

**Barton Springs/Edwards Aquifer Conservation District
Board of Directors Meeting Minutes
Regular Meeting
June 10, 2010**

Board members present at commencement: Mary Stone, Gary Franklin, and Jack Goodman. Craig Smith arrived at 6:06 p.m. Bob Larsen was out of town. Staff present: Kirk Holland, John Dupnik, Brian Smith, and Tammy Raymond. Mr. Bill Dugat of Bickerstaff, Heath also participated. Also present were those on the attached sign-in sheet. These minutes represent a summarized version of the meeting; the complete discussion of the following items is recorded digitally.

1. Call to Order.

Vice President Stone, presiding in Dr. Larsen's absence, called the meeting to order at 6:04 p.m., noting that a quorum of the Board was present.

2. Citizen Communications (Public Comments).

There were no public comments of a general nature.

3. Routine Business.

- a. **Consent Agenda** Note: These items may be considered and approved as one motion. Directors or citizens may request any consent item be removed from the consent agenda, for consideration and possible approval as an item of Regular Business.

1. **Approval of Financial Reports under the Public Funds Investment Act, Directors' Compensation Claims, and Specified Expenditures greater than \$5,000.**

2. **Approval of minutes from the May 22, 2010, Work Session and May 27, 2010, Regular Board Meeting and Public Hearing.**

Mr. Goodman moved approval of the consent agenda as stated above.

Mr. Franklin seconded the motion and it passed unanimously with a vote of 3 to 0.

4. Regular Meeting: New Business.

4a. Discussion and possible action on development and submittal of an application to the Bureau of Reclamation for a grant project to conduct a desalination feasibility study.

After a briefing from Mr. Holland on the overall requirements for participating in the program and the general scope of the prospective grant project, Mr. Smith moved to authorize staff to proceed with the application for the Bureau of Reclamation grant for a desalination feasibility study.

Mr. Franklin seconded the motion and it passed unanimously with a vote of 4 to 0.

4b. Discussion and possible action to initiate a formal rulemaking process to reconcile and revise certain elements of our drought rules, including new definitions and nomenclature of drought stages, new drought triggers, modified curtailments during ERP conditions, establishment of a new class of Conditional Permits; establishment of a general permit for ASR, and miscellaneous corrections and clarifications. Note: This action item would only authorize the staff to begin developing possible rule language changes in these areas; no actual changes in the District's Rules and Bylaws would be authorized by this item.

Mr. Holland explained that these rule changes are not dependent on having the DFCs and MAGs at some time in the future, but are needed and can be done now to clarify drought stage definitions, revise triggers, consider ERP curtailment modifications to improve effectiveness, establish a new class of conditional permits, and make various documentation improvements. .

After discussion, Mr. Smith moved to direct staff to initiate the rulemaking process.

Mr. Franklin seconded the motion and it passed unanimously with a vote of 4 to 0.

4c. Discussion and possible action related to authorizing initial discussions with the City of Austin and possibly other parties concerning a demonstration of the feasibility of subsurface re-aeration to benefit dissolved oxygen concentrations of spring outlets during extreme low flow conditions.

Mr. Holland briefly described this feasibility study for an emergency response measure only during a recurrence of the drought of record, in addition to and not in lieu of the regulatory program involving pumping curtailments.

Mr. Bill Bunch, representing SOS commented that he is generally suspicious of these kinds of things and asked that it not be a substitute for springflow.

Mr. Franklin moved to direct staff to initiate discussions toward aeration efforts with the City of Austin.

Mr. Goodman seconded the motion and it passed unanimously with a vote of 4 to 0.

5. Regular Meeting: Continued Business.

5a. Discussion and possible action concerning the change requested by Hays Co. WCID No. 1 to its settlement agreement with the District.

Mr. Bill Dugat stated that the parties had not yet come to an agreement on the changes, but both sides were still working toward.

Mr. Smith questioned spending more money and time on this issue.

After further discussion, the Board elected to keep the item off future agendas until a specific offer is brought before them that is advantageous to the aquifer and action is needed.

5b. Discussion and possible action on recommendations for Desired Future Condition of the Freshwater Edwards Aquifer in the Northern Subdivision of Groundwater Management Area 10.

Mr. Smith moved to take the motion made at the last meeting on the DFC for the Freshwater Edwards off of the table for discussion.

Mr. Franklin seconded the motion to take the motion off the table and it passed unanimously with a vote of 4 to 0.

The following citizens gave comments.

Ms. Nancy McClintock – City of Austin Watershed Protection

Mr. Bill Bunch – Save our Springs Alliance

Ms. Lauren Ross – Engineer

Jennifer Walker – Sierra Club

Ms. Stone read a letter written by Bob Larsen into the record.

After discussion, in which several modifications of the previous motion were presented, Mr. Smith moved approval of the following motion:

**MOTION ON DESIRED FUTURE CONDITIONS OF THE
FRESHWATER EDWARDS AQUIFER IN THE NORTHERN SUBDIVISION
OF GMA 10**

The Board of Directors of the Barton Springs/Edwards Aquifer Conservation District (BSEACD) adopts the following resolution as its recommendation to all of the groundwater conservation districts within Groundwater Management Area 10 (GMA-10) of the expression of the “desired future condition” (DFC) for the Northern Subdivision of the freshwater Edwards Aquifer, as required by Texas Water Code Sec. 36.108(d) and Texas Water Development Board (TWDB) regulations.

WHEREAS,

- A. The DFC is intended to be the realistic goal or target set by the districts within the GMA for groundwater conditions 50 years from now. But the “managed available groundwater” (MAG) amount that will be calculated in accordance with the DFC will be

issued to each district by the TWDB within one year after the submission of the DFC, and the districts will be obligated to issue permits totaling up to that amount, provided they satisfy other district requirements. So the DFC must be calibrated with an eye on both near-term outcomes and long-term goals. That is, the desired condition must be achievable relatively soon after the MAG is issued and also achievable and still desirable in 50 years.

- B. The freshwater Edwards Aquifer is a karst aquifer that experiences rapid recharge during periods of high rainfall and rapid depletion during drought. The Barton Springs segment that comprises the Northern Subdivision of the aquifer is also a relatively small reservoir that mainly serves as a public water supply source for more than 50,000 people but also serves significant industrial, commercial, recreational, and other uses, including providing the habitat for endangered species. These facts, combined with the availability of alternative water sources to some users, suggest that two types or levels of DFC are needed: an upper or “all conditions” DFC that will set a limit on the amount by which the aquifer water level may be drawn down under even transient high-flow conditions, and a lower or “extreme drought” DFC that will define the aquifer water level to be maintained in a return of a great drought like that of the 1950’s. Permits for the amount of groundwater between those two levels should be available only on a conditional basis, subject to reduction and total curtailment when drought returns. The regulatory and drought management programs of the district must provide for pumpage reductions and curtailments that achieve those outcomes.
- C. Springflow at the natural outlet of Barton Springs is the best overall indicator of conditions in the Northern Subdivision of the freshwater Edwards Aquifer, especially during the critical low-flow conditions. So the “extreme drought” DFC for the aquifer is best expressed in terms of the amount of springflow that is to be maintained. Under low-flow conditions, there is an approximate one-to-one relationship between the amount of water withdrawn from the aquifer by wells and the amount of springflow. That is, each measure of water that is withdrawn results in an equal measure of reduction in springflow. The “all conditions” DFC relates to the amount of water in storage in the aquifer above the level of Barton Springs and is best expressed as the maintenance of an all-time average springflow over a suitably long time period...
- D. The factors to be considered in setting an upper or “all conditions” DFC for the aquifer include the following:
 - 1. The ability of the aquifer to supply regional water needs in times of abundance;
 - 2. The ability of groundwater conservation districts and others to implement aquifer storage and retrieval (ASR) projects during high-flow conditions to increase the amount of water held in storage for use during drought;
 - 3. The ability of conditional permittees to reduce and curtail their usage of aquifer water through conservation and the substitution of other water supplies upon the return of drought conditions; and

4. The avoidance of unreasonable acceleration of mandatory water conservation requirements for other permittees.
- E. After considering these factors, the Board concludes that an initial upper or “all conditions” DFC that is defined as maintaining a minimum average springflow of 49.7 cfs over a running seven-year period, which corresponds to 16 cfs of total pumped withdrawals from the Edwards from all users, including exempt users, under any and all aquifer conditions will enable the aquifer to continue to play an important role in supplying regional water needs, will allow the districts and others in GMA 10 to conduct pilots and implement ASR projects if deemed feasible, will provide reasonable assurance that conditional permittees will be able to reduce and curtail their usage upon the return of drought, and will not unreasonably accelerate mandatory water conservation requirements for other permittees.
- F. The factors to be considered in setting a lower or “extreme drought” DFC include the following:
1. The vulnerability of some existing public water supply, domestic, livestock, and other wells to depletion of available groundwater at low aquifer water levels;
 2. The potential for prolonged harm or even risk of extinction to the endangered Barton Springs salamanders and other wildlife species of concern in Barton Springs due to low springflow and the associated lower dissolved oxygen concentrations, although that risk might be mitigated by other means;
 3. The recreational needs of the more than 500,000 annual visitors to Barton Springs Pool;
 4. The ability and costs of existing public water supply and other aquifer permittees to reduce their water usage and secure alternative water supplies in time of drought in order to meet mandatory reduction requirements; and
 5. The economic impact of mandatory water use reduction or curtailment on aquifer users, communities, and individual property rights.
- G. After considering these factors, the Board concludes that an initial lower or “extreme drought” DFC that is defined as Barton Springs flow averaging no less than 6.5 cubic feet per second (cfs) on a monthly basis during a recurrence of drought-of-record conditions will not unduly endanger vulnerable wells, will not likely create jeopardy for survival and recovery of the endangered species that the district has a duty to protect under the federal Endangered Species Act and BSEACD’s approved Management Plan; will not prevent the recreational use of Barton Springs Pool; will be achievable through aggressive conservation, substitution of alternative water supplies, and retirement or reservation of existing permitted uses; and will not cause intolerable economic impacts due to mandatory water use reduction or curtailment.
- H. The Board recognizes that the limitations on water withdrawals implied by the recommended DFCs, especially the limitations during extreme drought conditions, may cause considerable inconvenience and may lead to some unintended consequences to the

human users of the aquifer, yet these DFCs do not presently eliminate, only substantially reduce the risk to the endangered wildlife that depends on the flow of Barton Springs. The Board believes that the proposed DFCs fairly balance the inconvenience, losses, and risks of the resulting groundwater management program with the necessity to fulfill the obligation of the District to protect and conserve the aquifer so that its uses can be passed undiminished to succeeding generations. However, it is the intent of BSEACD to modify the DFCs and how they are achieved to be even more protective of aquifer levels and springflows in future rounds of joint regional groundwater planning, as more effective water conservation methods and increased alternative water supplies, such as reclaimed water, desalinated brackish groundwater, surface water through extended distribution networks, and harvested rainwater become more available. These additional sources of water are either not currently available or are of limited availability. It may be several years or more before these additional sources of water are available in significant enough quantities to alleviate demand on the freshwater Edwards, thereby reducing the inconveniences, losses, and risk. BSEACD is already working to bring about these additional sources of water and will continue these efforts until the inconveniences, losses, and risks are significantly reduced. Our 50-year goal, not currently achievable, is to enable historic consumers to achieve sufficient conservation and access adequate alternative water supplies during an extreme drought to meet their health and safety needs while allowing springflow to be maintained at or above the low of the 1950s drought. In addition, the risk to the survival of the endangered salamanders during low-flow episodes may also be proven to be amenable to mitigation by technical means in the future, such as subsurface aeration or water recirculation, which may temper the ecological consequences of extreme drought conditions.

THEREFORE,

The Board of Directors of the BSEACD recommends that GMA 10 submit to the TWDB the following initial expressions of the DFC for the freshwater Edwards Aquifer in the Northern Subdivision of GMA 10:

1. Springflow of Barton Springs during average recharge conditions shall be no less than 49.7 cfs averaged over an 84-month (seven-year) period, which is intended to correspond to an aggregate maximum of 16 cfs of total annual withdrawals from the Edwards by all users, including exempt users, in order to govern the rate of onset of drought conditions in the aquifer to acceptable levels; and
2. During extreme drought conditions, including those as severe as a recurrence of the Drought of Record, springflow of Barton Springs shall be no less than 6.5 cubic feet per second (cfs), averaged on a monthly basis.

Mr. Franklin seconded the motion and it passed unanimously with a vote of 4 to 0.

5c. Discussion and possible action on recommendations for Desired Future Conditions of the Upper Trinity, Middle Trinity, and Lower Trinity Aquifer in Groundwater Management Area 10.

After discussion, Mr. Goodman moved approval of the staff recommended DFCs as stated in the Board Backup.

Mr. Franklin seconded the motion and it passed unanimously with a vote of 4 to 0.

5d. Discussion and possible action on recommendations for Desired Future Conditions of the Saline Edwards Aquifer in Groundwater Management Area 10.

After discussion, Mr. Goodman moved approval of the staff recommended DFC as stated in the Board Backup.

Mr. Franklin seconded the motion and it passed unanimously with a vote of 4 to 0.

3. Routine Business.

- b. **General Manager's Report.** Note: Topics discussed in the General Manager's Report are intended for general administrative and operational information-transfer purposes.

The Directors will not take any action on them in this meeting, unless the topic is specifically listed elsewhere in this as-posted agenda.


1. Personnel matters and utilization;
2. Upcoming public events of possible interest;
3. Aquifer conditions and status of drought indicators.
4. Discussion related to current staff work areas and specific activities of staff teams and directors. Note: Individual topics listed below may be discussed by the Board in this meeting, but no action will be taken unless a topic is specifically posted elsewhere in this agenda as an item for possible action. A Director may request an individual topic that is presented only under this agenda item be placed on the posted agenda of some future meeting for Board discussion and possible action.
 - i. Update on operating team activities.
 - ii. Update on status and activities of the District's current grant projects.
 - iii. Update on the status and outlook of the Agreed Order with Ridgewood Village Water System.

Mr. Holland and staff updated the Board and answered directors' questions on the teams' activities concerning the items listed above.

6. Adjournment.

Ms. Stone adjourned the meeting at 8:34 p.m.

Approved by the Board:

By: 
Robert Larsen, President

Attest: 
Gary Franklin, Secretary