

Middle Pecos Groundwater Conservation District

Minutes of February 23, 2010

On this the 23rd day of February, 2010, a Public Hearing and Regular Session of the Middle Pecos Groundwater Conservation District, of Pecos County, Texas, met at the Pecos County Civic Center, 1674 Airport Drive, Fort Stockton, Texas with the following members present, to-wit:

Glenn Honaker	President, Precinct 1
M. R. Gonzalez	Secretary/Treasurer, Precinct 2
Merrell Daggett	Precinct 2
Alvaro Mandujano, Jr.	Precinct 4
Ronald Cooper	Precinct 4
Vanessa Cardwell	City of Fort Stockton
S. Evans Turpin	City of Iraan
Houston McKenzie	At Large

Quorum Present.

Members Absent: John Dorris and Lynn Holland

Position Vacant: Precinct 1

Others Present: Paul Weatherby/General Manager, Charles (Randy) Williams/MPGCD Hydrogeologist and wife Erika, Melissa Mills/Office Manager, Bill Johnson/MPGCD Field Technician, Bob Varmette/Fort Stockton Pioneer, Jeff Williams, Dr. Jim Duke, Michael Thornhill & Darrell Peckham/Fort Stockton Holdings-Hydrogeologist, Weldon Blackwelder, Cynthia Hollander, Winston Pfiester, Ernest Woodward, Gary Bryant, Lupe Martinez/Hoover Energy, Derek McGregor/Premier Environmental Services-Oregon, Chan Patel and Steve Sellepack/Premier Environmental Services-Texas, and Michael Kimler/SandRidge and Jack McIntyre.

Public Hearing *Call to Order* at 1:05 PM.

The Board recessed @ 1:06 pm. Reconvened at 1:22 pm.

I Open for Public Comment (Limit 5 minutes per person). No public comment.

Note: The following permit applications are not being contested, and were heard as a group and acted on as a group.

II Consider and/or act upon SandRidge Energy's drilling permit application to be Drilled on the Harral Property.

III Consider and/or act upon SandRidge Energy's drilling permit application to be Drilled on the Moore Property.

IV Consider and/or act upon SandRidge Energy's drilling permit application to be Drilled on the Robbins Property.

Manager Paul Weatherby was sworn in by President Honaker. On February 11, 2010 SandRidge Energy presented 3 drilling permits to MPGCD. Production permits will follow once the wells are successfully drilled. Monitor wells are in place in the area. Notice of Intent's to drill were submitted according to our rules along with agreements from the respective landowners allowing SandRidge Energy to drill a water well on their property. The use of the water is strictly industrial for the cooling towers at the Century Plant. The projected water production is 900 – 950 acre feet from the 3 well system.

Charles (Randy) Williams, MPGCD Hydrogeologist, was sworn in at this time. The 3 wells will be approximately 700' deep and cased with 8" pipe. The surface elevations of the wells are 2,960', 3,045' and 2,989'. The average water level elevation between May through November 2009 ranged at 2,738'. The base of the aquifer is approximately 2,558 elevation giving you 180' foot of saturated thickness of water column. There is not a lot of documented material in the area. SandRidge would like to pump 200 gpm/322.6 acre feet from the Edwards/Trinity aquifer. The nearest pumping test was on the Puckett Ranch in the summer of 2009 using water well #4 which pumped 25 hours/140 gpm with a 25' drawdown. The following projections are based on this well. The information can be used to estimate the transivity and hydraulic conductivity for the aquifer parameters from projection models.

Predictions for drawdown for one well after 365 days of pumping the 8" wells @ 323 ac/ft/yr will be less than 48.5' of drawdown at the well. At a miles distance, the projection is 10.8' drawdown. At 5 miles away, the projection is 4.6' drawdown.

Three wells simultaneously pumping will result in a larger drawdown. At 1.75 miles from the starting location - the estimate is an additional 9.6' of drawdown, and at 2.75 miles away – the estimate is an additional 6.9' of drawdown. That should give around 64' of total drawdown, which is about a 30% reduction in the saturated thickness for available drawdown at the points of maximum drawdown. If the assumptions of the aquifer are correct – they may find it difficult to pump that much. Different rates of pumping will result in different drawdown projections. There could be a noticeable effect in other wells in that part of the county but it's likely that they might not have a significant effect on them so that it would make it difficult for them to produce water from a windmill or for their housing so that if you are used to pumping all the water you need for your house in a days time in 30 minutes previously – it may only take you 5 or 10 minutes more (speaking hypothetically). Again, these are based on projections from pumping test information from the Puckett Ranch. There is a difference from the proposed locations and the Puckett Ranch, the difference being that at the Puckett Ranch the Edwards is not saturated, it is only the Trinity Sand. At the proposed locations, the water rises up into the Edwards formation which can have some large holes, caves, fractures, or solution cavities that could contribute to the ease at which the wells could produce water and reduce the maximum drawdown value. For instance, on some of the neighboring ranches – wells are reported to produce over 3,000 gpm and that is very different from the Puckett Ranch.

Once the wells are drilled, if the Board approves the drilling permits, there will be site specific testing procedures to generate the information needed to evaluate the effect on surrounding wells that will allow the Board to set the production permits.

Houston: I am in on the deal also, but they will use an exiting well. They are projecting to need 400 gpm from the system. But they are looking for double that amount of water in case of any well failures. So they will probably ask for 800 gpm.

Alvaro Mandujano, Jr. asked if the water could be reused.

Michael Kimler with SandRidge Energy was sworn in by President Honaker. This water is for industrial use for the cooling towers. In the middle of the summer we anticipate using about 800 gpm of water. Around 50 gpm of that will be reusable in the cooling tower; the rest is lost due to evaporative cooling. There is a Reverse Osmosis unit on site that will recycle as much water as possible. The 800 gpm is actually a year-round figure.

President Honaker asked Randy Williams if the projections he presented were a maximum usage value. Randy replied that they were used to show the maximum possible drawdown.

Chan Patel with Premier Environmental requested to make a statement, he was sworn in by President Honaker. His role is to collect the groundwater data for SandRidge Energy. We are proposing to drill 3 new wells and to use one of McKenzie's wells to get a total 800 gpm. Our goal for this area is about 400 gpm. Even though we gave the estimate at 200 gpm per well, our actual operating goal is 100 gpm per well. We are hoping to be rotating the wells so that all 4 wells will use the same amount for the entire year. If we look at the cone of influences that are being discussed at 200 gpm, the maximum number thrown out was 48' – this cone of influence is taking place right next to the well. Anything beyond, like a mile, is at worst case and conservative shows to be about 6'7". So if you do the model at 100 gpm – you are obviously not going to have much of an influence. We are also very conservative and show models using the Puckett well verses using the McKenzie well which have ready yield. We have chosen to be conservative, and spaced out wells so that they would not affect others to a great extent, and therefore not affecting anyone else. We chose the wells so that they would not be by any ranches wells and cause a negative impact on them or the aquifer.

Manager Paul Weatherby was asked for his recommendation. He recommends that the drilling applications be approved for all 3 wells.

Motion by Ronald Cooper to approve the three drilling permits for SandRidge Energy as presented, seconded by Alvaro Mandujano, Jr., motion carried. Houston McKenzie abstained from the vote.

V Adjourn. President Glenn Honaker adjourned the hearing at 2:11 pm.

Note: A question was raised by a Board Member as to whether or not a vote could be taken during a hearing, Manager Weatherby called attorney Mike Gershon who said it is legal to take a vote during a public hearing.

Regular Board Meeting *Call to Order* at 2:12 pm by President Glenn Honaker. Quorum is present.

I Consider and/or act upon minutes of January 19, 2010

Evans Turpin moved, Merrell Daggett seconded that the minutes of January 19, 2010 be approved as presented, and the motion passed unanimously.

II Comments from Public and Media (limit 5 minutes per person)

Cindy Hollander commented on agenda item #7 regarding the City of Fort Stockton, Resolutions #10-100R and #10-101R that were presented to the Board on January 19, 2010. She voiced concern that the resolution may impel each and every organization to be able to produce water for industrial use. She urged the Board to not go into partnership with the City of Fort Stockton with the resolutions.

III Consider and/or act upon Accounts Payable and Treasurers' Report for 11-30-2009 and 12-31-2009, Line Item Transfers

Merrell Daggett made a motion to approve the accounts payable and Treasurers' Reports. Seconded by Evans Turpin. Motion passed unanimously.

IV Consider and/or act upon Depository Contract with Pecos County State Bank

A letter from George Hansard, President of Pecos County State Bank, stated that due to heavy rate cuts by the Feb – the current rates are quoted, and will be guaranteed for one year.

Merrell Daggett made a motion that MPGCD set policy and strategy to invest District funds in Demand Deposit accounts, Certificates of Deposit and other interest-bearing bank accounts at Pecos County State Bank – in compliance with the Public Funds Investment Act for the next 12 months. Seconded by Alvaro Mandujano, Jr., motion carried unanimously.

V Consider and/or act upon Order of General Election for May 8, 2010

The following places are up for election on May 8, 2010:

Precinct 1 currently held by Glenn Honaker
Precinct 2 currently held by Merrell Daggett
Precinct 3 currently held by Lynn Holland
Precinct 4 currently held by Ronald Cooper
City of Iraan currently held by Evans Turpin
City of Fort Stockton currently held by Vanessa Cardwell

Ronald Cooper made a motion to set the General Election date for May 8, 2010. Motion seconded by Merrell Daggett, and passed unanimously.

VI Consider and/or act upon Appointment of Director of Precinct 1

In 2006 Jack McIntyre was appointed to the Board to fill an unexpired term which came up for election in May 2008. The position was overlooked and consequently the position was not properly elected in May 2008. At this time we have a vacancy for that position in Precinct 1 and the unexpired term that is filled will end in May 2012. The MPGCD office has contacted the Secretary of States office/Election Division regarding the matter, and has instructed the Board to fill the position. Under Section 5(g) of the enabling act, if there is a vacancy on the board, the remaining directors shall appoint a director to serve the remainder of the term. (Note that Chapter 36 is overruled in this instance by the enabling act.)

No action is taken at this time. The item will be on the March agenda.

VII Consider and/or act on acceptance of the Resolutions from the City of Fort Stockton, Resolutions #10-100R and #10-101R that were presented on January 19, 2010.

The following is a statement from our legal counsel Mike Gershon: We do not need to take any action on the resolutions. Given the context, we received them essentially as "public comment". If we set a hearing, the City can request that they be admitted into evidence at that time.

VIII Consider and/or act upon USGS Joint Funding Agreement for the Groundwater Availability of Edwards/Trinity Aquifer

Manager Weatherby took the floor. On February 17th we received this agreement from USGS. The study boundaries have moved a little further west to include our recharge area. The cost has not changed from what we have seen earlier.

The first quarter payment, the county is contributing right at \$30,000, MPGCD will be contributing about \$30,000; the City will be contributing \$30,000; and PCWCID#1 will be contributing about \$10,000. This will be the case each quarter. Brewster County GCD does not have any money in their budget to contribute at this time, but has shown interest in assisting with the study and the Brewster County Judge will try to work it into their next years budget. Manager Weatherby recommends that the study be initiated.

President Honaker reiterated that by accepting the proposal we are obligating MPGCD between March 1, 2010 through December 31, 2010 to pay \$300,000.00. We will be the responsible agency and will be the others for their portions each quarter. The 3 year study will cost about one million dollars.

Per Randy Williams, MPGCD Hydrogeologist, the USGS study is responding to a specific scope of work that was designed and oriented to produce answers to a number of questions for MPGCD. Example: Where does all the water in the Edwards/Trinity come from – does it come only from underflow from the mountain areas or from other areas? Randy was asked if the Thornhill study addressed that question, he replied, in their study they were saying that they believe that water comes from the troughs, Hovey Trough and other troughs similar to that and that there is not recharge from rainfall. The USGS study would look at isotopes of the water chemistry to put these ideas to the test. Earlier investigations in the 1960s and so forth, suggested that there maybe water coming up from below from the lower aquifers that the Edwards/Trinity is stacked on top of. Regarding the cost issue, we may be able to segment the project into smaller portions.

The USGS study will provide an independent verification.

President Honaker commented that this process with the independent water study was started about a year ago. We asked our manager to research and see what firms where available to perform a study like this and the cost. USGS is the firm we are negotiating with, and they have agreed to pick up a portion of the cost.

Vanessa Cardwell made a motion to approve/sign the agreement with the USGS. Comments from Board member: can we get them to work on the Hot Button issues and if they solve those – we'll cancel the contract? The motion was seconded by M. R. Gonzalez. Motion carries 7 to 1. 7 For, 1 Against, 2 Absent, 1 Vacant.

Recess at 3:15 pm.

Reconvene at 3:26 pm

IX Consider and/or act upon changing the mileage rate to .50¢ retro active to January 1, 2010.

Beginning January 1, 2010, the IRS announced that the 2010 standard mileage rate is .50¢ per mile for business miles driven.

M. R. Gonzalez made a motion to have the 2010 mileage rate be 50¢ per mile for business miles driven and have it retro active to January 1, 2010. Seconded by Alvaro Mandujano, Jr. Motion passed unanimously.

X. Consider and/or act upon Brewster County GCD Interlocal Agreement

The Brewster County GCD has edited 2 paragraphs in the agreement. It is the same agreement that was presented to Brewster CGCD last year with a couple of edits made at their last meeting. The edited agreement failed to be included in the Board Members information notebooks, so the item will be addressed at the March meeting.

XI Consider and/or act upon Progress Reports: Well Registrations, Production Permits, Drilling Permits, Data Loggers, ongoing Water Quality Analysis, District's development of Desired Future Conditions and Management Plan

Manager Weatherby reported that:

- Well registrations have been received and waiting entering into the computer.
- Production Permits: There are not any at this time, but some are expected to be submitted
- Drilling Permits: There have been several new exempt wells drilled
- Data Loggers: We have installed all of our data loggers
- SandRidge Energy has sent in their money per the tax abatement agreement
- Water Analysis: Samples randomly being taking across the county
- Desired Future Conditions:
- Management Plan: Randy Williams has brought with him a draft copy of the Management Plan that we need to submit to the Texas Water Development Board.

Randy Williams took to the floor. Each groundwater district is required by statute to submit a management plan that is effective for 10 years, however, every 5 years the plan is to be reviewed and updated if necessary and readopted by the Board and forwarded to the Texas Water Development Board. The legislature convenes every two years and usually tweaks their plan and means that you need to update your plan accordingly. There have been several minor changes. A major change is in the way you express the amount of water that you pump from the aquifer. Before you could figure this in a lot of ways and illustrate how you came up with that number. Now there is a process through the Groundwater Management Areas (GMA) where Districts cooperatively design a Desired Future Condition (DFC) of the aquifer. If the Texas Water Development Board (TWDB) has a groundwater availability model (GAM), then it is typically used for coming up

with the amount of water that you can pump under the desired future conditions. If a model is not available from the TWDB, you can use other calculations. Since the GMA's haven't completed their work- you can't call the DFC a DFC, we use the term management goal. The management goal is what you take forward to the GMA process as your proposed DFC for the various aquifers in Pecos County. We have that set up for the Edwards/Trinity aquifer, the Pecos Valley aquifer, the Rustler aquifer and the Dockum aquifer.

There is a GAM for the Edwards/Trinity, and a new GAM for the Dockum aquifer. Those will likely utilize the GAM in some way. The Pecos Valley is one that is technically covered in the Edwards/Trinity GAM. TWBD said they would do one of these other calculations which is a spread sheet model, a two-dimensional model. I am working on setting up a 2-D model for the Rustler and Capitan. Then we look at using the TWBD GAM for the Dockum.

Basically the way the draft plan is set up that with a majority of the aquifers that your management benchmark – that will become your proposed DFC – is the drawdown. The amount of drawdown that you would be comfortable allowing over a 50 year time frame. So with reference to the 2010 water levels, and Middle Pecos GCD is one of the better equipped groundwater districts in the state to say what the 2010 water levels are, then how drawdown would you allow going into 2060.

In the Edwards/Trinity, the majority of the area, that is also true. In discussions with Paul that we have in the draft an establishment of 3 management zones for the Edwards/Trinity. One would be in the Leon/Belding/Fort Stockton area to include Comanche Springs. Another would be in the Bakersfield/Girvin area where the irrigation area over there is. All of these are drafts, so it is up to you if you want to change the boundaries on these. The third would be the rest of the county. The idea being that you can have a different condition that governs the amount of water that can be withdrawn. Each aquifer is its own management zone. Since the Edwards/Trinity is so large it is split into 3 zones. The idea of having the three zones is recognizing that the aquifer is different in each of these areas. Over in the Girvin/Bakersfield area is one of the prolific areas of the aquifer, and in the Leon/Belding/Comanche Springs area is another prolific area. In all of the aquifers in the Edwards/Trinity in the two management zones in the Girvin/Bakersfield and the rest of the county area – we are looking at establishing the benchmark in terms of drawdown in the aquifer. The way the draft is set up for the benchmark in the Leon/Belding/Comanche Springs area is in terms of maintaining spring flow. Now the draft benchmark is by something that can be measured, drawdown can be measured, the spring flow has been variable and we don't know when it will appear and we don't know what the rates will be; and there are other springs besides Comanche Springs that could be included in this as well. The Texas Parks and Wildlife has been measuring the flow rates and has published or developed draft estimates on how much water flows out of the Comanche Springs. Last year that estimate was about 718 acre feet. The draft benchmark that we have is 500 acre feet and is a placeholder value. You can define your time period, it doesn't have to be a calendar year and you can make that number whatever you want it to be. The 500 acre feet leaves room for drawdown from activities that may be coming to pass in the future. There is still

work ahead of us in determining the benchmark before the draft is final and goes before the GMA7 as your proposed DFC for that management area of the Edwards/Trinity aquifer.

- Manager Weatherby: We have a GMA7 meeting on April 16th the deadline is September 2010 to have the whole GMA7 process submitted.

Note: Houston McKenzie left the meeting at 3:52. A quorum is still present.

- Paul asked Randy when the management plan could be submitted for approval. Randy: I've requested the values that we need to complete the 2-D models from TWDB and with input from the Board or Paul, we can define the range of pumping that will apply to that so that we can come back next month and have something ready for the Board meeting and show you the results from the models so that decisions can be made as to how much drawdown you want and we can cross those off the list. I've requested meetings with TWDB about the spring flow metric and how that could be accomplished. For the rest of the Edwards/Trinity aquifer, we need to either take the groundwater use estimates for the aquifer that Paul has assembled and request that amount to be pumped, or use a run that has already been done for the GMA, and get the results for those management areas and put them in the plan. The plan is blocked out where you see many of the yellow with "x's" in there – that's a place holder where we are going to fill in the numbers from either the GAM runs or the 2-D models. With respect to the Dockum, I need to get with Paul or have input from the Board on the amount of pumping that we want to see applied to the GAM so that we can look at the results for that and that would be based on what pumping the district is aware of that maybe occurring in the Dockum aquifer and to see if that is already reflected in the model or if needs to be increased or decreased as appropriate so that you describe to DFC that would include all the current pumping and allow for some growth to pumping. Part of the movement ahead is to develop measurements for exempt usage out of the various aquifers. Exempt use being household wells, windmills, stock watering wells, that aren't large size pumps and rig supply wells. The plans allow you to set aside a certain amount of water for exempt use out of the total that could be pumped out of the aquifer.

XII General Manager's report on incoming Groundwater District-related Correspondence

Manager Paul Weatherby took the floor.

- Referred Board members to a e-mail/letter in their notebooks that is an attorney/client privileged letter for them to read
- Letter of Supplement Engagement Letter from Lloyd Gosselink, MPGCD Attorneys at Law regarding Fort Stockton Holdings Litigation; File #1895-04 This does not require a vote.
- February 25th the West Texas Alliance of Groundwater District is meeting

XIII Consider and/or act upon Agenda for next meeting

- January 27, 2010 minutes
- Budget considerations regarding the USGS water study
- Brewster County GCD Interlocal agreement
- Possible Production Permits from SandRidge
- Agreements from the different entities for the USGS study regarding joint funding

XIV Adjourn. Merrell Daggett made a motion to adjourn, seconded by Ronald Cooper.
The motion carried, and the meeting adjourned at 4:00 pm

M. R. Gonzalez,
Secretary/Treasurer

Glenn Honaker
President

Date Approved