



**Barton Springs  
Edwards Aquifer**  
CONSERVATION DISTRICT

**ANNUAL REPORT FOR FISCAL YEAR 2011**

**BOARD OF DIRECTORS (August 31, 2011)**

Mary Stone, President	Precinct 1	Feb 2008 - May 2012
Gary Franklin, Vice President	Precinct 2	May 2006 - May 2014
Craig Smith, Secretary	Precinct 5	May 1998 - May 2014
Robert D. Larsen, PhD, Director	Precinct 3	May 2003 - May 2012
Jack Goodman, Director	Precinct 4	May 1988 - May 2012

**DISTRICT STAFF**

**August 31, 2011**

W.F. (Kirk) Holland	Chief Operating Officer and General Manager
Dana Christine Wilson	Senior Administrative Manager General Services Team Leader
Tammy Raymond	Administrative Assistant – Personnel
Shannon DeLong	Administrative Assistant – Accounting
Brian Smith	Principal Hydrogeologist Aquifer Research Team Leader
Brian Hunt	Senior Hydrogeologist
John Dupnik	Senior Environmental Permit Specialist Regulatory Compliance Team Leader
Robin Gary	Environmental Educator Community Outreach and Education Team Leader
Steff Lazo-Herencia	Intern

## Table of Contents

Background .....	1
General Information about the District .....	1
District Mission and Vision Statements .....	2
District Critical Success Factors .....	3
District Programs and Team Highlights .....	3
Required Data and Information .....	9
Aquifer Status .....	9
Grant Programs .....	10
Habitat Conservation Plan Completion Grant .....	10
Aquifer Recharge Facility Enhancements Grant .....	11
Professional Services .....	11
Capital Projects .....	12
Financial Report .....	12
Evaluation of District’s Long-range Plan Pursuant to §36.1071 .....	12
Background .....	12
Board Evaluation of Objectives and Progress Assessment .....	13
Appendix A: Independent Financial Audit Report .....	16
Appendix B: Evaluation of Progress Towards Goals and Objectives .....	17

## **1.0 BACKGROUND**

The Barton Springs/Edwards Aquifer Conservation District's ("District") Bylaws require the District Board President or 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 2011, covering the period from September 1 2010 to August 31, 2011.

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

1. The status of the aquifer and the District's programs.
2. A financial report to include the report of the annual audit and the security of any District investments.
3. A review and evaluation of professional services rendered to the District.
4. A status report of any capital projects of the District.
5. 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 2011; 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; and a financial summary. The annual audit report conducted by an independent audit firm is included in its entirety as Appendix A.

### **1.1 General Information about the District**

The District was created in 1987 by the 70<sup>th</sup> 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 of the Barton Springs segment of the Edwards Aquifer and other 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 rule-making authority to implement its policies and procedures and to help ensure the management of groundwater resources.

The District's jurisdictional area is bounded on the west approximately by the western edge of the Edwards formation outcrop, and on the north by the Colorado River, which is the regional groundwater discharge boundary. The eastern boundary is generally formed by the easterly service area limits of the Creedmoor-Maha Water Supply Corporation, Goforth Special Utility District, and Monarch Utilities, Inc. The District's southern boundary is generally along the "groundwater divide" that hydrologically separates the Barton Springs and the San Antonio segments of the Edwards Aquifer, generally along FM 150 west of Interstate 35 and roughly its

extension east of Interstate 35. This area encompasses approximately 250 square miles in parts of three counties that are rapidly changing from rural to urban/suburban. A portion of the Barton Springs segment of the Edwards Aquifer was designated a Sole Source Aquifer by the Environmental Protection Agency (EPA) in 1997. It was estimated to be the primary source of drinking water for 45,000 people in a 1995 survey; the current estimate is about 60,000 people. Spring discharge from the Barton Springs segment of the Edwards Aquifer contributes to Lady Bird Lake and the Colorado River system, a surface-water resource heavily used for municipal supplies. Barton Springs provides significant recreational opportunities at Barton Springs Pool in Austin's Zilker Park, and is home to the federally listed endangered Barton Springs salamander and the candidate-for-listing Austin blind salamander. Some wells in the District also produce water from the Taylor, Glen Rose, and Trinity 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. In FY 2011, no elections were required to be held. The Board elects its officers annually, in June (but from now on, in December since the District now has its local elections in November as a result of legislative action in 2011). For the current annual reporting period, between September 2010 through August 2011, the elected officers were Mary Stone as President, Gary Franklin as Vice President, and Craig Smith as 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.

The District is not a taxing authority. Its only sources of income are groundwater usage fees, administrative processing fees, and from time to time grants from various local, state, and federal programs.

## **1.2 District Mission and Vision Statements**

The Board of Directors of the Barton Springs/Edwards Aquifer Conservation District has assessed and articulated not only the mission of the District but also the vision and overarching strategic purpose of the District today. These are some of the early outputs of a continuing strategic planning process that was initiated in late FY 2005, providing a consensus basis for near-term, mid-term, and long-term planning that is ongoing.

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 was added in FY 2006 as 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."*

A more action-oriented, overarching strategic purpose was also articulated:

*“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’s Board also has established a set of continuing “critical success factors” that flow from and are generally consistent with the goals and objectives that are in the Management Plan. 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 habitat;
- 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 HIGHLIGHTS FOR 2011**

The District continues to use successfully a matrix-type organizational structure, in which all staff members report for administrative supervisory purposes to the General Manager/Chief Operating Officer of the District, and both standing and *ad hoc* teams execute the programs. This section of the report summarizes the operational teams that existed throughout FY 2011 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 District Management Plan.

### **2.1 General Management**

Mr. W.F. (Kirk) Holland, P.G., served as the District’s General Manager (GM) for all of FY 2011. The GM is responsible for the day-to-day business of the District, and is an *ad hoc* member of all the other teams. The GM is the District’s Chief Operating Officer, who:

1. ensures the policies and direction of the Board of Directors are implemented effectively, appropriately, and efficiently;
2. provides leadership, both inside and outside the District organization, in accomplishing the mission, vision, and goals of the District; and

3. serves as an advocate for the staff with the Board and an advocate for the Board with the staff.

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.

In FY 2011, some highlights for the GM Team included:

- Maintaining a productive, efficient, and motivated staff, including making certain required staff changes and authoring changes to the Employee Policy Manual;
- Participating actively in the joint groundwater planning processes of Groundwater Management Area (GMA) 9 and serving as the District Representative to GMA 10, including interfaces with Texas Water Development Board (TWDB) and others on aquifer modeling and assessments;
- Serving as the Secretary for the state-wide association of GCDs, the Texas Alliance of Groundwater Districts;
- Providing a liaison point for legislators, legislative committees, and stakeholders and giving relevant testimony on numerous bills that directly or indirectly affect the District's operations;
- Participating actively in advising on various legal matters, including Jeremiah Ventures, City of Kyle case, and State Office of Administrative Hearings (SOAH) hearings on TCEQ's recommendations for the Hill Country Priority Groundwater Management Area (PGMA);
- Leading the development of the objectives, performance standards, activities, and metrics that will form the backbone of the next revision of the District Management Plan;
- Ensuring the initial activities related to re-districting were furnished requisite information and proceeded in a timely fashion;
- Taking a lead role in three rule-making initiatives, including a negotiated rule-making effort to develop acceptable Emergency Response Period (ERP) rules; and
- Providing overall project management of the District Habitat Conservation Plan (HCP) grant project, including re-configuring the project consulting team upon the untimely death of the lead consultant.

## **2.2 Administrative and General Services Team**

Ms. Dana Christine Wilson serves as the Leader of the Administrative and General Services Team, with Ms. Tammy Raymond and Ms. Shannon DeLong as team members for administrative programs support, and with Mr. Nathanael Banda serving as Geospatial Systems Administrator. At mid-FY 2011, Mr. Banda took another job out of the City, and the geographical information systems (GIS) support was provided thereafter primarily by Ms. Robin Gary. Ms. DeLong continued to work on a three-quarter time basis throughout 2011, including telecommuting one day per week.

The Administrative Programs Team is responsible for banking, accounting, timekeeping administration, payroll administration, records retention and management, facilities and vehicle fleet management, human resources administration, director compensation and reimbursement administration, and state/federal grant administration.

In FY 2011, some highlights for the Administrative and General Services Team included:

- Maintaining the financial records to receive a clean financial audit (See Appendix A);
- Continuing the process of scanning electronically historical hard-copy records for archival purposes;
- Supporting the revisions of various parts of the Employee Policy Manual;
- Creating various maps used for legislative and re-districting communications purposes; and
- Assisting the District's information technology (IT) consultant in resolving various staff IT issues.

### **2.3 Aquifer Science Team**

Dr. Brian Smith, P.G., 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 also supported by Senior Hydrogeologist Brian Hunt, P.G., and from time to time other staff members, including interns. In 2011, interns Jenna Kromann and Estefania (Steff) Lazo-Herencia provided notable support.

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 2011, some highlights for the Aquifer Science Team included:

- Developing new technical reports, giving numerous technical talks with published abstracts, publishing several technical papers, and attending national and regional conferences;
- Collecting hourly water-level data from about 30 wells in the Edwards and Trinity aquifers including monthly water-level data from the District's two multiport monitor wells;
- Collecting water-quality and isotope data from about 50 wells and springs in the Edwards and Trinity aquifers in a partnership with the TWDB and UT-Austin;
- Initiated a study of dissolved oxygen in the aquifer and published results of the study;
- Collaborating with HDR to better delineate the Edwards groundwater flow regimes in the San Marcos-Kyle-Buda area and published findings in a peer-reviewed journal;
- Determining and documenting when the District reached drought thresholds going into drought, including keeping the District's drought monitor blog up to date;
- Participating with Hays-Trinity GCD and Blanco-Pedernales GCD staff and consultants in finalizing the development of a hydrogeologic atlas of the Trinity Aquifer in Blanco, Travis, and Hays counties;
- Partnering with the Edwards Aquifer Authority (EAA) and COA on a dye tracing program on the Blanco River watershed to help characterize flow and recharge characteristics and publishing the results;
- Continued development and data collection of a geologic database and initial regional 3-D visualization model of the Edwards and Trinity aquifers in Central Texas;
- Participating with GMA-9 regarding technical discussions and DFC language for draft modeled available groundwater (MAG) model runs;
- Finished upgrading the Antioch Cave best management practice (BMP) as part of the 319(h) grant from EPA and TCEQ and completed a final report for the project;



- Conducted a geophysical survey of the Antioch Fault Zone to delineate geometry of the fault and recharge zone;
- Completed installation of a multiport monitor well near Antioch Cave with 21 sample zones in the Edwards, Upper Trinity, and Middle Trinity Aquifer, including sampling of each zone; and
- Investigating, designing and promoting a saline-zone feasibility study and pursuing funding for projects to better understand the opportunities and issues associated with utilizing brackish groundwater as an alternative new water supply for the area.

## **2.4 Education and Community Outreach Team**

Ms. Robin Havens Gary serves as the Leader of the Education and Community Outreach Team. Ms. Gary and Ms. Julie Jenkins were the District's Environmental Educators and were the primary members of the Education and Community Outreach Team in FY 2011. At the end of FY 2011, Ms. Jenkins left the District's employ. Most other members of the staff, including interns, support this team from time to time.

The District continues its active, multi-dimensional educational program that emphasizes awareness of the finite and fragile aspects of the groundwater resources in the District. The District was in No-Drought conditions until April 28, 2011 when Stage II Alarm Drought was declared. Education and Outreach efforts focused on promoting the use of rainwater harvesting as a supplemental water supply, increasing awareness of the importance of water conservation, and increasing the understanding of aquifer dynamics.

The Education and Community Outreach Team constantly seeks to maintain and create new partnerships with like-minded local entities to more efficiently and effectively carry out the District's mission. Through these partnerships, staff members augment their knowledge base and are able to make a contribution to efforts that reach larger and more diverse audiences. This year staff helped found the new Central Texas Water Efficiency Network (CTWEN) and continued its partnerships with the Aquarena Center, Capital Area Master Naturalists (CAMN), COA, City of Sunset Valley, EAA, Hill Country Foundation, Keep Austin Beautiful, Lady Bird Johnson Wildflower Center, LCRA, Regional Water Quality Protection Plan, Save Barton Creek Association (SBCA), San Antonio River Authority, San Antonio Water System; Splash! Exhibit, Texas Cave Management Association, Texas Parks and Wildlife Department (TPWD), TWDB, University of Texas' Bureau of Economic Geology, and University of Texas Geology Department.

In addition, the Education and Community Outreach Team continued to develop its volunteer program, most notably utilizing CAMN. Education and Outreach staff helped educate CAMN trainees on local groundwater issues. CAMN volunteers assisted the District at booth events and the Austin Cave Festival and continued their commitment to care for their installed water-wise landscaping at the District.

In FY 2011, some highlights of the Education and Community Outreach Team included:

- Deploying a dynamic graphic for drought stage that can be manually or automatically updated in semi-real-time on the District website;

- Developing and deploying new interpretive signage highlighting recharge zone characteristics and water quality protection at the Lady Bird Johnson Wildflower Center;
- Hosting the first annual Water Conservation Symposium: “The Business Case for Water Conservation” in collaboration with a collaborative of water providers and non-profits that has become the CTWEN;
- Hosting the 6<sup>th</sup> Annual Groundwater to the Gulf Summer Institute for Educators, which received a grant to support a coastal extension and provide a travel stipend for teachers; and
- Participating in approximately 34 outreach events (including field trips, presentations, and events) that reached approximately 2,400 adults and nearly 1,035 children.

## 2.5 Regulatory Compliance

The Regulatory Compliance Leader is John Dupnik, P.G., and other team members in FY 2011 were Joseph Beery (Hydrogeologist) and Guy Rials (Technician). Mr. Beery and Mr. Rials left the District’s employ in mid- and late-FY 2011, respectively. Other members of the staff also support this team from time to time.

The Regulatory Compliance Team is responsible for a wide range of the District’s responsibilities including: drought management, pumpage tracking/compliance assessment, rule-making, rule and well construction standard interpretation, permitting, enforcement, well inspections, well plugging, and drilling oversight. 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 2011, some highlights of the Regulatory Compliance Team include:

- **Database Enhancements:** The District’s permitting and pumpage database was further enhanced to incorporate management zones, calculate management zone-specific drought curtailments, and report permitted and actual pumpage by management zone, permit type, and use type.
- **Inspections:** Staff completed 17 routine permittee inspections and 4 inspections in response to new well applications.
- **Conservation Credits:** The District issued a total of \$25,984 in credits in FY 2011 with \$16,183 being issued to 23 permittees and \$9,710 being issued to COA. Permittees donating credits back to the District’s camp scholarship fund include: St Andrew’s (High) School (\$78.82), Texas Lehigh Cement Company (\$106.51), and Goforth Special Utility District (\$3,170.85).
- **Well Construction Standards:** After substantial vetting and input from Board members, staff, and stakeholders, the District’s updated *Well Construction Standards* were approved and adopted on December 16, 2010.
- **Rule-Making:** The District continued the rule-making that began in the end of FY 2010 and eventually adopted new rules that primarily affected the District’s drought management program on March 24, 2011. The adoption of these new rules was immediately followed by

a more targeted round of negotiated rule-making to address drought curtailments that applied to non-public water supply permittees. The negotiated rule-making was completed late in FY 2011, with rules actually adopted in early FY 2012, on September 17, 2011.

- **External Reviews:** Staff continued to participate in the mediation of the Jeremiah Venture Texas Land Application Permit (TLAP) contested case. Staff also reviewed and provided comment to: TCEQ’s §213 Edwards Rules, new proposed guidance for Quarry BMPs, and a proposed modification to KBDJ’s Water Pollution Abatement Plan (WPAP).
- **Drought Management:** The District’s aquifers were in No Drought status for the first half of FY 2011 but then entered Stage II Alarm Drought on April 28, 2011. Staff initiated the District’s enforcement plan and began monitoring compliance with monthly pumping limits and initiating pre-enforcement and enforcement as prescribed in the plan.

**Permitting Summary** – New permitting activity was limited due in part to the onset of drought in April of FY 2011 and the moratorium on new nonexempt individual Edwards permits which expired on September 1, 2011. Firm-yield pumpage was reduced by approximately 14,000,000 gallons with the retirement of a portion of the Manchaca Optimist Youth Sports Complex’s production permit. The retired portion was re-permitted under the General Conservation Permit and serves as the first contribution to the Ecological Flow Reserve. A summary of permitting, new well drilling, and plugging is provided in the following tables:

<b>Individual Permits</b>	
New Permittees (landowners)	0
Total Permits Issued	89
<b>Total Permitted Wells</b>	<b>166</b>
<b>NDU General Permits</b>	
New Permittees (landowners)	4
Total Permits Issued	68
<b>Total Permitted Wells</b>	<b>68</b>

<b>Permitted Pumpage</b>			
<b>Edwards MZs</b>	<b>gallons</b>	<b>cfs</b>	<b>acre-feet</b>
Historical (Ind.)	2,391,087,721	10.14	7,338
Historical (NDU)	1,176,933	0.005	3.61
<b>Total Historical</b>	<b>2,392,264,654</b>	<b>10.145</b>	<b>7,341.61</b>
Conditional (Ind.)	262,386,748	1.11	805.24
Conditional (NDU)	19,409,148	0.082	59.56
<b>Total Conditional</b>	<b>281,795,896</b>	<b>1.192</b>	<b>864.8</b>
<b>Total Edwards</b>	<b>2,674,060,550</b>	<b>11.337</b>	<b>8206.41</b>

<b>Trinity MZs</b>	<b>gallons</b>	<b>cfs</b>	<b>acre-feet</b>
Historical (Ind.)	84,725,000	N/A	285
<b>Total Permitted</b>			
	<b>2,758,785,550</b>	<b>11.70</b>	<b>8,466.40</b>
	<b>Permitted Transport</b>		
	<b>gallons</b>	<b>cfs</b>	<b>acre-feet</b>
FY2011	0	0	0
<b>Total Permitted</b>	315,700,000	1.34	968.85

<b>Well Drilling</b>	
New Nonexempt Wells	0
New NDU Wells	4
New Exempt Wells	4
<b>Total Wells Drilled</b>	<b>8</b>
<b>Well Plugging</b>	
<b>Total Wells Plugged</b>	<b>4</b>

### 3.0 REQUIRED DATA AND INFORMATION

The District Bylaws and the Management Plan require a number of specific items to be included in the Annual Report.

#### 3.1 Aquifer Status

FY 2011 began with the Barton Springs segment of the Edwards Aquifer well out of drought status with flow at Barton Springs of about 90 cubic feet per second (cfs). By the end of September 2010, the rate of springflow began a long, steady decline. By April 2011, Barton Springs reached its Alarm Stage Drought threshold of 38 cfs, and the Board declared Alarm Stage Drought on April 28. By the end of FY 2011, springflow was approaching the Critical Stage Drought threshold of 20 cfs, and on September 8, 2011, the Board declared the next stage of drought. The period between October 2010 and September 2011 is the driest on record for Central Texas. Austin received only 11.2 inches of rainfall for that period, which is only 33% of its average annual total. In addition, the summer of 2011 turned out to be one of the hottest on record, increasing the strain on water resources for the region. To put this past year into perspective, recent studies using tree-ring data state that the 2011 drought is the worst one-year drought in the past 222 years.

As the rainfall diminished at the end of 2010 and throughout 2011, so did flow in the creeks, which provide recharge to the Edwards Aquifer. Onion Creek, the largest contributor of recharge to the aquifer, substantially stopped flowing by October 2010. Decreased recharge has resulted in lower water levels, or storage, and decreasing springflow at Barton Springs.

This drought is attributed in part to La Nina conditions in the equatorial Pacific Ocean which typically brings about drought conditions in the southwestern United States. The dryness of 2011 is a continuation of dry conditions that actually began back in October 2010. Much of 2010 was a year in which tropical disturbances brought most of the rainfall into the region. For example, Hurricane Alex brought about 6 inches in June 2010 and Tropical Storm Hermine brought about 10 inches in September 2010. After Hermine, rainfall diminished and has been below-normal for 12 of the subsequent 13 months. The chance occurrence of those tropical systems in 2010 were the only rainfall event that separate the 2009 from the 2011 drought, otherwise we might be describing a much more prolonged and severe drought.

## **3.2 Grant Programs**

### **3.2.1 Habitat Conservation Plan Completion Grant**

Throughout FY 2011, the District continued revising both the Habitat Conservation Plan (HCP) and the accompanying National Environmental Act (NEPA) documentation under a grant project funded by US Fish and Wildlife Service (FWS) through TPWD. The agreed revised goal was to complete the Administrative Review Drafts of both of these documents by the grant's May 2011 termination date, while a request to extend the term of the grant project was processed. However, early in FY 2011 the District was informed that the probability of the grant's being extended, even on a no-cost basis, was very small, and also that the FWS now required the NEPA documentation to be prepared by an arms-length consultant under the sole direction of FWS but compensated by the District. A final grant project report, originally intended to be an annual interim report, was prepared and submitted to TPWD; the report was accepted and the grant funding was completed.

The work of the District and its principal consultant, Dr. Kent Butler, was re-configured, with Dr. Butler taking on the NEPA draft Environmental Impact Statement (dEIS) updating and documentation, to be compensated solely by the District without grant funding. Delays by TWDB in establishing the MAG for the adopted DFCs, intended to be key HCP measures, affected the production of the HCP draft. In May 2011, the District was stunned by the tragic, accidental death of Dr. Butler. The District and FWS eventually agreed on the use of Hicks & Co. to pick up the completion of the NEPA documentation under contract to the District, executing and using a tripartite responsibilities agreement among the District, Hicks, and FWS. At the end of FY 2011, work had just been re-initiated on both the NEPA and HCP documents, in concert with FWS.

### **3.2.2 Aquifer Recharge Facility Enhancements Grant**

#### History

A contract with TCEQ was signed in FY 2007 on April 16, 2007, for a three-year grant project for recharge enhancement and aquifer protection, under EPA's 319h non-point source pollution program. In addition to federal grant funds of \$335,000, the District contributed \$223,000 of in-kind services to the project, for a total project amount of \$519,000. Early work on this grant project in FY 2008 was associated with developing a Quality Assurance Project Plan (QAPP),

and in coordinating with TCEQ staff in conducting a related conference and workshop. Also in FY 2008, substantial progress was made in upgrading the BMP at Antioch Cave on Onion Creek with a Continuous Water-Quality Monitoring Network (CWQMN).

In FY 2009, a second valve was installed in the vault at Antioch Cave, and the cave opening was widened. A 3-ft diameter, 42-ft long screen was installed at the intake structure to minimize the amount of sediment entering the cave and to prevent clogging of the intake structure. A CWQMN system was installed at Antioch that monitors water quality in the creek and automatically opens and closes valves on the BMP to minimize entrance of contaminants into the aquifer that are associated with storm flows. FY 2009 ended without any flow occurring in Onion Creek due to the ongoing drought.

Early in FY 2010 significant rains brought an end to the drought and flow occurred at Antioch on a number of occasions. Water samples were collected during these flow events and the BMP functioned as designed with the automated valve closing as a storm pulse arrived at Antioch. As the water in Onion Creek became less turbid, the valve opened automatically to allow recharge through the BMP. The grant contract period ended with most of the field activities completed.

### Current Year Activities

The installation of a multiport well at Antioch, which began in July 2010, was completed near the beginning of FY 2011, in September 2010. A final grant project report was prepared and submitted to TCEQ in December 2010. The key outcome of the project is that a large amount of contaminants related to non-point sources were prevented from entering the aquifer at Antioch Cave during this period of flow in Onion Creek. It was calculated that 2,436 lbs (more than one ton) of nitrogen from nitrate, 295 lbs of phosphorous, and 190,480 lbs of sediment (that's 95 tons!) were prevented from entering the aquifer.

### **3.3 Professional Services**

The District expended \$169,862 for professional services in FY 2011.

This amount included legal fees of \$89,568 provided by Bickerstaff, Heath, Delgado, & Acosta LLP of Austin for general counsel support. These fees included involvement of the District and its attorneys in 1) continuing to oppose and contest the application for a TCEQ TLAP by Jeremiah Venture, L.P., and also 2) defending the District in a lawsuit brought by the City of Kyle, including negotiation of a settlement. There were no legal services associated uniquely with the grant projects as grant-billable costs.

Additional professional services for FY 2011 include B Zavala Website Redesign for \$1,725; The Standard Retirement Plan Administration for \$8,976; Legal Legislation fees under the General Management Team for \$28,520, and miscellaneous other professional services under the Aquifer Science Team and Regulatory Compliance Team for \$30,573.

The District again retained Mike Figer and Company, CPA, to perform its annual financial audit for FY 2011; that audit report is this Annual Report as Appendix A. The fees for these professional services (to be expended in FY 2012) for the FY 2011 audit will total \$11,000 and are also included in the professional services total above.

### **3.4 Capital Projects**

The District had no new capital projects in FY 2011.

### **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 several 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 Citibank, which are FDIC-insured. Monies are moved electronically between these accounts and the TexPool accounts, generally keeping funds not required by current operations in TexPool and 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 are found in the Annual Audit Report, included here as Appendix A.

### **3.6 Evaluation of District’s Long-Range Plan Pursuant To §36.1071**

#### **3.6.1 Background**

Texas Water Code §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 Management Plan must be reviewed, revised as necessary, re-adopted, and re-approved at least once each five years. Under the code provisions, all GCDs are required to assess progress quantitatively toward the objectives in their prevailing Management Plan at least annually; this assessment is in the following Section 3.7.2 of this Annual Report.

Note: SB 660 and SB 737 of the 82<sup>nd</sup> Legislature significantly modified what information is required in newly revised District Management Plans and how the contents of those plans are to be used and revised. These new laws took effect September 1, 2011, i.e., on the first day of FY 2012. Accordingly, this Annual Report is based on the provisions of the earlier statutory requirements.

The District’s prevailing Management Plan at the end of FY 2011 was the plan approved by TWDB in September 2008; statutorily, it will need to be reviewed, revised as needed, re-adopted, and approved at least once no later than August 2013. However, the District is required to at least consider the need to revise its Management Plan after TWDB establishes the MAG for each regulated aquifer that achieves the latest DFCs adopted by the GMA committees in the joint regional planning processes. The draft MAGs were received in mid-FY 2011, enabling consideration of revisions to the Management Plan. The District staff and directors established a draft set of prospective new objectives, performance standards, activities, and metrics for a new Management Plan during FY 2011. However, a new Plan was not adopted in FY 2011, as the

final MAGs had not been received. In addition, the District anticipates new TWDB rule-making later in FY 2012 that might specify other required changes in all revised District Management Plans. Furthermore, the results, findings, and conclusions of the investigations associated with the HCP project and the permit requirements associated with the federal Incidental Take Permit issued by the FWS may be received in late FY 2012. Taken together, the MAGs, the new TWDB rules affecting Management Plans, and the HCP will probably require the current Management Plan to be revised before its statutorily required re-adoption in FY 2013. The District continues to work actively on that revision.

### **3.7.2 Board Assessment of Objectives and Evaluation of Progress Toward Goals**

Section 2 of this report highlighted 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 the staff to assist the Board's evaluation of the progress made in FY 2011 toward the goals, objectives, and performance standards identified in the District Management Plan.

On December 15, 2011, 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. A summary of the outcome of that meeting, which was open to the public and in which the Board considered whether satisfactory progress was made in 2011, is presented in the following table:



<b>Objective</b>	<b>Abbreviated Description</b>	<b>Motion for FY2011</b>	<b>Movant Director</b>	<b>Seconding Director</b>	<b>Vote Outcome</b>
1-1	Optimize the balance between water use and “preserving, conserving, and protecting” the groundwater resources.	Yes, Satisfactory	Smith	Franklin	5-0 in favor
2-1	Ensure that groundwater is used for beneficial purposes at all times and minimize or prevent wasteful use and harmful alteration of the groundwater and its reservoirs.	Yes, Satisfactory	Franklin	Goodman	5-0 in favor
3-1	Diversify water supplies available to users in the District to allow for appropriate pumpage curtailments, especially during extreme drought.	Yes, Satisfactory	Smith	Goodman	5-0 in favor
4-1	Increase understanding of District aquifers through sound science that characterizes aquifer properties and variability so that appropriate policy and regulatory decisions can be made.	Yes, Satisfactory	Franklin	Smith	5-0 in favor
4-2	Review and modify, within statutory authority, the Rules as to their consistency with natural resources protection	Yes, Satisfactory	Franklin	Goodman	5-0 in favor
5-1	Maintain sustainable-yield aquifer conditions to prevent well interference and water-quality impacts related to reduced springflow during a recurrence of the DOR	Yes, Satisfactory	Smith	Franklin	5-0 in favor

6-1	Reduce the per-capita use in the District during non-drought times through relevant statutory, regulatory, scientific, administrative, and educational vehicles.	Yes, Satisfactory	Smith	Goodman	5-0 in favor
7-1	Improve recharge to the Edwards Aquifer to increase the amount of water in storage so that future droughts will be less severe and of shorter duration	Yes, Satisfactory	Franklin	Smith	5-0 in favor
7-2	Assess the feasibility of implementing supply enhancement measures including desalination, ASR, and treated effluent reuse	Yes, Satisfactory	Smith	Franklin	5-0 in favor
7-3	Augment the amount of water recharging the aquifers through the use of alternative water sources	Yes, Satisfactory	Smith	Goodman	5-0 in favor

## APPENDIX A

**BARTON SPRINGS/EDWARDS AQUIFER  
CONSERVATION DISTRICT**

**BASIC FINANCIAL STATEMENTS**

**AND INDEPENDENT AUDITOR'S REPORT**

**FOR THE YEARS ENDED AUGUST 31, 2011 AND 2010**

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
TABLE OF CONTENTS**

---

	<u>PAGE</u>
INDEPENDENT AUDITOR'S REPORT	2
MANAGEMENT'S DISCUSSION AND ANALYSIS	3
PROPRIETARY FUND FINANCIAL STATEMENTS	
Statements of Net Assets	8
Statements of Revenues, Expenses and Changes in Net Assets	9
Statements of Cash Flows	10
NOTES TO FINANCIAL STATEMENTS	11
SUPPLEMENTARY INFORMATION	
Budgetary Comparison Schedule	19

**FIGER & COMPANY**  
CERTIFIED PUBLIC ACCOUNTANTS

PARKSTONE OFFICE CENTRE  
4101 PARKSTONE HEIGHTS DR., SUITE 220  
AUSTIN, TEXAS 78746  
TEL. 512.327.2266 FAX 512.327.3493

**INDEPENDENT AUDITOR'S REPORT**

Board of Directors  
Barton Springs/Edwards Aquifer Conservation District  
Austin, Texas

We have audited the accompanying basic financial statements of Barton Springs/Edwards Aquifer Conservation District as of and for the years ended August 31, 2011 and 2010, as listed in the table of contents. These financial statements are the responsibility of the Barton Springs/Edwards Aquifer Conservation District's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits 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 of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Barton Springs/Edwards Aquifer Conservation District as of August 31, 2011 and 2010, and the changes in its financial position and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The management's discussion and analysis on pages 3 through 7 is not a required part of the basic financial statements but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Barton Springs/Edwards Aquifer Conservation District's basic financial statements. The budgetary comparison schedule on page 19 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from an relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

  
Figer & Company  
December 15, 2011

**Barton Springs / Edwards Aquifer Conservation District**

**Management Discussion and Analysis**

**Fiscal Year Ending August 31, 2011**

The following **Management 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 Discussion & Analysis narrative are based on the comparisons of the Statements of Revenues, Expenses and Changes in Net Assets **before** any adjusting journal entries in the current year.

**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 Assets; the Statement of Revenues, Expenses, and Changes in Net Assets; and the Statement of Cash Flows.

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

The Statement of Revenues, Expenses, and Changes in Net Assets 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 assets.

### Condensed Statement of Net Assets August 31, 2011, 2010 and 2009

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Current assets	\$ 1,265,867	\$ 937,849	\$ 1,294,619
Capital assets	446,606	518,139	455,611
Other assets	71	71	71
Total assets	<u>\$ 1,712,544</u>	<u>\$ 1,456,059</u>	<u>\$ 1,750,301</u>
Total liabilities	<u>\$ 448,517</u>	<u>\$ 131,651</u>	<u>\$ 287,014</u>
Net assets:			
Invested in capital assets	365,127	365,127	365,127
Unrestricted	<u>898,900</u>	<u>959,281</u>	<u>1,098,160</u>
Total net assets	<u>1,264,027</u>	<u>1,324,408</u>	<u>1,463,287</u>
Total liabilities and net assets	<u>\$ 1,712,544</u>	<u>\$ 1,456,059</u>	<u>\$ 1,750,301</u>

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

### Condensed Statement of Revenues, Expenses and Changes in Net Assets Years Ended August 31, 2011, 2010 and 2009

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Operating revenues	\$ 1,330,222	\$ 1,395,522	\$ 1,395,239
Operating expenses	<u>1,391,922</u>	<u>1,536,694</u>	<u>1,514,021</u>
Operating income	<u>(61,700)</u>	<u>(141,172)</u>	<u>(118,782)</u>
Nonoperating revenues			
Interest income	<u>1,319</u>	<u>2,293</u>	<u>12,666</u>
Total nonoperating revenue	<u>1,319</u>	<u>2,293</u>	<u>12,666</u>
Change in net assets	(60,381)	(138,879)	(106,116)
Net assets beginning of year	<u>\$ 1,324,408</u>	<u>\$ 1,463,287</u>	<u>\$ 1,569,403</u>
Net assets end of year	<u>\$ 1,264,027</u>	<u>\$ 1,324,408</u>	<u>\$ 1,463,287</u>



## FINANCIAL HIGHLIGHTS OF CHANGES IN OPERATING REVENUES

Permittees' Water Use and Transport (export) fees and City of Austin Assessment fees, net of conservation credits to both, increased slightly in FY 2011 from the prior year, to \$1,316,555 from \$1,228,051. This revenue was close to but slightly less than what was budgeted for FY 2011 (\$1,340,529), with the shortfall primarily reflecting less growth in pumping fees than anticipated and budgeted. Taken together, these continuing revenue sources comprise 99.0% of the total revenue of the District. Included in those revenues are transport permit fees. There continue to be two District transport permits that yielded \$97,867 in FY 2011 revenue in transport fees; one that contributed \$82,367 (for 265,700,000 gallons) and the other \$15,500 (for 50,000,000 gallons). This revenue component was exactly as budgeted and included a full year of the Conditional Use permit for the City of Kyle, but it did not include any additional transport (or pumping) fees arising from the now-agreed increase associated with the City of Kyle permits, which will begin accruing at the start of FY 2012.

Grant income in FY 2011 was minimal, only \$7,789 and substantially less than both the \$35,000 budgeted and especially the \$161,551 earned in the prior year. The only grant budgeted and active during FY 2011 was the HCP-2 grant, which continued to not only have programmatic delays but was adversely affected, in many ways, by the tragic accidental death of the principal consultant, including the loss of much of his planned work product and grant fund match in the current year. Federal funding of this grant project reached its planned completion date during FY 2011 and the grant is unable to be extended, although work is continuing as an internally funded initiative.

All "Other Fees" revenue (derived from variable sources such as well development fees, well application and inspection fees, annual permit fees, and drought management fees) was projected to be \$9,550 (down from \$19,500 in FY 2010), and was actually \$10,202. Of that actual revenue, \$3,700 was Drought Management Fees for the months of July and August, arising as a result of permittee noncompliance with curtailments required by the drought declaration in FY 2011. As in the prior year, there was no fee income from enforcement fines and penalties in FY 2011. Only a partial year of revenue, amounting to \$2,052, was realized in FY 2011 from the administrative support contract with Texas Alliance of Groundwater Districts, as TAGD hired a full-time Executive Director at mid-year.

Investment (interest) income in FY 2011 continues to decrease as a result primarily of the much less favorable money market, with even lower yields than anticipated along with the slightly smaller investment base. Actual investment income received for FY 2011 is \$1,319 (budgeted at \$1,800); actual investment income received for FY 2010 was \$2,293 (budgeted \$4,800).

## FINANCIAL HIGHLIGHTS OF CHANGES IN OPERATING EXPENSES

Personnel salaries and wages expense for FY 2011 is \$747,211 which is very close to what was budgeted (\$751,537) and the prior year's salaries and wages expense of (\$749,321). In effect, the normal increases in salaries, incentive compensation, and salary-indexed fringe benefits on a year-to-year basis were slightly more than offset by the smaller base resulting from some staff reductions in the later part of FY 2011.

Staff tax and benefit-related actual expense for FY 2011 is \$109,400 which is 5.9% less than the prior year (\$116,211); this account includes a fluctuating accrued vacation expense that

changes monthly and relates to this apparent decrease. Group insurance benefits actual expenses for FY 2011 are \$98,084, a 5.5% decrease from the prior year. Both of these expense categories again also reflect the effect of staff reductions.

Directors' compensation actual expenses for meetings decreased slightly (by 4.5%, or \$1,350) and directors' reimbursable expenses (mostly registration fees) increased substantially (by \$699) over the prior year. The total director compensation was within the legislatively mandated maximum amount of \$ 9,000 per year per director, with all 5 directors accepting compensation throughout FY 2011.

Direct expenses associated with the ongoing work of the various programmatic teams (Aquifer Sciences, Education and Community Outreach, Regulatory Programs) are not meaningfully comparable on a year-on-year basis, because the work programs of each vary year to year. These teams' efforts were substantially completed within their budget and schedule constraints, which are the more important management measures.

Since the District holds elections no more often than every two years (in even-numbered years, if and when warranted), the Elections account typically shows large percentage differences from year to year. Similarly, legislative services tend to be biennial with the Texas Legislative Regular Sessions in odd-numbered years. So year-on-year expense changes for these accounts approach 100%. In FY 2011, there was no election and accordingly no election expenses. The 2011 legislative session created \$28,520 in related legislative lobbying expense, which was 95.1% of the budgeted amount of \$30,000.

Actual Professional Services expenses (excluding legal expenses and excluding professional services specific to team budgets) decreased for FY 2011 (by 60%, or \$31,823) from the prior year) to \$21,201, and was 73.1% of what was budgeted. General support by civil engineers and IT contractors was not required in FY 2011 to the extent budgeted. Other professional services are team-specific and are now included in team budgets and expenses.

Legal Services expense in FY 2011 increased by 52.5% from the prior year, from \$58,720 to \$89,568, against a budget of \$75,000, including \$30,000 for redistricting. This expense account only includes continuing or planned legal representation and does not include more variable legislative services, which are characterized above. The substantial increase in this expense account related to extraordinary levels of effort associated with the City of Kyle litigation, along with continuing work on several contested cases. In addition, a considerable amount of legal services support was lent to the District's redistricting effort in FY 2011 as planned, but changes in statutes and subsequent Board decisions delayed much of the redistricting effort and legal expense into FY 2012.

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 (1) year. Land is not depreciated.

There is no new fixed asset purchases in FY 2011 so they are \$446,606 after depreciation.

## KEY FACTORS INFLUENCING CHANGES IN CASH FUNDS

The available cash funds (Citibank accounts and TexPool General account, excluding contingency, capital, and reserve funds) at the end of FY 2011 was \$505,605 which is \$321,286 higher than the prior year, but this is mostly attributable to the timing of depositing water use fee payments and their resulting deposits.

For FY 2011, the District transferred \$17,750 (compared to \$42,200 in FY 2010) from its TexPool Capital fund account and \$69,566 (compared to \$160,000 in FY 2010) from its TexPool Contingency fund account into its general operating account to fund specific projects and to balance the FY 2011 annual budget.

## ANTICIPATED CHANGES

The following events 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 to be potentially significant in FY 2012:

- Additional legal costs associated with the revision of the Management Plan and additional rulemaking associated with both statutory changes and alternatives to close the gap between current regulatory limitations and needed provisions to achieve the aquifers' desired future conditions (DFCs) during drought;
- Additional contractor costs associated with developing a monitoring program for the District's DFCs;
- The completion of the redistricting initiative, which was only started in FY 2011;
- Contested elections in at least one of the new director precincts, although most of these costs will likely now be in FY 2013 as a result of the new uniform election date;
- Mandated reductions in water demand during the expected continuation of the severe drought that leads to higher than normal conservation credits;
- Continued use of the Drought Management Fees, which began in the last months of FY 2011, during a much greater portion of FY 2012 might result in additional fee revenue, especially if and as end users and permittees have increasing difficulty in complying with stipulated curtailments;
- Additional water-use and transport fees from the newly agreed component of the City of Kyle's Conditional Use permits;
- Planned changes in staff composition in both early- and mid-FY 2012, relative to the staff profile at the end of FY 2011;
- Self-funding of saline zone investigations and preliminary desalination feasibility studies; and
- Funding of the contracted effort on the HCP and NEPA documentation for US FWS without matching grant funds.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
STATEMENTS OF NET ASSETS  
AUGUST 31, 2011 AND 2010**

	<u>2011</u>	<u>2010</u>
<b>ASSETS</b>		
<b>Current assets</b>		
Cash and cash equivalents	\$ 1,106,756	\$ 869,407
Accounts receivable	157,154	66,384
Prepaid expenses	1,957	2,058
Total current assets	1,265,867	937,849
<b>Noncurrent assets</b>		
Capital assets		
Land	165,415	165,415
Building and improvements	227,034	227,034
Office furniture and equipment	54,933	54,933
Field equipment	309,876	309,876
Vehicles	88,918	88,918
	846,176	846,176
Less accumulated depreciation	(399,570)	(328,037)
Total capital assets, net	446,606	518,139
Deposits	71	71
Total noncurrent assets	446,677	518,210
Total assets	1,712,544	1,456,059
<b>LIABILITIES</b>		
<b>Current liabilities</b>		
Accounts payable	7,319	52,875
Conservation credits	25,894	35,859
Compensated absences	36,854	42,917
Deferred revenue	378,450	0
Total current liabilities	448,517	131,651
<b>NET ASSETS</b>		
Invested in capital assets, net of related debt	365,127	365,127
Unrestricted	898,900	959,281
Total net assets	\$ 1,264,027	\$ 1,324,408

See accompanying notes to financial statements.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS  
FOR THE YEARS ENDED AUGUST 31, 2011 AND 2010**

	<u>2011</u>	<u>2010</u>
<b>OPERATING REVENUES</b>		
Water permit and other fees	\$ 1,316,555	\$ 1,228,051
Grant revenue	9,842	166,281
Miscellaneous	3,825	1,190
Total operating revenues	<u>1,330,222</u>	<u>1,395,522</u>
<b>OPERATING EXPENSES</b>		
Operational expenses	107,804	148,467
Salaries, wages and compensation	775,636	779,096
Employment taxes, insurance and benefits	208,036	220,465
Professional services	110,769	111,745
Team expenditures	115,115	141,546
Grant expenditures	3,029	90,369
Depreciation	71,533	45,006
Total operating expenses	<u>1,391,922</u>	<u>1,536,694</u>
Operating loss	<u>(61,700)</u>	<u>(141,172)</u>
<b>NONOPERATING REVENUES</b>		
Interest revenue	<u>1,319</u>	<u>2,293</u>
Total nonoperating revenues	<u>1,319</u>	<u>2,293</u>
Change in net assets	(60,381)	(138,879)
Net assets beginning of year	<u>1,324,408</u>	<u>1,463,287</u>
Net assets end of year	<u>\$ 1,264,027</u>	<u>\$ 1,324,408</u>

See accompanying notes to financial statements.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
STATEMENTS OF CASH FLOWS  
FOR THE YEARS ENDED AUGUST 31, 2011 AND 2010**

	<u>2011</u>	<u>2010</u>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Receipts from water permit and other use fees	\$ 1,527,886	\$ 1,136,810
Grant receipts	76,226	174,544
Payments to suppliers and employees	(379,143)	(440,686)
Payments to employees and benefits	(989,735)	(999,065)
Grant expenses	(3,029)	(90,369)
Other receipts	3,825	1,190
Net cash provided by (used by) operating activities	<u>236,030</u>	<u>(217,576)</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Purchases of capital assets	-	(107,534)
Net cash used by capital and related financing activities	<u>-</u>	<u>(107,534)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Interest	1,319	2,293
Net cash provided by investing activities	<u>1,319</u>	<u>2,293</u>
Net change in cash and cash equivalents	237,349	(322,817)
Cash and cash equivalents beginning of year	<u>869,407</u>	<u>1,192,224</u>
Cash and cash equivalents end of year	<u>\$ 1,106,756</u>	<u>\$ 869,407</u>
<b>RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED BY (USED BY) OPERATING ACTIVITIES</b>		
Operating loss	\$ (61,700)	\$ (141,172)
Adjustments to reconcile operating income to net cash provided by (used by) operating activities:		
Depreciation	71,533	45,006
Change in assets and liabilities:		
Receivables, net	(90,770)	34,713
Prepaid and deferred expenses	101	(760)
Accounts payable and accrued expenses	(45,556)	(38,167)
Conservation credits	(9,965)	(9,783)
Compensated absences	(6,063)	496
Deferred revenue	378,450	(107,909)
Net cash provided by (used by) operating activities	<u>\$ 236,030</u>	<u>\$ (217,576)</u>

See accompanying notes to financial statements.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS**

---

**NOTE A – NATURE OF ACTIVITIES AND SIGNIFICANT ACCOUNTING POLICIES**

Organization

The Barton Springs/Edwards Aquifer Conservation District (the District) is a ground-water conservation district created in 1986 by the Texas Water Commission (now the Texas Commission on Environmental Quality), validated in 1987 by the 70th Legislature (Senate Bill 988), and confirmed by the voters on August 8, 1987. The District's statutory authority is Chapter 52 of the Texas Water Code, as amended by the 70<sup>th</sup> Legislature Senate Bill 988, further amended to reference Chapter 36 of the Texas Water Code upon the repeal of Chapter 52, effective through House Bill 2294 by the 74<sup>th</sup> Legislature.

The District encompasses approximately 225 square miles and serves southern Travis County, northern Hays County, and portions of southwestern Bastrop and northwestern Caldwell Counties. The District is committed to providing for the conservation, preservation, protection, recharging, and prevention of waste of groundwater of the Barton Springs segment of the Edwards Aquifer.

The enabling legislation creating the District provides that the District may assess fees "on an annual basis, based upon the size of column pipe used in the wells, the production capacity of the well, or actual, authorized, or anticipated pumpage". The District may not assess and collect taxes. The enabling legislation, as amended by House Bill 2294 in the 74<sup>th</sup> Legislative Session, further provided that the City of Austin can be required to pay a usage fee not exceeding sixty percent of the sum of (1) the total water use fees received from all permitted users and (2) the usage fee of 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 November 30, 1989 (when applicable) that do not conflict with 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.

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*, 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 Statement, the District has no component units and is not a component unit of any other reporting entity as defined by the Statement.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

---

**NOTE A – Continued**

Basis of Presentation

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 assets, financial position, and cash flows.

Basis of Accounting

Basis of accounting refers to the point at which revenues or expenses are recognized in the accounts and reported in the financial statements.

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.

Cash and Cash Equivalents

For purposes of the statement of cash flows, the District considers all highly liquid investments with an initial maturity of three months or less to be cash equivalents.

Accounts Receivable

Accounts receivable are stated at unpaid balances, all of which are considered to be fully collectible. Accordingly, no allowance for doubtful accounts has been recorded.

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

Buildings and improvements	25 to 30 years
Office furniture and equipment	3 to 10 years
Field equipment	5 to 7 years
Vehicles	5 years

Compensated Absences

The District accrues accumulated unpaid vacation leave and associated employee-related costs when earned by the employee. The liability for accrued leave at August 31, 2011 and 2010 is \$36,854 and \$42,917, respectively.



**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

---

**NOTE A – Continued**

Deferred Revenue

Deferred 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.

Defining Operating Revenues and Expenses

The District's 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. Operating revenues and expenses also include amounts received and spent under the terms of the agreement with Texas Parks and Wildlife Department (see Note H). All other revenues and expenses are reported as nonoperating.

Net Assets

Net assets are divided into three components:

- Invested in capital assets, net of related debt – consist of the historical cost of capital assets less accumulated depreciation and less any debt that remains outstanding that was used to finance those assets.
- Restricted net assets – consist of net assets that are restricted by the District's creditors, by the state enabling legislation, by grantors, and by other contributors.
- Unrestricted – all other net assets are reported in this category.

At August 31, 2011 and 2010, the District has no restricted net assets.

Risk Management

The District is exposed to various risks of loss related to torts, theft, damage or destruction of assets, errors and omissions, injuries to employees and natural disasters. During the years ended August 31, 2011 and 2010, the District was under contract with Texas Municipal League Intergovernmental Risk Pool to cover property and general liabilities. In addition, the District purchased commercial insurance to cover commercial crime coverage and public official bonds. There were no significant reductions in coverage in the past fiscal year and there were no settlements exceeding insurance coverage.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

---

**NOTE B – BUDGETARY CONTROL**

The District's Board of Directors adopts an annual budget of anticipated revenues and expenses prior to the beginning of each fiscal year. This budget is prepared on substantially the same basis used to reflect actual revenues and expenses, except that capital outlay is budgeted in addition to depreciation expense and transfers to contingency and reserve funds are budgeted as non-cash disbursements. Amendments to the initial budget are approved by the Board as needed at its regular meetings.

**NOTE C – DEPOSITS AND INVESTMENTS**

The District's funds are required to be deposited and invested under the terms of a depository contract. The depository bank places approved pledged securities for safekeeping and trust with the District's agent bank in an amount sufficient to protect District funds on a day-to-day basis during the period of the contract. The pledge of approved securities is waived only to the extent of the depository bank's dollar amount of Federal Deposit Insurance Corporation (FDIC) insurance.

The District's cash deposits as of and during the years ended August 31, 2011 and 2010 were entirely covered by FDIC insurance or by pledged collateral held by the District's agent bank in the District's name.

The District is required by Government Code Chapter 2256, the Public Funds Investment Act, to adopt, implement, and publicize an investment policy. Among the items that must be addressed in the policy are the following: (1) safety of principal and liquidity, (2) portfolio diversification, (3) allowable investments, (4) acceptable risk levels, (5) expected rates of return, (6) maximum allowable stated maturity of portfolio investments, and (7) investment staff quality and capabilities. The Act also determines the types of investments which the District is authorized to invest in. These include: (1) obligations of the U.S. Treasury, certain U.S. agencies, and the State of Texas, (2) certificates of deposit, (3) certain municipal securities, (4) money market savings accounts, (5) repurchase agreements, (6) bankers acceptances, (7) mutual funds, (8) investment pools, (9) guaranteed investment contracts, and (10) common trust funds. Finally, the Act also requires the District to have independent auditors perform test procedures related to investment practices as provided by the Act.

The District participates in the Texas Local Governmental Investment Pool (TexPool), which is an external investment pool offered to local governments. TexPool is not SEC registered; however, it is regulated by the State Comptroller of Public Accounts. These investments are stated at fair value which is the same as the value of the pool shares. At August 31, 2011 and 2010, the District's investment in TexPool amounted to \$841,584 and \$843,316, respectively.

The District is in substantial compliance with the requirements of the Public Funds Investment Act and with local policies.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

**NOTE D – CAPITAL ASSETS**

Capital asset activity for the year ended August 31, 2011 was as follows:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Retirements</u>	<u>Ending Balance</u>
Land	\$ 165,415	\$ 0	\$ 0	\$ 165,415
Building and improvements	227,034	0	0	227,034
Office furniture and equipment	54,933	0	0	54,933
Field equipment	309,876	0	0	309,876
Vehicles	<u>88,918</u>	<u>0</u>	<u>0</u>	<u>88,918</u>
Total capital assets	\$ 846,176	0	0	\$ 846,176
Accumulated depreciation	<u>(328,037)</u>	<u>(71,533)</u>	<u>0</u>	<u>(399,570)</u>
Total capital assets, net	<u>\$ 518,139</u>	<u>\$ (71,533)</u>	<u>\$ 0</u>	<u>\$ 446,606</u>

**NOTE E – CONSERVATION CREDITS**

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 the fiscal years ended August 31, 2011 and 2010 amounted to \$25,894 and \$35,859, respectively.

**NOTE F – DESIGNATED NET ASSETS**

The Board has designated a portion of its net assets as follows:

<u>Designation</u>	<u>Balance at August 31, 2011</u>	<u>Balance at August 31, 2010</u>
Reserve for contingencies	\$ 146,572	\$ 215,895
Reserve for payment of compensated absences	45,078	42,517
Reserve for future capital acquisitions	<u>409,501</u>	<u>426,676</u>
	<u>\$ 601,151</u>	<u>\$ 685,088</u>

Amounts equal to these reserves have been segregated into separate TexPool accounts. Such designations represent management's plans for the use of resources and do not have the same status as restrictions on net assets. Therefore, the reserves may be used by the District at any time, as directed by the Board.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

---

**NOTE G – RETIREMENT PLAN**

The District provides retirement benefits for all full-time employees who are at least twenty-one years of age and have twelve months of service. The plan, a defined contribution pension plan, is a money purchase pension plan and trust. The District's contributions for the years ended August 31, 2011 and 2010 were \$54,616 and \$53,210, respectively.

As of August 31, 2011, the defined contribution pension plan assets are summarized as follows:

<u>Investment Type</u>	<u>August 31, 2011</u>
Short-term investments	\$ 13,913
Mutual funds – equity	828,030
Mutual funds – fixed income	102,717
Total plan assets	<u>\$ 944,660</u>

During the plan year ended August 31, 2011 all twelve persons employed by the District met eligibility requirements and were participants in the Plan. Four participants who terminated prior to September 1, 2010 have account balances in the plan. No persons were receiving survivors' benefits from the plan at any time during the year ended August 31, 2011.

**NOTE H – CONTRACT AGREEMENTS**

In June 2004, the District entered into a Memorandum of Agreement with the Texas Parks and Wildlife Department (TPWD). The agreement provides that the District will prepare a draft habitat conservation plan and draft environmental impact study or environmental assessment for management of the Edwards Aquifer to address covered endangered species in the Barton Springs area, as well as protection of the water supply. The agreement covered the three-year period ended April 28, 2007. In September 2008, the District entered into another, follow-on grant with TPWD to continue working on the HCP documentation, with a grant period that terminated May 31, 2011. For the years ended August 31, 2011 and 2010, the District recognized \$7,790 and \$49,614, respectively, in grant revenue from billings to TPWD, contributions from third parties, and donated conservation credits from permittees.

In March 2007, the District entered into an agreement with the Texas Commission on Environmental Quality (TCEQ) to provide services regarding the (i) upgrade of the Antioch Cave recharge facility by adding water quality monitoring equipment and flow management devices and (ii) the evaluation of additional Onion Creek surface water flow control systems. The grant is not to exceed \$558,000 with a grant period of March 29, 2007 through August 31, 2009. TCEQ will reimburse up to \$334,800 contingent upon the District's minimum matching funds or in-kind contributions of \$223,200. For the years ended August 31, 2011 and 2010, the District recognized \$0 and \$111,937, respectively, in grant revenue from billings to TCEQ. Expenses incurred by the District for the years ended August 31, 2011 and 2010, excluding payroll and overhead, amounted to \$0 and \$40,520, respectively.

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

---

**NOTE I – LITIGATION**

As a result of a contested-case permitting decision, in which the District Board authorized only a portion of the requested amount of water because the applicant failed to demonstrate a full amount of an alternative water supply as required by the District rules, the applicant City of Kyle sued the District during the year ended August 31, 2010. The District vigorously defended itself, believing that it would prevail in the suit on summary judgment, or in a trial and if necessary on appeal. Furthermore, even if the District ultimately were to lose, the financial exposure of the District was small; what the City of Kyle would win is the amount of water that was denied them in the Board's original permitting decision. The City requested attorney fees which may be recoverable within the discretion of the court if Kyle prevails on its claim under the Uniform Declaratory Judgment Act. In the year ended August 31, 2011, the City was granted a summary judgment against the District, and then the City and the District worked out a settlement agreement to avoid further legal costs on pursuing an appeal. The 2011 and 2010 expenses include the District's extraordinary costs associated with defending and settling the Kyle case.

**NOTE J – SUBSEQUENT EVENTS**

Subsequent events have been evaluated through December 15, 2011, which is the date the financial statements were available to be issued.

**SUPPLEMENTARY INFORMATION**

**BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT  
BUDGETARY COMPARISON SCHEDULE  
FOR THE YEAR ENDED AUGUST 31, 2011**

	<u>Budgeted Amounts</u>		<u>Actual</u>	<u>Variance with</u>
	<u>Original</u>	<u>Final</u>	<u>Amounts</u>	<u>Final Budget</u>
			<u>(GAAP Basis)</u>	<u>Positive</u> <u>(Negative)</u>
<b>OPERATING REVENUES</b>				
Water use fees - permittees	\$ 630,421	\$ 630,421	\$ 519,626	\$ (110,795)
Water use fees - City of Austin	710,108	710,108	710,108	-
Conservation credits	-	-	(26,098)	(26,098)
Grant revenue	40,160	37,565	9,842	(27,723)
Other fees	9,550	9,550	112,919	103,369
Miscellaneous	500	500	3,825	3,325
Total operating revenues	<u>1,390,739</u>	<u>1,388,144</u>	<u>1,330,222</u>	<u>(57,922)</u>
<b>OPERATING EXPENSES</b>				
Operational expenses	168,604	175,972	107,804	68,168
Salaries, wages and compensation	786,537	796,537	775,636	20,901
Employment taxes, insurance and benefits	238,200	228,790	208,036	20,754
Professional services	117,000	104,000	110,769	(6,769)
Team expenditures	159,800	136,850	115,115	21,735
Grant expenditures	35,000	35,000	3,029	31,971
Depreciation	50,000	50,000	71,533	(21,533)
Total operating expenses	<u>1,555,141</u>	<u>1,527,149</u>	<u>1,391,922</u>	<u>135,227</u>
Operating income	<u>(164,402)</u>	<u>(139,005)</u>	<u>(61,700)</u>	<u>77,305</u>
<b>NONOPERATING REVENUES (EXPENSES)</b>				
Interest revenue	1,800	1,800	1,319	(481)
Transfers to (from) reserves	(112,700)	(87,316)	-	87,316
Total nonoperating revenues (expenses)	<u>(110,900)</u>	<u>(85,516)</u>	<u>1,319</u>	<u>86,835</u>
Change in net assets	(275,302)	(224,521)	(60,381)	164,140
Net assets beginning of year	<u>1,324,408</u>	<u>1,324,408</u>	<u>1,324,408</u>	<u>-</u>
Net assets end of year	<u>\$1,049,106</u>	<u>\$1,099,887</u>	<u>\$1,264,027</u>	<u>\$ 164,140</u>

**APPENDIX B**

**Basis for Board of Directors' Evaluation of Progress**  
**Concerning Goals and Objectives**



## Appendix B

### Evaluation of Progress on Goals and Objectives

**Objective 1-1:** Optimize the balance each year between water use and “preserving, conserving, and protecting” the groundwater resources of the District.

#### **Performance Standards for Objective 1-1:**

**A.** Provide and maintain a sound statutory basis for continued District operations on an ongoing basis.

In FY 2011, the District operated under and was guided by the statutes that govern the District. The District protected its statutory authority and carried out its statutory responsibilities under the prevailing District Management Plan. The legislative session in FY 2011 somewhat unexpectedly placed water issues, and especially groundwater regulation, front and center.

- District staff and directors communicated both verbally (telephone calls, conferences, one-on-one meetings) and in writing (letters, newsletters) with those legislators having common constituents in the District and with other legislators who are opinion leaders in the groundwater management arena.
- The District General Manager (GM) served on the Texas Alliance of Groundwater Districts (TAGD’s) Legislative Committee and was actively involved in the development and dissemination of information and groundwater conservation district (GCD) perspectives to legislators, legislative committee staff, and other stakeholders.
- The District championed and worked with legislator sponsors on four bills; all of these bills were supported by testimony of directors and staff in committees, with committee staff, and with individual legislators. The bills included:
  - Restricting direct discharges of treated effluent in the contributing zone of the Barton Springs segment of the Edwards Aquifer;
  - Allowing the transit of the saline portion of the Edwards Aquifer for injection of desalination concentrate in the underlying Trinity and the injection of fresh groundwater in the saline zone of the Edwards as part of an aquifer storage and recovery (ASR) facility;
  - Redefining the basis for the so-called Austin director-precincts to be based on fixed boundaries rather than Austin municipal limits; and
  - De-annexing the small part of the District in Bastrop County that overlaps with the statutorily supervening Lost Pines GCD.

Of these, only the de-annexation bill passed, but by supporting the others the District learned important aspects of other parties' positions and is better positioned to pursue certain of these in the next session.

- The District regularly monitored developments associated with other groundwater legislation, reviewing progress in each Board meeting during the session. Staff and the District's legislative liaison also worked with legislative aides to revise introduced legislation to protect GCD interests, and the GM was invited by the author of a bill to craft some compromise language and provide testimony in supporting a revision to a bill that would otherwise have restricted or prevented the District's use of management zones. Staff and the District's legislative liaison were also successful in inserting a clarification on the House floor as to the legislative intent concerning two other bills that would have otherwise adversely affected the District's ability to apply well construction standards and set-backs to exempt wells.
- In response to the growing concern about the ability of the District's maximum curtailments, as reflected by the Extreme Drought Withdrawal Limitation (EDWL), to be protective of the likely desired future condition (DFC) of the Edwards Aquifer during extreme drought, some additional changes to the District *Rules* were proposed, communicated to the public and individual stakeholders, and eventually became the focus of some rule-making with the primary affected parties. The changes in the *Rules* as adopted were derived from and supportive of both explicit and implied authorities in the governing statutes.
- District staff and directors in FY 2011 also began the process of revising the District Management Plan to re-structure and update the goals, objectives, and performance standards as a response to statutory changes from the 2011 legislative session and to the need for making certain authorities more explicit in the District's drought management program in order to support DFCs and Managed (now Modeled) Available Groundwater (MAG).

**B. Seek and make effective use of grant funding of programs that are complementary to ongoing District activities and programs and that supplement other District revenue sources.**

The District completed work under two major grants and submitted a proposal for an additional grant project in FY 2011.

- The District continued revising both the Habitat Conservation Plan (HCP) and the accompanying National Environmental Policy Act (NEPA) documentation under a grant project funded by US Fish and Wildlife Service (FWS) through TPWD. The agreed goal was to complete the Administrative Review Drafts of both of these documents by the grant's May 2011 termination date, while a request to extend the term of the grant project was processed. However, early in FY 2011 the District was informed that the probability of the grant being extended, even on a no-cost basis, was very small, and also that the FWS now required the NEPA documentation to be prepared by an arms-length consultant under the sole direction of FWS but compensated by the District. A final grant project report, originally intended to be an annual interim report, was prepared and submitted to TPWD. The work of the District and its principal consultant, Dr. Kent Butler, was re-configured, with

Dr. Butler taking on the NEPA draft Environmental Impact Statement (dEIS) updating and documentation, to be compensated solely by the District without grant funding. Delays in establishing the MAG for the adopted DFCs to be key HCP measures, affected the production of the HCP draft. In May 2011, the District was stunned by the tragic, accidental death of Dr. Butler. The District and FWS eventually agreed on the use of Hicks & Co. to pick up the completion of the NEPA documentation under contract to the District. At the end of FY 2011, work had just been re-initiated on both the NEPA and HCP documents, in concert with FWS.

- As part of its desalination feasibility initiative, the District, in association with Texas State University-San Marcos (TSU-SM) and Texas Disposal Systems, Inc. (TDS), prepared and submitted a congressionally-directed grant proposal through TSU-SM. This type of funding opportunity is believed to be more appropriate than earlier grant proposals made by this public-private consortium in the previous year for the type of applied research needed for initially evaluating desalination in the District. At the end of FY 2011, the District and TSU-SM had not heard formally about the disposition of this grant proposal, but in the current federal funding and political climate, the prospects for success have been diminished.

**C. Empanel and empower a Board of Directors that ensures Board-level policy decisions are consistent with current public perceptions of efficient groundwater use, conservation, preservation, and protection so that there is public accountability for District operations and decision-making.**

- A full Board of Directors, with all five precincts represented, was active throughout FY 2011.
- There were no elections for directors required in FY 2011.
- The District Board of Directors held 23 regularly scheduled Board meetings, 6 public hearings, 2 special called Board meetings, 4 work sessions, and 150 other individual director meetings in FY 2011, to govern the District according to the needs of its constituents and the requirements of its statutes. All Board meetings were noticed and conducted in accordance with the District *Rules & Bylaws*, and the Texas Open Meetings Act.
- The District Board of Directors initiated the contractual and legal process to redistrict its director precincts following the 2010 decennial census, which results became available in February 2011. The Board approved resolutions that established criteria for redistricting the precincts and guidelines for the public in submitting and commenting on alternative plans. At the end of FY 2011, individual directors were meeting with the District's redistricting consultant, Bickerstaff Heath, to identify options for redistricting boundaries that met as many of the criteria as possible.

**D. Register, permit, and monitor, as appropriate, wells in the District to assess compliance with the *Rules*, and *Well Construction Standards*.**

- No new unregistered wells were identified or registered in FY 2011.

- The District conducts inspections on existing permitted well systems as part of the Regulatory Compliance Team's routine inspection schedule and in response to applications received. Seventeen routine permittee inspections and four inspections of new wells and well sites were conducted in FY 2011.
- Monthly meter readings were collected from all permittees each month with at least 90% 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.
- Permittee User Drought Contingency Plans (UDCPs) were updated in response to the new Stage IV Exceptional Drought that was added with the rules adopted on September 10, 2009. District staff has continued to update plans in response to permittee-requested and staff-initiated modifications resulting from issues that have arisen from plan implementation during District-declared drought.

**E. Maintain and develop programs that inform and educate Austin-area citizens of all ages about water-related matters of local, state, and national importance.**

The District collaborated with local water-related agencies to organize and host the sixth annual Groundwater to the Gulf Summer Institute for Educators that trained 48 teachers who collectively reach over 5,570 students. Three editions of the Aquifer Bulletin were posted online and subscribers were notified with content via email. Directors and staff participated in 34 outreach activities reaching approximately 2400 adults and 1035 children. Activities included events, field trips, class lectures, and presentations at state and international conferences. In addition, directors and staff are involved in a wide range of ongoing collaborations:

- Austin Geological Society
- City of Austin Environmental Board
- City of Austin Earth Camp
- Envision Central Texas, Natural Infrastructure Committee
- Groundwater Management Area 10
- Groundwater Management Area 9
- Groundwater to the Gulf Collaboration
- Gulf Coast Association of Geological Societies
- Hays Trinity Groundwater Conservation District - Geology
- Hays Trinity Groundwater Conservation District – Rule-making Committee
- Regional Water Educators
- Regional Water Quality Protection Plan, Intergovernmental Work Group
- Saline Edwards Studies
- Sinkhole Conference
- Texas Alliance of Groundwater Districts
- Travis County Groundwater Stakeholders
- Water Efficiency Network of Central Texas

**F. Process and review renewals and applications for new production permits, new transport permits, production permit amendments, transport permit amendments, and well modifications in accordance with the *Rules*, and *Well Construction Standards*.**

As reported in the “District Programs - Team Highlights” section of the Annual Report, there were only a few new wells, new production permits, or production permit amendment applications received and processed in FY 2011. Of these, all were processed in conformance with the District’s information requirements, procedural requirements, and timeframes. All current production and transport permits were renewed at the end of the respective permit terms as well.

**G. Maintain effective and efficient accounting and financial records management in accordance with federal and state law, the *Rules*, and Board direction; and maintain official records, files, and minutes of Board meetings, preserving and protecting public documents in accordance with state and federal laws and the District Records Retention Schedule to allow for safekeeping and efficient retrieval.**

- District Board and staff members 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.
- The District developed, implemented and modified as needed, a balanced FY 2011 Annual Budget that the Board approved on August 12, 2010, and then revised once during the fiscal year; on December 16, 2010.
- The District Board successfully reduced, and continues to seek additional means by which the District can reduce further, the need to use its reserve funds for continuing operations.
- The District obtained new contracts for services in accordance with established District standards that meet or exceed the requirements of state law and the *Rules*.
- The District developed, posted and distributed District Board Meeting materials and back-up materials, and prepared meeting minutes for every Board meeting in a timely manner for Board approval.

**Objective 2-1:** Ensure that groundwater is used solely for beneficial purposes at all times and minimize or prevent activities that may cause or contribute to the wasteful use of groundwater and to the pollution or harmful alteration of the character of the groundwater and its reservoirs.

**Performance Standards for Objective 2-1:**

**A. Require all newly drilled exempt and nonexempt wells as well as plugged wells, to be registered and authorized in compliance with the *Rules* and *Well Construction Standards*.**

All applications for well plugging, well registration, and new exempt and nonexempt wells reported in the “District Programs-Team Highlights” section of the Annual Report were reviewed and processed in accordance with the specified timeframes.

**B. Assess ambient conditions in District aquifers by sampling and collecting groundwater data from selected wells, including those installed by the District and other resource management agencies for such purposes as well as those for other uses.**

- Much of the water quality sampling in FY 2011 was conducted through our annual participation in the Texas Water Development Board (TWDB) groundwater sampling effort. In this effort, District staff collected samples from 50 sample sites including wells and springs from the Edwards and Trinity aquifers. All samples were analyzed for major ions and 30 of those samples were analyzed for stable and age-dating isotopes. In addition, the District staff conducted a dissolved oxygen study sampling about 88 wells and springs and assisted in a TSU-SM student well sampling exercise at Ruby Ranch.
- The District also collected samples from three wells during routine inspections and from newly constructed wells. Samples from the three abandoned wells that were plugged were not collected due to problems with sampling access. Other sampling was conducted as part of special investigations related to a potential contamination event on Oak Dale Drive in Sunset Valley and the Oak Forest Trinity well (Well No. 3) water quality problems.

**C. Provide leadership and technical assistance to federal, state and local entities; organizations; and individuals on the geology, hydrogeology, and karst features impacted by groundwater-utilizing land use activities.**

- District staff attended each regularly scheduled meeting of the regional water quality protection plan group that was convened to allow representatives from local governmental entities to provide information updates that are relevant to the goals of the regional water quality protection plan. These regularly scheduled meetings are organized by Director Craig Smith and have been useful in maintaining the collaborative relationships with our fellow resource managers.
- The District continued to monitor and review activity subject to the Texas Commission on Environmental Quality’s (TCEQ’s) 30 Texas Administrative Code (TAC) §213 Rules related to regulated activities that may affect the Edwards Aquifer. In FY 2011, District staff logged receipt of ten Water Pollution Abatement Plans (WPAPs) and comments were deemed advisable and provided to one of these – the KBDJ proposed modification. The KBDJ modification allowed a transfer of buffered areas from an area with a greater concentration of features to an area of fewer features. The District provided comments questioning the logic and suggested additional measures and monitoring as mitigation should the modification be approved. The WPAP modification was approved by TCEQ without additional measures.

In addition, the District provided written comments to TCEQ on the §213 Edwards Rules and also provided written and oral comments at a public hearing held in July, 2011, on proposed Quarry Best Management Practices.

- The District in cooperation with the City of Austin (COA), the City of Dripping Springs, Hays County, and the Lower Colorado River Authority (LCRA) agreed to jointly fund a study supplement to a TCEQ study to characterize the hydrochemistry of the Barton Springs segment of the Edwards Aquifer. The supplement funded by the cooperative included additional sampling and parameters in an effort to assess the impact of wastewater on the aquifer. The report titled “Nitrate Concentrations and Potential Sources in the Barton Springs Segment of the Edwards Aquifer and Its Contributing Zone, Central Texas” was produced summarizing the results of the sampling using additional funding provided by the cooperative with the addition of Travis County.
- With regard to pursuing legal remedies to minimize groundwater quality impacts, the District protest of the Jeremiah Venture Texas Land Application Permit (TLAP) application continued through FY 2011. The proceedings in this case were abated to provide time for additional site assessment and mediation. The District and other protestants participated in mediation that produced a settlement that has been tentatively agreed to by the District, LCRA, and Hays County.

**Objective 3-1:** Diversify water supplies available to users in the District and thereby allow for appropriate pumpage curtailments, especially during extreme drought.

**Performance Standards for Objective 3-1:**

**A.** Assess the availability of regional surface water and alternative water supplies and the feasibility of those sources as viable supplemental supplies for District groundwater resources.

- District Board members and staff continue to actively participate in the regional water planning processes of both Region K and Region L, which are engaged in a multi-year re-evaluation of water demand, water supplies and resources, and water management strategies. The District provided input to both of these regional water planning groups.
- The District initiated the exploration of the geotechnical, economic, engineering/technological, and environmental/public-acceptance feasibility of a potential desalination facility in or near the eastern part of the District in the Saline Edwards Aquifer. Desalinated Edwards water may be the only true “new water” available in the vicinity of the District.
- The District Board members and staff worked with two of its industrial permittees, Centex Materials and Texas Lehigh Cement Co., to explore alternative water supplies. As a product of negotiated rule-making, rules were drafted and agreed to by both the District and the industrial permittees that would create an incentive for alternative water supply development. Permittees that are able to demonstrate the availability of new alternative water supplies or substantial reductions in demand would be rewarded by relaxing Emergency Response Period (ERP) curtailments from 85% to 40%. The negotiated rule-making triggered parallel conversations and substantial progress towards development of alternative water supplies, namely the Middle Trinity and Austin Chalk aquifers.

- The District continued to assist the Oak Forest Water Supply Corporation in the development of the recently completed Middle Trinity public water supply well drilled to augment water supplies to the system. Both this well and the Ruby Ranch Middle Trinity well have experienced water chemistry issues (elevated iron) that are not consistent with known Middle Trinity water quality in the area. The District has contributed to the investigation of the water chemistry anomalies in an effort to assess the Middle Trinity as a viable alternative water supply for public water supply purposes.

**B. Encourage District permittees to diversify their water supplies and implement conjunctive use by fostering arrangements with available water suppliers.**

The frequent occurrence of drought coupled with the new drought rules have generated interest in identifying surface water and other alternative water supplies by both the District staff and the District stakeholders. In the past year:

- The District established dialogue with TDS about initiating feasibility studies of a desalination facility under a possible public-private partnership in or nearby the TDS landfill.
- The District maintained a relationship and an open dialogue with the COA's Austin Water Utility (AWU), the Guadalupe-Blanco River Authority (GBRA), and the LCRA to promote possible interconnections, especially during severe drought conditions, where possible and warranted.

As an example, the District has continued to be supportive of permittee Ridgewood Village Water System (RVWS) efforts to transfer off of Edwards's groundwater and onto the surface water provided by the COA via Travis County Water Control and Improvement District (WCID) No. 10. The impetus for the transfer began with the District's enforcement action against RVWS in response to drought rule violations in 2009. The District has shown support of the transfer by providing the needed extensions to the enforcement order and letters of support to TCEQ to encourage approval of the transfer to WCID No. 10.

**C. Demonstrate the importance of the relationship between surface water and groundwater, and the need for implementing conjunctive use, through education and public outreach.**

The District hosted a number of events that help communicate the importance of surface water/groundwater interaction, water conservation, and diversified water supplies.

- The Austin Cave Festival (March 5, 2011) attracted over 900 visitors and allowed people to explore local caves, learn about water quality protection, water conservation, and rain water harvesting systems.
- The Central Texas Water Conservation Symposium (March 22, 2011) attracted over 120 city managers, water suppliers, city planners, and water professionals to attend the "Business Case for Water Conservation" Symposium, sponsored in part by the District.



- The Groundwater to the Gulf Summer Institute for Educators (June 22-24, 2011) equipped 47 teachers (who reach over 5,570 students annually) with hands-on activities to teach about surface water/groundwater interaction, water issues, and water conservation.
- The District continues to research the feasibility of desalinization technologies to supplement existing water supplies with Saline Edwards water resources through ongoing collaboration with TDS, Texas State University, Texas A&M, and Plum Creek Groundwater Conservation District.
- District staff and directors collaborated with county government, non-profit groups, water haulers, and rainwater system installers to host the first annual Rainwater Revival (Oct. 9, 2010) and build on those successes in planning the second annual Rainwater Revival (Oct. 8, 2011).

**Objective 4-1:** Increase understanding of District aquifers through sound science that characterizes aquifer properties and variability so that appropriate policy and regulatory decisions can be made.

**Performance Standards for Objective 4-1:**

**A.** Conduct scientific studies to better determine groundwater availability, to understand and prevent threats to water quality, and to minimize impacts to water-supply wells and springs.

- The District maintains a monitor well network of about 35 wells that collects data hourly. The District's weather station also collects hourly data. District staff collected water quality data from about 50 sample locations (TWDB partnership.)
- FY 2011 began with the aquifer in non-drought conditions with Barton Springs flow at about 90 cfs. However, very dry conditions led to a steady drop in flow at Barton Springs and a corresponding drop in water levels in the Lovelady monitor well. By April 2011, springflow decreased to 38 cfs and the Board declared an Alarm Stage Drought on April 28. The fiscal year ended with the aquifer approaching Critical Stage Drought.
- Drilling of a new Westbay multiport well was started in July 2010 near Antioch Cave. This well was completed in September 2010 and includes 21 monitor zones in the Edwards and Upper and Middle Trinity aquifers. Samples were collected from this well during the summer sampling program.
- Staff from the Aquifer Science Team served on the planning committee for the 12<sup>th</sup> Multidisciplinary Conference on Sinkholes and Environmental Impacts of Karst and attended the conference in St. Louis in January 2011.
- District staff members had a major role in the publication of the Hydrogeologic Atlas of the Hill Country Trinity Aquifer. This large format, 2 X 3 ft document was a team effort between the District, Blanco-Pedernales Groundwater District, the Hays-Trinity Groundwater District, and other contributors.

- Staff continued working with TWDB on groundwater modeling for the Barton Springs portion of the GMA-10 evaluations for MAG.

**B. Utilize site-specific hydrogeological data from applicable production permit applications to assess potential impact to groundwater quantity and quality, public health and welfare, contribution to waste, or unreasonable well interference.**

There were no applications filed during FY 2011 that required a pump test or hydrogeological report.

**C. Assess the feasibility and implement as warranted, separate management strategies or management zones to address variable management needs of the different areas and aquifers within the District.**

The District directors and staff had established the following management zones and incorporated differential requirements for these management zones into the District *Rules* in the preceding FY 2010: Western Freshwater Edwards, Eastern Freshwater Edwards, Saline Edwards, Middle Trinity, and Lower Trinity Aquifers. The District received and evaluated groundwater availability model (GAM) runs and eventually draft MAGs applicable to these management zones in FY 2011. The District's regulatory program, including its permitting provisions and database entries, throughout FY 2011 was based on these management zones.

**D. Actively participate in the joint planning process for Groundwater Management Areas (GMAs) 9 and 10 to establish DFCs by mid-2010 and periodically thereafter.**

**GMA-9:** The designated District representative to this GMA, Senior Hydrogeologist Brian Hunt, P.G., actively participated and attended GMA-9 meetings and public hearings in Kerrville and Johnson City. Since the DFC was adopted on July 26, 2010, GMA-9 meetings were less frequent in FY 2011 (about 3 meetings) as the TWDB processed the DFC and resulting MAG. The representative actively participated in discussions of the various DFCs and related issues for GMA-9 aquifers. The District Board was updated on GMA-9 activities.

GMA-9 resolution #082908-01 adopted DFCs for the minor aquifers (Ellenburger, Hickory, and Marble Falls) on August 29, 2009. GMA-9 resolution #072610-01 adopted DFCs for the Edwards-Trinity (Plateau) and Hill Country Trinity aquifers on July 26, 2010. GMA-9 met the DFC-submittal deadline of September 2010 so that MAGs will be included into the Regional Water Planning Group (RWPG) plans.

Draft and final MAG Groundwater Reports were issued by the TWDB in FY 2011. These reports include the total, exempt, and managed available groundwater from their respective aquifers for each GCD through 2060. Those reports are available on the TWDB website and include:

- Draft GAM Run 10-050 MAG version 2 (February 7, 2011) for the Hill Country Trinity Aquifer (this will remain as a draft until the petitions are resolved, see below)

- GTA Aquifer Assessment 10-01 MAG (June 22, 2011) for the Ellenburger-San Saba Aquifer
- GTA Aquifer Assessment 10-02 MAG (June 22, 2011) for the Hickory Aquifer
- GTA Aquifer Assessment 10-14 MAG (June 22, 2011) for the Marble Falls Aquifer
- GAM Run 10-049 MAG (November 18, 2011) for the Edwards-Trinity (Plateau) Aquifer.

During the summer of 2011 two petitions were received. Petitions filed by Flying “L” Guest Ranch, LTD. appealed the DFC of the Trinity Aquifer in Bandera County and by Wimberley Valley Watershed Association appealed the DFC of the Hill Country Trinity Aquifer in Hays County.

A public hearing for the Flying “L” Guest Ranch LTD. petition was held November 7, 2011 at the Upper Guadalupe River Authority, Kerrville. A public hearing for the Wimberley Valley Watershed Association petition was held on November 16, 2011 at the Wimberley Community Center, Wimberley. These petitions and testimony will be presented to the TWDB Board on February 2, 2012, at which time the Board may issue a recommendation and make a determination on the reasonableness of the adopted DFCs.

**GMA-10:** The designated District representative to GMA-10, GM Kirk Holland, continued to serve in a leadership role in the GMA’s efforts to support and promulgate DFCs and MAGs for relevant aquifers. Joint planning throughout most of FY 2011 was relatively slow-paced, as the DFCs had just been submitted to TWDB at the end of FY 2010 and the GMA could only wait until the MAG amounts were established by TWDB and ascertain whether any petitions for unreasonableness of the DFCs were filed by affected parties. The draft MAGs were received at mid-year, and the District began assessing and will ultimately make some changes to its *Rules* that will help close the gap between what is needed to achieve the Edwards DFC and what the regulatory program could now provide.

The District made a presentation to the GMA and began discussions with other GMA-10 GCDs about the optional types of cooperative monitoring programs that will be required to demonstrate compliance with the DFC of the Trinity Aquifer, and provided a template for identifying candidate monitoring wells for that purpose. At the end of FY 2011, the District and GMA were still waiting on some data to be provided by other GCDs.

Late in FY 2011, GMA-10 received notice of a petition concerning an alleged unreasonable DFC for the Edwards Aquifer in the Western Subdivision of GMA-10. Even though this petition focused on a part of the Edwards far removed from the District, the district representative is serving on a three-person GMA-10 subcommittee to advise Kinney County GCD in settling this petition. An initial teleconference was held in late FY 2011 to develop a strategy for responding to the petition.

Also, the District nominated and GMA-10 approved a District staff member, John Dupnik, to serve as the GMA-10 representative to Region K as a new voting member of that regional water planning group.

**Objective 4-2:** Review and modify, as warranted and within statutory authority, the *Rules* as to their consistency with natural resources protection

**Performance Standards for Objective 4-2:** (i) Schedule and conduct public hearings to solicit public input on proposed changes to the *Rules*, within the prescribed regulatory time frames; (ii)

appoint and convene *ad hoc* policy advisory committees at the will of the Board but at least once during the Plan period to review and comment on District policies and proposed rules revisions as they relate to protection of the identified natural resources; and (iii) make available to the public the revised rules within three days after adoption by the Board.

District staff introduced some new rule concepts near the end of FY 2010 for Board consideration and vetting by a policy advisory committee convened for the purpose of providing input to proposed rule changes. The concepts were developed as proposed rule amendments and revisions affecting: drought stage nomenclature, drought stage triggers, conditional permits, and pumpage curtailment requirements for industrial/irrigation permittees during an ERP. The proposed rules were properly noticed, made available for public viewing and after a public hearing and Board deliberation, were finally adopted on March 24, 2011.

The adopted rules that addressed curtailment requirements of non-public water supply permittees were challenged by industrial permittees which triggered another round of negotiated rule-making. Through negotiated rule-making, the District and the industrial permittees were able to come to terms on acceptable rule changes. In summary, the negotiated rules delayed the more aggressive ERP curtailments and provided an option to relax those ERP curtailments if the permittee demonstrated development of an alternative water supply or implemented measures to achieve the equivalent demand reduction. The negotiations including Board input occurred throughout the remainder of FY 2011. After proper notice was provided and a public hearing was held, the negotiated rule changes were adopted on September 17, 2011.

All adopted rules were processed in accordance with all District rule-making procedures and timeframes.

**Objective 5-1:** Maintain conditions of the aquifers on the basis of sustainable yield concepts to prevent well interference and water-quality impacts related to reduced springflow during a recurrence of the Drought Of Record (DOR), and to preserve and ultimately reduce the EDWL.

**Performance Standards for Objective 5-1:**

**A.** Monitor and declare drought stages on the basis of the analysis of data from the District's defined drought triggers and in accordance with the adopted drought trigger methodology.

The District declared Stage II Alarm Drought on April 28, 2011 and then Stage III Critical Drought on September 8, 2011.

**B.** Inform and educate permittees and the public about declared drought stages and the severity of drought, and encourage practices and behaviors to reduce water use.

The District refined the drought stage icons to reflect the addition of stage numbers. These icons serve as a visual cue for the severity of the drought stage starting with green, yellow, red, then black. Stage III Alarm Drought road signs were distributed to all permittees shortly after the declaration on April 28, 2011. The consistent messaging is repeated on drought stage road signs, bill inserts, as flags at District headquarters, images on the website, drought chart, etc. District

staff issued a press release, newsletter edition, Facebook post, and emailed permittees when the drought stage changed. To keep the public up-to-date with aquifer conditions, the Drought Monitor Blog and Drought Charts were regularly updated, posted on-line, displayed, and distributed at events and at District headquarters. The drought stages along with their triggers are included on the last page of each newsletter and bill insert, and the current drought condition is clearly highlighted.

**C. Assist permittees in developing drought planning strategies and complying with District drought rules.**

As mentioned in the response to Performance Standard D of Objective 1-1, District staff with direction from the Board has continued to update plans in response to the drought declared in April 2011 and permittee-requested and staff-initiated modifications resulting from issues that have arisen from plan implementation. Since April 2011, the drought had persisted throughout the remainder of FY 2011 and was the source of many drought-related inquiries. District staff were responsive by assisting with drought plan implementation, drought rule interpretation, and by providing education materials to facilitate permittee to end-user outreach efforts.

**D. Enforce compliance with drought management rules during District-declared drought stages.**

District staff with direction from the Board began preparing permittees for complying with requirements leading up to the Stage II Alarm Drought declaration on April 28, 2011. After notification of the drought was provided to all permittees, the District began implementation of its drought enforcement protocol with assessments of compliance with monthly pumpage limits beginning with June - the first full month of drought. In accordance with the District enforcement plan, notices were sent to all permittees that were overpumped but enforcement actions were reserved for the most egregious levels on overpumpage (Level C) and the largest volume permittees (Tier 3) for the first three full months of drought and the remainder of FY 2011 (June, July, and August). During this time, there were no occurrences of noncompliance that warranted any pre-enforcement or formal enforcement actions.

**E. Limit the total amount of groundwater withdrawals by all groundwater users from designated aquifers during Extreme Drought to the amount that may be achieved by the imposition of regulatory restrictions on District-authorized nonexempt well users.**

As mentioned in the response to Performance Standard D of this objective, the District has implemented all drought-related rules and curtailments in accordance with the District's enforcement plan and drought management protocols. For the three full months of FY 2011 in district-declared drought (June, July, and August), all permittees collectively reduced pumpage by the requisite amount to meet the Stage II Alarm curtailment goals of 20%.

**F. Implement measures, as warranted and feasible, to effectively reduce the EDWL.**

In FY 2011, several measures were taken that were intended to address reducing the EDWL. The importance of these initiatives was underscored by the receipt of the draft drought MAG for the Edwards Aquifer from TWDB in mid-2011, which indicated that the District would need to

promote policies and rules that either find additional groundwater and/or even further reduce demand during a DOR recurrence to achieve the DFC's stipulated springflow of 6.5 cfs.

Toward this end, near the start of FY 2011, the Board completed an ongoing rule-making process and adopted rules that would require industrial and non-agricultural irrigation permittees to completely curtail pumpage if an ERP were to be triggered. This measure in effect gave priority to drinking water supplies and reduced the EDWL by the amount of water authorized during an ERP to be withdrawn by non-public water supply (PWS) permittees.

However, non-PWS permittees affected by such extreme measures continued to express concern that it was unfair to impose a disproportionate level of curtailment on the industrial and irrigation permittees, that the PWS permittees had the same if not more wherewithal to curtail groundwater use, and that other options should have been considered. The ERP curtailments were slightly relaxed from 100% to 90% curtailment in a subsequent round of rule changes in March 2011, but the concerns of the affected permittees were not alleviated and it was clear that legal action was looming on the horizon. The Board directed the permittees and the District to enter into negotiated rule-making to attempt to find an acceptable middle ground. At the end of FY 2011, the negotiated rule-making was converging on a modification of the Rules that represented a win-win for the District and affected permittees. And the District was working with one of the affected permittees to define the efficacy of alternative water sources for its water use.

Also in FY 2011, the District continued to work with its permittee RVWS to be annexed to a surface water supply system. The District granted an extension of an Agreed Order to enable progress to continue to be made, that ultimately will result in the abandonment of the RVWS well and the conversion of its permit to a Conservation Permit held by the District, reducing the EDWL.

The District also completed a systematic GIS-based assessment of current exempt use in the District, and documented that such use had decreased over time by about one-half of the long-time prevailing estimate of exempt use. The TWDB accepted this new exempt use estimate for purposes of expressing the relevant MAG. This smaller amount of estimated exempt use also decreased the EDWL.

**G. Assess the feasibility and implement as warranted, separate drought trigger methodologies and related management strategies to address variable management needs of the individual aquifers within the District.**

Data have been collected periodically from the District's Westbay multiport monitor wells at Ruby Ranch and Antioch Cave to evaluate the effects of drought and heavy rainfall on potentiometric levels in the Edwards and Upper and Middle Trinity Aquifers. These data will be useful in assessing the potential impacts of drought on the Trinity Aquifers, which is only just beginning to be characterized, and will help set drought trigger levels for these aquifers.

Plans and budgets are being developed for studies of the Edwards saline zone for potential desalination and aquifer storage and recovery projects. Meetings have been held with TDS and other partners to coordinate these efforts.

**Objective 6-1:** Reduce the per capita use in the District during non-drought times in the Plan period, through relevant statutory, regulatory, scientific, administrative, and educational vehicles.

**Performance Standards for Objective 6-1:**

**A.** Maintain and develop programs that inform, educate, and support District permittees in their efforts to educate their end-users about water conservation.

- Qualifying permittees were contacted by mail about their conservation credits and opportunities to expand their qualifying rebates through additional outreach and programs.
- The District helped host the Central Texas Water Conservation Symposium to address the business case for water conservation. As a response to the symposium and demand for more frequent collaboration, Central Texas Water Efficiency Network (CTWEN) was formed and the District participates in ongoing, monthly meetings.
- Additionally, both the Cave Festival and the Rainwater Revival were promoted as education events where end-users could gain knowledge about rainwater harvesting, native plants, and water conservation strategies from District Board and staff members and other collaborating entities.

**B.** Maintain and develop programs that inform and educate District groundwater users and Austin-area citizens of all ages about water conservation practices and resources.

Through many presentations to community groups and homeowners associations, the District provided end-users with up-to-date aquifer conditions, drought status, and effective water conservation measures. As part of the preparation of the drought awareness campaign timed with the declaration of Stage III Critical Drought (Sept. 8, 2011), the District developed an Aquifer Update targeting well owners and residents served by groundwater-based water systems; staff collaborated with Clean Water Fund to develop a plan to visit directly with homeowners about aquifer status and the need for water conservation. Additionally, the District hosted the annual Groundwater Essay Contest for a college scholarship which attracted six applicants. Staff visited over 60 area schools to promote the Aquatic Science Adventure Camp (hosted by the Edwards Aquifer Research and Data Center) scholarship. Despite this monumental outreach effort the scholarship contest attracted only two applicants.

**Objective 7-1:** Improve recharge to the Edwards Aquifer to increase the amount of water in storage so that future droughts will be less severe and of shorter duration.

**Performance Standard for Objective 7-1:** Conduct investigations and, as warranted and feasible, physically alter discrete recharge features that will lead to an increase in recharge to the Edwards Aquifer.

A recharge enhancement project using EPA/TCEQ 319h funds was completed in August 2010. This project involved upgrading the BMP over Antioch Cave, installation of a CWQMN system

on Onion Creek at Antioch Cave and Sky Ranch, and the installation of a Westbay multiport well into the Edwards, Upper and Middle Trinity Aquifers near Antioch. The District continues to monitor and maintain this system so that recharge to the aquifer through Antioch Cave can be maximized.

Evaluations of caves and sinkholes on Dahlstrom Ranch were made to determine candidates for recharge enhancement features.

**Objective 7-2:** Assess the feasibility of implementing as warranted, supply enhancement measures including desalination, ASR, and effluent reclamation and reuse.

**Performance Standard for Objective 7-2:** Conduct scientific and other evaluations to determine how water supply within the District can be increased cost-effectively.

Plans were made for installing test and monitor wells in the saline zone to evaluate the potential of the saline zone for desalination and ASR. Meetings have been held with various partners to coordinate logistics and funding of these studies.

Discussions have been held with District permittees for conducting studies and test wells of the Middle and Lower Trinity aquifers.

**Objective 7-3:** Augment the amount of water recharging the aquifer through the use of alternative water sources.

**Performance Standard for Objective 7-3:** Inform and educate the public on the availability of alternate sources including gray water / condensate reuse and rainwater harvesting.

Directors and staff have actively researched the feasibility of substituting saline water and treated effluent for non-potable uses to lessen withdrawals for industrial and commercial uses. The District continues to use the rainwater harvesting system installed at the District headquarters as a teaching and outreach tool. Build-your-own rain barrel instructions were promoted at the Rainwater Revival booth (Oct 8, 2010), at Cave Festival (Mar 5, 2011), Groundwater to the Gulf (Jun 22-24, 2011), and through the newsletter (Jan 2011).

As reported under Objective 3-1, Performance Standard B, the District also collaborated with industrial-use permittees to evaluate the efficacy of using treated effluent as a substitute for higher quality groundwater for certain non-potable uses.

### **Goal 8: Addressing Quantitatively the Desired Future Conditions**

According to TWDB guidance, no objectives or performance standards for TWDB Goal 8 should be identified or included in the Management Plan until applicable DFCs are officially established by the GMAs. It was only at the very end of FY 2010 that GMA-9 and GMA-10 adopted DFCs applicable to the District aquifers.

As reported under Objective 4-1, Performance Standard D, all the applicable MAGs were received in draft form (which are very likely to be final MAGs in view of the lack of comments



and petitions) by about mid-year 2011, and the District began assessing and ultimately began making some changes to its *Rules* that will help close the gap between what is needed to achieve the Edwards DFC and what the regulatory program could provide. However, until the two petitions in GMA-9 are resolved, the final DFC(s) and accompanying MAG(s) are not yet finalized. Nevertheless, options for the prospective DFC monitoring programs began to be assessed in both GMAs in the latter part of FY 2011.