

# Protecting the Trinity Aquifer

## Community Meeting hosted by Travis County Commissioner Gerald Daugherty and the Hill Country Alliance

May 15, 2006, 6:00-8:00 PM  
Star Hill Ranch, 15000 Hamilton Pool Road

Commissioner Daugherty and the Hill Country Alliance hosted a community meeting to let residents in SW Travis County explore the idea of forming a Groundwater Conservation District (GCD). A panel of experts representing the Texas Commission on Environmental Quality (TCEQ), Barton Springs-Edwards Aquifer Conservation District (BSEACD), Hays-Trinity GCD (HTGCD) and the Lower Colorado River Authority (LCRA) discussed the various options available to form a new district; merge with an existing district; or leave the area without a district. The community meeting was convened in response to concerns about tremendous growth rates and how this growth impacts water supply and long-term sustainability of water resources. Approximately 60 people attended representing various groups and stakeholder interests.

Conveners, panelists and moderators included:

- Karen Ford, Hilly Country Alliance (Co-convenor)
- Gerald Daugherty, Travis County Commissioners Court (Co-convenor)
- Kelly Mills, Texas Commission on Environmental Quality
- Andrew Backus, Hays-Trinity Groundwater Conservation District
- Kirk Holland, Barton Springs-Edwards Aquifer Conservation District
- James Kiwis, Lower Colorado River Authority
- Kent Butler, Kent Butler and Associates (Moderator)

Panel topics included:

- 1) **TCEQ** – Groundwater management and the Texas Hill Country; GCD responsibilities; creation processes and options; TCEQ's role in this area; and other state agency resources.
- 2) **HTGCD** – Region-specific orientation to the Trinity Aquifer; implications of the Priority Groundwater Management Area (PGMA) designation for the region; and new regional groundwater management - GCDs, GMAs, and TWDB.
- 3) **BSEACD** – Perspectives of a GCD as public institution with a locally elected Board of Directors; salient local groundwater management issues; and needed information and analyses.
- 4) **LCRA** – LCRA's perspective and support of GCDs

## **How Would a GCD Potentially Benefit Western Travis County?**

- *Better understanding of the local hydrogeology.*
- *Better protection of existing groundwater supplies and uses.*
- *Better control over well construction practices.*
- *Better protection of recharge water quality.*
- *Better education and community outreach.*
- *Better, more equitable drought management.*
- *Better local public participation in groundwater issues.*
- *More local control of water planning and resources.*

## **Summary Remarks by Kelly Mills**

Senior Staff Geologist, Water Supply Division, TCEQ

### **History of Groundwater Management in the Texas Hill Country**

- 1917 – Texas Constitution amended to authorize the Legislature to pass laws for the conservation and development of the natural resources of the state
- 1949 – State law enacted, authorizing creation of groundwater conservation districts (GCDs) to manage groundwater resources; local initiative process; now Chapter 36 of the Texas Water Code (major and minor aquifers maps – handout provided)
- 1951 – First GCDs created in all or part of 13 counties
- 1985 – Legislature added procedures directing state agencies to identify and designate areas in need of groundwater management
- 1990 – Hill Country PGMA designated. By this date, 31 GCDs had been created in all or part of 61 counties
- 1997 – Senate Bill 1 enacted. It changed state water planning procedures, clarified GCD responsibilities, changed state agency study processes. By this date, there were 39 GCDs in Texas.
- 2001 – Senate Bill 2 enacted. This act further clarified GCD authorities and state agency study processes.

- 2005 (November) – A total of 91 GCDs have been created in the State, including 86 established (confirmed) districts and five unconfirmed districts. The 86 established districts cover all or part of 130 of the State's 254 counties. Of the 86 established districts, 48 have been confirmed by the voters or otherwise established by special law since the passage of Senate Bill 1 by the 75th Legislature, 1997.

### **Groundwater Conservation Districts**

- GCDs are the State's preferred method for management of groundwater resources. They are a unit of local government and are governed by a locally selected board of directors
- Responsible for the conservation, preservation, protection, recharging, and prevention of waste of the groundwater resources within their jurisdictions.
- The three primary GCD authorities include registering and permitting water wells, developing a comprehensive management plan, and adopting the necessary rules to implement the management plan.

### **Creating a Groundwater Conservation District**

Four Processes -- GCD map and handout provided at meeting

- State law authorizes a landowner petition process and allows TCEQ to administratively create GCDs in response to these petitions. After public meetings, TCEQ appoints temporary directors named in the petition who then in turn hold an election to confirm creation of the new district.
  - 8% of existing GCDs created in this manner (7)
- Special law creation – passage of a special legislative act in response to local initiative. Special laws can 'customize' a GCD by adding additional authorities or denying certain authorities provided in Chap. 36. Once created, confirmation by voters and election of directors nearly always required.
  - 92% of existing GCDs created in this manner (79)
- Addition of territory to existing district – state law authorizes processes for individual or groups of landowners, or county commissioners in certain cases to petition existing GCDs to have territory administratively added to the GCD; the GCD considers petition, and if accepted, holds public hearings and election in the area to determine outcome.
  - In past dozen or so years, all or part of 14 counties have been added to existing districts

- Creation upon TCEQ initiative and administrative action, in designated Priority Groundwater Management Areas (PGMAs)
  - PGMA map – handout provided
  - Hill County PGMA designated by Texas Water Commission (now TCEQ) in 1990 in all or part of eight counties
    - Includes Travis County south of Colorado River & west of BSEACD
  - Groundwater management and conjunctive use of surface water was recommended
  - Consensus from an advisory group favored local initiative to create single-county GCDs
  - Process for PGMA designation changed in 1997; clarified further in 2001
  - For TCEQ to create GCD in Hill Country PGMA, it would have to hold contested case hearing to develop evidence needed, issue an order creating the district or recommending the area be added to an existing district. (TCEQ has heretofore never created a GCD in a PGMA.)
    - If new district created, order to county commissioners court, commissioners court would appoint temporary directors who will hold an election to select directors and to approve or deny tax authority
    - If addition of area to existing GCD recommended, order to existing GCD, GCD decisions must be made and reported back to TCEQ
      - TCEQ to create GCD or make specific legislative recommendation if existing GCD declines to add the area

### **TCEQ Roles**

- Consider petitions for creation of GCDs,
- Review special laws creating or amending GCDs,
- Delineate and designate areas in need of GCDs and create GCDs if local initiative efforts fail,
- Assure compliance with GCD management planning requirements,
- Legislative reporting

### **Other State Agency Resources**

- TWDB – water planning data and technical support
- TCE – Education programming, educational materials on subject
- TAGD and Existing GCDs – Practical application and experience

## **Summary Remarks by Kirk Holland**

General Manager, BSEACD

### **Why would an existing adjacent GCD be interested in considering this?**

#### **Generally (for any GCD) the following perspectives are offered:**

- GCD is a local groundwater management entity preferred by the State
- The PGMA is considered as a nearby area previously determined as needing special attention to avoid future problems
- This and all other GCDs have a responsibility to support public interest and conform to approaches desired by State
- GCDs are expected to establish a continuing mechanism for public participation in groundwater management issues at a local level
- This and other GCDs care about protecting water quantity and quality
- There is an ever-increasing focus on groundwater as a managed and manageable resource

#### **Specifically to BSEACD:**

- It has a critical mass of scientists, educators, regulatory specialists, and administration capacity
- About one third of the area under discussion is also in the contributing zone of Edwards Aquifer, which is receiving lot of development pressure
- The District already permits and monitors wells in the Trinity Aquifer within its own boundaries, which is the lateral extension of the Trinity in western Travis County.
- Opportunity to help promote a rational use of both surface water and ground water resources in the area and facilitate related coordination among public resource management entities

### **What factors go into evaluating the efficacy of this?**

- First and foremost, existence of a widely perceived need for additional resource management by the constituents of the area ≈ ratification feasibility
- Likelihood of gaining support of local public officials and legislators
- Conformity with BSEACD's enabling legislation, Groundwater Management Plan, and Rules & Bylaws will influence the feasibility of needed changes
- A publicly acceptable means of equitably recovering incremental direct costs associated with that additional resource management
- The level of effort required for such management/administration ≈ opportunity costs and equity for existing constituents
- The boundaries of the area to be served
- Specific factors and opportunities, if any, unique to area under consideration

## **What do we know and not yet know that would be important to decision-making by a GCD Board?**

### **What we know:**

- It's within the boundaries of the Hill Country PGMA – compelling?
- Many low-volume wells exist in area, with a relatively small number of higher-volume users, nearly all using the Trinity aquifer (except maybe those adjacent to Lake Travis?)
- Available groundwater is locally variable in quantity and quality, and potentially sensitive on both accounts to adjacent uses and users
- Most of the water users north of Hwy 71 and Bee Cave Rd are served by surface water, and these folks are a large part of the total population of the area under consideration
- The area is undergoing considerable suburban/exurban development, some of which will likely be making increasing demands on scarce groundwater supplies for both domestic and irrigation purposes.

### **What we don't yet know:**

- How many wells of various types exist, how much water they pump, and in which zones of the Trinity are they completed
- What problems in supply and/or quality related to use exist in the area, and what reasons and conditions create those problems
- What labor demand would be required
- What sort of fee structure would be reasonable to support a GCD
- How the population would embrace this effort and GCD existence
- What developments are under consideration and what extraordinary water demands will accompany those developments (e.g., golf course irrigation)
- What current plans (where, when, how much) exist for extending surface water supplies to this area, and the basis for those supplies

## **What difference would a GCD make to the western Travis County community?**

- Better understanding of the geologic framework that controls groundwater availability, quality, and use in various sub-areas
- Better protection of existing groundwater supplies from prospective future uses ≈ the preferred alternative to Rule of Capture legal control
- Better standardization of and control over well construction practices, which can affect water quantity and quality via hydrologic communication.
- Better protection of the quality of water that locally recharges the Trinity in this area
- Better education and community outreach about water resources and their management
- Better, more equitable drought management provisions
- Better mechanism at local level for public participation in new or amended groundwater use permits and policy-level decision-making.

## **Summary Remarks by Andrew Backus**

Board President, HTGCD

### **Priority Groundwater Management Area (PGMA)**

A PGMA is an area designated and delineated by the TCEQ that is experiencing, or is expected to experience, within 25 years, critical groundwater problems including shortages of surface water or groundwater, land subsidence resulting from groundwater withdrawal, and contamination of groundwater supplies.

Since the ultimate purpose of designating a PGMA is to ensure the management of groundwater in areas of the state with critical groundwater problems, a PGMA evaluation will consider the need for creating groundwater conservation districts and different options for doing so. Such districts are authorized to adopt policies, plans, and rules that can address critical groundwater problems.

If a study area is designated as a PGMA, the TCEQ will make a specific recommendation on groundwater conservation district creation. State law authorizes the citizens in the PGMA two years to establish a GCD once the TCEQ recommends its creation. However, if local action is not taken in this time frame, the TCEQ is required to establish a GCD that is consistent with the original recommendation. Under either scenario, a locally elected board of directors would govern the resultant groundwater conservation district.

### **Rules**

The PGMA process provided in Chapter 35 of the Water Code is implemented by TCEQ rules that outline procedures for the designation of PGMA's and address issues related to the creation of GCDs in areas that have been designated as PGMA's. These TCEQ rules are contained in Title 30, Texas Administrative Code, §293.19 and §§294.41–294.44.

### **Hill Country PGMA**

Bandera, Blanco, Gillespie, Kendall, and Kerr and parts of Bexar, Comal, Hays, and Travis Counties make up the Hill Country PGMA. Only 2 portions of the Hill Country PGMA are not represented by a GCD – Comal County and Western Travis County.

## **Summary Remarks by James Kowis**

Water Resource Specialist, LCRA

LCRA is very supportive of groundwater management options. The preferred method will always include local control. However, forming a new GCD is often difficult to accomplish. Educating the public on the benefits of GCD must be included from the

beginning of the process. Local control, oversight capabilities and funding mechanisms vary greatly between districts.

## **Moderated Discussion by Kent Butler**

President, Kent Butler and Associates

There were approximately 20 to 30 questions and comments from the audience and responses by panelists. The questions and comments clarified points made in the presentations and raised other issues not yet covered. The discussions included technical as well as policy issues involving groundwater resources, legal issues, and roles and responsibilities of local, regional and state agencies. The moderated exchange was highly informative and appeared to address most if not all of the questions or concerns raised at the meeting.