

Groundwater Management Area #1 Meeting

Minutes

August 19, 2014

The Groundwater Management Area Number 1 (GMA #1) met on Tuesday, August 19, 2014, at 10:00 a.m. in the PRPC Board Room, 415 SW 8th Avenue, Amarillo, Texas with the following members in attendance:

Voting Members Present:

Jim Haley, Hemphill County Underground Water Conservation District, Bob Zimmer, North Plains Groundwater Conservation District, Lynn Tate, High Plains Underground Water Conservation District and Danny Hardcastle, Panhandle Groundwater Conservation District

Other Groundwater Management Area 1 Representatives Present:

Janet Guthrie, Hemphill County Underground Water Conservation District, Steve Walthour, North Plains Groundwater Conservation District, Jason Coleman, High Plains Underground Water Conservation District and C.E. Williams, Panhandle Groundwater Conservation District

Guests Present:

TWDB Commissioner Bech Bruun, Lauren Graber, Danny Krienke, Bill Mullican, Ray Brady, Robert Bradley, Alan Abraham, Dale Hallmark, Keith Good, Cindy Cockerham, Jessica Mitchell, Scott Honeyfield, Simone Kiel, Jennifer Herrera, Kent Satterwhite, William Loopesko, Gene Born, Zane Edwards, Butch Davis, Mike Pink, Haley Rader, Dee Vaughan, Kody Bessent, Ben Weinheimer

Staff Present:

Kyle Ingham, Local Government Services Director; Joe Price, Local Government Services Program Specialist

1. **Call to Order – Welcome**

The meeting was called to order at 10:04 a.m. with Chairman Zimmer presiding.

2. **Roll Call and Introductions were made.**

Kyle Ingham called the roll for the GMA #1 Board and established that a quorum was present. Introductions of all in attendance were made.

3. **Opening Pledge**

Chairman Zimmer lead the Pledge of Allegiance

4. **Public Comment**

J. C. Adams Jr. submitted a letter on the date of the previous meeting but was not received until after the meeting and is submitted at this time as a public comment. Comments are filed with the minutes as part of the public record.

5. **Discuss and Consider – The Minutes from the May 30, 2014 GMA #1 Meeting**

Jim Haley stated that Ms. Rader's name does not have an 'l' in her name. Mr. Haley also stated that the comment about Jason Coleman measuring the Dockum levels needs to be edited to state that Mr. Walthour and Mr. C.E. Williams are doing the same measurements for the Dockum. Lynn Tate made a motion to approve the minutes as amended and Jim Haley seconded the motion. Motion carried unanimously.

6. Receive and Discuss – Presentation from Simone Kiel of Freese & Nichols Inc. regarding the development of the 2016 Panhandle Regional Water Plan for the Region A Water Planning Group and Strategies included in the most current State Water Plan.

Ms. Simone Kiel gave a presentation regarding the history of regional water planning and the development of the 2016 Panhandle Regional Water Plan for Region A, including the strategies in the State Water Plan. Ms. Kiel explained that projects must be consistent with regional and state water plans to obtain TCEQ permits for TWDB funding. Additionally, the GMA processes require consideration of the regional water plan, specifically, the water management strategies included in the regional water plan. Her presentation will be included with the official record.

Mr. Walthour suggested to the group that the item be included with Agenda item #9 since both are dealing with water management strategies. Ms. Kiel discussed two handouts that are part of the 2011 plan. Ms. Kiel explained the Listing of Ground Water Development Water Management Strategies which demonstrates the amount of water proposed to be developed by different entities for each aquifer and county. She also discussed the Summary of Conservation Savings that is included in the plan. Ms. Kiel explained that the Summary is for irrigation and municipal savings and shows total savings by county. Chairman Zimmer asked about the Irrigation Conservation, specifically, the degree of accuracy shown. Ms. Kiel responded that these demands are represented on an average demand per decade basis. She stated that the numbers shown are most likely from an average demand between 1998 to 2008. She elaborated that these statistics were used as an average because of the source of water being the Ogalla, and its lack of recharge, would not accurately show the long term impact on the aquifer source. Mr. Hardcastle asked if the conservation figures include adaptation of existing technologies, development of new technologies and/or abandonment of irrigated acreage. Ms. Kiel stated that it includes advanced irrigation equipment, crop type changes, the latest information available as to water savings and considers the conversion to dryland farming. Ms. Kiel further stated that all of these factors are considered and lumped together. Working together with the Ag subcommittee of the Planning Group and Texas Agrilife an existing baseline adoption is pulled together as well as a future adoption of technologies and a calculation of water savings is based off of those figures. Mr. Haley asked how much time is spent speaking about projecting future commodity prices. Ms. Kiel responded that they do not focus on commodity prices as a means of demand projections. Mr. Williams comment on past work and research that he had been involved with regarding futures commodity prices and that there were too many variables making it too difficult to predict. Ms. Kiel stated that the way they take these things into account is via the five year updates. Mr. Williams stated that Dr. Clark would be the best person to give a presentation concerning the breakdown of strategies. Mr. Williams elaborated that Dr. Clark works closely with Ag reps as well as the extension service and deals with irrigate agriculture figures. The group

discussed the possibility of approaching Dr. Clark to present at a GMA#1 meeting in the future closer to the adoption of DFCs.

Ms. Kiel continued with the presentation and discussed in detail the preliminary needs analysis from the 2016 plan. Ms. Kiel proceeded to discuss differences between the 2011 plan and the 2016 plan. Mr. Krienke asked what would account for the changes in the GAM. Ms. Kiel replied that Intera was tasked with updating the GAM model and explained that Intera collected more well data and red bed data than had been previously used. Ms. Kiel stated that the main differences in the models showed the red bed data being deeper than the previous model. Additionally, in the Potter-Carson area there was a difference of interpretation between the Ogalla bottom and Dockum starting. They were using redbed data that was accounted for in the Dockum and should not have been. Mr. Walthour stated that the red bed is thought of as a formation, but that it is really not and is just the base of the Ogalla. Mr. Walthour stated that it is really difficult to tell the difference from the contact of the Dockum sands to the Ogalla, and he suspected that the model would change again as more detail is gained. Mr. Haley asked who performed the GAM run, and more specifically how it was funded. Ms. Kiel stated that the TWDB did this particular GAM run with their funds. Mr. Williams discussed that there is two different processes; one being a TWDB contract with Intera. Secondly, the districts contributed to ensure enough funding to get all of the data for the Ogalla for the next 10 to 15 years. Mr. Williams stated that he believes the new GAM will be the best available at this point in time. Mr. Walthour stated that the model is a moving target given that each plan is based off of different models. Mr. Williams agreed that models are a moving target, but also stated that at some point you have to go with the best available information. Mr. Haley noted that the GMA#1 did multiple GAM runs in 2011. Mr. Ingham also noted that the process for performing GAM runs has changed since the last time the body had adopted a DFC. Ms. Kiel stated that the MAG used for the 2011 regional water plan was adopted prior to 2010 numbers. Ms. Guthrie stated a baseline and a DFC were proposed that ran through a regional planning contract in addition to the GMA joint planning process. Ms. Kiel stated that she was not sure if Intera did any work for the GMA. Ms. Kiel stated that the availability numbers were considered using Intera's updated GAM and included if there were shortages. She continued that it was a high level consideration not a very detailed look as required by regional planning.

9. DEVIATION ON AGENDA AT CHAIR'S DISCRETION TO NUMBER 9. Receive, Discuss and Consider – Updated and summarized information regarding water supply needs and water management strategies included in the 2012 Texas State Water Plan. {Texas Water Code S36.108(d)(2)}

The Chairman requested that this item be considered after item # 6. Mr. Walthour stated that the information provided is a follow up to Ms. Kiel's presentation from item # 6. Mr. Walthour asked about the difference between the term need and shortage. Ms. Kiel replied that they are used interchangeably in the regional water planning process. Chairman Zimmer noted the items located in the packet attached to this agenda. Mr. Walthour recommended adding Ms. Kiel's presentation to this item in the meeting record.

7. Receive and Discuss – Presentation from Kent Satterwhite of the Canadian River Municipal Water Authority (CRMWA) activities as a water producer and user in GMA#1

Kent Satterwhite made a presentation on CRMWA giving a brief history of the organization and their ongoing activities. His presentation will be included as part of the official record. Mr. Satterwhite discussed a future project that is being developed called CRMWA 2 and that currently, right-of-way is being purchased to pursue and plan this project. The new system would share and expand the existing well field. Mr. Satterwhite stated that CRMWA 2 would essentially double the existing transmission capacity from Roberts County. If drought conditions and Lake Meredith do not rebound, design and construction is scheduled to begin in 2020. Essentially, CRMWA 2 would consist of a new pipeline and expansion of the well field. Mr. Krienke asked if any part of CRMWA 2 would carry strictly Amarillo water from their well field. Mr. Satterwhite responded that when designing CRMWA 2 they took into consideration how to oversize the project to be able to respond to the needs of Lubbock and some of the other areas. They ultimately decided that they would not need that type of capacity for a very long time and decided the goal for CRMWA 2 would be to fill up capacity. Mr. Satterwhite stated that CRMWA 3 might have the potential to include specifics for Amarillo, but it is a future consideration. Mr. Haley asked what percentage of water comes from Roberts County compared to other sources as far as what is currently being delivered from CRMWA. Mr. Satterwhite stated that all groundwater is coming from Roberts County and that they do not have wells operating outside of Roberts County. He added that about 66% of water is coming from the new well fields. Mr. Haley followed up asking how much could be delivered with the present capacity that is currently in place from that well field. Mr. Satterwhite responded that it is a 54" line and could probably go 100% capacity out of the new well field. He continued that such a situation would not be desired and CRMWA wants to spread out pumping as much as possible. Mr. Haley followed up with how much the current CRMWA's annual budget compares to 2010. Mr. Satterwhite stated that a lot of money was spent in 2011 in regards to a deal with Mr. Pickens and currently more money is being spent on power coming from Roberts county because the water is lower and needs to be lifted more. The annual electrical budget is about \$10 million/year and is the biggest contributing factor to an increased budget other than debt. Mr. Satterwhite estimated the total annual budget to be \$36 million. Mr. Haley asked in regards to water conservation, what incentives from CRMWA are in place for the home owners or cities to conserve and if any change had been noticed. Mr. Satterwhite stated that water rates have gone up significantly and that a big difference is reflected in the water meters. Mr. Krienke asked if the quality of water deteriorates to the other cities outside of Amarillo, if that would necessitate adding more ground water to meet the state standard. Mr. Satterwhite responded that the goal is to always meet the standard. As of right now, pumping 65 mgd from the well field and 10 mgd from the lake meets the standard. Mr. Satterwhite furthered that as the water quality out of the lake deteriorates then the take out of the lake will also decrease. Chairman Zimmer asked what the use per capita was in terms of municipalities as far as gallons per household in the service area as they relate to similar numbers across the State. Mr. Satterwhite responded that he did not know the exact numbers, but that in the region the numbers are a little higher than the state average due to lack of rainfall and irrigation. Mr. Zimmer followed up with a question concerning CRMWA 2 and CRMWA 3 and if additional water rights will have to be purchased and how those future expansions will affect

the GMA, more specifically the DFCs. Mr. Satterwhite stated that he believes that CRMWA currently has enough water to supply its existing cities for approximately 130 years, even considering all worst case scenarios. Mr. Hardcastle asked under best case scenarios what the maximum output from Lake Meredith would be. Mr. Satterwhite said that a firm yield on the lake would be under 40,000 acre/feet a year. He said that the responsible thing to do, if there is water in the lake, is to pump given the extremely high evaporation rate from the lake. Mr. Walthour asked with respect to endangered species if there were any issues or issues moving forward with CRMWA 2. Mr. Satterwhite responded that there was not at this stage. Mr. Walthour asked according to Mr. Satterwhite's knowledge if there was any other endangered species or aquatic species that the joint planning committee may need to know about. Mr. Satterwhite stated outside of those already known, there was not. Ms. Guthrie asked if CRMWA 2 begins in 2020, how long before the facilities would be online. Mr. Satterwhite stated 2 to 4 years from that date.

Chairman Zimmer called for an official 10 minute recess at 11:34.

Chairman Zimmer called the meeting back to order at 11:48 a.m.

8. **Receive, Discuss and Consider – Updated and summarized information regarding Aquifer Uses or Conditions within the management area, including conditions that differ substantially from one geographic area to another for each of the Major Aquifers in GMA#1. {Texas Water Code S36.108(d)(1)}**

Mr. Walthour presented the information and stated that the group should be looking more at pumping estimates based on location. He further discussed and looked at the estimates on the charts located in the agenda packet and how each chart is broken out. Mr. Walthour displayed the 4 counties that are showing the most pumping in the northwest counties and the numbers associated. Ms. Guthrie stated that with the 5-year water level trend they would begin to try and mirror and match other districts as far as utilizing the same time period and methodologies to ensure an apple to apple comparison can be made. Ms. Guthrie continued that the year-to-year and even the 5-year comparisons allow them to track oil and gas as it migrates and moves throughout the county. Mr. Krienke stated that it would be useful to have maps in the same timeline and district by district and if possible put into a GMA map for the entire area. Chairman Zimmer stated we can leave the maps and timeline to the managers and their discretion as the final report is developed later in the process. Mr. Krienke stated that he would like to see the trend lines for the entire area on one map. Mr. Walthour continued to review the information presented on the maps. Mr. Williams stated that they had previously met with the appraisal district and setup the boundaries to coincide with PRAD's. Mr. Williams continued that it was a real problem for people in Potter County to know which area they are in. By working with PRAD on the boundaries, they correspond with how the tax statements are generated. Mr. Walthour continued to discuss the summary tables for each area. Mr. Walthour stated that a definition of sustainability needs to be established. He continued that without a concrete definition of sustainability, the term is in the eye of the beholder and can range from economic sustainability to aquifer water levels. Mr. Williams stated that in his past work a definition of sustainability was established by a national organization, incorporating natural resource use and balanced production today with conservation in the future. Mr. Williams stated that he could pull the research and send it to Mr. Walthour. Mr. Williams agreed with Mr. Walthour that

defining the term, sustainability, is a big issue and more resource data could be brought to the issue. Mr. Haley stated that he would like to have the parameters or bookends defined more with regards to average saturated thickness within each county or district. Mr. Haley stated that at minimum he would like to know the starting saturated thickness. Mr. Ingham stated that it might be appropriate for the group to take the opportunity to define time periods to ensure that everyone is examining the same time periods. Mr. Tate stated that we should have the Managers look at the years and have them decide on a standard jointly. Mr. Williams stated that the work Bill Mullican did previously should go under this action item instead of #9. Mr. Haley asked a question on Table 2 regarding Municipal Use in 2009. Mr. Walthour stated that the numbers came from TWDB and other places and they can take a look at them again. Ms. Guthrie stated that CRMWA Phase 3 began in 2010 and is the most likely source for the numbers in Table 2.

The Board decided that they want to further discuss sustainability at a later time.

10. Receive, Discuss and Consider – Updated and summarized information regarding background information related to hydrologic conditions, including for each aquifer in the GMA#1 planning area, the *current* total estimated recoverable storage as provided by the Texas Water Development Board Executive Administrator. {Texas Water Code S36.108(d)(3)}

Mr. Walthour discussed that this is a summary of the information that was covered in the last meeting. Mr. Walthour stated that the numbers within the summary will change, including total storage and total recoverable storage as laid out by the TWDB model. Once the model has been updated, all the numbers will change. Mr. Walthour continued that nothing additional was added to date, other than some explanation added about the aquifers.

Chairman Zimmer asked if the Whitehorse formation needs to be added to this report. Mr. Krienke and Mr. Williams stated that no they did not believe it should be added. They also stated that the PGCD will meet and bring recommendations, but that the Blaine does not need to be added either.

Mr. C.E. Williams referenced back to item #8 stating that the definition of sustainability that he was discussing earlier was put together by the Brodalen Commission in 1987 working for the United Nation. The commission defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their needs.”

11. Receive, Discuss and Consider – Presentation regarding Environmental Impacts, including impacts on spring flow and other interactions between groundwater and surface water of potential Desired Future Conditions in the major aquifers of GMA#1. {Texas Water Code S36.108(d)(4)}

Mr. Walthour presented information to the Board regarding environmental impacts on spring flow and the interactions between ground water and surface water of DFCs. He stated that spring flows are generally declining in the area primarily due to pumping of groundwater from the aquifers. He added that any aquifers that discharged water to springs are most likely being affected. Mr. Walthour continued that changes in historical water levels in the Dockum aquifer could be contributed to declining lake levels in Lake Meredith. Mr. Coleman asked where the closest Dockum observation point to Lake Meredith is. Mr. Walthour responded that the closest observation point that they know of, is in Hartley County. Mr. Williams stated

that they have several observation points in Potter County that are Dockum wells. Mr. Bradley asked if the directors wanted to bring back the water level locations. Mr. Walthour stated that they could go back and add the available water monitoring well system and its affects to the Dockum. Mr. Hardcastle asked Ms. Guthrie if they had any monitoring or data on spring flows. Ms. Guthrie stated that the only data they have on stream flows is what Mesa had collected historically and they don't have any gauges. Ms. Guthrie continued that they did have a 3D model extrapolating a 70% for DFC, but they were not based on an actual GAM run. Ms. Guthrie continued that the model showed where they believe there is opportunity for interaction with groundwater and surface water. Mr. Krienke stated that it would be good to look at the model because it helps with DFCs and is such an important aspect.

Mr. Williams commented that the updated GAM they are anticipating in the first half of next year will provide many updates to the spring flow numbers discussed.

12. Receive, Discuss and Consider – Presentation regarding the impact of subsidence of potential Desired Future Conditions in the major aquifers of GMA#1. {Texas Water Code S36.108(d)(5)}

Mr. Walthour made comments regarding subsidence. He elaborated that the only areas they have seen subsidence in the GMA is due to poor well construction. Mr. Walthour added that there appears to be no regional subsidence. He stated that in looking at connections from each of the management plans, from each of the districts, subsidence is not an issue for any of the districts. The Board does not see the benefit for additional work under subsidence. Mr. Ingham asked Mr. Bradley from TWDB's perspective if subsidence is not a major issue in this area, if this is an appropriate way to address it as a GMA. Mr. Bradley answered in the affirmative.

13. Receive, Discuss and Consider – Presentation regarding the socioeconomic impacts reasonably expected to occur based on potential Desired Future Condition in the major aquifers of GMA#1. {Texas Water Code S36.108(d)(6)}

Mr. Walthour presented information regarding the socioeconomic impacts and commented that there are three documents in the packet for the Board to review. Mr. Walthour elaborated on each of the individual impacts from the socioeconomic studies. Mr. Walthour stated that Steve Ammasson has been involved with several studies on socioeconomic impacts and would suggest having him come and speak on these studies and impacts. Mr. Walthour stated that in some scenarios all four counties were combined, which resulted in a lesser impact than doing it county by county. Mr. Williams commented on a study he was involved with on the economic impacts of ground water management standards. He stated that the goal of the study was to view the impacts on the depletion management program on a district wide level, county wide level and farm level. Mr. Williams commented on the results of the study, showing negligible impacts on both the county level and district level. Mr. Walthour stated that was all of the socioeconomic studies he was currently aware of.

Mr. Tate said that recently the HPUWCD had amended their rules and management plans. He discussed the fact that they have a small minority of very vocal opposition. He said that the county committees were very essential in the process giving it a grassroots support base. Mr. Tate stated that they have not drafted enforcement provisions, but that the county committee will be very involved in that aspect and will be used to make recommendations to the group. Chairman Zimmer stated that rules for the NPGCD have been adopted and a plan is in place to meet

the DFC. The Chairman continued that they would take their time and openly discuss the rest of the rules before deciding what changes they wanted to make. He stated that they were very close in undertaking the operation of the conservation center at Etter. He also added that they are continuing to find ways to encourage more efficient use of water.

14. Discuss and Consider – Scheduling of the Next Meetings of the GMA #1

November 6, 2014 at 10:00 a.m. Motion by Mr. Tate, seconded by Mr. Hardcastle Motion passed unanimously.

Mr. Ingham stated potential items that may need to be on the next agenda include: annual update of each districts process in implementing the MAG, an initial discussion of the final 3 Factors, establish a definition of sustainable development, and review the 3D models and red bed models. Items that may be appropriate for later agenda items are a breakdown of Ag strategies from Dr. Clark or Mr. Steve Amasson and Mr. Amosson speaking on the socioeconomic impacts of a given DFC.

Chairman Zimmer suggested inviting the City of Amarillo to speak about their water situation for the next several years.

15. Adjournment

Adjourned at 12:55pm motion by Mr. Haley, seconded by Mr. Tate. The motion passed unanimously.