



Agenda

DATE 6/27/13 TIME 12:20p

SERVED BY Laurie Trevizo

RECEIVED BY [Signature]

SANTA FE WATER CONSERVATION COMMITTEE MEETING

CITY HALL - 200 LINCOLN AVE.

CITY COUNCILORS' CONFERENCE ROOM

TUESDAY, JULY 9, 2013

4:00 PM TO 6:00 PM

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

DISCUSSION ITEMS:

INFORMATIONAL ITEMS:

7. SPECIAL PRESENTATION BY AMY LEWIS ON DOMESTIC WELLS (Councilor Ives, 20 minutes)
8. PRESENTATION ON WESTERN ADAPTATION ALLIANCE CONFERENCE (Councilor Ives, 20 minutes)
9. IDENTIFYING POSSIBLE "NEW NORMAL" SOLUTIONS (Councilor Ives, 10 minutes)
10. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES INCLUDING IDENTIFYING OBJECTIVES AND GOALS OF INITIATIVES (Councilor Ives, 60 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
 - E. GROUP #5- PROPER REGULATION OF WATER USAGE AND WASTE AVOIDANCE BY LARGE WATER USERS

MATTERS FROM STAFF:

MATTERS FROM COMMITTEE:

11. NEW WATER CONSERVATION COMMITTEE MEMBER BILL ROTH (Councilor Ives, 5 minutes)

ITEMS FOR NEXT AGENDA - TUESDAY, AUGUST 13, 2013:

Demand Elasticity, if available

CAPTIONS: JULY 30, 2013

PACKET MATERIAL: AUGUST 1, 2013

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.

**Index Summary of Minutes
WATER CONSERVATION COMMITTEE
July 9, 2013**

<u>INDEX</u>	<u>ACTION TAKEN</u>	<u>PAGE(S)</u>
Cover Sheet		1
Call to Order	Call to Order by Councilor Peter Ives, Chair at 4:00 pm, City Councilor's Conference Room, Santa Fe, NM	2
Roll Call	A quorum was declared by roll call.	2
Approval of Agenda	<i>Mr. Pushard moved to approve the agenda as presented, second by Mr. Wiman, motion carried by unanimous voice vote.</i>	2
Approval of Consent Agenda	Request to move 6(a) to Discussion Items. <i>Mr. Wiman made the motion to move item 6(a) off the consent agenda to discussion items, second by Mr. Pushard, motion carried by unanimous voice vote.</i>	3
Approval of Minutes – June 12, 2013	<i>Ms. McDonald moved to approve the minutes of June 12, 2013 as presented, second by Mr. Roth, motion carried by unanimous voice vote.</i>	3
Consent Agenda Drought, Monsoon and Water Resource Management Update	Informational, No formal action taken.	3-6
Informational Items: Special Presentation by Amy Lewis on Domestic Wells Presentation on Western Adaptation Alliance Conference, Melissa McDonald Identifying Possible "New Normal" Solutions	<i>Power Point</i> <i>Verbal with circulation of meeting collateral.</i> <i>Informational</i>	6-10
Group Reports Groups 1, 2, 3, 4, 5	<i>Verbal (exhibits attached) no formal action</i>	10-13
Matters from Staff	<i>Informational</i>	13

**Index Summary of Minutes
WATER CONSERVATION COMMITTEE
July 9, 2013**

Matters from Committee	Informational	13
Items for Next Agenda	Due: August 1, 2013, 3:00 pm deadline	13
Adjourn and Signature Page	Chair called for adjournment at 6:10 pm	13-14

MINUTES

SANTA FE WATER CONSERVATION COMMITTEE MEETING

TUESDAY, JULY 9, 2013

4:00 PM TO 6:10 PM

1. CALL TO ORDER

The meeting was called to order by Councilor Peter N. Ives, Chair, at approximately 4:00 pm on June 11, 2013, in the City Councilor's Conference Room, City Hall, Santa Fe, New Mexico.

2. ROLL CALL (NEW MEMBER INTRODUCTION)

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
Lisa Randall
Stephen K. Wiman
Bill Roth

NOT PRESENT

Lise Knouse
Grace Perez
Karyn Schmitt
Giselle Piburn

OTHERS PRESENT

Councilor Rebecca Wurzbarger
Claudia Borchert, Water Resources Coordinator
Laurie Trevizo, Water Conservation Manager
Caryn Grosse, City Staff

Fran Lucero, Stenographer

The Chair extended a welcome to Mr. Roth. Mr. Roth provided a short introduction; he has been a resident of Santa Fe since 1975 and is a General Contractor. He is President Elect of the Santa Fe Area Home Builders Association and is a long-time green builder in Santa Fe and very concerned of the availability of water as it impacts the building environment.

3. APPROVAL OF AGENDA

Mr. Pushard moved to approve the agenda as presented, second by Mr. Wiman, motion carried by unanimous voice vote.

MINUTES

4. APPROVAL OF CONSENT AGENDA

Request to move 6(a) to Discussion Items.

Mr. Wiman made the motion to move item 6(a) off the consent agenda to discussion items, second by Mr. Pushard, motion carried by unanimous voice vote.

5. APPROVAL OF MINUTES JUNE 12, 2013 WATER CONSERVATION COMMITTEE MEETING

Ms. McDonald moved to approve the minutes of June 12, 2013 as presented, second by Mr. Roth, motion carried by unanimous voice vote.

6. CONSENT AGENDA

i. DROUGHT, MONSOON AND WATER RESOURCE MANAGEMENT UPDATE (Rick Carpenter) – Claudia Borchert

Mr. Wiman brought forth the concern on the use of the Buckman well fields when we are meant to be resting the aquifer. At the last meeting it was said that we would not be using the Buckman wells this summer with the 4.99 million gallons balance in demand coming from the water treatment plant. Since the last meeting, the Buckman Wells account for about 11.4% of production. I would like to hear more of the City's philosophy as far as resting the aquifer in terms of certain recharge.

Claudia Borchert: 11% in the Buckman Well field is music to my ears. Even if we double that for the rest of the year and make it 20% by the end of the year, that would be down from 2003 when it was 50-60%. The target is to continue to use the Buckman Well Field in an average year about 1,000 feet because that is basically how much water we have dedicated to the Buckman Wells and need to keep the wells in good operational condition. In the June monthly report it showed that we had used 305 ac. ft. from the City well field and 768 ac. feet from the Buckman Well Field year to date. Our ground water use thus far is not alarming to me. When I talk about the 1,000 ac. ft. minimum based on use, we are going to have years where we will have to use it any maybe up to 5,000 ac. ft. to average out and figure out our long time use.

Mr. Wiman: In the minutes it reflects we would not use the Buckman Well Field.

Ms. Trevizo: Provided verification that there might be some discrepancy as the recorder broke during the last meeting and the meeting minutes were taken from written notes.

Claudia Borchert: I don't know who would have said that, we can't – not use the Buckman Well Field. From an operational perspective and even to meet the

MINUTES

10,000 ac. ft. demand that we have to use some Buckman groundwater. Even in a good year or normal year.

Mr. Wiman made reference to Minutes of June 11, 2013 - Page 3, Item 6: *"Mr. Carpenter said there will not be a lot of pumping, noting the sources of supply should be sufficient to make it through the summer, including the water in the reservoirs."*

Ms. McDonald: We have that corrected now; we have heard that it has to be 1,000 ac. ft., which is the minimum we have to pump.

Mr. Pushard: Having been to the upstream reservoirs most recently which are at historical low levels and we have significant evaporation; is that a legal right or is that physical water?

Claudia Borchert: We have been front loading production from the Buckman Diversion. If the stream flow drops below 250-300 cfs, we start having difficulties diverting from the Buckman Diversion. Knowing that this year is a year likely to have a reduction in Rio Grande water, we have really tried to use BDD as much as we possibly could up until now.

Mr. Pushard: When you say 1000 ac ft. do you mean by month or by year?

Claudia Borchert: That is by year.

Mr. Pushard referenced Rick's memo. Is that a legal right or physical water?

Claudia Borchert: It is physical water. We haven't taken any of our 2013 water out of Heron yet so that hasn't suffered any losses. We have 5,000 from Heron, another 5,000 in Abiquiu. When you see Abiquiu and it looks low it is a small amount inside of 180,000 ac. ft. reservoir and another 15,000 in Elephant Butte.

Claudia Borchert: It is physical water. We haven't taken any of our 2013 water out of Heron yet so that hasn't suffered any losses. We have 5,000 from Heron, another 5,000 in Abiquiu. When you see Abiquiu and it looks low it is a small amount inside of 180,000 ac. ft. reservoir and another 15,000 in Elephant Butte.

Mr. Pushard: My question goes back to the upper ones, is there a number where by those releases would be limited if a lake gets so low that our rights could be impacted?

Claudia Borchert: I don't know that I would say our rights could be impacted but the ability to deliver it could be impacted. For example if we ran out of what they call "prior and paramount" water which is being delivered out of Abiquiu and supplemental minnow water out of Abiquiu, the natural flow at

MINUTES

Otowi is 250 cfs. 1) Do we want to flow our water on top of that 250 cfs and have it get to us, 2) once it gets to Otowi and the Rio Grande is there more than 150 cfs in the river so we can divert it to our diversion facility which dries out. That is a potential we could face that this fall.

Chair Ives: Rick in an earlier session had indicated that the McClure and the Rio Grande reaches 350 cfs and that was the point where there is a worry on whether or not if we did any releases if it would actually reach Santa Fe for us.

Claudia Borchert: 325 cfs is when water gets curtailed, we have taken preemptive step on that and we are only diverting San Juan/Chama water right now as of the beginning of July. Only the Native Americans or the minnow are getting water from a native source. From 325 down to 200 we should be able to have full supply; it is from 200 to 150 that the physical water in the river is diminished.

Mr. Roth: When you are getting these flow rates are they natural flow rates without the addition of any converting water.

Claudia Borchert: These are actual gauge readings. Like today, half the flows at Otowi are probably San Juan Chama flows. If it were coming from the Rio Grande branch, it would be more of the natural flow. Most of what comes from the Chama is not a natural flow.

Chair Ives asked about Albuquerque having at least 40,000 acre feet, is that some of the water that is currently in the river to support minimum other uses through the Albuquerque area?

Claudia Borchert: Yes, the last time I checked on it about July 1st, they had 32,000 of the 40,000 left and they anticipated if they released on the 200 cfs pattern they would have 80 days of flow which would put them 3 months out, through the end of September. Their biological opinion has them trying to go until the end of October. With the rains they just had they were reduced from 200 to 100 because they are trying to make that chunk of water last as long as possible.

Mr. Pushard: The fires I heard had come over the peak and in to the watershed.

Claudia Borchert: I did not hear that.

Chair Ives: With these flash flood notices, is it putting water in our reservoirs; do you have a sense where the effect is. Our neighbor's rain gauge measured 2" in a 30 minute period.

MINUTES

Claudia Borchert: Before the storm yesterday, all the other storms had not done anything. It really depends on where the storms are. Sol y Lomas was affected.

Ms. Trevizo: Our demand was down from last week to this week due to the rains. This week is 12.3 million gallons per day vs. last week of 13.1 million gallons per day.

The Chair expressed his thanks to Claudia for her participation.

INFORMATIONAL ITEMS:

7. SPECIAL PRESENTATION BY AMY LEWIS ON DOMESTIC WELLS (Chair Ives, 20minutes) - Exhibit A

Notes of Reference: OSE reports 8, 200 domestic wells. Q: Are they self reported? A: Yes

Mr. Roth asked what the percentage is of agricultural use. Ms. Lewis stated that 80% of the water use in the state is for agriculture use. A lot of that returns back to the rivers. She informed the committee that she had not brought the report in total and if other questions came up after her presentation she would get responses to Ms. Trevizo.

Mr. Roth: On the county level as most of the attention always focuses on residential use; what kind of focus is being made to reduce agriculture use and other commercial use?

Ms. Lewis: We had a big discussion at our first Partner meeting – conservation in the agricultural sector causes more depletion. It actually consumes more water. Crops become more productive. There are reasons for doing conservation when there is a limited water supply, the farmer can meet the water demand. They are going to consume more and less will return to the system. Right now the whole balance is based on leaky acequias, that leakage going to another Acequia and then diverting it. That leakage that waits is counted on down the stream. We don't know the conditions of the farms; we don't know how much they are diverting. I have talked to the Ag Extension Agents who are supposed to track the agriculture use and they say there hasn't been a change since 2000.

Mr. Roth: As part of your contract was there any interviewing vs. gathering data in order to ask people why they were using more water than they should.

Ms. Lewis: I called a lot of people and talked to them as I also questioned the OSE data. Some people were great, others had concerns and some people are not nice to talk to. I feel that it might be better if these types of inquiries were made by people with authority.

Mr. Roth: Percentage wise, people that were part of these interviews may have been negative as there has been some debate in this Committee as to whether it would be beneficial if it was actually from the city vs. independent. I think the opinion was it might actually be more negative if it was an official from the city or the county.

Ms. Lewis: The people that objected would have preferred a government person; they didn't know who I was.

I would say that 90% of the people are fine with it.

Chair Ives extended an invitation to Ms. Lewis to visit his office at the NM Public Lands to share information.

Ms. Lewis: One of my recommendations in the report is for them to get more staff at OSE.

Thank you to Amy Lewis for attending meeting today. The Committee will look forward to receiving a copy of the final report.

8. PRESENTATION ON WESTERN ADAPTATION ALLIANCE CONFERENCE
(Chair Ives, 20 minutes) - Exhibit B

Melissa McDonald/Claudia Borchert/Grace Perez attended the conference.

Ms. Mc Donald provided a written report and circulated the printed collateral collected from the meeting for the committee's review and perusal. She stated that the objective of the Western Adaptation Alliance (WAA) is to have three conferences a year. This was a group that was created to review climate change in the Rocky Mountain Southwest and there are 11 local governments across 5 states that are members: Colorado, Arizona, Utah, Nevada and New Mexico. *(Report read to the committee members).*

The Santa Fe delegation tried to break out and attend as many of the different sessions as possible. One of the sessions Ms. Mc Donald attended was on Behavior Modification. It had all the participants in this group talked about what worked in their communities. It is similar to what our advisory group is doing in looking at what works. The areas that they felt were important were personal health, children future, trusted source and peer pressure. I think I mentioned the peer pressure at the last meeting. This addressed making people aware of our uses in relation to other people's uses. Trust in the source, I am not exactly sure as there is a lot of discussion of what that was, not too sure how to frame that particular aspect. There were some people there who were private water suppliers and some were public. It was information related to water quality, things like that. I talked about Park City and Salt Lake City; they are people who have been using meters to change behavior and are very effective. Once people really understood what their usage was in the greater community or greater neighborhood was, than people wanted to be more than the average vs. the extreme. When we see presentations like the one we just saw, or if you get a bill that says you are in the 80th percentile of water use or you are in the 20% water use in your community, whatever that definition is, that wakes people up to why it is important. Our city has been good about educating people on what is acceptable water use. I think we could go further if we had a billing system that would help us put it out there on what the average is. Going back to landscape classes in that same breakout session, we talked about the idea of educating people about what is acceptable, what is good, ways to treat the landscape. In our debriefing this month, Laurie and I have talked about this and we are looking at ways that we can help city users understand what is a good way to do effective irrigation but also look at passive water harvesting and maybe eventually look at active water harvesting in terms of reducing overall water use. Some of that is based on Tucson's model, I will talk about this in my report later. Tucson has had a lot of success in terms of getting people to recognize active and passive water harvesting, and ways to actually reduce the need for

water. If you have good passive water harvesting on your site, the likelihood of your house or your basement flooding is minimal. If you are really doing water harvesting in a passive way you are moving water across your site so it is being used effectively and then it discharges into where the appropriate place is. I think that there is a lot more we can do; I am excited about this opportunity and I feel that the City has done a lot of research on, they have a great document that I think we can utilize a lot more effectively. Tucson is doing a very good job of this and I think I will be looking a lot more in to what this community is doing.

Commercial Water Budgets Update: Boulder is doing commercial water budgets and I think as a committee we may want to look at that more and really see what those numbers are.

Some of the things that Grace was interested in mentioning was looking at organizational silos meaning how the governmental community is working. This was talked about a lot at the conference and people felt much more at ease, recognizing that people are working positively in our city. It is a good opportunity to find where people are working in their own silos, their own mind sets and no cross over. As we move in to climate change it will become more and more important or climate adaptation, as they like to say, we have to look at how do various departments in the city and the city and the county threw to the state, all work.

Perhaps we need to set up a Voluntary Network, and Advisory Board like this. Grace and Melissa are working with a group that went to WAA to look at what kind of volunteer organizational network might look like. More information to follow. The idea is to put out the top three things that we as a community are working on and get feedback.

Things that weren't quite water conservation was the idea of adaptation strategies. I did attend the Adaptation Strategy Group. One of the frustrating things was that everybody in the group was that they did not want to create something that was going to sit on a shelf and do nothing. It was very hard to figure out how to make that work. That is a lot of what this group is looking at and getting some good dialogue on.

The other thing we felt was important to mention was that we really have to have community buy-in, everybody said that what really matter is having community buy-in. We do plan to follow up with Tucson on this idea that Tucson is actually projecting development based on getting water. If you want to get water you have to build in a certain part of the city. That wasn't really water conservation but I mention it because it was something that our larger group is going to look at.

Out of our group the three things that are our takeaways are:

- 1) Explore the creation of a network of citizen Water Advisory Board within the WAA to further the exchange of ideas.
- 2) Explore adding water harvesting components to the water conservation's QWEL program for greater water savings.
- 3) Create a triple bottom-line mechanism in our city's fiscal impact process.

MINUTES

I felt very good about Santa Fe, we are in a great position, and we are moving forward in addressing these issues. I felt proud to have Claudia Borchert and Katherine Mortimer there and presenting.

People in attendance of this conference want to be contacted for information on how they are doing.

Mr. Roth: Is there any plan for Katherine Mortimer to present to the City Council?

Chair: Katherine Mortimer is constantly in touch with the council and keeping them informed on the various issues that she deals with and through this committee we stay up to date

Mr. Roth: Just speaking briefly from the perspective of the Home Builders Association and the Green Building Council, water is the issue at this point. Energy is moving along nicely, water is the elephant in the room.

Chair: The legislature formed a drought sub-committee this year which a lot of members from the Natural Resources Committee serve on and I know on behalf of this committee we have been in touch with our State Legislators throughout the session letting them know what things we do and trying to work with them and my hope is that there will be some folks sitting around the table who might have a number of suggestions to make in terms of legislation that they might consider at the state level in the next session relating to water and hopefully the work we are doing now will inform them and make it possible.

Chair: On billing, were there any municipalities doing the kind of billing we were talking about with peer pressure.

Melissa McDonald: Oh yes, the billing systems – we are way behind in our billing system. I think it is one of our weakest needs and there were some very advanced billing systems and granted some of the Cadillac one were Park City and Aspen. Talk about efficiency, they are on top of their water use.

Chair: Let me just ask, part of my frustration is that we have gone through this new billing process, I haven't been able to figure out what the goal is in terms of aggregate and in terms of structure. If you think Park City and Aspen have the Cadillac system, I would love to talk to those communities and find out what they have.

Melissa McDonald: I will get as much information as I can and bring it back to this committee.

Claudia Borchert: Recently I heard that Nick Schiavo, Public Utilities Director supports the (*Neptune* system) where all the information is transmitted via radio to a central location and that is how they collect data but it also opens doors on how much data you collect and who has access?

Chair: Wouldn't it be great if you built in an alarm system so that real time data worked say if you had a leak and you could contact the customer the next day who could take proactive steps. It would be fabulous to have that reactive response.

Laurie: Claudia is correct, Neptune is a product name and the technology is called AMI (Automatic Meter Information); that technology is available from other vendors and meter manufacturers.

Melissa McDonald: I have brought this up in the past, I feel like this is an area where this committee could be very helpful in educating the public. There is a lot of fear in opening up that type of system in terms of interest. It is a valuable use of our time to educate people on why this is important and to look at ways that it could be structured. I would like to see this committee get more active in supporting this.

PNM is going to use the Opt In system and there is no billing change required.

Melissa McDonald: We don't want to down play the EM issue as it affects many.

The Chair suggested the consideration of hosting the WAA here in Santa Fe.

9. IDENTIFYING POSSIBLE "NEW NORMAL" SOLUTIONS (Chair Ives, 10 minutes)

The Chair mentioned a few things the committee may want to consider as they moved forward.

- Chem Toilets Plaza Cafe – estimated water saving from Chem Toilets is 20,000 to 40,000 gallons at least in the commercial context of restaurants. Is this something we want to build in to our building codes.
- Slowing water down and getting it back in to the ground, finding storage.
- Moving to grey and black water systems, working with EID to try to figure out how to use those and I realize that slabs make those hard for homes in town. That type of re-use in the home context which we are currently trying to promote in the business context with the new Ordinance we just passed, is another potential way of recycling water and saving more. There are many more very local to specific residences to business items we can start to look at. I want to make sure we take off any constraints as we start to talk about those opportunities so that we can fully educate ourselves on how they could be worked in to our building codes.

10. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE

INITIATIVES INCLUDING IDENTIFYING OBJECTIVES AND GOALS OF INITIATIVES (Chair Ives, 60 minutes)

Group #1 – Water Conservation and Drought Management Plan Update

Doug Pushard reporting for Grace: Group 1 is tasked with helping update the Water Conservation Management Plan. We are about 60% done with the document and we believe within two meetings we could be doing hard edits on this document. We are progressing smoothly. Note: We should add Amy's report to the list of reports to consider any input or consideration. Next meeting date not scheduled at this time but stated they are ahead of schedule.

Chair: Is the format dictated by the OSE?

Laurie Trevizo: There is a State Statute that and it requires us to tie in some of the regional planning efforts with the Jemez and Sangre that Amy mentioned, but it does not dictate the format.

Chair: In which case, presumably we could add new things that haven't been in there before. Again I would say let's take off the all the constraints.

Doug Pushard: Noted at the 3:00 pm session today; we agreed to hold a Strategy Session, with results as an attachment to the report. Mr. Pushard asked for any comments be sent to Grace or him over e-mail.

Melissa McDonald: Is this report submitted from your office, Laurie?

Laurie Trevizo: That is correct.

Melissa McDonald: I see that you will have it come to the Committee as an informational update so will we get to see that final report? If I have input do I contact Laurie or provide the information to Doug or Grace?

Laurie Trevizo: If you want to have any input I would suggest you join our committee.

Chair: Questions on the Chart: The informational update, the PUC WCC that is has a start date of 12/31/14 end date of 1/27/2015 which is after the report is due to the OSE.

Claudia: Section 4: There have been two topical updates to the regional water plan; 2 on climate change, 1 on reclaimed waste water numbers, make sure to use the whole body of the most recent updates. Mr. Pushard will send an e-mail to Claudia to obtain those updates.

Group #2- Water Conservation Education/Outreach

Steve Wiman: The main thing that has come out of our meeting is formalizing what we want to do with reviving the Water Conservation Committee road show (slide presentation), updating it including the recent GPCD and also the voluntary guidelines. One of the things that I have mentioned before is how successful it is in Albuquerque to get a water bill credit for attending these meetings. We don't want to link that with the road show, it is a separate issue and we have an alternate for that as well. Part of the potential success of the road show would be city support and more importantly advertising. We could only advertise by flyers in a limited way and we have had very poor attendance. I would like to discuss what the Water Conservation Committee feels in reviving that.

The Chair said he would have no problem with trying to do a promotion like that but it has to be a presentation that is approved by this Committee and we are all engaged in that. There has to be buy in from this Committee and I will check with the Water Division to see what type of oversight or review they would want in it as well. If you get

the approvals from the city we have a great possibility of getting it out in to the community.

Mr. Wiman: How do we get to that next stage?

Chair: Get to your current talk; bring your power point slides to this committee to review and to assure that we can concur. The chair recommended that the power point be sent to the members prior to the meeting; allow 30 minutes during the meeting to recap.

Melissa McDonald: There has to be some discussion as to what is appropriate to say with the city representation in it. We need to identify a go to person after they see the presentation.

Laurie Trevizo: Melissa is correct, all committee members Sign a Code of Ethics and therefore they represent this city, they are city representatives so at that point in them they would be representing the city point of view.

Steve Wiman: I would like to see the city put this together and let us present it. Why should we spend months trying to outguess what would be acceptable to the city. I am perfectly fine in presenting an approved presentation myself.

Chair: Let's talk about the parameters of that presentation, the content, the message we want to get out, we do have a wealth of material.

Steve Wiman can e-mail the presentation to the Chair and Laurie Trevizo as it stands today and they can strategize and update. The Chair will meet with Laurie before the next meeting.

GROUP #3- PROMOTE OUTDOOR WATER CONSERVATION

Doug Pushard: Today the plant list was sent out. (Exhibit C) It is a spreadsheet with verbiage included; please note that this is a **draft**. Mr. Pushard asked the committee members to send him any updates on the document as they now have it electronically to distribute to people as well.

Doug and Bill will be meeting with the home builders. There should be a good discussion as they are very interested in water. The next meeting Bill and I will have is to sit down with Katherine and discuss the building codes and commercial remodeling.

Chair: Having seen that announcement and taking in to consideration the interest and assessment from local leaders, was that language drafted by Kim?

Doug Pushard: I did not draft or see that language until today.

Doug Pushard: I am not doing a presentation, doing a brain storming and talking about where we are and gather their ideas of things we should look at. Since they are the Home Builders Association they will have to support anything we do from the regulation and building code.

MINUTES

Chair: Plant lists from Tucson and Flagstaff – The chair asked Caryn to obtain these lists for him.

Group #4- Reestablish Trend of Net Annual Reductions in Per Capita Water Usage

Noticed in the paper that some county residents are being annexed and they should get information on Water Conservation.

Group #5- Proper Regulation of Water Usage and Waste Avoidance by Large Water Users (Exhibit D)

MATTERS FROM STAFF:

Ms. Trevizo asked the Committee members to adhere to the dates that material has to be in for agenda processing and posting. The deadline time is 3:00 pm and the date is August 1st. Thank you.

MATTERS FROM COMMITTEE:

Are voluntary guidelines going out in the water bills this month?
Some went out and the remaining will be received in August.

Brochure Request and Dissemination: Instructions are to fill out the form as distributed and return to Laurie.

ITEMS FOR NEXT AGENDA – TUESDAY, AUGUST 13, 2013:

Demand Elasticity, if available.

Email agenda items.

CAPTIONS: JULY 30, 2013

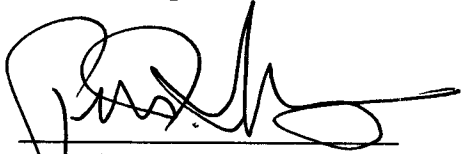
PACKET MATERIAL: AUGUST 1, 2013 – 3:00 pm

ADJOURN

There being no further matters to come before the Water Conservation Committee, the meeting was adjourned at 6:10 pm.

MINUTES

Signature Page:





Councilor Peter Ives, Chair

Fran Lucero, Stenographer

**Water Use and
Conservation Potential
for Domestic Wells**
Part of the Española Basin
Water Use Inventory




Water Conservation
Committee
July 9, 2013

Amy C. Lewis, Hydrology and Water Planning

**BOR WaterSmart Grant to
Santa Fe County**

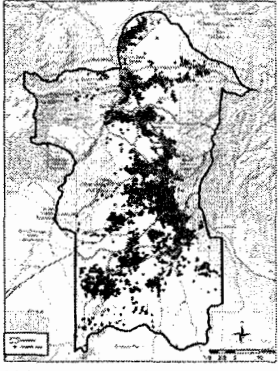
- Partners include EBRIF, Los Alamos County, City of Santa Fe, Rio Arriba County
- Task 3-Water Demand Characterization and Conservation Potential
- EBRIF provided matching funds to investigate domestic wells in detail

Domestic Wells

Self-supplied, permitted
NM Stat 72-12-1

- Population 178,950
- 76% served by 64 Public Water Systems (136,150)
- 24% served by Domestic Wells (42,800)



6,200 Domestic wells in the Española Basin

Exhibit A.

Inventory of Water Resources: Gap: Domestic Well Water Diversions

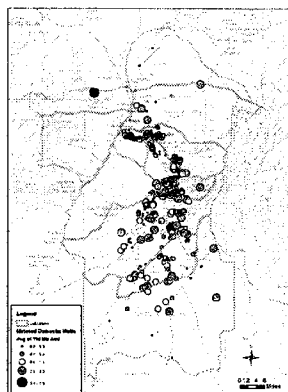
- Population X per capita demand = Water Diversion
- Usually assume a per cap value based on single family residents connected to community systems (99 gpcd in 2000)
- Is that assumption correct if household does not have to pay a water bill (only the electrical costs for pumping)?
- No way to calculate potential savings without knowing actual use

Metered Domestic Wells

Report to the Office of the State Engineer if:

- Serve more than one house
- Service incidental commercial uses
- Are located in the Aamodt Settlement area

Annual
Diversions
from
Metered
Domestic
Wells in OSE
database
(Acre-feet per year)





Metered Domestic Wells in OSE database


- 775 domestic wells (72-12-1) *with* meter readings in the Espanola Basin
- Some of these serve incidental commercial uses as allowed under the regulations
- 141 of the wells stated *how many* homes were connected to the well and had complete and recent meter reading data
- 71 of these stated *which houses* were connected to the wells (total of 161 homes).

Obtain Number and Location of Houses Connected to Metered Wells

NEW MEXICO WATER RIGHTS REPORTING SYSTEM

Eliminate those serving MDWCA

		New Mexico Office of the State Engineer	
		Water Right Summary	
			
WFE File Number:	SG 65093		
Primary Purpose:	DOMR	72-12-1 DOMESTIC ONE-HOUSING(1)	
Primary Status:	NEW	ADJUDICATED	
Total Acre(s):	3		
Total Diversion:	3		
Owner:	VISTA RESERVA MEXICA		

Information on File		Status		Priority		Acres		Diversion		Consumption	
	Div	Project	1	2	3	Transmittal Desc.	Priority	Acres	Diversion	Consumption	
W 72-12-1	001	1974-07-22				PRY- LAG AND RGR LAG	1	0	0		
W 72-12-1	002	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	003	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	004	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	005	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	006	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	007	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	008	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	009	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	010	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	011	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	012	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	013	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	014	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	015	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	016	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	017	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	018	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	019	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	020	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	021	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	022	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	023	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	024	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	025	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	026	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	027	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	028	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	029	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	030	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	031	1974-07-22				PRY- LAG AND RGR LAG	1	0	1		
W 72-12-1	032	1974									

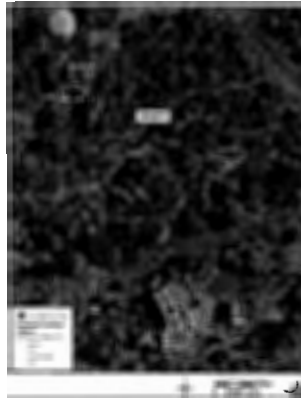
Indoor Water Demand

Indoor Water Use	Conserving Household (up to 40% water savings with water conservation equipment)			Non-Conserving Household (typical indoor water use)		
	per unit gallons	uses per day per person	per capita water use gpd	per unit gph	uses per day per person	per capita water use gpd
Toilet Flush	1.6	5.1	8.2	5	5.1	25.5
Toilet Leakage			4.0			9.5
Showers	11.7	0.75	8.8	30.7	0.75	23.0
Baths			1.2			1.2
Faucets			10.8			26.7
Dishwashers	7	0.10	0.7	14	0.1	1.4
Washing Machines	17	0.37	10.0	56	0.37	20.7
Other domestic			1.6			NA
Total Indoor			45.3			108.1

Vickers, 2001

Estimate Landscape Area

- Using high resolution imagery provided by the county for 2008 and 2011, we examined each parcel associated with one or more domestic well.



Irrigation Requirement (gal/ft²/day)

Location	Santa Fe	Espeñola	Los Alamos
Turf			
Kentucky Bluegrass with traditional sprinklers	32.7	38.0	28.8
Buffalo Grass with traditional sprinklers	14.9	19.7	11.1
Buffalo Grass with conservation technology	8.8	11.6	6.5
Bermuda Grass with conservation technology	13.7	16.8	11.4
Ornamental (non-native) Trees and Shrubs			
Trees with flood or sprinkler	16.1	20.7	12.4
Trees with conservation technology	9.5	12.2	7.3
Herb and Vegetable Gardens			
Gardens with flood or sprinkler	15.1	18.3	12.1
Gardens with conservation technology	8.9	10.8	7.1

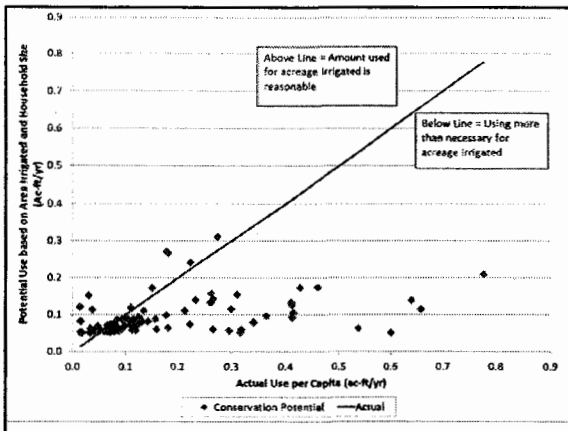
Wilson, 1996

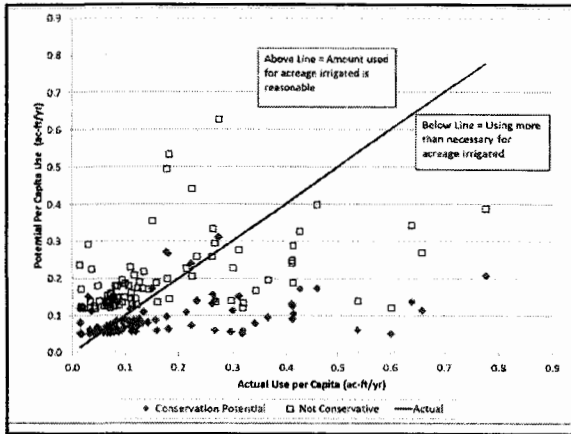
**Example Outdoor Water Demand
for a Conserving Household**

Landscape		Santa Fe		
TYPE	Area ft ²	Average Household Size (2010 Census)	Annual Water Requirement gallons	Per Capita demand gpcd
Turf	256	2.4	2,245	2.6
Trees	2,416	2.4	22,929	26.2
Garden	252	2.4	2,236	2.6
Total	2,924	2.4	27,595	31.3

**Example of Potential
Conserving/Non-Conserving
per capita water demand (gpcd)**

Location	Santa Fe	
	Conserving	Non-conserving
Indoor	45.3	108.1
Outdoor	31.9	48.8
Total	76.6	156.9





Potential Savings by Sub-basin

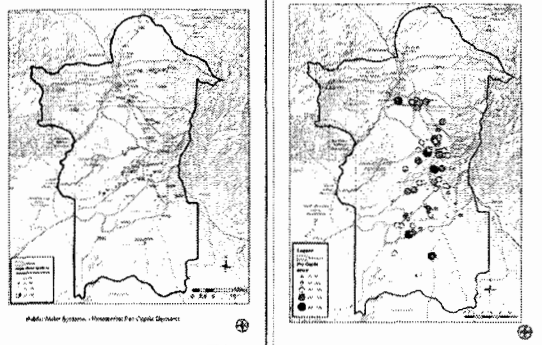
	Vel	LA	Santa Clara	Santa Cruz	P-N	Tesq.	SF	CdR	NG	SG	Total Jys
Total Population (2010 Census)	8,538	18,671	4,795	20,647	5,593	2,809	98,608	2,253	13,008	4,018	178,939
Population on Wells	6,798	-	2,299	11,734	2,593	1,843	6,645	1,649	5,823	3,408	42,791
Median Actual (gpcd)	-	-	-	-	235	209	104	130	68	105	112
Median Potential (gpcd)	86	-	86	85	101	93	62	69	56	69	78
Water Diverted (ac-ft/yr)	837	0	283	1,445	682	431	784	240	443	402	5,536
Potential Savings (ac-ft/yr)	182	0	61	323	389	239	323	113	76	139	1,797

78 gpcd = 0.087 ac-ft/yr

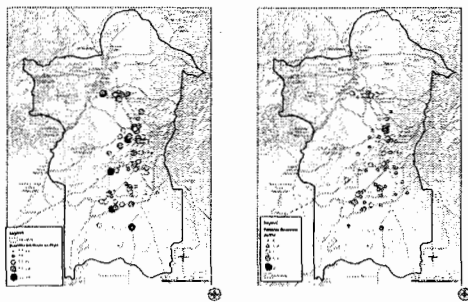
Total Estimated Water Diversions and Savings

- Water Diverted from domestic wells to serve 42,800 people = 5,500 ac-ft/yr
- Median per capita use varies by sub-basin from 68 to 235 gpcd
- Conserving per capita value for average landscape varies from 56 to 101 gpcd
- Potential water savings = 1,800 ac-ft/yr

Comparison PWS vs. Domestic Wells

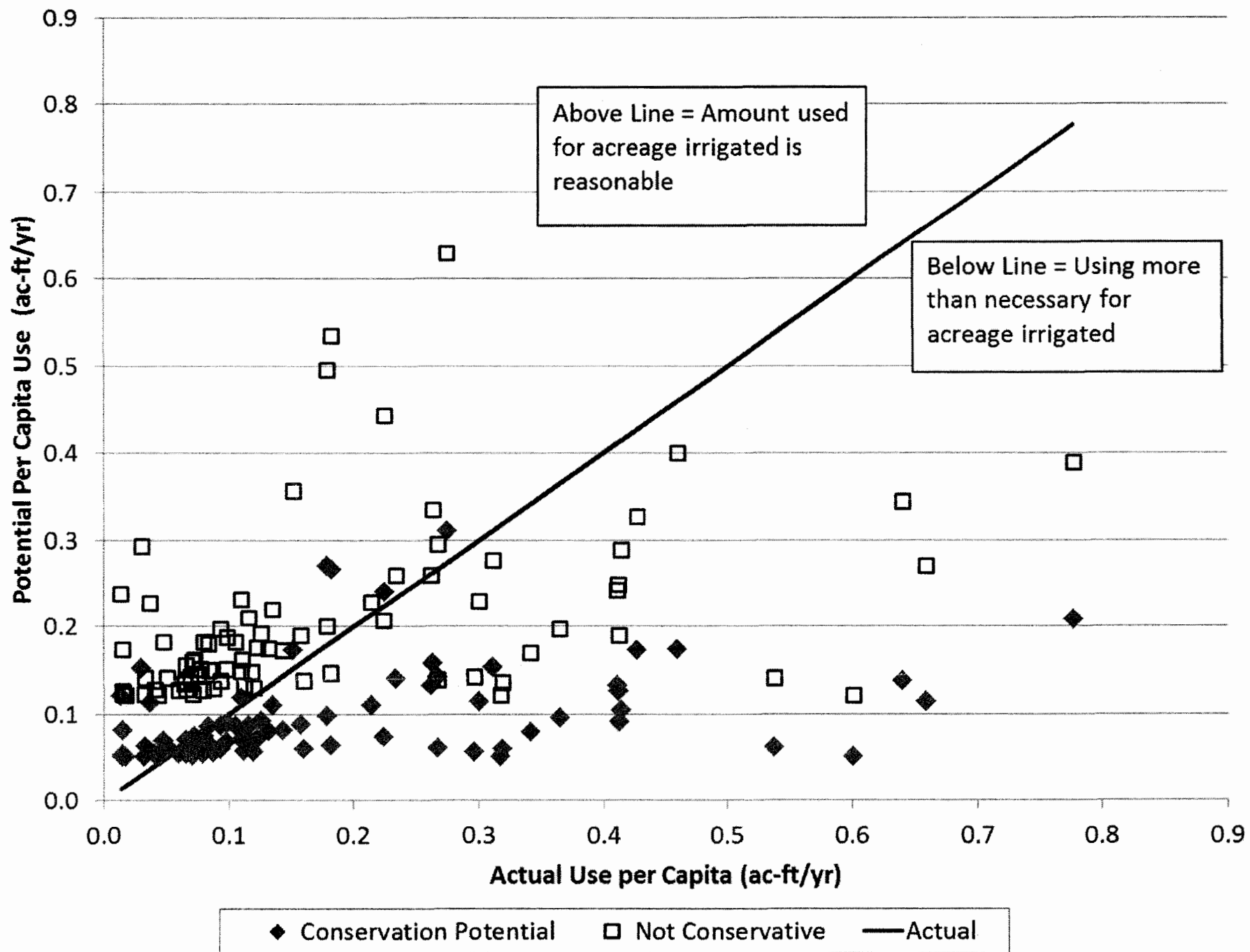


Existing V Potential



Next Steps

- Partner Meeting on Sept 11
- Final report Fall 2013
- GIS available to help guide conservation decisions



Potential Savings by Sub-basin

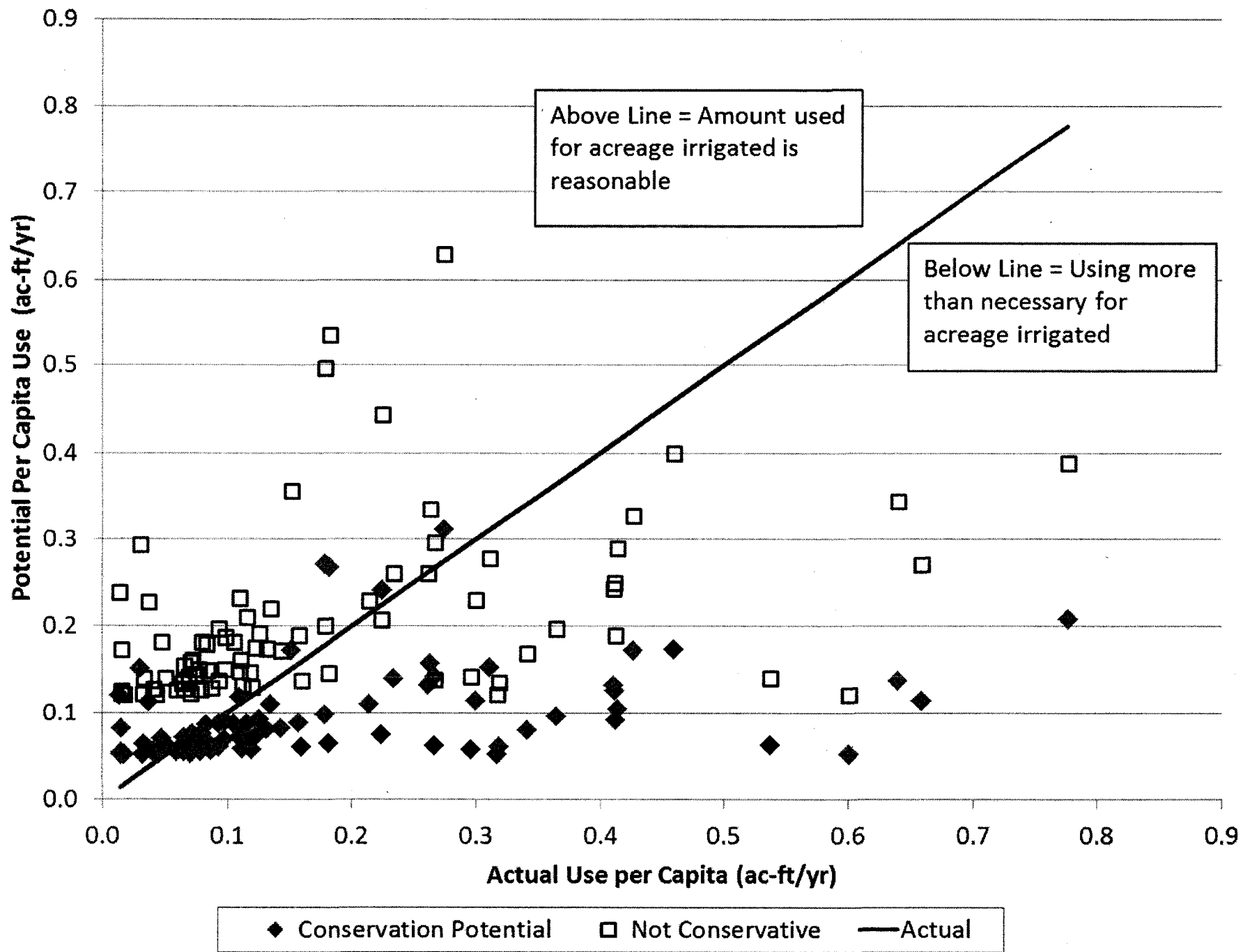
	Vel.	LA	Santa Clara	Santa Cruz	P-N	Tesq.	SF	CdR	NG	SG	Total JyS
Total Population (2010 Census)	8,538	18,671	4,795	20,647	5,593	2,809	98,608	2,253	13,008	4,018	178,939
Population on Wells	6,798	-	2,299	11,734	2,593	1,843	6,645	1,649	5,823	3,408	42,791
Median Actual (gpcd)	-	-	-	-	235	209	104	130	68	105	112
Median Potential (gpcd)	86	-	86	85	101	93	62	69	56	69	78
Water Diverted (ac-ft/yr)	837	0	283	1,445	682	431	784	240	443	402	5,536
Potential Savings (ac-ft/yr)	182	0	61	323	389	239	323	113	76	139	1,797

78 gpcd = 0.087 ac-ft/yr

Potential Savings by Sub-basin

	Vel.	LA	Santa Clara	Santa Cruz	P-N	Tesq.	SF	CdR	NG	SG	Total JyS
Total Population (2010 Census)	8,538	18,671	4,795	20,647	5,593	2,809	98,608	2,253	13,008	4,018	178,939
Population on Wells	6,798	-	2,299	11,734	2,593	1,843	6,645	1,649	5,823	3,408	42,791
Median Actual (gpcd)	-	-	-	-	235	209	104	130	68	105	112
Median Potential (gpcd)	86	-	86	85	101	93	62	69	56	69	78
Water Diverted (ac-ft/yr)	837	0	283	1,445	682	431	784	240	443	402	5,536
Potential Savings (ac-ft/yr)	182	0	61	323	389	239	323	113	76	139	1,797

78 gpcd = 0.087 ac-ft/yr



Western Adaptation Alliance (WAA)

Report on the Regional Climate Leadership Academy, June 3 – 5, 2013

The Western Adaptation Alliance (WAA) was formed in 2011 to address global climate changes and create adaptation strategies especially focusing on arid and semi-arid environments. The WAA includes 11 local governments across 5 states:

- Colorado (Aspen, Boulder, Denver, Fort Collins)
- Arizona (Flagstaff, Phoenix, Tucson)
- Utah (Salt Lake City, Park City)
- Nevada (Las Vegas)
- New Mexico (Santa Fe)

In 2012, the Western Adaptation Alliance (WAA) and Institute for Sustainable Communities (ISC) came together and partnered to produce the first Regional Climate Leadership Academy for Adaptation & Reliance. The Academy was designed to be a three-part series primarily focused on climate adaptation, communication, and implementation. The first gathering was hosted in Denver, CO. This was the second in Phoenix, AZ.

This year's topics included

- Framing Tradeoffs in Adaptive Urban Water Management
- Water Supply and Demand in the Face of Climate Change
- Wildfire/Forest Management & Watershed Protection
- Advancing Adaptation Planning
- Preparing for and Dealing with Health Impacts of Climate Change
- Stormwater Management, Green Infrastructure and Rainwater Harvesting
- Water Conservation & Efficiency : Promising Practices
- Building Economic Resilience
- Wastewater Reclamation Innovations
- Land Use/Growth and Water Demand
- Natural Area Protection
- Resilient Business Models for Water Service Providers

Santa Fe's Team included:

Katherine Mortimer, Sustainable Santa Fe Programs Manager / Sustainable Santa Fe Commission

Claudia Borchert, Water Resources Coordinator

Esha Chiochio, Climate Solutions Coordinator / SF Watershed Association

Melissa McDonald, Vice Chair City of Santa Fe Water Conservation Committee

Grace Perez, City of Santa Fe Water Conservation Committee

Santa Fe was highlighted in a case study for the city's Living River Initiative. Claudia Brochert presented on a panel for Adaptive Urban Water Management and Katherine Mortimer spoke about Green Building Codes.

What's next?

There is much we can do as a city and citizens of the region. The city is currently working on an adaptation plan with the Santa Fe Watershed Association. We were asked to put forth two to three ideas as short-term action items. We suggested:

- 1) Explore the creation of a network of citizen Water Advisory Board within the WAA to further the exchange of ideas
- 2) Explore adding water harvesting components to the water conservation's QWEL program for greater water savings
- 3) Create a triple bottom-line mechanism in our city's fiscal impact process

Obviously, there is much more that can be discussed. We look forward to continuing our efforts.



DECIDUOUS TREES

RECOMMENDED WOODY PLANTS FOR SANTA FE				Compiled by Tracy Neal
DECIDUOUS TREES				
Latin Name	Common Name	Water needs	Cautions	Comments
<i>Acer ginnala</i>	Amur Maple	L-M	AI, P/D	needs good drainage; prone to iron chlorosis
<i>Acer grandidentatum</i>	Bigtooth Maple	L-M	AI, Exp, Sh	uncommon native; slow growing, some forms have good fall color
<i>Acer negundo</i> Sensation	Sensation Boxelder	L-M	Exp	male selection; less attractive to boxelder-type bugs.
<i>Acer tataricum</i> cultivars	Tatarian Maple selections	L-M	Exp	showy seeds
<i>Acer truncatum</i>	Shantung Maple	L-M ?	Exp	reputedly tougher than Japanese maple; cultivar Fire Dragon is said to have red fall color
<i>Catalpa speciosa</i>	Western Catalpa	L-M		surprisingly adaptable, with somewhat messy seed pods
<i>Celtis occidentalis</i>	Western Hackberry	L-M	P/D	strongly prone to nipple galls
<i>Celtis reticulata</i>	Nettleaf Hackberry	L-M	P/D	native; absolute hardiness uncertain; can get nipple galls
<i>Cercis canadensis</i>	Eastern Redbud	L-M	Sh	best with good drainage and wind protection
<i>Cercis reniformis</i> Oklahoma	Oklahoma Redbud	L-M	Exp	zone 6 hardy; may be more heat tolerant than Eastern redbud
<i>Chilopsis linearis</i>	Desert Willow	VL-L	Exp	zone 6 hardy but survived 2011 freeze; likes well-drained soils
<i>Cladrastis kentuckea</i>	Yellowwood	L-M?	Exp	summer blooming
<i>Corylus colurna</i>	Turkish Filbert	L-M	Exp	formal looking
<i>Cotinus obovatus</i>	American Smoke Tree	L-M	Exp	variable fall color
<i>Crataegus ambigua</i>	Russian Hawthorn	L-M		showy flowers, fruit and bark
<i>Crataegus coccinoides</i>	Kansas Hawthorn	L-M	Exp	shrubby, big thorns
<i>Crataegus crus-galli</i>	Cockspur Hawthorn	L-M		showy big thorns, messy fruit; one of the most drought-tolerant
<i>Crataegus crus-galli inermis</i>	Thornless Cockspur Hawthorn	L-M		thornless, messy fruit
<i>Crataegus phaenopyrum</i>	Washington Hawthorn	L-M	AI	dense, thorny, nice fall foliage, good fruit show in late fall
<i>Crataegus v. Winter King</i>	Winter King Hawthorn	L-M ?	AI?, Exp	very showy fall & winter accent

DECIDUOUS TREES

Crataegus x lavalleyi	Lavalle Hawthorn	L-M	AI?, Exp	showy persistent fruit
Cydonia oblonga cultivars	Edible Quince selections	L-M	AI, P/D	shrubby, small tree; prone to chlorosis & fireblight
Eucommia ulmoides	Hardy Rubber Tree	L-M ?	Exp	
Euonymus bungeana	Winterberry Euonymus	L-M	Exp, P/D	
Forestiera neomexicana	New Mexico Privet	VL-L	P/D	highly adaptable, good in water-collection areas; can be pest-prone when stressed
Fraxinus americana cultivars	White Ash selections	L-M	P/D	good fall color; sometimes develop trunk cracking; borer-prone when stressed
Fraxinus pennsylvanica cultivars	Green Ash selections	L-M	P/D	good in water-collection areas; borer-prone when stressed
Fraxinus pennsylvanica Urbanite	Urbanite Ash	L-M	Exp, P/D	seems to be borer-resistant
Ginkgo biloba	Ginkgo biloba/Maidenhair tree	L-M	Exp, P/D	Well drained organic soils
Gleditsia triacanthos cultivars	Honeylocust selections	L-M	P/D	good in water-collection areas
Gymnocladus dioicus	Kentucky Coffeetree	L-M ?	Exp	slow to fill out; female forms messy
Hippophae rhamnoides	Sea Buckthorn	VL-L	Exp	large shrub/small tree; suckers to form clumps; edible/medicinal fruit on females
Juglans regia cultivars	Carpathian Walnut selections	L-M ?	Exp, P/D	toxic root exudate; messy summer bloom; can attract boxelder-like bugs
Koelreuteria paniculata	Golden Raintree	L-M	P/D	
Maackia amurensis	Amur Maackia	L-M ?	Exp	summer bloom
Maclura pomifera	Osage Orange	L-M		very adaptable species; look for thornless male forms like Whiteshield

DECIDUOUS TREES

Malus cultivars and species	Apple, Crabapple selections	L-M	P/D	tremendous selection of well-adapted cultivars
Morus alba--male cultivars	Fruitless Mulberry	VL-L		can be a major allergen--use with caution
Morus x Illinois Everbearing	Illinois Everbearing Mulberry	L-M ?	Exp	hardy form with good fruit; messy
Platanus x acerifolia Bloodgood	Bloodgood London Plane	L-M	AI, P/D	sunscald/frost cracking sometimes a problem; messy
Platanus x acerifolia Exclamation!	Exclamation London Plane	L-M?	Exp	new hybrid with dense pyramidal form, reportedly disease resistant
Populus angustifolia	Narrowleaf Cottonwood	M-H	AI, P/D	
Populus tremuloides	Quaking Aspen	L-M	AI, P/D	
Populus fremontii wislizenii	Valley Cottonwood	M-H	AI, P/D	riparian native; not for dry sites, though seems to be more adaptable than most
Prunus americana	American Plum	L-M	P/D	suckers to form clumps
Prunus armeniaca cultivars	Apricot selections	VL-L	P/D	very adaptable; fruit drop can be very messy
Prunus avium cultivars	Sweet Cherry selections	M	P/D	best with good drainage
Prunus cerasifera cultivars	Purpleleaf Plum selections	L-M	P/D	had significant dieback after cold winter of 2010-2011 & prolonged drought (2010-2013)
Prunus cerasus cultivars	Sour Cherry selections	L-M	P/D	tend to be more reliable than sweet cherries for fruit set
Prunus domestica cultivars	European Plum selections	L-M	P/D	much more reliable fruit set than Japanese plums
Prunus maackii	Amur Chokecherry	M ?	Exp	best with good drainage
Prunus padus cultivars	European Bird Cherry selections	L-M	AI, Exp, P/D	
Prunus persica cultivars	Nectarine/Peach selections	M	AI, P/D	produce well at young age, but tend to be short-lived
Prunus sargentii cultivars	Sargent Cherry selections	M ?	Exp	tolerance to high heat & drought unknown
Prunus serrulata cultivars	Flowering Cherry selections	M	P/D	best with good drainage; may struggle from heat stress
Prunus subhirtella cultivars	Flowering Cherry selections	M	P/D	best with good drainage; may struggle from heat stress

DECIDUOUS TREES

Prunus virginiana cultivars	Chokecherry selections	L-M	I, P/D	spread aggressively to form clumps; purple-leaf forms may sprout green-leaf suckers
Ptelea trifoliata	Hop Tree, Wafer Ash	VL-L		slow; small tree/large shrub
Pyrus calleryana cultivars	Flowering Pears	L-M	AI, P/D	use fireblight-resistant forms
Pyrus communis cultivars	selections	L-M	AI, P/D	use fireblight-resistant forms
Pyrus faurei	Korean Flowering Pear	L-M	Exp, P/D	good fall color; may be prone to fireblight
Pyrus pyrifolia cultivars	Oriental Fruiting Pear selections	L-M	AI, Exp, P/D	use fireblight-resistant forms
Pyrus ussuriensis cultivars	Ussurien Pear selections	L-M	AI, Exp, P/D	some have messy fruit
Quercus buckleyi	Texas Red Oak	L-M	Exp	tolerates drought and alkaline soils well; good fall color late
Quercus gambelii	Gambel Oak	VL-L		faster, more tree-like with irrigation
Quercus macrocarpa	Bur Oak	L-M	Exp	faster with regular irrigation
Quercus meuhlenbergii	Chinkapin Oak	L-M	Exp	faster with regular irrigation; look for northern seed source forms
Quercus robur cultivars	English Oak selections	L-M	Exp, P/D	can be mildew-prone
Quercus shumardii	Shumard Oak	M?	Exp, AI ?	look for selections from alkaline-soil areas
Quercus undulata	Wavyleaf Oak	VL-L	Exp	large shrub/small tree, may be semi-evergreen
Quercus x cultivars	Oak--new hybrids	L-M	Exp	look for hardy forms tolerant to drought and alkaline soils
Sophora japonica <aka Styphnolobium japonicum> cultivars	Japanese Pagoda Tree selections	L-M	Exp, P/D	showy summer bloom; messy; can be disease-prone
Syringa reticulata cultivars	Japanese Tree Lilac selections	L-M	Exp	bloom smells like Privet
Tilia cordata cultivars	Littleleaf Linden selections	L-M	P/D	young trees sometimes sunscald
Tilia tomentosa cultivars	Silver Linden selections	L-M ?	Exp, P/D	promising new introduction
Ulmus parvifolia cultivars	Lacebark Elm selections	L-M ?	Exp	disease resistant; use only hardy cultivars
Ulmus x hybrids	Hybrid Elm selections	L-M ?	Exp	look for new disease/pest resistant forms
Xanthoceras sorbifolium	Yellowhorn	VL-L	Exp	large shrub/small tree form
Zelkova serrata cultivars	Japanese Zelkova selections	L-M	Exp	use improved cultivars

DECIDUOUS TREES

Zizyphus jujuba cultivars	Jujube selections	L-M	Exp	research underway through NM State Extension Service re:best cultivars for NM
----------------------------------	--------------------------	------------	------------	--

July 9, 2013

Working Group #5

- Discussed large water user info gathered by Tim Michael—Tim to present
- Meeting this week with Ben Gurule, of Parks and Recreation to discuss water conservation measures at city parks and to define tasks.
- Met with Laurie Trevizo to discuss additions to QWEL class. Adding passive water components.
- Grace and Melissa met with Laurie to debrief the WAA conference and to discuss her level of interest in being involved. We also began working on WAA Water Conservation Boards Networking Group.
- Please add to our reference material list: ***Aquifer Protection Region 6 New Mexico, Water Conservation Landscaping and Waste Ordinance in the City of Albuquerque & Storm Water as a Resource***. Called Land Use to find out who has digital copy of Storm Water as a resource, to date have not received call back. Laurie has extra copies at the water conservation office.
- And <http://austintexas.gov/departments/water-conservation> looking specifically on landscape conversion rebate \$25 per \$100 sq ft. up to \$1250
- <http://cms3.tucsonaz.gov/water/watersmartclasses>
- <http://www.ag.arizona.edu/pima/smartscape/smartscape/>

Exhibit D

Dear Committee Members

The WCC was pleased and supportive of the Watering Guidelines and Tips Brochure that many members spent time producing recently! Thank-you all. It is wonderful that the brochure will go out as a water bill insert! Many thanks Laurie!

Working Group 2 is concerned that many water customers may miss seeing this brochure because they are billed electronically. It is our hope that our WCC can make a dent in reaching people who may fall through the cracks, by forwarding it to each of our personal and/or business contacts.

If you agree, Working Group #2 would like each WCC member to commit to e-mailing the Watering Guidelines and Tips Brochure to as many people as possible by the end of July. We thought it might be useful to have an idea of how many brochures go out via our group. We hope that by each of us setting a goal, it will inspire us to pro-actively complete this project in a way that will help our community during the severe drought we are currently experiencing.

Below is a table we made so each of us can set our goal.

Number of Water Brochures Each Member Can Distribute

Name	Number Now	Number by end of July
Giselle Piburn		
Lise Knouse		
Stephen Wiman		
Doug Pushard		
Tim Michael		
Grace Perez		
Melissa McDonald		
Karyn Schmitt		
Lisa Randall		
Bill Roth		
Counselor Ives		
Laurie Trevizo		
Caryn Grosse		