

MINUTES OF THE
SANTA FE COUNTY
WATER POLICY ADVISORY COMMITTEE

March 12, 2015
(Approved by committee on May 7, 2015)

Santa Fe, New Mexico

This meeting of the Santa Fe County Water Policy Advisory Committee (WPAC) was convened at 5:00 p.m. by Chair Charles Nylander on the above-cited date at the Santa Fe County Public Works Building Conference Room, 424 NM 599, Santa Fe, New Mexico.

A quorum was established as follows:

Members Present:

Charles Nylander, District 2
Consuelo Bokum, BDD Board
Bill King, Soil & Water Conservation
Anna Hamilton, District 4
Steve Rudnick, District 5
Sigmund Silber, Central
Rita Loy Simmons, District 3
Rik Thompson, Estancia Valley Water Planning Committee
Martha Trujillo, Acequia Association

Member(s) Excused:

Mukhtiar S. Khalsa, District 1
Gil Tercero, Mutual Domestic Water
[One vacancy]

Staff Present:

Claudia Borchert, Public Utilities Division Director

III. Approval of Agenda

Chair Nylander moved approval of the agenda as published. Mr. Thompson seconded and the motion passed without opposition. [Ms. Simmons was not present for this action.]

IV. Approval of Minutes: January 8, 2015

Chair Nylander noted a typographical error on page 6.

Ms. Hamilton moved to approve the minutes as amended. Her motion was seconded by Mr. Thompson and passed without opposition. [Ms. Bokum abstained and Ms. Simmons was not present for this action.]

SFC CLERK RECORDED 05/24/2016

V. **Matters from the Public**

None were presented

VI. **Action Items**

A. **Review and Approve Draft Santa Fe Basin Climate Change Study in Support of Staff Presentation to BCC on March 31, 2015**

Ms. Borchert said the City and County initiated this study in 2011 which is now in the final stages of technical review by the Bureau of Reclamation. The study has interesting implications on water supply. She asked the WPAC to preview the presentation to the BCC so that their comments would be incorporated. A utility-focused slide on how water supplies have been used in the Santa Fe basin indicated that 95 percent of the water use in the basin is provided by the utility. Thus, what the utility does or does not do has a large impact on the availability of water supplies in the basin. The study is not limited to the Santa Fe Basin and includes San Juan-Chama (SJC) and the Upper Rio Grande Watershed that provide water to the basin. In 2002 groundwater made up 90 percent of the use and currently it makes up 10 percent. This is important because surface water is renewable and will increase the longevity of the aquifer by reducing reliance upon it. Projections for impact on surface water due to climate change was included in the study.

She identified the San Juan-Chama sources above the Continental Divide ending up in Lake Heron, traveling through El Vado, stored in Abiquiu and in Buckman's case, it is diverted upstream of Cochiti Reservoir. The County's allocation from SJC is 375 acre-feet and last year the County received 319 acre-feet or 89 percent. As of January 1, 2015, the first quarter, the allocation was zero acre-feet – this is the first time Heron had no available water to give the SJC contractors. They expect to provide 80 to 90 percent by the end of the year. The County has 620 acre-feet in Abiquiu which can store 800,000 acre-feet. The City has 17,000 acre-feet stored in Abiquiu.

Unlike the City, Santa Fe County's reliance on SJC is not that great. The City received 5,230 acre-feet from SJC.

She emphasized the importance as a region to know the potential pitfalls of reliance on surface water.

She reviewed the different sections of the report. 1) preliminary assessment; 2) evaluation of water supply and demand; 3) impact of projected climate changes under different climate change scenarios; and, 4) determination of a gap and ways to fill that gap – adaptation strategies.

The climate change projections in 2015 and the region's supply and demand availability in 2050 and how those impact each other were evaluated. In the climate change world there are two strategies: mitigation, slowing the impacts of climate change; and adaptation, what to do with the likely future. This report is focused on adaptation.

Given that drought is linked to limited water supply, and that the projected climate change is for drier conditions, it makes sense to plan for additional sources of supply or other ways to fill the water supply needs.

The Basin study used downscaled global climate models of basins of interest in the study region. The global climate output models were run through a stream flow model taking the temperature and precipitation and filtering them to end up with stream flow at both the SJC, Otowi from native Rio Grande water rights, and the Santa Fe River in the watershed. The consensus of the models is that precipitation is a wild card but what is known is that it will be hotter. The increase in temperature alone has an impact on the water supply. By 2070 the amount of snowpack will be severely reduced. Only the highest regions of the San Juan Mountains and the tops of the Sangre de Cristo will have snow. Precipitation is more likely to be rain than snow in April. The following expectations were established:

- 75 percent snowpack reduction by 2070
- 5 degree Fahrenheit temperature increase by 2050 from today
- Higher rate of evapotranspiration due to higher temperatures
- Potential for greater monsoonal intensity

This will affect stream flow and a 25 percent decline in Buckman project water is expected by 2050, thus reducing availability of allocation.

A list of current adaptation strategies that are in effect and could be increased:

- Conservation
- Using reclaimed water
- Using backup groundwater supply
- Storing stormwater
- ASR, aquifer storage recovery
- Regionalization
- Acquisition of additional supplies – Rio Grande surface water rights

Using a system simulation model the water adaptation strategies were screened and applied to determine the most effective manner to reach the goal of reducing a water supply gap. Assuming no changes in the climate projections the existing gap continues to grow. A series of scenarios are employed with the model.

Even without the climate change, the gap is higher than 20 percent. It was noted the demand will increase by 1/3 by 2050.

Using the information on the gap, a series of portfolio strategies were developed. The target is to build in 7,353 acre-feet through the different strategies. Ms. Borchert said she believed the gap could be filled through conservation (changing how we live today) as evidenced in Europe, however, the group studying conservation disagreed. Reclaimed water/reuse alone will not fill the gap nor will purchase of water rights. However, combining scenarios, conservation, reclaimed wastewater, ASR/infiltration, purchase of water rights, is expected to fill the expected gap.

Ms. Bokum noted that there would be fewer water rights and greater competition to purchase water. Ms. Borchert said that that was factored in and purchase of water rights could only work in conjunction with other methods. The study reviewed the reliability of surface water. Presently, the reliability is much better than what is projected for 2050.

Key findings indicated under the study scenarios were:

- Uncertainty regarding future climate and its impacts
- Surface water supply shortages of 25 percent to 30 percent
- It is going to get hotter
- No single adaptation alone is sufficient to address the supply gap
- More conservation is necessary
- Increase use of reclaimed water – key adaptation

Over the past 15 years the County and City have reduced water use by 40 percent; however, a conservation program is necessary.

The following next steps were identified for the County:

- Complete the Utility Master Plan – identifying infrastructure build-out within Sustainable Development Area #1 and the County’s role in collecting wastewater.
- Complete Reclaimed Wastewater Feasibility Study. The study reviews three categories to use reclaimed wastewater.
- Develop a groundwater backup supply. The County’s water supply is strictly surface water
- Update the 40-year water supply plan.

It was recommended that the presentation to the BCC discuss the range of variability.

The amount of water used in the Santa Fe Basin includes agricultural use which is about 5 percent to 10 percent of the water. The reduction of stream flow will affect agriculture in the same manner, but this was not developed further in the report. While the climate change results are applicable elsewhere, the ramifications within the study are Basin-centric.

Ms. Borchert said the purpose of the presentation to the BCC is to provide an awareness of the situation and outline the next steps.

Chair Nylander said the study did not address reclaimed wastewater and appears to have a “hands off” approach to the notion of using it as part of the drinking supply. From a public utility standpoint, if reclaimed water can be treated properly it is as safe as any other water source for drinking. He felt that was not emphasized enough in the report. He would have preferred a more positive spin on the use of reclaimed wastewater.

Ms. Borchert expected the feasibility study to cast a positive light on reclaimed water.

There was a suggestion to include the cities successfully using reclaimed water: Wichita Falls, TX. El Paso has been treating wastewater to drinking water standards, and because of public lack of acceptance the water is injected into the ground.

Regarding pharmaceuticals and cosmetics in the effluent, Mr. Resnick said an operator at the state-of-the-art Buckman facility opined that 99.9 percent of them could be treated. Ms. Borchert said engineers think Buckman needs what is called an environmental barrier. She

mentioned that many of the pharmaceuticals are easily broken down by sunlight which could be accomplished in a two- or three-day holding pond. Perception is the problem.

The Committee watched a short public education video on El Paso's wastewater system.

Ms. Borchert said she would emphasize to the Commission that reuse of water should be considered more than the report emphasized and is a real resource that merits emphasis.

Mr. Silber agreed that wastewater treatment was important and asked whether, at this point it mattered if it was used to irrigate or to drink. How the treated wastewater is used will need to be resolved, but perhaps not through the BCC.

Chair Nylander noted that Portfolio 5 was chosen, which included buying more water rights, and he agreed with earlier committee comments that doing so was not a panacea.

Mr. Thompson said buying water rights from someone who is retiring active agricultural use and converting it to consumptive water was a good thing. The Chair agreed with that concept, noting that 70 percent of surface water use in the state is for agriculture. As land is retired the water could be moved to municipal or industrial use, but in the Middle Rio Grande to effectuate their water needs for municipal use, they are looking to retire 20,000 acres of farmland which may work for a time, but is not a permanent solution.

Ms. Trujillo pointed out that the irrigation office near Pojoaque has a large listing of irrigation water rights for sale.

Ms. Borchert said for the purposes of this report, purchased water rights have to be accessible to the BDD – below Otowi Gauge to Elephant Butte.

Mr. Silber said regardless of what he thought of the study, which was not much, the point is that there is a shortage of water and steps have to be taken to address the situation. He did not have confidence in the reported population projections. Mr. Resnick noted that whether the report figures are off 50 percent either way did not make any difference in terms of the presentation to go forward.

Ms. Borchert noted the City's long-range water supply plan completed in 2007 had three strategies: increase conservation, buy more water rights and use reclaimed wastewater. The only thing that has changed in the last 8 years is how much more has to be accomplished with those three options.

Mr. Resnick remarked that as the Gulf of Mexico warms and more intense events occur more bulk water will be produced via the monsoons.

Chair Nylander suggested the committee could endorse the County to-do list: update the 40-year Water Supply Plan, complete the Utility Master Plan, complete the backup groundwater supply project and complete the Reclaimed Wastewater Feasibility Study.

Mr. Silber said he was most bothered by this study's year 2055. It's important that this is not a prediction for the year 2055. It's important the Commission understand this is not a forecast but rather a trend that requires attention. Ms. Borchert said it is for the decade of 2050. While 2020 is too soon, 2070 was too far out into the future.

Ms. Bokum introduced a motion to endorse the four recommendations proposed by staff and Mr. King seconded.

Ms. Borchert said the City and BOR spent over \$200,000 apiece on this and she was going before the Commission to request they contribute \$20,000. Mr. Silber said he was not prepared to endorse the report. Ms. Borchert said the report provides some information with which to guide water resource management.

Ms. Bokum rephrased her motion to state the Committee understands that this report is valuable in guiding the future of resource management and supports the four next steps:

- Update the 40-year Water Supply Plan
- Complete the Utility Master Plan
- Complete the backup groundwater supply project
- Complete the Reclaimed Wastewater Feasibility Study

Mr. King accepted the change and the motion passed without opposition.

VII. Discussion Items

A. WPAC Discussion regarding WPAC Deliverables, Proposed BCC Resolutions and 2015 Work Plan as presented to the BCC on January 27, 2015 and approved by the BCC

Chair Nylander reported that the January 27th presentation regarding ASR, and the 2015 work plan were well received by the Board and they took action on the resolutions. The Commission was complimentary of the WPAC's efforts.

Ms. Hamilton said the standard was set by Chair Nylander and Ms. Borchert.

B. WPAC discussion regarding WPAC Subcommittee and the Development of WPAC Policy Recommendation on Water Development and Allocation Policies In Santa Fe County

The subcommittees are:

Allocations: Committee members Bokum, Resnick and Khalsa and city staff

Development of Water Requirements: Committee members Silber, Nylander and District 1 vacancy and County Aamodt specialist Sandra Ely

Sustainable Land Development Code (SLD) Review: Committee members Trujillo, Thompson, Hamilton, and King and a representative from County Growth Management Department

Ms. Borchert said it is appropriate to include non-WPAC members to work on subcommittees.

Chair Nylander requested reports from the subcommittees at the next meeting. He said he would try to participate on all the subcommittees.

VIII. Matter from the Committee

Ms. Borchert said a press release soliciting a Northern Planning Area/District 1 committee member resulted in four responses of which two were qualified. A recommendation to appoint Mary Helen Follingstad to fill the position will be forwarded to the BCC late March.

IX. Next Meeting: May 7, 2015 @ 5 p.m.

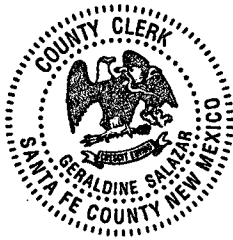
X. Adjournment

Having completed the agenda and with no further business to come before this Committee, Chair Nylander declared this meeting was adjourned at approximately 7:10 p.m.

Approved by:

Charles Nylander
Charles Nylander, Chair

Respectfully submitted by:
Karen Farrell
Karen Farrell, Wordswork



COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

WATER POLICY ADVISORY
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I Hereby Certify That This Instrument Was Filed for
Record On The 24TH Day Of May, 2016 at 11:13:28 AM
And Was Duly Recorded as Instrument # **1794337**
Of The Records Of Santa Fe County

Deputy Estrella Martinez Witness My Hand And Seal Of Office
Geraldine Salazar
County Clerk, Santa Fe, NM

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