternative supplies that may reduce demand on the freshwater Edwards Aquifer in the <u>annual report</u>.</p>
5-5	<p>Implement a Conservation Permit that is held by the District and accumulates and preserves withdrawals from the freshwater Edwards Aquifer that were previously authorized with historic-use status and that is retired or otherwise additionally curtailed during severe drought, for use as ecological flow at Barton Springs during Extreme Drought and thereby increase springflow for a given set of hydrologic conditions.</p>	<p>A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type including the volume reserved in the freshwater Edwards Conservation Permit for ecological flows will be provided in the <u>annual report</u>.</p>

GOAL 6 - Addressing Conservation and Rainwater Harvesting where Appropriate and Cost-Effective – 31TAC 356.52 (a)(1)(G)/TWC §36.1071(a)(7)

	Management Plan Objectives	Performance Standards
6-1	Develop and maintain programs that inform, educate, and support District permittees in their efforts to educate their end-user customers about water conservation and its benefits, and about drought-period temporary demand reduction measures.	<p>A. A summary of efforts to assist permittees in developing drought and conservation messaging strategies will be provided in annual report.</p> <p>B. Publicize declared drought stages and associated demand reduction targets monthly in eNews bulletins and continuously on the District website.</p>
6-2	Encourage use of conservation-oriented rate structures by water utility permittees to discourage egregious water demand by individual end-users during declared drought.	On an annual basis, the District will provide an informational resource or reference document to all Public Water Supply permittees to serve as resources related to conservation best management strategies and conservation-oriented rate structures.
6-3	Develop and maintain programs that educate and inform District groundwater users and constituents of all ages about water conservation practices and the use of alternate water sources such as rainwater harvesting, gray water, and condensate reuse.	Summarize water conservation related newsletter articles, press releases, and events in the annual report. Summary will describe the preparation and dissemination of materials shared with District groundwater users and area residents that inform them about water conservation and alternate water sources.

GOAL 7 - Addressing Recharge Enhancement where Appropriate and Cost-Effective – 31TAC 356.52 (a)(1)(G)/TWC §36.1071(a)(7)

	Management Plan Objectives	Performance Standards
7-1	<p>Improve recharge to the freshwater Edwards Aquifer by conducting studies and, as feasible and allowed by law, physically altering (cleaning, enlarging, protecting, diverting surface water to) discrete recharge features that will lead to an increase in recharge and water in storage beyond what otherwise would exist naturally.</p>	<p>Maintaining the functionality of the Antioch system will be the principal method for enhancing recharge to the freshwater Edwards Aquifer. Additional activities may be excavating sinkholes and caves within the District. A summary of all recharge improvement activities will be provided in the <u>annual report</u>.</p>
7-2	<p>Conduct technical investigations and, as feasible, assist water-supply providers in implementing engineered enhancements to regional supply strategies, including desalination, aquifer storage and recovery, effluent reclamation and re-use, and recharge enhancement of surface water (including floodwater) to increase the options for water-supply substitution and reduce dependence on the Aquifer.</p>	<p>Assess progress toward enhancing regional water supplies in the <u>annual report</u>.</p>

GOAL 8 - Addressing the Desired Future Conditions of the Groundwater Resources – 31TAC (a)(1)(H)/TWC §36.1071(a)(8)

	Management Plan Objectives	Performance Standards
8-1	<p>Freshwater Edwards Aquifer All-Conditions DFC: Adopt rules that restrict, to the greatest extent practicable, the total amount of groundwater authorized to be withdrawn annually from the Aquifer to an amount that will not substantially accelerate the onset of drought conditions in the Aquifer; this is established as a running seven-year average springflow at Barton Springs of no less than 49.7 cfs during average recharge conditions.</p>	<p>A. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.</p> <p>B. Upon ITP issuance, the <u>HCP annual report</u> documenting the District’s activities and compliance with ITP permit requirements will be incorporated into the <u>annual report</u> by reference.</p> <p>C. Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the <u>annual report</u>.</p>

<p>8-2</p>	<p>Freshwater Edwards Aquifer Extreme Drought DFC: Adopt rules that restrict, to the greatest extent practicable and as legally possible, the total amount of groundwater withdrawn monthly from the Aquifer during Extreme Drought conditions in order to minimize take and avoid jeopardy of the Covered Species as a result of the Covered Activities, as established by the best science available. This is established as a limitation on actual withdrawals from the Aquifer to a total of no more than 5.2 cfs on an average annual (curtailed) basis during Extreme Drought, which will produce a minimum springflow of not less than 6.5 cfs during a recurrence of the drought of record (DOR).</p>	<p>A. A summary of the volume of aggregate groundwater withdrawals permitted and actually produced from permitted wells for each Management Zone and permit type will be provided in the <u>annual report</u>.</p> <p>B. Upon ITP issuance, the <u>HCP annual report</u> documenting the District's activities and compliance with ITP permit requirements will be incorporated into the <u>annual report</u> by reference.</p> <p>C. Upon ITP issuance, compile a summary of aquifer data including: 1) the frequency and duration of District-declared drought, 2) levels of the Aquifer as measured by springflow and indicator wells (including temporal and spatial variations), and 3) total annual and daily discharge from Barton Springs will be provided in the <u>annual report</u>.</p>
<p>8-3</p>	<p>Implement appropriate rules and measures to ensure compliance with District-adopted DFCs for each relevant aquifer or aquifer subdivision in the District.</p>	<p>Develop and implement a cost-effective method for evaluating and demonstrating compliance with the DFCs of the relevant aquifers in the District, in collaboration with other GCDs in the GMAs. Prior to method implementation, provide a summary of activities related to method development in the <u>annual report</u>. Once developed, provide a summary of data for each District-adopted DFC for each relevant aquifer indicating aquifer conditions relative to the DFC and provide in the <u>annual report</u>.</p>