City of Santa Fe



Agenda DATE 8/28/13\_TIMF, 2:45p SERVLU BY Caryn Grosse RECEIVED BY

CITY CLERK'S OFFICE

SANTA FE WATER CONSERVATION COMMITTEE MEETING CITY HALL - 200 LINCOLN AVE. CITY COUNCILORS' CONFERENCE ROOM TUESDAY, SEPTEMBER 10, 2013

4:00 PM TO 6:00 PM

- 1. CALL TO ORDER
- 2. ROLL CALL
- 3. APPROVAL OF AGENDA
- 4. APPROVAL OF CONSENT AGENDA
- 5. APPROVAL OF MINUTES AUGUST 12, 2013 WATER CONSERVATION COMMITTEE MEETING
- 6. CONSENT AGENDA A. DROUGHT, MONSOON AND WATER RESOURCE MANAGEMENT UPDATE (Rick Carpenter)

### **DISCUSSION ITEMS:**

7. UPDATE ON WATER TRUST BOARD CHANGES (Councilor Ives, 10 minutes)

## **INFORMATIONAL ITEMS:**

- GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITATIVES: (Councilor Ives, 70 minutes)
  - A. GROUP #1 WATER CONSERVATION AND DROUGHT MANAGEMENT PLAN UPDATE
  - B. GROUP #2- WATER CONSERVATION EDUCATION/OUTREACH
  - C. GROUP #3- PROMOTE OUTDOOR WATER CONSERVATION
  - D. GROUP #4- REESTABLISH TREND OF NET ANNUAL REDUCTIONS IN PER CAPITA WATER USAGE AND IDENTIFYING LARGE WATER USERS
  - E. GROUP #5- DOMESTIC WELLS WITHIN THE CITY LIMITS
- 9. REBATE ANALYSIS (Councilor Ives, 20 minutes)

## MATTERS FROM STAFF:

## MATTERS FROM COMMITTEE:

10. 2014 LEGISLATIVE RECOMMENDATIONS (Councilor Ives, 10 minutes)

## ITEMS FOR NEXT AGENDA - TUESDAY, OCTOBER 8, 2013:

Open Meetings Act Presentation

Demand Elasticity, if available

CAPTIONS: September 20, 2013 @3 pm PACKET MATERIAL: September 25, 2013 @3 pm

### ADJOURN.

Persons with disabilities in need of accommodations, contact the City Clerk's office at 955-6520, five (5) working days prior to meeting date.

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# **MINUTES OF THE**

# **CITY OF SANTA FE**

# WATER CONSERVATION COMMITTEE MEETING Santa Fe, New Mexico

## September 10, 2013

## 1. CALL TO ORDER

A meeting of the City of Santa Fe Water Conservation Committee was called to order by Councilor Peter N. Ives, Chair on this date at 4:00 p.m. in the City Councilors' Conference Room, City Hall, Santa Fe, New Mexico.

## 2. ROLL CALL

Roll Call indicated the presence of a quorum as follows:

## Members Present:

Councilor Peter N. Ives, Chair Melissa McDonald, Vice Chair Tim Michael Doug Pushard Stephen K. Wiman Grace Perez Giselle Piburn Lisa Randall Bill Roth

## Member(s) Absent:

Lise Knouse, resigned Karyn Schmitt, excused 1 vacancy

## **Others Present:**

Laurie Trevizo, Water Conservation Manager Caryn Grosse, Water Conservation Specialist Nancy Avidisian Jo Ann G. Valdez, Stenographer

## 3. <u>APPROVAL OF AGENDA</u>

Ms. Perez moved to approve the Agenda. Mr. Wimen seconded the motion. The motion passed unanimously by voice vote.

# 4. APPROVAL OF CONSENT AGENDA

Mr. Michael requested that Item 6a (Consent Agenda-Drought, Monsoon and Water Resource Management Update) be removed to discussion items.

Ms. Perez moved to approve the Agenda as amended. Mr. Wimen seconded the motion. The motion passed unanimously by voice vote.

# 5. <u>APPROVAL OF MINUTES</u> : AUGUST 12, 2013 WATER CONSERVATION COMMITTEE MEETING

Ms. Randall moved to approve the Minutes of the August 12, 2013 meeting. Mr. Michael seconded the motion. The motion passed unanimously by voice vote.

# 6. CONSENT AGENDA (removed to discussion items) a. Drought, Monsoon and Water Resource Management Update

# DISCUSSION ITEMS: (Moved from Consent Agenda)

a. Drought, Monsoon and Water Resource Management Update

[Copies of the Memorandum from Rick Carpenter regarding the Update on Drought, Monsoon and Water Resource Management were distributed in the members' packets. Please see Exhibit "6a" for the specifics.]

Mr. Carpenter asked if Mr. Michael had some specific questions.

Mr. Michael said he did not have any specific questions, only a comment about the update on the *Drought, Monsoon and Water Resource Management* report. He said in looking at it again, it occurred to him that this talks significantly about surface water; but it was not quite as flushed out, particularly about the use levels of our wells. He said perhaps they may want to consider, as they continue to develop this report, to add more detail about how the wells (ground water) fit into the overall water issue.

Chair Ives asked Mr. Carpenter if this sounds notable.

Mr. Carpenter said yes, particularly since they are pumping more from the wells now. He offered to compile a monthly report on this.

Chair Ives said one other thing that he may ask is, with regards to the San Juan Water Basin, it sounds like Bureau of Reclamation (BOR) Army Corps of Engineer representatives have started to talk about the Colorado River for next year, and possibly we can add that information in.

Mr. Carpenter said we can talk about it but not in quantitative terms because BOR Army

Corps are reluctant to come up with projections at this time. He noted that he sits on a newly formed Colorado River committee that is involved with a small industrial conservation committee and this will be a good venue for this discussion. He offered to include that information when he receives it.

Chair Ives asked if there were any more questions for Mr. Carpenter.

Ms. Perez asked Mr. Carpenter if he could talk a little more about that committee because it sounds interesting.

Mr. Carpenter said yes, as you recall several few weeks ago, the Mayor had a press conference on the state of the Colorado River and that was partially associated with this new effort that is being put forward primarily by the managers of the Colorado River. They have reached out to the various states that are signatory to the Colorado River, and asked each state to identify specialists within their state to identify various issues: hydrology, municipal and industrial use, etc. Mr. Carpenter sits on this working group and they meet every six weeks. He is working on a report of this.

Chair Ives asked if the Committee could receive a list of the members, to include where they are from.

Mr. Carpenter said yes noting that the Committee members consist of hydrologists and utility managers.

Chair Ives said he would be interested in this because the Colorado River has been significant in the City's circumstances, particularly in the last few years.

Mr. Carpenter said there are a lot of interesting and very complex issues.

Chair Ives said for those who would like to gain a further background on the Colorado River, the easiest reference would be the Department of Interior Bureau of Reclamation Report that came out recently. It includes six supply scenarios and four demand scenarios, which show disparity and demand over supply is somewhere between 3-7 million acre feet per year. He said he would believe that Santa Fe would have much to offer in many of those discussions.

Chair Ives asked if there were any other questions, seeing none, he thanked Mr. Carpenter for attending, and for the update.

# 7. UPDATE ON WATER TRUST BOARD CHANGES

Chair Ives said he believes the Water Trust Board receives an allocation of \$30 million every year, which has been used in the past for such things as the Buckman Diversion project.

Mr. Carpenter said Buckman Diversion received approximately \$21 million over the years in Water Trust appropriated funding.

Chair Ives said this gives you a sense of how important this source has been for the City of

Santa Fe. He said the Water Trust Board is a state board which has recently seen many significant changes in terms of its composition, as well as its policy and procedures. There are also new structural requirements before any organization could be eligible to receive any Water Trust Board funding; and the City of Santa Fe may have challenges with one or two of those requirements. They have also eliminated the capacity of smaller domestic water systems to qualify for funding. The second thing are the changes that are being introduced in the selection process, which will allow either the water Trust Board or the Governor to declare an emergency or an urgency circumstance, where they will start directing funds towards those entities or areas that qualify under those new terms, rather than the recommendations from the Water Trust Fund to the Legislature.

Ms. McDonald asked what body or who made those changes.

Chair Ives said the changes have only been proposed but the New Mexico Finance Authority has oversight and Senator Nancy Rodriguez sits on the Water Trust Board. He noted that the City would like to meet with Senator Rodriguez to talk about the proposed changes.

Ms. Randall asked how this is funded, where does the money come from.

Chair Ives said it is set aside from the Legislature.

Mr. Carpenter added that the original seed money came from the Drinking Water Revolving Fund, and federal money. He explained that they started a program several years ago where it was not only grants, but also loans.

Chair Ives said he has not seen all the changes implemented and he would be happy to share additional information when he gathers it.

# **INFORMATIONAL ITEMS:**

# 8. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES:

## a. GROUP #1 - Water Conservation and Drought Management Plan Update

Ms. Perez said Group #1 did not meet this month and they should be meeting over the coming month to start reviewing Section 5 of the plan to see what things are missing.

Chair Ives said they know that the City uses approximately 10,000 acre feet of water annually and it would be interesting, in terms of what this Committee is working on, to postulate that the City would only have 7,000 acre feet available to see what the Committee can do by way of suggesting modifications to ordinances and system usage that would basically keep us in a viable future, given a significantly diminished supply. He said this could be a valid exercise for the Committee to consider and would welcome anyone's thoughts on that.

Mr. Michael asked what the water supply was for the 2002 drought period.

Mr. Carpenter said the demand was a lot higher in 2002, at approximately 12,000 acre feet

per year, and between the Buckman wells and City wells, they were using every drop they could and there were some days where they barely meet demand.

Chair Ives asked if this seems like a valid exercise and asked Ms. Trevizo what she thought.

There was agreement of the Committee Members that this would be a valid exercise.

Ms. Trevizo said the resiliency piece is something she thinks this group would want to address.

# b. GROUP #2 - Water Conservation Education/Outreach

Ms. Perez said at the last meeting she promised that they would hand out some sort of a draft presentation (for the general public) and they have this today for the Committee. This was distributed to the Committee Members. Please see Exhibit "8b" for the specifics of this presentation.

Ms. Perez noted that this draft is for WCC's review and should not be circulated. She said it is very much in draft form and they welcome any thoughts and feedback on it but they are not asking for any kind of approval today.

Ms. Perez said basically the structure of the presentation includes slides on where the City gets its sources of water; how they put this water to use; do we have enough for the future and what are we doing now and what do we need to do in the future in terms of water. It also includes a map of the areas on the sources of water.

Mr. Michael said the intent of this is to focus on the overview topics for the general audience.

Chair Ives asked what their sense of timeframe was for the presentation.

Ms. Perez said she would think between 20-30 minutes. She said they have a large number of backup slides that can be used by the presenters.

Chair Ives said he would love to see the backup slides.

Ms. McDonald asked if this is something that should be placed on the agenda for the next meeting. She would like to have more time to read it.

Mr. Michael said they are still working on the details and they are not ready to present it as of yet. However, they would appreciate any comments or feedback.

Chair Ives said one thing he plans on doing, is to invite the new candidates who are running for positions across the City for them to hear what the Committees he is involved in are doing. He would like to do report on water and on solid waste to get them engaged and involved. He was thinking of doing this sometime in October. Mr. Wiman said one of the goals is for anybody on this Committee to be able to make this presentation to the public, once it is approved. Another goal is to present it to City Council there are people on the Council who could benefit from this also.

Ms. Perez noted that there are total of 60 slides that have been made. She said it is very hard to keep all this information in one presentation, as there is a lot of information.

Ms. McDonald said it was the community participation part that was mentioned at the last meeting. She asked where somebody would be able to provide their input about the quality of life issues.

Ms. Perez said it would depend on how the presenter wants to handle it. She said they talked about whether this would be an interactive presentation.

Chair Ives said this raises a pretty interesting question. He said the City has sort of a real time opinion survey mechanism where everybody in the audience is given a small handheld unit; a series of questions are posted usually on a screen with various potential answers, and people sit and click it; and the software tabulates the results. The results are available immediately and can be reviewed by the audience. He said there is no reason that this couldn't be done here at City Hall, as part of this exercise, and as we develop a series of survey questions, this is one way to do it very efficiently.

Ms. McDonald said it would be very helpful to have a place where people could provide input because we do want the community's input as it is their community; and it would only help to make this presentation stronger. She suggested that there be a slide to remind people and the presenter that we want input, because it is a very important part of how the Committee is perceived and what the Committee wants from people.

Ms. Perez thinks this is a good idea. She said there is a slide that solicits volunteers to do work with work groups or become conservation members.

Ms. McDonald said there could be a slide that asks a question like: "Do you know how much water you use?" because a lot of people do not have any idea on how much water they use, as a family, or as an individual. She would like to see a little bit of this included in the presentation.

Chair Ives recommended that a series of slides be created to have after a presentation is made to solicit this type of information. You could ask questions like: "what ways do you think the City could consider to save water, etc."

Ms. Trevizo said she likes this idea because if they are able to capture that data, they can actually take this presentation with the data they are utilizing from it, and roll it into the planning for the Water Conservation and Drought Management Plan for the future. She said there would be some value in making the presentation, as well as the attendee getting some information.

Ms. McDonald said this is an important component that she does not want to let get behind and that's why she keeps bringing it up, because the Committee really needs to engage the community; and that's how you are going to get changes - when people have a buy in and they understand and see how it affects their lives.

Ms. Randall said she is excited to get this into the schools and this presentation is easily accessible to teachers. She suggested that the presentation be translated into Spanish also.

Mr. Wimen said one of the goals of the working group is to get some City sponsorship where they could help them with advertising and with a presentation that is more disseminated in the community.

Ms. Perez noted that Rick Carpenter has offered to assist with the presentations.

Ms. McDonald said it might be good to videotape one session where there is a particularly good presenter and an excited audience to have it available on the website to get it out to the general public.

Chair Ives and Ms. Randall agreed that this is a great idea.

The Working Group was commended for the great job they did on the presentation material.

# c. GROUP #3 - Promote Outdoor Water Conservation

Mr. Pushard reported that he, Nancy Avidisian and Bill Roth met and reviewed some of the action items that they are going to work on. He referred to the notes from the meeting with the Santa Fe Home Builders' Association and the meetings with Executive Director, Kim Shanahan.

Mr. Pushard said a presentation was made to the local Home Builders' Association and they came up with a list of suggestions; the Working Group provided input and then Kim Shanahan took this information and created a survey, sent it out to the homeowners for feedback and for them to rank their priorities that they would like to see the Working Group work on. The top three priories include:

- 1) Looking at investigating a higher-tiered water rate- using the funds to promote water conservation at the low-end.
- 2) Creating an equivalent of the HERS rating creating a WERS rating (Water Efficiency Rating System) that would be included in the building code *only* for residential users

Chair Ives said he understands this statement, but not the practicality.

3) Purple Pipe – bringing gray water back into the home. It would be recycled water that is coded "not potable" so people won't drink it.

Ms. Avidisian said one of the big things that he talked about was funding the water conservation at the lower end. One of his ideas was to take an actual "pillow" that would fit underneath a mobile home or manufactured home; the water from the roof would go into this

pillow and fill it up and then it would go back to the house to flush toilets.

Ms. McDonald noted that they do this in Australia.

Mr. Pushard said they will get back with Kim Shanahan on the top three priorities/ideas and maybe create little sub working groups on each of the ideas to flush out the ideas and bring them back to the Committee.

Mr. Pushard quoted from the comments on the surveys, as follows:

- 1) "I like the idea of doing interior water audits and providing free water efficient shower heads and other faucet water-limiting devices."
- 2) "Providing financial incentive programs for people who change high-flow showerheads and old high-flow faucets to low-flow, similar to the toilet-retrofit program. Most people use a large quantity of water showering or bathing every day, especially if they do not have a hot water re-circulating pump."
- 3) "Start to charge a lot more for above normal use immediately."
- 4) "Why should existing residents limit or even sacrifice their landscaping and gardening needs to accommodate continued and future population growth in our community? That is essentially what an 85-gallon per capita goal implies. Note that indoor water conservation measures, while worthy for other reasons, don't really save water as water used indoors isn't actually used, but it's borrowed ending up in the Wastewater Treatment Plant and discharged to the Santa Fe River."
- 5) "Limit new construction and major remodels to improve gray water and rainwater harvesting."
- 6) "Mandate developers to both create and execute xeric landscaping plans.
- 7) "I think bond funds, or at least government bonds can be used for private property, unless homeowners are income qualified. Other finance incentives would rank high."

Ms. McDonald thanked Mr. Pushard for this information. She said she is also interested in rate structures and the tiering and she would like to make sure she is involved in this particular component.

Ms. McDonald asked if this is like the first test of presentations. She said working with the builders on water conservation is great, but are we looking bigger.

Mr. Pushard said to answer Ms. McDonald's question, he, Nancy and Bill met and they are currently working on scheduling a meeting with the Green Chamber Commerce. Bill has a tentative date and Mr. Pushard will send it out once he gets it. He noted that Nancy is working with the realtors in trying to do a "test run" with the Barker Realty group.

Ms. Avidisian said she is also talking about doing an MLS monthly meeting with Paco at the Santa Fe Association of Realtors. She is also talking with Barbara Felix at IAIA.

Mr. Pushard said they are trying to get other groups involved, and do the same thing with them to try to focus on what they are interested in.

Ms. McDonald asked if this is under "Promote Outdoor Water Conservation". She asked him if he is going out to open a dialog with these groups.

Mr. Pushard said he is trying to suggest a change to their working group. He said they are trying to build information on what ordinance or resolutions that the different public organizations would be in support of, to promote water conservation.

Ms. McDonald said she is unclear as to how this is being presented to the public. She expressed concerns on Committee Members going out to the community and presenting or asking questions on behalf of the Committee. She wanted the Committee to have a discussion on how things are being presented. She said, procedurally it is really important for the Committee to be aware of how things are being presented, and what the Committee is doing. She said if it is a brainstorming session, that's fine, but Committee Members should not be answering questions on behalf of the Committee. She would like to know what is being asked out in the community. She referred to a comment in previous Minutes that Mr. Pushard made - with respect to the fact that he indicated that he was not representing the Committee.

Chair Ives said he was present at the meeting and most of the meeting was informational. He said the meeting was designed to solicit input on water issues and water conservation from the homebuilders. He said he thinks this is a topic of conversations that all of us in the community are having, probably on a daily basis.

Ms. McDonald said she did not think this was a problem, but it could be a problem. She thinks it is important for the Committee to define what they are going to talk about in the community; and to have some basic protocols in place.

Ms. Trevizo said the City has spent quite a bit of money on the PR and marketing outreach, and to have clear constant messaging, and Ms. McDonald does have a point in that they really do try to be strategic with regards to this.

Mr. Pushard noted that he spoke about the Homebuilders Association meeting at the Committee meeting that Ms. McDonald missed a couple of months ago and they talked about a brainstorming session. This was already approved by this Committee. He said this was not brought up then, and if the Committee wants to come up with rules, let's come up with rules.

Ms. McDonald apologized. She said brainstorming is good and she liked that this feedback was brought back to the Committee; however, she is concerned on how things are phrased and what is being said.

Chair Ives said Mr. Pushard was not expressing any kind of opinion. He was only soliciting input from a group. He said possibly a database of groups and contacts, to include a list of e-mail addresses, could be created to level outreach efforts.

Mr. Pushard said at the last meeting, he reported that he and Tim are drafting an independent analysis on rebates and they are continuing to work on that. Mr. Michael met with Laurie Trevizo and Karyn Schmitt to make sure the data they were using in the analysis was

correct. They will draft a white paper on what the analysis entails for the next meeting.

# d. GROUP #4 – Re-establish Trend of Net Annual Reductions in per capita water usage and identifying large water users

[Copies of the written report from Work Group #4 were distributed. Please see Exhibit "8d" for the specifics of this presentation.]

Ms. McDonald said they met and talked about combining the two groups (4 & 5) as discussed at the last meeting and came up with a new name called "Promoting Conservation Strategies of Large Water Users".

Ms. McDonald said they looked at data that Mr. Michael pulled together, analyzed it and broke out all the various users and brainstormed some ways to approach them. They decided that the three areas that they would like to work on are: residential, lodging and parks. They (Karyn, Councilor Ives, Laurie and Melissa) had a meeting with Nick Schiavo and talked about the various issues of the billing system, meters, and things like that and Mr. Schiavo indicated that he would appreciate some help when they get to the EMI meters and they talked about different ways to do that. A POSAC meeting is scheduled for September 18, 2013 and Ms. McDonald will be talking about water conservation measures at the meeting.

Ms. McDonald asked the Committee Members if she could invite Anna Hanson, the Chair of POSAC Committee and Ben Gurule to the next meeting. She would like them to work together in looking at some of the recommendations that they want to pursue.

Chair Ives said he thinks that would be great given the size of water usage of the parks which continues to be a significant issue for water conservation. He said it would be good to get a sense of the water usage for parks.

Ms. McDonald said she is currently working on getting that information and she will let the Committee know if she needs assistance with this.

Chair Ives said please do.

Ms. McDonald said, at Mr. Michael's suggestion, the group talked about taking a map that has all of the parks and what their gallons usage is; what they do and what their activities are and really look at this. She said they are agreeable to this.

Mr. Wimen asked Ms. McDonald whatever happened to the quest to find out how they could have a device in houses that let people know what the meter readings are. He said he had his third personal experience of a leak that he did not know was occurring and it is getting expensive for him.

Ms. McDonald said this was talked extensively in the meeting and the City said maybe in a year they can do that. It will have to be a phase-in approach because converting the meters over can take some time. She said she suggested that there may be people who will pay to do this in advance, or earlier, because there are people who have this terrible leak problem.

Chair Ives said the corresponding thing to that is trying to make sure we have software in the billing system, as that information is aggregated, or perhaps there is a dramatic increase over some period of time, trying to detect a leak problem sooner.

Mr. Pushard asked if there was discussion about using a third party for billing information.

Ms. McDonald said yes they discussed this and they are open to doing this but they are not willing to commit to anything yet.

Ms. Trevizo mentioned that they are interviewing manufacturers of different meter readers and there is not one system that does it all. There are going to be some trade-offs and some expenses involved. She noted that they are looking at a hybrid system that will do both AMR and AMI.

Ms. McDonald said she thinks that they can do the meter readers before we get the billing system.

# e. GROUP #5 – Domestic Wells within the City Limits

[Copies of the written report from Group #5 were distributed. Please see Exhibit "8e" for the specifics of this presentation.]

Mr. Wimen noted that the second handout is a matrix of the Working Group and what their goals and objectives are.

Mr. Wimen said he would like to talk about whether or not a resolution by City Council is required to authorize the staff time that will be required.

Mr. Wimen noted that they have enlisted a hydrologist (Peter Balleau) to be a member of the working group. He brings knowledge to the group of the aquifer modeling, which has been done to date and they will not be starting from scratch.

Mr. Wimen said there are two issues here: 1) there are abandoned private wells that have not been legally and properly plugged per OSE specifications and what they are doing to the aquifer. 2) The equity issue of whether it is fair for people who have wells to not be registered and operating under the radar and using as much water as they feel they are entitled to. Some private well owners think that their private wells are part of their property rights, are "grandfathered in" and/or that they are entitled to pump those wells without compliance with city regulations (such as watering times) and without concern for how much water they may be using.

Mr. Wimen said along with that are the legal issues. He referred to Case law (Smith GWP v City of Santa Fe, 2007 and Stennis v City of Santa Fe 2008), which seem to support the jurisdiction of the city over private wells. Working Group #5 would like to have the Water Division legal staff prepare a summary of the case law and what staff believes are the city's rights to regulate private wells and require that abandoned wells be properly plugged. He said

addressing the issue of private, domestic water and wells within the city could be contentious but could result in significant conservation of groundwater. He noted that the city requires a meter and regular reporting for wells drilled since 2007, but does not have any such requirements for wells drilled prior to 2007.

Mr. Wimen said he would like to hear what the perceived importance of private wells is to the other Committee Members.

Chair Ives said the best estimates, at least from what he has seen, is that there are at least 711 wells across the City of Santa Fe and many of them are very long standing. He said there was a constitutional provision upheld recently by the New Mexico Supreme Court addressing domestic wells in that context; therefore, there are several levels of jurisdictions that come into play, not only the OSE, but the capacity of the City to be involved in that the regulation of wells is allocated functionally to the Office of the State Engineer. This is an item that needs to be clarified – clearly we do have some jurisdiction that has been established by some of the case law with regard to the wells that are re-drilled or replaced, renovated, whatever the case might be.

Chair Ives said from his perspective, the real interesting nexus between those wells and City jurisdiction relates to the Santa Fe River because presumably almost all of those wells are 2500 ft. or more feet below the surface of Santa Fe, but rather the shallow wells that have an interconnection to the Santa Fe River; and obviously the City has been very interested in having a living river and have allocated a number of acre feet of water to make sure we had what we refer to as a "Living River". He said we could at least look at the possibility of getting people to regulate their usage and possibly look at what studies exist on the hydrologic connection between the Santa Fe River and wells within the basin. He said this is worthwhile for the Committee to pursue but it could potentially take a significant allocation of funding and other things to get answers.

Ms. Randall thinks this is an essential avenue to pursue even if we don't have some kind of jurisdictional impact because ultimately there is going to be an educational impact that the Committee could have. She said there will be a level of consciousness that needs to be raised because there is this kind of entitlement that this is my water and it isn't, it is our water. She said there are a lot of misconceptions and it is a matter of education and understanding. She said whether it comes down to a legal discussion, there should be an ethical and resource discussion and this is worth pursuing.

Ms. Trevizo said what she is hearing is that there is probably a partnership that needs to be harbored between the City of Santa Fe and the Office of State Engineer. She said typically right now the City is in a regulator/permittee relationship, and through the Committee there is a possibility that they can act as an unbiased liaison to harbor some cooperation for things like this.

# 9. REBATE ANALYSIS

This agenda item was postponed until the next meeting when Mr. Pushard and Mr. Michael will have information on the rebate analysis that they are working on.

# **MATTERS FROM STAFF**

Ms. Trevizo mentioned that Lise Knouse has resigned. A thank you letter will be sent to Ms. Knouse. The Committee Members were asked to try and solicit potential members. Ms. McDonald suggested that an ad be put in the newspaper about the vacancy.

# MATTERS FROM THE COMMITTEE:

# 10. 2014 Legislative Recommendations

Chair Ives would like to invite the Legislative Members to the November meeting and give them some proposals that the Committee might have for the 2014 Legislative Session for water conservation measures. He asked the Committee Members to look at the Executive Summary on what recommendations they can make in State law that would promote water conservation across the state.

ITEMS FOR NEXT AGENDA - Tuesday, October 8, 2013

- Open Meetings Act Presentation
- Demand Elasticity, if available
- *Captions:* September 20, 2013 @ 3 p.m.
- Packet Material: September 25, 2013 @ 3 p.m.
   Ms. Trevizo asked the Committee Members to try and meet the deadlines for packet material, including handouts.

# ADJOURNMENT

There being no further business to come before the Committee, the Chair called for adjournment at 6:15 p.m.

irbved by Councilor Peter N. Ives, Chair

Respectively submitted by:

Jo Ann G. Valdez, Stenographe

	EXHIBIT	
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# MEMORANDUM

ТО:	City of Santa Fe Public Utilities Committee City of Santa Fe Water Conservation Committee Buckman Direct Diversion Board
FROM:	Rick Carpenter, Water Resources and Conservation Manager
VIA:	Nick Schiavo, Acting Public Utilities Department and Water Division Director
DATE:	August 22, 2013

SUBJECT: Update on Drought, Monsoon, and Water Resource Management

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## CURRENT PUC UPDATE

As the Committee is aware, our region is still suffering through a severe drought. Our region has gone through two consecutive years of record drought and heat. It is now apparent that we are in a third consecutive year of severe drought and heat which will present significant challenges to all water purveyors. utilities, and irrigators. Even though much of the State and our region have received moderate monsoonal rains, most of the state of New Mexico remains in "extreme" drought conditions or worse. New Mexico appears to be the epicenter of the western U.S. drought. Although rainfall associated with the monsoon should diminish during September, improvement is forecast for parts of Arizona, Colorado, and New Mexico. Weather prediction models indicate that, at least through October of this year, drought conditions in the southwest (especially Arizona and New Mexico) should improve slightly, but that overall drought conditions will still persist. Above average temperatures are also expected.

This current drought is extreme, but what sets it apart from previous extreme droughts is that, absent significant monsoonal rains and winter snow the rest of this year, the region will enter into next spring and summer without carry-over water in regional reservoirs – they are at historic low levels. This condition is unprecedented and could make next year much more challenging than the current year. However, the City of Santa Fe has invested in a robust and diverse portfolio of four distinct water supply sources that allows for flexibility in meeting demand: Buckman well field, City well field, Canyon Road Water Treatment Plant on the Upper Santa Fe River, and the Buckman Direct Diversion on the Rio Grande.

#### Water Resource Management

In accord with recent BoR/USACoE models that indicated the probability of critically low flows in the Rio Grande, the last few weeks have seen flows as low as about 350 cubic feet per second (CFS). In a "normal" year flow ought to be around 1,000 cfs or more. Turbidity and suspended sediment has also been high, especially following intense monsoonal rain storms. For this reason,

the BDD Project was been more-or-less shut down during the month of July and many days so far this August. Also, the Canyon Road Water Treatment Plant may also experience significant supply shortfalls later this year. However, City water resource managers are closely monitoring the water supply situation and are prepared to offer a variety of options to decision-makers. Local reservoirs on the upper Santa Fe River currently have about 29.9% of full capacity, or enough water to average about 2-3 million gallons per day of production from the Canyon Road Water Treatment Plant, through August. Beyond August, the BDD Project and wells are expected to meet demand. Also, policy makers may consider implementation of Emergency Drought Stages pursuant to the Conservation Ordinance. Therefore, City decision-makers and resource managers have a variety of policy options available in order to meet water supply demands during times of drought.

	Reservoir Level	Santa Fe Snow Gage	Reservoir Inflow
July 25, 2013	29.9%	0.0 inches	1.29 MGD
5-Year Average This Date	60.9%	0.0 inches	2.07 MGD
(2008 - 2012)			

Local Conditions - Upper Santa Fe River

The City of Santa Fe has rights to a total of up to 5,040 acre-feet per year in Nichols and McClure Reservoirs, although the reservoirs did not receive near that amount of inflow this year. It is anticipated that upper canyon reservoir water will be available through August, but there will be little to no usable carry-over storage in the local reservoirs without significant moisture/snow between now and next high-demand season. Additionally, capture and storage of any inflow that may occur this year will be challenging due to start-up in September of new construction of badly needed facilities within the reservoirs and abutting the dams (i.e., new intake structures and appurtenant facilities).

#### **Rio Grande Basin**

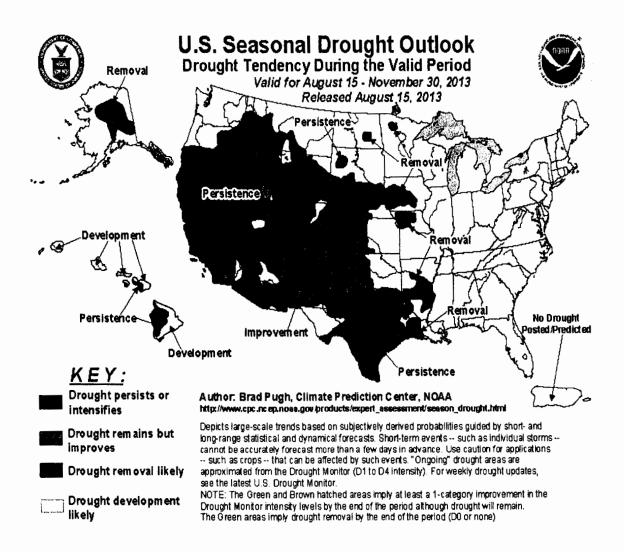
Surface flows in the Rio Grande and its tributaries have been well below normal, storage levels in regional reservoirs are very low currently, and the federal BoR recently stated that if there is no "meaningful moisture" received this winter/spring then this would mark the lowest water levels ever in New Mexico reservoirs prior to entering into a new irrigation season. With large moisture deficits deeply entrenched across the region, meaningful improvement seems unlikely. Legal and hydrologic compliance with the various Biological Opinions (Endangered Species Act, e.g., silvery minnow) in the middle and upper reaches of the Rio Grande will become very difficult, if not impossible, through the summer and fall months.

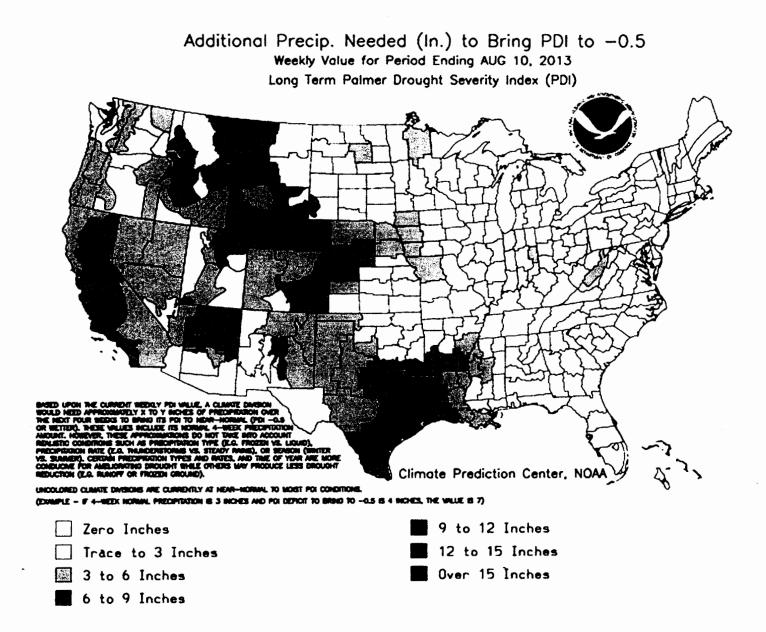
As indicated earlier in this memo, currently flows in the Rio Grande at the BDD are critically low. Over the last few weeks, the river in this location as had flows as low as about 350 cubic feet per second (CFS). In a "normal" year flows at this time ought to be around 1,000 cfs or more. Turbidity and suspended sediment levels have also been high, especially following recent intense monsoonal rain storms. Wild Earth Guardians has recently filed a notice of intent (NOI) to file suit against Middle Rio Grande Collaborative Program signatories, citing violations of the current Biological Opinion under the auspices of the Endangered Species Act. However, the BDD Project is not a signatory to the Collaborative Program so the Project is not currently named. The outcome of the NOI and possible subsequent law suit are uncertain at this time.

#### San Juan Basin

The streamflow forecast for the San Juan River Basin is 75 percent of the 30 year avg. (1981-2010). San Juan-Chama contractors have received <u>full allocation</u> of San Juan-Chama Project water this year (up from a previous forecast of only 80%). However, most of this water has already been used by the larger purveyors and irrigators in the middle Rio Grande, and so they are no longer calling for/releasing their water. The water that is currently in the Rio Grande at Otowi Gage is therefore not so much imported San Juan-Chama water as it is environmental flows and native Rio Grande water. However, when water quality conditions permit, the BDD Project is still able to call for and receive its allocation of San Juan-Chama water.

It should be stressed that, conditions could significantly worsen for San Juan Chama Project deliveries next year if the drought persists, due to a lack of carry-over storage in Heron Reservoir and other reservoirs in the system. If conditions do not change, after deliveries are made out of Heron Reservoir this year, that reservoir will be heading into the next water –year at historically low levels.





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#	Issue	Strategic Goal	Objectives	Tasks	Working Group Members	Reference Material	Fiscal Impact	Notes
1.	Update Santa Fe Water Conservation and Drought Management Plan		Assist in the 2015 Water Conservation Plan and create strategic framework and implement schedule	Read 2010 Plan and record suggested updates	Doug Pushard Grace Perez Lisa Randall Bill Roth Councilor Ives	City staff: Laurie Trevizo Caryn Grosse	Water Conservation programs and levy budget	Draft timeline created. Goal: Jan 2015
2.	Water Conservation Education/Outreach Program Including marketing ideas for voluntary water use				Giselle Piburn Stephen Wiman Tim Michael Grace Perez Lise Knouse		Costs associated with promoting outreach	
3.	Regulations/Ordinances in Support of Water Conservation	Reduce GPCD through selective use of ordinances		1.Research ordinances by other cities for effectiveness 2.Research current ordinances for possible improvements	Doug Pushard Bill Roth Councilor Ives Nancy Avedisian			Request from D. Pushard to City Parks clarify Land Use Code 14- 8.4 in E (4). Tree list also requested (pending land use approval)
4.	Promoting Conservation Strategies of Large Water Users	Contribute to annual water reductions in water use	Optimize water use by large water users	1. Identify large water users 2.Estimate contribution to total demand 3.Identify ways to optimize water consumption 4.Engage in discussion	Karyn Schmitt Melissa McDonald Tim Michael	Water Use in Santa Fe, Borchert, et al, July 2009	Needs to be determined	Melissa will focus on Parks
5.	Domestic Wells Within City Limits				Stephen Wiman Grace Perez Doug Pushard Councilor Ives			

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## Working Group 4 Issue: Promoting Conservation Strategies of Large Water Users (NEW)

#### Matrix - still combining data from WG 4 &5

#### WG #4 Task Report

Karyn, Councilor Ives, Laurie, and Melissa met with Nick Schiavo, the City's water division director on August 23. Topics that were covered were as follows:

- Capability of new billing system— number of designations (up to 100), household water budgets, neighborhood comparison groups
- Meters remote reading and daily reading with internet connection for clients/customers.
- Discussed resolution directing staff to look into EMI meters to accomplish this purpose

Mr. Schiavo indicated that all of the items we discussed are covered in the scope of work for the new billing system.

Melissa continued to research park/water conservation strategies and topic as follows:

- Bonding/rate structure—looking specifically at how changes in rate structure for public benefit rate would affect bonding
- Work Development training structure for park staff
- · Water Usage in the parks & percentage of turf areas

Melissa and Grace are moving forward with WAA networking by contacting participating member groups about sharing ideas.

Karyn continues to research water conservation websites with a residential water user focus.

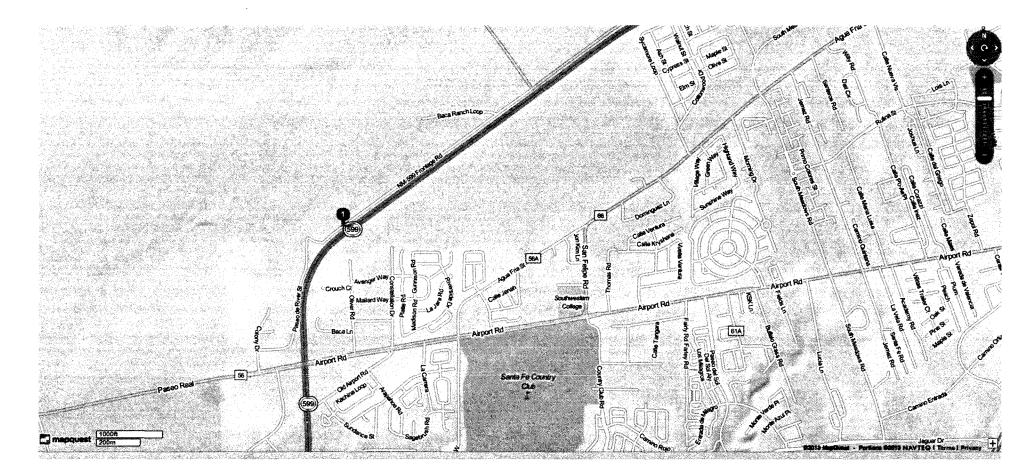
# **Amy Lewis**

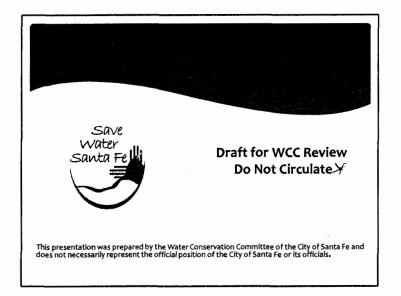
# "Water Use and Conservation Potential for Domestic Wells in the Santa Fe Area"

## 10:30AM to 12:30PM on Wednesday, Sept. 11<sup>th</sup>.

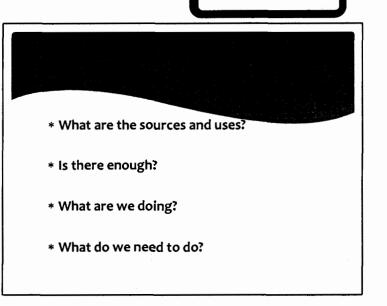
## SF County Public Works/Utilities Building

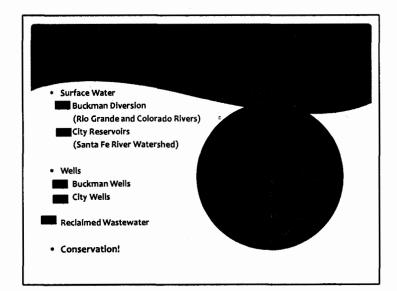
From NM 599 (SF Relief Route), take the County Rd. 62 interchange. If you're coming from eastbound/ northbound 599, take the roundabout to cross over 599 and then take the next roundabout so you're heading westbound on the Frontage Rd. If you're coming from westbound/southbound 599, take the roundabout so you're heading westbound on the Frontage Rd. Go past Caja Del Rio Rd. Look for the tall wind turbine on the right and go to blue sign on the right, "SF County Public Works and Utilities".

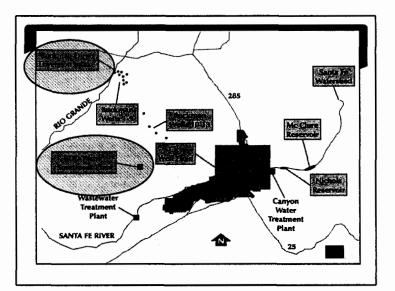


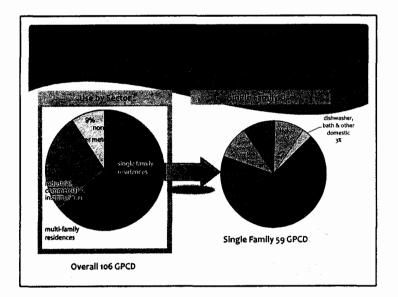


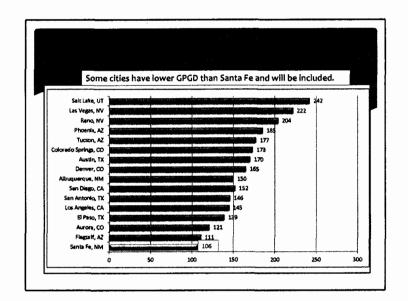
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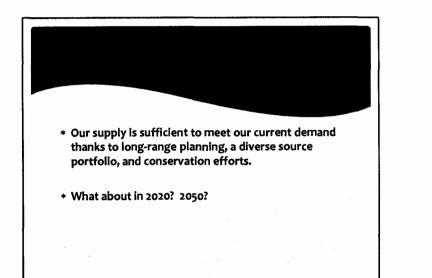


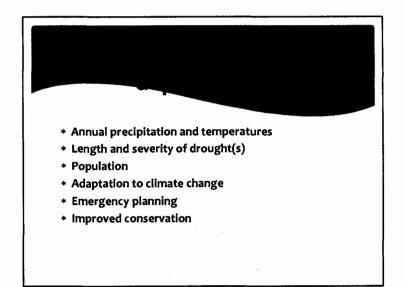


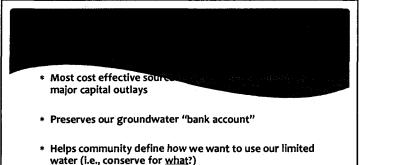




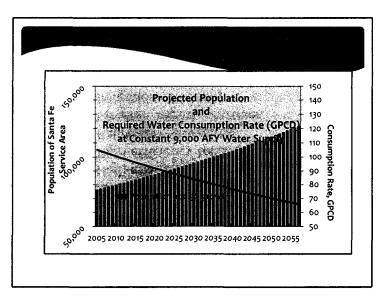


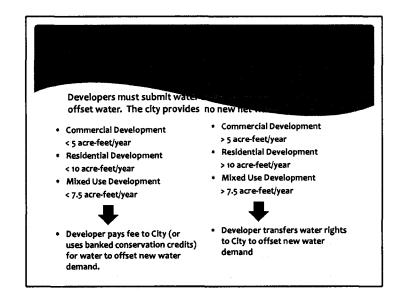


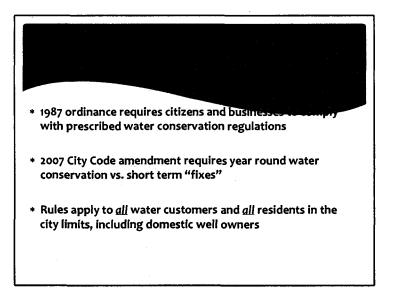




- \* Conservation in the current 40-year plan for the city assumes a reduction in demand by over 20% by 2045!
- \* The city's goal is a 1% / 2 yrs. reduction of GPCD

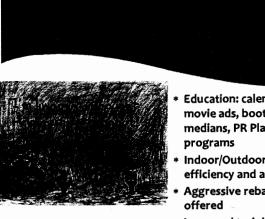




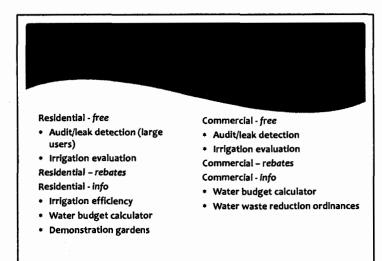


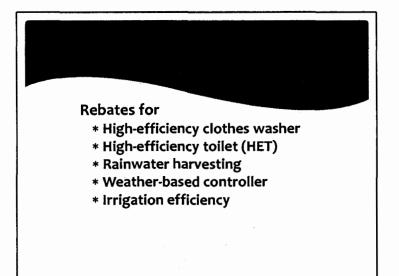


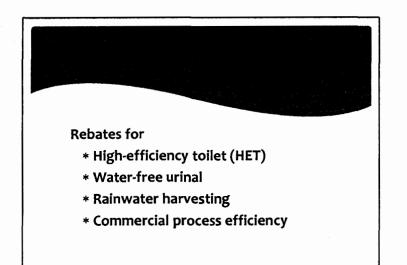
- \* Lodging facilities change linens no more nee four days
- \* Outdoor irrigation prohibited 10AM-6PM from May 1 through October 31. Maximum of 3 days/week recommended
- \* Turf grass or seed mixes shall not contain more than 25% Kentucky Bluegrass
- \* Cleaning of outdoor surfaces with water is prohibited
- \* Shut-off nozzles are required on hoses used for hand watering
- \* Swimming pools must be covered when not in use
- \* Fugitive water from landscape irrigation is prohibited
- \* Specified construction must use treated wastewater
- \* Public bathrooms must exhibit Water Conservation signage

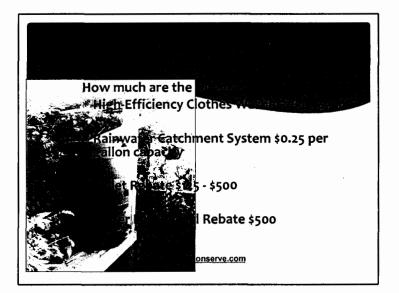


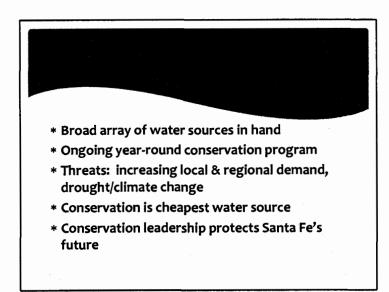
- Education: calendar, TV and movie ads, booths, gardens, medians, PR Plan, youth
- Indoor/Outdoor irrigation efficiency and audits
- Aggressive rebate program
- Increased training (QWEL)

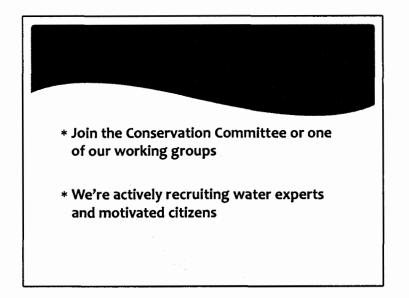














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# September 10, 2013

From: WCC Working Group #5 (Private Wells in the City)

# To: Councilor Ives, Water Conservation Committee Members and Water Division Staff

# Re: Overview of Intended Strategy for WG #5

At its August 2013 meeting, the Water Conservation Committee voted to establish a Private Wells Working Group. In order for the Working Group to proceed effectively, we will need the cooperation of city staff, particularly with respect to technical and legal issues.

As Rick Carpenter pointed out in his memo of June 3, 2013 ("Response to Domestic Well Questions"), the city requires that all new domestic wells within the city be permitted. But policy decisions on the <u>use</u> of private wells are under the purview of elected officials and not city staff.

This memo is intended to facilitate the discussion of whether or not a resolution by the city council is required to authorize the staff time that will be required.

# Background:

There is uncertainty as to the number of private (non-municipal) domestic and commercial wells within the city. We would like to work with the city to help more accurately determine the number of wells.

Some residents connected to city water also use private wells, both individual and shared, for household and/or irrigation purposes.

Some private well owners think that their private wells are part of their property rights, are "grandfathered in" and/or that they are entitled to pump those wells without compliance with city regulations (such as watering times) and without concern for how much water they may be using.

Although existing permits may allow pumping up to 3 AFY, a permit issued today from the OSE and city would be limited to 1 AFY.

The city requires a meter and regular reporting for wells drilled since 2007, but does not have any such requirements for wells drilled prior to 2007. It is known that well owners are complacent about reporting and the city has not made it a priority to monitor reporting.

In addition, there are abandoned private wells that have not been legally and properly plugged per OSE specifications. It is our understanding that the city has the right to require compliance with plugging regulations.

## **Technical Aspects of the Work**

The effect of this pumping on the aquifer has not been quantified by the city. The potential exists for significant consumption by private domestic wells – and also for significant conservation of our common aquifer.

We have enlisted hydrologist Peter Balleau (Balleau Groundwater) to be a  $\not$  member of the working group. Peter brings to the group a knowledge of the aquifer modeling which has been done to date and we will not be starting from scratch.

## Legal Aspects of the Work

Case law (Smith GWP v. City of Santa Fe, 2007 and Stennis v. City of Santa Fe, 2008) seem to support the jurisdiction of the city over private wells. Working Group #5 would like to have the Water Division legal staff prepare a summary of the case law and what staff believes are the city's rights to regulate private wells and require that abandoned wells be properly plugged.

## Summary

Addressing the issue of private, domestic water wells within the city will be  $\frac{1}{2}$  contentious but could result in significant conservation of groundwater. Furthermore, it will educate well owners about the role of the aquifer as a nonrenewable resource for all residents -- a resource that must be protected by city water customers as well as private well users for our common benefit. Water Conservation Committee Working Group #5 could effectively evaluate the scope of work needed to confirm the number of wells and the amount of water that could theoretically be pumped from these wells. With this information, the Working Group can estimate a range of impacts of this pumping on the aquifer and the conservation potential of registering and monitoring the use of private, domestic wells.

The Working Group could make recommendations to elected officials through the Water Conservation Committee regarding the regulation of private wells within the city.

#	Issue	Strategic Goal	Objectives	Tasks	Working Group Members	Reference Material	Fiscal Impact	Notes
5	Private wells within the City of Santa Fe.	Report findings to the WCC and advise the governing body if the city should get involved with regulating private wells in the city.	Estimate the impact of private wells on the aquifer and devise and propose to the city a methodology to register and monitor private wells (if deemed appropriate).	Determine the number of wells, whether individual or shared and residential or commercial. Use aquifer modeling to determine hydrologic impact of wells.	Stephen Wiman Grace Perez Doug Pushard Peter Balleau Councilor Ives	Summary of case law and enforceability of existing code by Water Division legal staff. Well records at OSE. City records of wells (existing and replacement).	Minimal for initial study as work will be done by WG #5 volunteers working cooperatively with Water Division staff.	Discussion of WCC as to whether a resolution is required to gain assistance by city staff. Hold WG meeting in mid-late Sept.

XHIBIT

## WG #4 Promoting Conservation Strategies of Large Water Users

#### **Task Report**

On September 4, Karen, Melissa and Tim met to discussions direction for WG #4.

Of total Santa Fe water use, about 55% is used in the singlefamily residential sector, 21% in the commercial, institutional and industrial sector (including lodging), and 6% in the "other metered" sector (which includes city parks). Tim provided at estimates at the August meeting showing that parks account for about 5%, and lodging accounts for about  $2\frac{1}{2}$ % of water use.

Although other users or user groups may be significant, WG #4 is focusing on these large water user groups:

- 1. Residential (primarily single-family residential)
  - Promote the installation of electronic transmitting water meters
- 2. Lodging
  - Follow-up on the status of the Green Lodging Initiative <u>http://www.prweb.com/releases/2013/4/prweb10677556.htm</u>
- 3. Parks
  - Continue working with POSAC and parks staff in particular to further develop water conservation recommendations and prioritization. This will be discussed at the next POSAC meeting Tuesday, Sept 18<sup>th</sup>.

### Other meetings

Karyn, Councilor Ives, Laurie, and Melissa met with Nick Shiavo, the City's water division director on August 23. Topics that were covered were as follows:

- Capability of new billing system— number of designations ( up to 100), household water budgets, neighborhood comparison groups
- Meters remote reading and daily reading with internet connection for clients/customers.
- Discussed resolution directing staff to look into EMI meters to accomplish this purpose

Mr. Shivo indicated that all of the items we discussed are covered in the scope of work for the new billing system.

- Karyn and Melissa continued to research park/water conservation strategies and topic as follows:
- Bonding/rate structure—looking specifically at how changes in rate structure for public benefit rate would affect bonding
- Work Development training structure for park staff
- Water Usage in the parks & percentage of turf areas

Also, Melissa & Grace have begun contacting WAA members about creating idea sharing opportunities.

