The Barton Springs segment of the Edwards Aquifer is currently in non-drought status (Figure 1) and has been out of drought since March 2012. Since January 1, we have received about 32.5 inches of rainfall in the District, near the average annual total of 33.5 inches and about 2 inches above average for this time of year. However, Onion and Barton Creeks, which provide the majority of recharge to the aquifer, are barely flowing. Accordingly, flow at Barton Springs and the water level in the Lovelady monitor well are declining rapidly.

We expect to enter into Alarm Stage drought sometime toward the end of October or middle of November 2012 if we don’t receive significant rainfall (Figure 3).

**see AQUIFER STATUS on page 3**

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Precinct 1 - President

Gary Franklin
Precinct 2 - Vice President

Dr. Robert D. Larsen
Precinct 3 - Director

Jack A. Goodman
Precinct 4 - Director

Craig Smith
Precinct 5 - Secretary

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General Manager

Dana Christine Wilson
Senior Administration Manager

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Shannon DeLong
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### DISTRICT CALENDAR

The Board of Directors usually meets on the 2nd and 4th Thursdays of the month (beginning at 6 pm) at the District’s office at 1124 Regal Row, Austin, TX 78748. However, the meeting schedule and location are subject to change. The agenda for posted meetings can be found on the District website at www.bseacd.org at least 72 hours in advance of the meeting. Please contact the District office at 512-282-8441 with any questions.

- **Oct. 11 & 25** Board meetings
- **Nov. 6** Election Day, BSEACD Director Elections for Precincts 1, 3 & 4
- **Nov. 12** Office closed for Veterans Day
- **Nov. 15** Board meeting
- **Nov. 22-23** Office closed for Thanksgiving
- **Dec. 13** Board meeting
- **Dec. 24-26** Office closed for Christmas
- **Jan. 1** Office closed for New Years
- **Jan. 10 & 24** Board meetings
- **Jan. 21** Office closed for Martin Luther King Day

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### BSEACD PERMITTING SUMMARY

**May to September 2012**

<table>
<thead>
<tr>
<th>Permit Type</th>
<th>Number of Permits</th>
<th>Permitted Pumpage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exempt Wells</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>NDU General Permits</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Individual Production Permits</td>
<td>1</td>
<td>1,998,200 gal/yr**</td>
</tr>
<tr>
<td>Permit Amendments</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Transport Permits</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Class C Conditional Edwards permit**

**Exempt Wells** - These are low capacity wells used solely for large tract residential or livestock needs. These wells are exempt from permitting but must be registered with the District and meet District Well Construction Standards.

**Nonexempt Domestic Use (NDU) General Permits** – This authorization is for wells that will be used solely for the domestic needs of residences located on small lots where there is no other alternative water source reasonably available. This pumpage is subject to drought restrictions, but may be authorized during drought since it is the sole source of domestic supply.

**Individual Production Permits** – All other new nonexempt Trinity and Edwards wells must have one of these permits to be authorized for pumpage. Permits for new Edwards wells are designated as “Class C Conditional” Permits, which means that they are interruptible and subject to 100% curtailment during District-declared drought.

**Permit Amendments** – These amendments are required to increase authorized pumpage for existing permittees (permit holders). Permit amendments for Edwards wells are designated as “Class C Conditional” Permits, which means they are subject to 100% curtailment during District-declared drought.

**Transport Permits** – These permits are required to authorize the transport of groundwater out of the District. A Transport Permit may only authorize the transport of water permitted under an approved production permit.

- KENDALL BELL-ENDERS, HYDROGEOLOGIC FIELD TECHNICIAN
The hydrograph over the past year shows the District’s drought triggers and other hydrologic data. Although the District has had near-average annual rainfall totals (~32.5 inches) to date, flows in the creeks that provide recharge to the aquifer are barely flowing. Both flow at Barton Springs and the water level in the Lovelady monitor well are in a steep recession. We expect for one of these two drought triggers to cross their threshold sometime around the end of October or middle of November if we don’t get significant rainfall soon.

The good news is that the Climate Prediction Center indicates that El Niño conditions are developing and will persist through the end of the year. El Niño conditions generally produce above-average rainfall for Texas. Accordingly, the U.S. Seasonal Drought Outlook shows that the meteorological drought is ongoing in Central Texas, but predicts some improvement (Figures 4 & 5).

-BRIAN HUNT, SENIOR HYDROGEOLOGIST AND BRIAN SMITH, PRINCIPAL HYDROGEOLOGIST
Happy New Year! Well, okay…Happy New (Fiscal) Year! No matter what you call it, the last 12 months have been busy ones for your favorite GCD. A few events, highlights, and accomplishments from the past year follow, along with a look at what is coming up this year. There’s a lot to cover, so let’s get going!

25th Anniversary
The District celebrated 25 years of groundwater management in 2012. The timeline banner on our web pages depicts various milestones that occurred along the way to the District’s becoming a premier GCD in the state.

Redistricting
Earlier in the year, as required by law the District formed new director precincts after the 2010 census results became available. This is a very involved and prescribed process, with the final results being approved by the US Dept of Justice. We reconciled the boundaries of two of our precincts to be the only ones that include the City of Austin, as is required by our enabling legislation. As a result, our two “Austin” precincts became larger and our three more “rural” precincts became smaller. But all of them gained population, reflecting the overall growth in the District and increasing demand for water.

Three(!) Elections
It is rare for the District to have even one contested director election. But in a little more than a month, we will have director elections in all three of the precincts that are up for election this biennium. Precinct 1, totally within Hays County, has two candidates vying for that directorship; Precinct 3, in parts of all three of our counties, has two write-in candidates; and Precinct 4, totally within the City of Austin in Travis and Hays Counties, has three candidates running against each other. This interest in GCD directorships simply underscores the need for groundwater management to be responsive to local conditions and issues.

“Closing the Gap” Between District Rules and DFCs
The District and GMA 10 established a protective Desired Future Condition (DFC) for the Edwards Aquifer during extreme drought that may not be able to be achieved under our current rules. Much of this past year has been devoted to looking at whether and how the District’s rules and its Management Plan might be amended to close the gap between what is possible now and what is needed now. Staff members, a stakeholder advisory committee, and the Board have considered many options for reducing demand and increasing supply to achieve the DFC. The District currently has a rulemaking process underway and a revision to its Management Plan proposed (awaiting adoption and then approval by the TWDB) that should provide a balance between fair, equitable, and appropriate water use during drought and necessary aquifer supply and habitat protection.

2012… In Review

Drought Came, and Went
As we entered the prior fiscal year in September 2011, the District was entering a Stage III – Critical Drought, which was a result of the very severe meteorological drought and the extremely hot conditions of the previous year or so. Our permittees and end-users were able to meet the increasingly stringent mandatory curtailments on water use that accompanied this drought stage. But the aquifer levels continued to fall as the drought continued. But then, in December it began to rain. And rained some more. And then later, some more. Fortunately for the District, the early rains were well enough placed and in large enough amounts that they saturated the soils in the contributing and recharge zones, so that the later rains, also well placed and timed, began to recharge the aquifers. Water levels steadily climbed, and we emerged from groundwater drought in March 2012. But then the rainy periods tapered off, and so did the recharge. Aquifer water levels barely made it to “historical average” conditions before they began declining. Without more rain, we anticipate being back in a declared drought later this fall. These shorter cycles between wet and dry periods should be considered the “new normal,” reinforcing the need to be water-smart all the time.

The Kent Butler Memorial Summit on the Future of the Barton Springs Zone
The District, along with the City of Austin, Hill Country Conservancy, Envision Central Texas, and the UT School of Architecture, conceived, sponsored, planned, and very visibly participated in the inaugural Kent Butler Summit on the Barton Springs aquifer, held at the Wildflower Center in May 2012. This unique symposium was a legacy of and a memorial to Dr. Kent Butler, the “best friend the Edwards Aquifer ever had,” who was lost in a tragic accident almost exactly a year earlier. More than 100 stakeholders, public officials, educators, legislators, scientists, and users of the aquifer and Barton Springs heard about and discussed recent developments in aquifer science and public policy and the upcoming challenges and possible responses for aquifer stewardship.

Looking Internally
We welcomed our newest regular staff member, Ms. Kendall Bell-Enders, who is serving as a hydrogeologic technician, primarily working on the Regulatory Compliance team. We also had three summer interns – Mr. Richard Casteel, Ms. Alex Hoisington, and Mr. Alan Andrews – who did some great work on the Aquifer Science team, and another intern, Mr. Lowell (LB) Hughes, who provided invaluable GIS and mapping support services to us for much of the past year. We also made some office space improvements to more efficiently serve our stakeholders and our staff.
2013… Looking Ahead

This year will hold something old, and something new for the District:

Fall back into Drought
I already mentioned that without substantially more and well-located rainfall, we are likely to return to a drought and its mandatory curtailments within a very few months.

Director Elections
The re-districting guaranteed that we would have a new Board member in Precinct 3, since the residence of our current Precinct 3 director now is in the new Precinct 4. Further, two of our current directors are now living in Precinct 4, so one or the other, or both, of them will not be on the Board after the November elections. Regardless of how it all turns out, the staff looks forward to working with the old and new members of the Board after the elections.

Saline Zone Monitor Well
The District intends to install its first monitor well in the saline zone of the Edwards and perform initial aquifer testing, to promote a better understanding of that potentially sizable and new water supply.

Habitat Conservation Plan
The District Habitat Conservation Plan should (finally) be able to be completed to the point that it starts wending its way through the federal review, comment, and approval process; still, the Incidental Take Permit that we seek from US Fish and Wildlife Service, which is designed to protect both the endangered species habitat and the legal position of our groundwater users in assuring their protection under current federal law, will probably not be issued until sometime in 2014.

Texas Legislature
And of course, the Texas Legislature meets in January – May 2013, and the District will be proactively and reactively involved in the advocacy concerning our own bills and those of others.

One thing’s for sure – we won’t have a dearth of things to do this year either!

- KIRK HOLLAND, GM

John Dupnik Appointed Assistant General Manager

The Barton Springs/Edwards Aquifer Conservation District is pleased to announce that John Dupnik, P.G., has been named Assistant General Manager (Figure 6). As Assistant General Manager, Mr. Dupnik will continue to lead the Regulatory Compliance Program as he becomes more involved in directing the day-to-day operations of the District.

Mr. Dupnik has served as the Senior Regulatory Compliance Specialist at the District for seven years. During that time, he has served on the City of Austin Environmental Board, the Region K Regional Water Planning Group, and numerous working groups related to water resource planning and coordination, water quality protection, groundwater management, and drought planning. He has helped develop the District’s Well Construction Standards, Rules and Regulations, Management Plans, and Annual Reports. This December, he expects to receive his Masters degree from the Jackson School of Geosciences at the University of Texas, where his research thesis focused on effective groundwater management and planning strategies.

Before joining the District in 2005, his professional experience included 9 years in State government with the Texas Commission on Environmental Quality’s Water Quality Section and the Texas Department of Licensing and Regulations’ Water Well Drillers Licensing Program, and also 1 year with a soil and groundwater sampling and testing company. He is a Texas licensed professional geoscientist. John graduated from Southwest Texas State University (now Texas State University-San Marcos) in 1995 with a B.S. in Environmental Studies and a minor in Geology.

“It is a great honor to serve as the District’s Assistant General Manager, but that honor comes with great responsibility. Kirk Holland, the General Manager, is a great mentor and planner. I have a lot to learn, but I’m glad to be surrounded by a diligent, competent, talented staff,” notes Dupnik.

- ROBIN GARY, PUBLIC INFORMATION AND EDUCATION COORDINATOR
Landscape Irrigation Wells in Central Texas

There has been a sharp increase in the number of private wells being drilled in Central Texas for non-essential water demands such as landscape irrigation (Figure 7). This is especially prevalent in the urban areas and in response to drought conditions when homeowners are motivated to put in their own irrigation wells to avoid high water bills and watering restrictions (Figure 8).

Many are familiar with the recent court decision (Day v. the Edwards Aquifer Authority) that reinforced that groundwater in place is owned by the landowner, but the lesser known part of the decision is that groundwater conservation districts (GCDs), as the preferred method of groundwater management in Texas, may also regulate well drilling and pumping of that water. In the Barton Springs segment of the Edwards Aquifer, management of the aquifer involves both protecting water levels to ensure water availability for all groundwater users and protecting the environmental flows for the endangered species that call the aquifer home.

Under the District management plan, new Edwards irrigation wells operate under an On/Off permit (Class C Conditional), meaning, when we go into drought, pumping must stop entirely. This pumping restriction effectively preserves water supplies and spring flows during drought. As an alternative to the Edwards, permits are available for wells that would pull water from the Trinity aquifer, the aquifer beneath the Edwards. Trinity wells are generally 1,000+ feet deep and very costly to drill and operate, but pumping from them is less restrictive since demand on the Trinity aquifer is not as great.

Outside of a GCD, wells are required to be registered with the State and must comply with state well construction standards and all local codes and ordinances (e.g. plumbing and electrical codes). But pumping is not regulated. The troubling fact is that groundwater and surface water systems are connected--surface water recharges the groundwater system, then the groundwater reemerges through springs and flows into the surface water system. Depleting groundwater supplies will affect surface water supplies, though it may take years for monitoring programs to quantify that effect.

Philosophically, these irrigation wells are problematic because they enable landscapes that are unsustainable and out of place in Central Texas. And for areas outside of a GCD, these wells create new demand from a water supply that is not being managed or monitored. Groundwater is not a new and independent water supply and merely swapping surface water for groundwater doesn’t fix the problem.

Responsible water supply planning in Central Texas requires an emphasis on reducing demands from non-essential uses (landscape irrigation) and preserving that water for uses essential to the long-term health of Central Texas residents.

- ROBIN GARY, PUBLIC INFORMATION AND EDUCATION COORDINATOR
AND JOHN DUPNIK, ASSISTANT GENERAL MANAGER
Update on Proposed Rules and Rulemaking Process

Currently, the District does not have the certain ability to reduce pumpage to a level sufficient to achieve our adopted Desired Future Condition (DFC) of preserving a minimum of 6.5 cfs of springflow at Barton Springs during a recurrence of the drought of record. This DFC was chosen by the District Board and adopted by GMA 10 as a policy goal that would provide for minimum spring flows during extreme drought while also preserving water supplies for those that rely on the Edwards Aquifer. Over the last 9 months, the District has held work sessions and solicited input from a select group of stakeholders representing a variety of interests to help develop new rules that would facilitate the District’s goal of closing this gap (Figures 9 & 10). The product of this effort is a set of rule changes that was the subject of a recent public hearing on September 27, 2012; the Board is holding open the comment period to receive other written comments on the rule changes for an additional ten days after the hearing, until October 8, 2012; the Board will hear additional public input and may consider adopting the rules, as revised if warranted, at its October 11, 2012, regular Board meeting.

The proposed rules reflect some of the concepts developed and generally supported by the stakeholders as well as other changes to address new legislation and other issues that needed attention. In summary, the rules would:

- Provide opportunity for applicants to have contested hearings conducted by SOAH
- Authorize adjustments to permits to reflect reasonable non-speculative demand when warranted
- Add requirements for non-public water supply wells supplying multiple properties
- Provide option to increase non-drought historical pumpage in exchange for additional drought curtailments
- Add procedure for recognizing purchases of permits for retirement purposes
- Limit pumping under Class C permits to monthly baseline volumes
- Require public water system permittees to adopt conservation-oriented rate structures
- Require 50% curtailment of historical Edwards permits during an Emergency Response Period
- Delete requirement of 85% curtailment for historical Edwards permitted wells used for non-public water supply during an Emergency Response Period

The above changes only reflect the most pertinent changes affecting our District permittees. A summary and a markup of the proposed rules with all of the proposed changes are accessible at our website (www.bseacd.org). Please submit any comments to the District office so they are received by close of business on October 8, 2012; contact the office if you have any questions.

- JOHN DUPNIK, ASSISTANT GENERAL MANAGER

Figure 9: Stakeholder Advisory Committee input on strategies to “Close the Gap.”

Figure 10. Timeline of rule package development.
On August 28-30, 2012, some 330 persons from around the state and beyond gathered in Austin to participate in the inaugural Texas Groundwater Summit. The Summit, which was hosted by the Texas Alliance of Groundwater Districts, was a first-of-its-kind event devoted to all aspects of Texas groundwater and groundwater management. Keynote speakers from the Texas legislature, knowledgeable presentations by subject-matter experts, panels of practitioners on specific topics of current interest, and exhibits by those organizations providing groundwater-related products and services characterized the many dimensions and critical challenges associated with Texas groundwater: science, planning, uses, conservation, and stewardship.

BSEACD was proud to have had a visible presence and to have participated in a variety of ways at this event. The District was an active member of the TAGD ad hoc conference planning and steering committee. We joined ten other entities as sponsors and fifteen other organizations as exhibitors that provided additional financial support that underwrote the conference; we also provided the photograph that was featured in the speakers’ gifts. Several staff members and several directors attended the entire conference. And the District’s GM was the moderator, a presenter, and a participant in the Groundwater Conservation Districts panel.

All the feedback on this conference from the attendees has been uniformly positive, even glowing, and TAGD is already working on plans for the next TGS. A large majority of this year’s attendees indicated that they intend to return. BSEACD looks forward to the second TAGD Texas Groundwater Summit next year, and encourages those who did not make it this year to attend the next one. We will include more information about the second Texas Groundwater Summit in this newsletter when it becomes available.

-KIRK HOLLAND, GM

Never store hazardous chemicals or potential contaminants near your well or inside a well house (Figure 12). In order to safeguard the quality of your water supply it is important to maintain, at minimum, a 50 ft. sanitary buffer around your well. Storing common household chemicals such as fertilizers, pesticides, paint, motor oil, gas, or cleaning products near your well increases the potential of contaminating your drinking water supply. As a result of leaks and spills, these chemicals have the potential to migrate to the groundwater through direct pathways created from deteriorated and abandoned wells or through infiltration.

This is not only a danger to you but to your neighbors’ water supply.

-KENDALL BELL-ENDERS, HYDROGEOLOGIC FIELD TECHNICIAN

Figure 11. Attendees came from all parts of Texas.

Figure 12. Pool chemicals in a well house.