



# Agenda

DATE 3/11/13 TIME 9:30am

PREPARED BY Laurie Trevizo

APPROVED BY [Signature]

## AMENDED ITEM #5

**SANTA FE WATER CONSERVATION COMMITTEE MEETING  
CITY HALL - 200 LINCOLN AVE.  
CITY COUNCILORS' CONFERENCE ROOM  
TUESDAY, MARCH 12, 2013  
4:00 PM TO 6:00 PM**

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES FEBRUARY 12, 2013 WATER CONSERVATION COMMITTEE MEETING

### DISCUSSION ITEMS:

5. VOLUNTARY RESTRICTIONS IN WATER CONSUMPTION DURING DROUGHT (Stephen Wiman)  
(10 minutes)

### INFORMATIONAL ITEMS:

6. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES INCLUDING IDENTIFYING OBJECTIVES, GOALS AND PRIORITIZATION OF INITIATIVES (Councilor Ives) (60 minutes)

### MATTERS FROM STAFF:

7. DROUGHT, MONSOON AND WATER RESOURCE MANAGEMENT UPDATE (RICK CARPENTER)  
(5 minutes)
8. WATER CONSERVATION PROGRAM FACT SHEET (Laurie Trevizo) (5 minutes)
9. INFORMATIONAL UPDATE ON WATER CONSERVATION OFFICE UPCOMING SPRING 2013 EVENTS (Laurie Trevizo) (5 minutes)
10. UPDATE ON DEMAND ELASTICITY STUDY (Laurie Trevizo) (5 minutes)

### MATTERS FROM COMMITTEE:

11. WATER CONSERVATION COMMITTEE DISCUSSION REGARDING AUTOMATIC METER READING DEVICES (Councilor Ives) (10 minutes)
12. WATER CONSERVATION COMMITTEE RULES AND PROCEDURES DISCUSSION (Councilor Ives)  
(20 minutes)

### ITEMS FOR NEXT AGENDA – TUESDAY, APRIL 9, 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.



# Agenda

DATE 3/4/13 TIME 1:52 pm

SERVED BY Laurie Trevizo

RECEIVED BY [Signature]

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**CITY HALL - 200 LINCOLN AVE.**

**CITY COUNCILORS' CONFERENCE ROOM**

**TUESDAY, MARCH 12, 2013**

**4:00 PM TO 6:00 PM**

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**ITEMS FOR NEXT AGENDA – TUESDAY, APRIL 12, 2013:**

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Tuesday, March 12, 2013**

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**MINUTES OF THE  
CITY OF SANTA FE  
WATER CONSERVATION COMMITTEE  
Tuesday, March 12, 2013  
4:00 p.m. to 6:00 p.m.**

**1. CALL TO ORDER.**

A meeting of the Water Conservation Committee was called to order by Councilor Peter N. Ives, Chair, at approximately 4:00 p.m., on March 12, 2013, in the City Councilor's Conference Room, City Hall, 200 Lincoln Avenue, 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  
Lise Knouse  
Tim Michael  
Grace Perez  
Giselle Piburn  
Doug Pushard  
Lisa Randall  
Karyn Schmitt  
Stephen K. Wiman  
[Vacancy]

**OTHERS ATTENDING**

Rick Carpenter, Water Resources and Conservation Manager  
Laurie Trevizo, Water Conservation Manager  
Caryn Grosse, Water Conservation Specialist  
Melessia Helberg, Stenographer

There was a quorum of the membership in attendance.

### **3. APPROVAL OF AMENDED AGENDA**

**MOTION:** Lise Knouse moved, seconded by Tim Michael, to approve the amended agenda as presented.

**VOTE:** The motion was approved unanimously on a voice vote.

### **4. APPROVAL OF THE MINUTES: FEBRUARY 12, 2013, WATER CONSERVATION COMMITTEE MEETING**

**MOTION:** Tim Michael moved, seconded by Lisa Randall, to approve the minutes of the meeting of February 12, 2012, as presented.

### **DISCUSSION ITEMS:**

#### **5. VOLUNTARY RESTRICTIONS IN WATER CONSUMPTION DURING DROUGHT (STEPHEN WIMAN)**

A copy of *Voluntary Reductions in Water Consumption During Drought*, with attachments, submitted for the record by Stephen Wiman and Doug Pushard, is incorporated herewith to these minutes as Exhibit "1."

Mr. Wiman thanked Mr. Carpenter and Ms. Trevizo for getting this on the agenda, noting he thought it should be on this agenda because of the timing.

Chair Ives said he will be talking about deadlines for submitting items for the agenda later in the meeting.

Mr. Wiman noted part of this Committee's duties and responsibilities are "...advising City government on water conservation activities," and "Propose changes in code, practice and policy that will promote further water conservation.." He said they are not proposing to change the Code. He said he would like to have Committee feedback and approval of the proposal.

Mr. Wiman reviewed the information in Exhibit "1."

*The Committee asked questions and commented as follows:*

- Ms. Knouse thinks the by the numbers works well, and this is a good plan.
- Ms. Randall thinks we would want to approve this, and we would want to be pro-active to get something out there in a timely fashion.

- Mr. Michael asked Mr. Wiman what he would like this Committee to do – approval to proceed with preparing a proposal, or approval to work on this, or approve that a proposal be made to the Governing Body for voluntary restrictions.
- Mr. Wiman said would like to hear the City's perspectives on this. He said there are some conflicts of why "you would or wouldn't want to conserve water." He would like a vote of the Committee as to whether we should move forward with this. He said is timely, noting it has to go through City committees to go before the City Council. He believes it is something the City could and should promote.
- Ms. McDonald said it is a fine idea, but she wants to be sure it doesn't conflict with the different stages the City has. She said she wants to see what it looks like before it goes to City Committees and then the Council. She likes the concept, and likes a voluntary program. However, she would want to see the actual output.
- Mr. Pushard said, for clarification, Mr. Wiman talked about two actions. The first is a vote of the Committee to proceed with a voluntary program and start with a working group to create the materials for approval at the next meeting. He asked, if we are just doing a marketing program, do we have to go anywhere else.
- Chair Ives said it is advisable, as a participatory process, moving forward based on our discussion today, he would ask our Legislative liaison in the City Attorney's office, to draft a Resolution promoting voluntary water conservation using a particular type of program. He said this could be ready for the next meeting for a vote. He said it would have to go to the Public Utilities Committee and Finance, noting there is fiscal impact because there is an existing contract in place for advertising. He would like to hear from Ms. Trevizo at some point about new things are inserted into that contract, and if that is an easy/difficult process.
- Ms. McDonald said the potential conflict is in messaging. She said for the longest time we've been floating the idea of watering with the curve, and she is unsure that the numbers fit in the curve. She wants to be sure what we are proposing is not going against what we've been promoting, or if we are conscious that we're going to change that. She said it is the same concept, but "is it the right amount of water, and is it going to be a confusing method."
- Ms. Knouse said a lot of times voluntary programs end up become mandatory programs, and she doesn't want that to happen. She doesn't want the government enforcing it. She said there are people in the community who are cooperative and want the water supply to last, and we need to focus on that and have the appropriate language so people aren't cited for watering an extra day a week or something.

- Chair Ives said the obvious advantage of this is that it is very easy to state and easy to remember – it's March so it's one week for one month, then April-May for two weeks for two months Easy, then June-August three weeks for three months, then September-October two weeks for two months, and then once a week in November. He said there is an ease in the messaging, which probably is the reason Albuquerque has had a great deal of success with it.
- Mr. Michael said there is no definition right now whether or not it is watering by the numbers, which is an example. He said Mr. Pushard suggested the working group would start preparing the materials.
- Ms. McDonald said Albuquerque is different from Santa Fe, and watering twice a week isn't necessary in April. It is easier in terms of messaging, but it may not achieve ultimately what you are suggesting. She is okay with going with the idea and keeping it consistent in the media if that is what the Committee wants to do.
- Ms. Schmitt said over the past two years the temperatures have been much higher, and asked if this has been adjusted this in consideration of the higher temperatures we are experiencing. She said people will start cheating if they see their gardens going into decline. She likes the different numbers, noting it is easier to remember.
- Ms. McDonald said she isn't familiar with this program and she doesn't know.
- Chair Ives said it certainly something which could be followed-up with Albuquerque and determine those kinds of specifics.

**MOTION:** Tim Michael moved, seconded by Grace Perez, that the Committee recommend preparation of a Resolution promoting voluntary water conservation and requesting marketing efforts to promote voluntary water conservation using one or more different plans, including water by the numbers, 1-2-3-2-1.

**DISCUSSION:** Ms. Perez said it seems the discussion is getting into a lot of details about the Albuquerque model. She said if the motion is stated that this is one of things we will look at, so we're not reinventing the wheel, then people working with it can come up with something that really works for Santa Fe.

**FRIENDLY AMENDMENT:** Ms. Perez said she thinks the first action is approval that this Committee agrees on the concept and start working on it, with the idea of using what we know already, for example what Albuquerque is doing, as a model to look into and to see how we can adapt it to the City. **THE AMENDMENT WAS FRIENDLY TO THE MAKER AND THEIR WERE NO OBJECTIONS BY THE OTHER MEMBERS OF THE COMMITTEE.**

**FRIENDLY AMENDMENT:** Mr. Pushard would like to amend the motion to add that the Committee willingly will assist the City in developing the program. **THE AMENDMENT WAS FRIENDLY TO THE MAKER AND SECOND, AND THEIR WERE NO OBJECTIONS BY THE OTHER MEMBERS OF THE COMMITTEE.**



**FRIENDLY AMENDMENT:** Ms. Schmitt would like to amend the motion to state that approval by the entire Water Conservation Committee is required before it goes forward to the City. **THE AMENDMENT WAS FRIENDLY TO THE MAKER AND THEIR WERE NO OBJECTIONS BY THE OTHER MEMBERS OF THE COMMITTEE.**

**VOTE:** The motion, as amended, was approved unanimously on a voice vote.

Chair Ives said he will work with Ms. Trevizo as this moves forward.

Mr. Wiman said we don't want to get caught up on the Albuquerque program, and we can customize something that is more suited to Santa Fe. However, he doesn't want to move forward without knowing the level of approval once he leaves here, commenting he doesn't understand the procedure for City committees.

Chair Ives said if this Committee wants something to take effect with the force of policy it has to go through the City Council, because the Council is the policy-making entity. He said there are certain powers within the various departments in terms of the conduct of its business, but it minimally would have to go to the head of Public Utilities, Brian Snyder, for his approval, before it would be adopted for any kind of increased vetting in terms of marketing.

#### **INFORMATIONAL ITEMS:**

**6. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES, INCLUDING IDENTIFYING OBJECTIVES, GOALS AND PRIORITIZATION OF INITIATIVES. (COUNCILOR IVES)**

A Memorandum dated March 2, 2013, to the Water Conservation Committee, from Councilor Peter Ives, Chair, Water Conservation Committee, regarding the Group Reports from Water Conservation Committee Initiatives, including identifying objectives, goals and prioritization of initiatives, is incorporated herewith to these minutes as Exhibit "2."

Chair Ives said we can rank all of the items on the matrix.

Mr. Michael asked if some of these items should some drop off the list, but he doesn't want to lengthen the process.

Chair Ives said that's what we're trying to do by giving priority to certain items, which is saying we won't be focusing on the other ones. He said the general consensus of this group is that 4 to 5 of these items is all we have the capacity to do, given the staffing.

Mr. Pushard said importance is one criteria and willingness to work on an item is another, which is important. He wants people to work where they are passionate.

Chair Ives agreed, saying that passion will be expressed through priority.

Ms. McDonald said it might be convenient if each Committee come up with a shorter description, a more concise way to list the report.

Chair Ives said we will do that as soon as we prioritize the items.

The Committee then ranked their top 5 items by priority. Chair Ives noted the only heavily populated item which doesn't make the top 5 is Item 3, which is evaluation of the potential use and/or storage of stormwater in water conservation strategies.

Ms. McDonald said Item #3 could fall under Item #5 as well, noting she would approach it as an educational item, although it could be a regulatory item.

Mr. Pushard said all of these are related, and if successful, all will affect #5. He noted Ms. McDonald is interested in the Parks as a user of water. He said if nobody is going to sign up to work on it "it doesn't matter where we park it."

Chair Ives agreed.

Ms. McDonald said it makes sense for her to be working on the Parks, mainly because she recently was appointed to the POSAC [Parks and Open Space Advisory Commission].

Chair Ives asked the members how many of the 5 items they would feel comfortable/willing to work on – two, one.

Mr. Pushard clarified that non-Committee persons can serve on the working groups, and Chair Ives said this is correct.

Ms. McDonald clarified that the people who speak for the group would have to be a member of this Committee.

The priorities established by the Committee are as follows:

1. *Update of Santa Fe Water Conservation and Drought Management Plan.*
- 2 & 8. *Water conservation education/outreach program. Item #8 was incorporated into this item, because it now becomes an education program – Evaluation and report on the propriety of the City's water use regulations during drought conditions.*
4. *Evaluation and drafting of changed or new ordinances to promote water conservation in irrigation and outdoor watering.*

5. *Reestablishing the trend of net annual reductions in per capita water usage.*
6. *Proper regulation of water use and waste avoidance by large water users, such as the State of New Mexico, City of Santa Fe and other persons.*

The Board then signed up to work on the priority items as follows:

1. ***Update of Santa Fe Water Conservation and Drought Management Plan.*** Doug Pushard, Grace Perez, Lisa Randall and Chair Ives, as well as Bill Roth, non-Committee.
- 2 & 8. ***Water conservation education/outreach program. Item #8 was incorporated into this item, because it now becomes an education program – Evaluation and report on the propriety of the City's water use regulations during drought conditions.*** Stephen Wiman, Lise Knouse, Tim Michael, Giselle Piburn and Grace Perez, as well as Louise Pape, non-Committee.
4. ***Evaluation and drafting of changed or new ordinances to promote water conservation in irrigation and outdoor watering.*** Doug Pushard and Chair Ives, as well as Bill Roth, non-Committee.
5. ***Reestablishing the trend of net annual reductions in per capita water usage.*** Melissa McDonald and Karyn Schmitt;
6. ***Proper regulation of water use and waste avoidance by large water users, such as the State of New Mexico, City of Santa Fe and other persons.*** Melissa McDonald and Tim Michael.

Chair Ives said, although he is listed to work on Item #1, he will make himself available for any Committee working on any topic.

Chair Ives asked each member of the Working Group to have met once or twice by the time of the next meeting meet, and have developed 1 or more strategic goals, objectives and tasks in more and more specific delineation. Chair Ives said it is helpful if any of the groups are looking at particular documents to inform the process, to list the documents, so that others wanting to join can educate themselves on what the group is doing. He would like to include timelines where possible, and look to have a well populated and full listing by the next meeting.

Mr. Michael asked if staff could summarize the working groups and email those to the Committee.

Chair Ives said it will be summarized and emailed to the Committee in 2-3 days.

Ms. Randall asked the status of the appointment of Bill Roth to this Committee.

Chair Ives said we are waiting to get that on the agenda.

Mr. Pushard asked people in attendance to volunteer on any working group they would like.

**Esha Chiochio, Climate Solutions Coordinator, Santa Fe Watershed Association**, said she has been assigned to develop a climate adaptation plan for the River. She said these working groups might tie into the development of the plan, and she would be interested in staying in touch with the working groups.

Mr. Pushard asked if City staff needs to be on every working group. He said there will be good participation on Items #1 and #2, but is unsure about the others. He asked if we need to assign a name to #1 and #2.

Ms. Trevizo said staff is on only Item #1. She is hoping for fresh and innovative conservation programs from Item #2, which are implementable. She said she might add a fiscal impact to the chart for the next meeting – how much time for City staff, for example. She said if we go through the Resolution process staff would be required to include a fiscal impact.

Chair Ives noted the FY 2013-14 budget is anticipated to be fairly flat in looking at revenues in the Finance Committee, noting we aren't likely "to be hiring oodles of new staff across the City," and asked the working groups to be aware of the limitation of staff and use existing staff prudently.

## **MATTERS FROM STAFF**

### **7. DROUGHT, MONSOON AND WATER RESOURCE MANAGEMENT UPDATE. (RICK CARPENTER)**

Rick Carpenter reviewed his Memorandum of February 25, 2013, which is in the Committee packet. He said even though we have good snowpack, the runoff is very very low, and they think it's soaking into the dry soil, rather than running off. He will be in Albuquerque for a briefing from the Bureau of Reclamation with regard to what they expect from the San Juan/Chama runoff.

Chair Ives noted the reservoir is listed at 30.4% , which indicates there is no flow from the reservoirs, so we are using primarily the Rio Grande and then Buckman.

Mr. Carpenter said we have used the Buckman wells about half and half with the BDD, which isn't a resource management issue, so much as it is a water temperature issue because we had frozen meters.

Ms. Randal asked what is the acronym MGD.

Mr. Carpenter said it stands for Million Gallons per Day, noting 1 acre foot of water is about 325,800 gallons.

**8. WATER CONSERVATION PROGRAM FACT SHEET. (LAURIE TREVIZO)**

A copy of *The City of Santa Fe's Water Conservation Journey* is incorporated herewith to these minutes as Exhibit "3."

Ms. Trevizo presented information from Exhibit "3."

*The Committee commented and asked questions as follows:*

- Ms. Schmitt said two years ago the City adopted an Ordinance to remove the fines for homeowners looking at their meters themselves, and asked if that is included.

Ms. Trevizo said they dealt mainly with conservation and those things which reduced the demand. She said they also realized that a lot of the history has been lost through this process and in the Annual Water Report, they have taken this and made a chronology out of it, so that will help.

- Mr. Wiman asked if the numbers on page 2 are City numbers or GPCD calculations.

Ms. Trevizo said because it starts in 1995, those have to be City calculations because the OSE GPCD calculator wasn't started until about 2009 with the beta testing, and we didn't start implementing until 2010 when the San Juan/Chama permit came on board. Responding to a question from Mr. Wiman, Ms. Trevizo said there are two 2012 numbers, the City and the OSE. She said the City number is 109 and the OSE GPCD is 106.

- Chair Ives reiterated they would welcome thoughts about how this can be improved.
- Mr. Pushard said later in the Report there is "demand hardening," and you might want to add a small paragraph on ongoing research which is done, and Ms. Trevizo said that can be put under "Where we're Headed."
- Mr. Pushard said it also needs to include the formation of this Committee which is unique among cities.

**9. INFORMATIONAL UPDATE ON WATER CONSERVATION OFFICE UPCOMING SPRING 2013 EVENTS. (LAURIE TREVIZO)**

Ms. Trevizo reviewed her Memorandum of February 22, 2013, with attachment, which is in the Committee packet. Please see this Memo for specifics of this presentation

Mr. Pushard asked Ms. Trevizo if she needs assistance on the KWEL program.

Ms. Trevizo said it is covered, noting they are refining the syllabus, but he can look at that for a place to "plug in." She said they are trying to be quick and concise because they need to get all of the landscapers out by 3:00 p.m., so they can do their work, which will be hard.

Mr. Pushard asked when testing is going to be done, or if they are going to proctor testing.

Ms. Trevizo said Lonnie is going to proctor the test for him, noting she wants to take it as well.

Mr. Pushard said he can help proctor if she would like, and Ms. Trevizo said that is a really good idea because they do need help.

Chair Ives asked the Board members to try to attend the Childrens Water Fiesta on April 16-17 at the Convention Center, commenting the kids have a fabulous time.

#### **10. UPDATE ON DEMAND ELASTICITY STUDY. (LAURIE TREVIZO)**

Ms. Trevizo said the comments are due ASAP, and she will compile the comments and send to Jim Friar before Friday.

Chair Ives said it is fascinating reading in terms of history and where we hope to go, as well as how some impacts have been registered in Santa Fe. He urged everyone to look at it and see what lessons can be learned from the study..

Mr. Pushard said then the next step is to provide him the information on Friday, and Ms. Trevizo said yes. Mr. Pushard asked what is the next step.

Ms. Trevizo said the comments will be entered and the report then would be finalized.

Mr. Pushard said he read the report and is confused, and said multiple cities are being done and this is our submission. He asked when he will provide a draft of his report.

Ms. Trevizo said she can ask him. She said she understood he wanted a final before May, for sure, so she believes it will be a quick turnaround.

#### **MATTERS FROM THE COMMITTEE**

#### **11. WATER CONSERVATION COMMITTEE DISCUSSION REGARDING AUTOMATIC METER READING DEVICES. (COUNCILOR IVES)**

Chair Ives said he was hoping to have a device here.

Ms. Schmitt said she brought the two which were issued to her through the Committee.

Ms. McDonald reported on the meeting with Brian Snyder, noting they talked about the status of the billing system. She said the City has selected to work with a person from the College, but she doesn't have the name. This person will work with the college over the next 6-9 months to take all requirements

the City included in the RFP and come back with a proposal for review and approval, and then they will proceed. She said we are looking at 2-3 years before the City gets a new billing system. She said Mr. Snyder said the Committee's concern about the ability to do a home based water budget likely will be included. He said it would be easy to change the billing system, and streamline the process. She said it seems to be on track.

She said Mr. Snyder said he will be coming back to this Committee to show us what comes from this scope of work, and the Committee would have the opportunity to give feedback at that point.

Ms. Schmitt said they specifically asked Mr. Snyder if it would incorporate an on-line component where the customer could call up and get a daily water use record which was specific, without having to go through an employee at the water company. She said Mr. Snyder said that definitely is on their list to include.

Ms. McDonald said they wanted to be sure the Firefly or other device will work for the meter reading system. She said the City's pilot project with the Orion and the Badger is coming to an end, noting Ms. Schmitt will be demonstrating the Orion.

Ms. McDonald said there was a discussion of the Firefly and devices which will work with whatever meter reading system the City chooses. She believes the Committee will want to consider the idea of having an internet based device where meter readers don't even go out. She said the internet would send the reading to the Water Division, which will reduce the carbon footprint by not having 7 trucks on the road every day reading the meters. She said Mr. Ortega will be presenting meter reading options, noting she wants people to think about the idea of an internet-based system. She sees the potential for this Committee to get involved, because there are issues associated with people being concerned about having wi-fi type stuff, but it would be a huge benefit to the City – in cutting our carbon footprint and allowing staff to be able to do more interesting work than just driving their trucks around.

Ms. McDonald said it sounds as if we will have something in 2 years, perhaps a year if we're lucky. She wants the citizens to be able to read the meters without having to open the meter can. She said the idea is to get something which really will work for the people, and she supports the City in different ways to make it the best product we can get.

Ms. Schmitt apologized that they didn't get the name of the contracted company, which will be evaluating what is available for a medium sized City. She said when the City got the Firefly, this committee saw a presentation by the people who were installing it. She said they came and gave a really great overview and it looked great. However, it hasn't panned out the way we had hoped.

Ms. Schmitt showed the Committee a Kopy Kap, and said each member of the Committee was issued a Kopy Kap hand-held device, which also can be put on the wall, but has to be close to the meter can. She said the idea was to push a button to get a current reading of the water use at that point. She said we realized that the Kopy Kap had a serious battery issue, and the battery had to be put in and taken out every time. She said it would read all of the meters around and you almost had to stand over your own meter, and it still would read the one across the street. She said she spent a lot of time with it,

commenting it looks sort of antique now. She said it worked, but you had to be creative.

Ms. Schmitt showed the Committee an Orion which is used by Las Campanas, noting this Orion belongs to a client and she reads their meter. She said this device is programmed specifically to your meter, noted it is a little more complicated. It has a much longer distance. She said you get a meter reading and then you have to do the math depending on meter size. She said the City really doesn't like its customers to look in the water can. She said Mr. Snyder is looking at the Orion, the Badger and others, to come up with a recommendation. She said the Orion is "pretty decent," noting Las Campanas can give you water use readings every 3 minutes, to look for a leak, for example.

Ms. Schmitt said we are excited about being able to get real time information on what is happening in your house in terms of water use. She said they were disappointed, however, that the timeframe for this to happen won't be soon. She said, "We really feel like this is a big piece, we've felt that for years, and it hasn't actually materialized. Unfortunately, as soon as you get these, they start to be obsolete." She said, "It isn't anywhere we would love it to be, but it is still a very valuable tool."

Ms. McDonald said there may need to be some outreach in the software selection phase, and believes this would be a valuable place for this Committee to put some of our energy. She said when people know how much water they are using, they realize that it is a lot of water. She said she and Ms. Schmitt are interested in seeing that we consider how they might influence that process.

Mr. Pushard said there are independent websites which allow customers to download bills from the water and energy company and create water budgets, such as [www.myenergy.com](http://www.myenergy.com). He asked if this was discussed with Mr. Snyder.

Ms. McDonald said it did come up, but a third party will be part of the scope of work being developed. However, her sense is that they want to do as much of this in-house as possible.

Mr. Pushard said the internet and the availability of tools is going to change a lot faster by independent companies than our own City IT staff.

Ms. McDonald said Mr. Snyder is aware of it, and this Committee can bring this up when he comes back to this Committee with the report. She said all options are on the table, and he did mention that as something to be considered.

Mr. Pushard said the City doing something good, but allowing it to be open to third parties will allow us to "compare and dice things."

Ms. Randall asked if they spoke about commercial users or just residential only.

Ms. McDonald said they talked about commercial users, institutional and the parks, but nothing specific, noting it was more in terms of metering. She said at the April POSAC meeting they will be looking at how this will impact the parks. She said if you can see what you're using any minute of the day, anybody can benefit from that, whatever the classification of the user.



Chair Ives said the ability to detect unusual usage during a particular period will be built into the utility system.

Ms. Schmitt said she understands they are incorporating alarms so it alerts the user to start looking for a leak.

Mr. McDonald said this can be voluntary as well.

Ms. Pape said there are a lot of people who are concerned about the issue of EMFs, but there are different approaches. She said to overcome resistance to EMFs, for example, they can send messages hourly or daily rather than continuously. She said it is totally unnecessary to send continuously for a bill and it is ridiculous. She said if the City opted not to transmit continuously it would help a lot with the whole EMF issue.

Ms. Schmitt said there should be an option to transmit continuously or not.

Ms. Pape said it has to be a City policy, because of the issue of one neighbor's choice versus another's and the impact on the neighbor.

Ms. McDonald said often the meter is pretty far from the house, on the street.

Ms. Pape said her meter is right in the middle of her house.

Ms. McDonald thinks that is a private meter at the Commons, with one master meter, and that wouldn't be at the private meters it would be at the master meter. She said Park Plaza invested in a meter in each individual unit, and that would be a more complex problem.

Chair Ives said he appreciates the update and report and for bringing in the devices for a demonstration.

## **12. WATER CONSERVATION COMMITTEE RULES AND PROCEDURES DISCUSSION. (COUNCILOR IVES)**

Chair Ives reviewed Resolution No. 2008-40, which amended No. 2002-25 regarding membership to expand the membership.

Chair Ives said everyone should have a copy of the Rules and Procedures for City Committees, noting the members should familiarize themselves with the Rules and Procedures.

Chair Ives said he would like members to summarize the discussion in their work group in a 1-2 page report which can be read in advance of the meeting, which will allow us to use our time more efficiently. He suggested the Committee consider a consent agenda for perfunctory items which can be approved without discussion.

Chair Ives said some people were talking about having longer Committee meetings. He said there is a vague recollection at the City that these meetings are limited to 2 hours, although he can find nothing in writing to this effect. He said everybody has a separate day job, and 4:00 to 6:00 p.m. seems to work out very nicely. His hope is by delegating more of the work to work groups between Committee meetings will allow us to do everything we need to do within two hours.

Ms. Trevizo reviewed the Committee timelines, which also is contained in the Chair's March 1, 2013, Memorandum. She noted there is discussion about going paperless, noting it takes a great deal of time to assemble packet materials, make copies and get those mailed out. She said all of this has to be folded into hers and Ms. Grosse's other duties and responsibilities.

Mr. Pushard asked Ms. Trevizo if she can give the date for packets for the next meeting at the previous meeting.

Chair Ives suggested we do items for next agenda, with a note that packet materials are due not later than a specific date, and post that date on the agenda.

Ms. Trevizo said the enabling Resolution establishes this as a City Committee and we have to have City business on the agenda as well.

Chair Ives said it is all subject to the Open Meetings Act and that's what goes into the Notice, naming the agenda items, and the need to include materials in advance.

Mr. Michael said if there is a notice of deadline to submit packet materials on future agenda notices, we need to clear on what needs to be submitted, and whether or not the agenda item is a voting item.

Chair Ives said we package materials in a timely fashion, so they are part of the Open Meetings process. He will work with Mr. Trevizo to be clear on any distinctions in that regard.

Ms. Randall expressed support for going paperless, and bring a laptop, projector and screen so participating members can view items on the screen rather than create waste paper and use staff time unnecessarily.

Chair Ives said the challenge with this idea that we will need someone to operate the equipment.

Ms. McDonald said we should put this on the next agenda for a vote.

Chair Ives said he would support that, as long as people have the capacity to receive packets via email.

Chair Ives said he has spoken with the City Clerk and he would like to see all materials posted to the website throughout the City by Friday at 9:00 a.m., prior to the week when the meeting is scheduled. He said we still have to make copies available in the Clerk's Office.

Ms. Schmitt requested that her Committee packet be sent to her electronically.

Chair Ives said we can do a linked agenda, so that when you get your agenda it has a link to each of the document agenda items behind it.

Mr. Pushard said he appreciates the Chair moving through Items 4-6. He said if we have to go over 10-15 minutes because of an item, we should consider that versus stopping right at 6:00 p.m.

Mr. Pushard said our agenda versus what is in the City Code agenda is different. He said work to be done has always been at the end of Agenda, with new business at the top of the agenda. He asked if we can change our agenda so we have the working time more in line with the City's agenda.

Chair Ives said we're not that much off, because informational items and matters from staff are reports on various items. He will look at it to see what he can do.

Ms. McDonald said during the 10 years she's served on this Committee they have always been able to get the work done in 2 hours. She said we have to look at ourselves, how much we're talking, how much we're getting done and look at the working groups. She has served on other Committees and they never exceeded two hours, although occasionally a meeting will exceed 2 hours. She said longer meetings would impact her excitement about this Committee if it were to be longer.

#### **ITEMS FOR NEXT AGENDA – TUESDAY, APRIL 12, 2013**

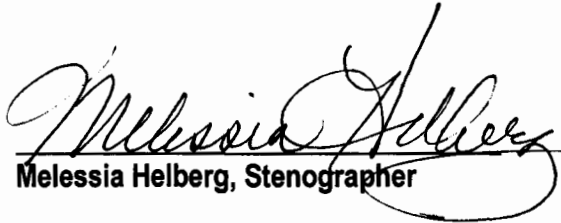
1. Discuss holding a longer meeting.
2. Gallons per capita. Ms. Trevizo said yes, as a 5 minute presentation under matters from staff.
3. Discussion of the work on voluntary restrictions.
4. Mr. Wiman wants someone from the City to come and discuss the contradiction in conserving water versus the way it is. What is done with conserved water, and issues surrounding treated effluent.

Chair Ives asked Mr. Wiman to pull this together and submit to him as a potential agenda item and they'll figure out how to caption it.

Ms. Schmitt and Ms. Randall thanked Mr. Pushard and Mr. Wiman for bringing in the voluntary option.

**13. ADJOURN**

There being no further business to come before the Committee, and the Committee, having completed its agenda, adjourned the meeting at approximately 6:15 p.m.

  
\_\_\_\_\_  
**Peter N. Ives, Chair**  
\_\_\_\_\_  
**Melessia Helberg, Stenographer**

## **Voluntary Reductions in Water Consumption During Drought**

### **Background to Discussion:**

Water levels in the city reservoirs are at record lows compared to historical averages; Rio Grande natural flow is well below average levels; San Juan-Chama Project deliveries may be reduced; aquifer recharge is uncertain; and pumping groundwater is not sustainable. The City of Santa Fe does not plan to impose water restrictions in 2013 because it has a diverse water portfolio, with significant supplies of water stored in upstream reservoirs and in aquifers. Shouldn't we be considering how to better achieve a balance between consumption and supply?

The City of Santa Fe has established itself as a leader in water conservation, but we are facing a third year under drought conditions of unknown duration. Rather than imposing water conservation by ordinance, but in order to reduce our GPCD and minimize pumping precious groundwater during peak irrigation season, we propose that the City consider establishing voluntary guidelines for reducing consumption and minimizing the pumping of our aquifer.

### **Discussion Topics:**

What is the best model? (including odd/even addresses and water as needed)

Is developing such a program a task for WCC Working Groups or for the Water Conservation Department? Or through a cooperative effort?

Irrigation season approaches, can we prepare and present a program at the April WCC meeting?

Would such a program need to be approved by the governing body?

How would voluntary guidelines be advertised and promoted?

### **Vote by WCC members required:**

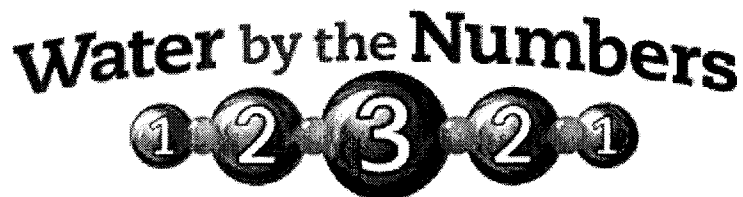
Should the City seek to develop voluntary water conservation policies for the 2013 irrigation season?

*Exhibit "1"*

## It's Time to Change the Way We Water!

In Albuquerque, we use 40 percent of our drinking water on our yards every year. That's got to change if we're going to meet state-mandated conservation goals and preserve our aquifer for future generations.

Avoid mandatory restrictions — and choose your own days!



Rather than impose mandatory day-of-the-week watering schedules, the Water Authority is putting YOU in control, with "Water by the Numbers." Pick your own days to water, and irrigate your landscape:

- ONCE A WEEK IN MARCH
- TWICE A WEEK IN APRIL AND MAY
- THREE TIMES A WEEK IN JUNE, JULY AND AUGUST
- TWICE A WEEK IN SEPTEMBER AND OCTOBER
- ONCE A WEEK IN NOVEMBER

*It's as easy as 1-2-3-2-1!*

For an irrigation calculator and detailed info on proper watering techniques, [click here](#).

## More ideas for saving water outdoors

- **Plant drought resistant trees and plants:**

Xeriscape with plants that require less water. These plants can be very attractive and can survive drought better than turf. Rocks, gravel, benches, and deck areas can all be used to creatively decorate the yard.

- **Choose an Automatic Irrigation System**

An automatic sprinkler system can be set to water the lawn for a specified amount of time. This saves your time and waters the lawn evenly. If you don't have an automatic sprinkling system, set a kitchen timer. A lot of water can be wasted in a short period of time if you forget to turn your sprinklers off. Outdoor faucets can flow at rates as high as 300 gallons per hour.

- **Use a Cistern to Collect Rainwater**

1,000 square feet of roof or pavement can collect 420 gallons of water from 1 inch of rain. Rooftops or any sloping surface such as a driveway are prime "catchment" areas for rainwater. Store the collected water in a cistern, and siphon it off to water your garden or wash your car. A plastic or metal garbage can is easily converted to a cistern by attaching a spigot and hose. Locate your cistern close to wherever you plan to use the water, and consider the massive weight of such a tank if you plan to put it on your roof. To filter out leaves and debris, install a removable screen at the entrance to the cistern.

- **Spot water**

Drier areas require more water than areas where water settles. If necessary, water dry areas by hand.

- **Use a soil probe to test soil moisture**

Water only when a soil probe shows dry soil or a screwdriver is difficult to push into the soil.

- **Water the lawn only when needed**

Step on the grass; if it springs back up when you move your foot, it does not need water.

- **Don't water the pavement**

Position sprinklers so that water lands on the lawn or garden, not in areas where it is not needed. Also avoid watering when it is windy. Wind causes water to evaporate quickly and blows water onto areas where it is not needed. Remember, if it doesn't grow, don't water it!

- **Water without waste**
  - Interrupt watering when puddles or runoff occur. This allows the water to penetrate into the soil before resuming irrigation.
- **Consider drip irrigation systems around trees and shrubs**

Drip systems permit water to flow slowly to roots, encouraging strong root systems. These systems will also cut down evaporation.
- **Keep lawn free of weeds**

Weeds are water thieves and will rob your plants of water and nutrients. Spot spray or remove weeds as they appear.
- **Accept a less than lush lawn**

Grass will naturally go dormant during periods of drought, but will readily regenerate when water becomes available. Reduce traffic on stressed turf areas if possible.
- **Match fertilizer to the plant requirement**

Fertilizer applications require additional water. Excess fertilizer stimulates top growth, often to the detriment of the root system. Learn to accept turf grasses with low water needs.
- **Mow as infrequently as possible**

Mowing puts the grass under additional stress that requires more water.
- **Mow higher than normal**

Longer leaf surfaces promote deeper rooting and shade the root zone. Never remove more than 1/3 of the leaf blade in one mowing. Return mulched clippings to the lawn.
- **Use a broom to clean the driveway and sidewalk**

Sweeping the driveway and sidewalk will get them clean enough without wasting gallons of water.
- **Don't let the water run while washing the car**

Get the car wet, then turn off the water while you soap the car down using a bucket of soapy water. Turn on the water again for a final rinse. Use the bucket of soapy water on the flower bed or garden.
- **Don't use the sprinklers just to cool off or for play**

Running through water from a hose or sprinkler is fun but wastes gallons of water.
- **Check for leaks in pipes, hoses, and faucet**

All leaks cause water to be wasted. Repair or replace any equipment leaking water.
- **Cover your swimming pool**

Covering a swimming pool will help reduce evaporation. An average sized pool can use about 1,000 gallons of water per month if left uncovered. A pool cover can cut the loss by up to 90%.
- **Recycle your pool water**

Backwashing or draining your pool into the street is against the Water Conservation Landscaping and Water Waste Ordinance. Use your pool water to irrigate your lawn, plants, trees, and shrubs. Once you have recycled as much water as possible, find your sanitary sewer clean-out. Remove the cap and pump the pool water into the sewer at a rate not to exceed 20 gallons per minute: a faster rate could cause back-up into your house. Pump rentals are available at swimming pool supply stores and equipment rental companies.
- **Use shut-off nozzles on hoses**

Shut-off nozzles completely turn off the water when you are not using it.  
Move sprinkler heads away from curbs or sidewalks.  
A mulch, bark, or rock area at least 8 inches wide adjacent to sidewalks and curbs will help eliminate water waste.

Last Updated ( Thursday, 27 March 2008 )

Close Window

# Water Authority Declares Drought Watch



## Water Waste Fines to Double

**ALBUQUERQUE, February 27, 2012** – The **Albuquerque Bernalillo County Water Utility Authority Board** has declared an official Drought Watch effective March 1. Fines will be doubled for water wasters, with assessments starting at \$40 and going up to \$4,000 for repeat offenders. Under normal conditions, fines start at \$20 for a first offense.

*"This is a necessary step because of the record-breaking lack of rainfall over the past two years," said **Katherine Yuhas**, Water Authority conservation officer. "The drought means there will be less surface water available for our use, so we need to do all we can to preserve our groundwater. We've set up a new website and will be reaching out via advertising to remind folks that it's been more than dry in Albuquerque, it's been a serious drought. So it's more important than ever to conserve."*

Average annual rainfall in Albuquerque is about 8.5 inches. Rainfall last year was just 5.5 inches, and in 2011 it was just 4.2 inches. The **National Weather Service**, meanwhile, sees no end in sight for the dry conditions.

Steps people can take to do their part during the drought:

1. Install a swamp cooler thermostat and receive a **\$25 rebate**, which covers the majority of the cost of the thermostat
2. Attend a free DroughtSmart class and earn a \$20 bill credit. Classes start in April; class schedules will be posted online later in March.
3. Change out high-flow toilets with high-efficiency toilets and receive a **\$150 rebate**
4. Follow the **Water by the Numbers** program and water just one day per week in March, two days per week in April and May, and three days per week during the summer.
5. Turn off water when shaving and brushing teeth

To **report water wasters**, call **768-3640**. For conservation and rebate info, call **768-3655**.

## Severe Drought in Bernalillo County

### Water Authority Customers Reminded to Conserve

The **National Weather Service** has changed its drought assessment for Bernalillo County from "moderate" to "severe." With more hot weather in the forecast and little rain in sight, Water Authority customers are reminded to keep conservation rules and guidelines in mind. Follow the **Water by the Numbers** program and water just three days per week, and don't use sprinklers between 11 a.m. and 7 p.m.

**Click here** for more conservation tips.



# U.S. Drought Monitor

New Mexico

June 19, 2012

Valid 7 a.m. EST

## Conservation Goal Achieved Three Years Early

### Water Authority Customers Reach 150 GPCD in 2011

Responding to rebate programs and public outreach, Water Authority customers have reached the **conservation usage goal** of 150 gallons per person per day three years ahead of schedule.

The achievement was announced at a March 12 news conference hosted by **Water Authority Board** Chair Ken Sanchez.

*"The Water Authority had hoped to meet the 150-gallon goal by 2014," Sanchez told reporters. "By meeting it in 2011, the people of Albuquerque and Bernalillo County have brought us to our goal three years early."*

The 150 gallon-per-person-per-day (GPCD) number is actually five gallons less than the 155 GPCD mandated by the **Office of the State Engineer** as a condition of using surface water from the **San Juan-Chama Drinking Water Project**. The State Engineer had required that this goal be met by 2024.

*"To put the 150 gallons in perspective, our GPCD figure in the mid-1990s was 252 gallons, so we have come a very long way, many years ahead of*

*schedule," Sanchez said. "I thank and commend the people of this community for their efforts. We must now work to maintain these usage levels and look for new and innovative ways to keep saving water for future generations."*

By reaching the 150 GPCD goal three years early, Albuquerque saved an additional 2 billion gallons.

Total yearly water use has declined from 40.6 billion gallons in the mid-1990s to 34.6 billion gallons in 2011. That's a 25-percent decline, even though the population in the Water Authority's service area grew about 40 percent (from 441,450 to 634,284) during the same period.

Last Updated ( Thursday, 28 February 2013 )

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.64	81.29	25.17	0.00
Last Week (06/12/2012 map)	0.00	100.00	99.64	73.03	23.46	0.00
3 Months Ago (03/20/2012 map)	11.31	88.69	81.79	60.84	24.94	9.13
Start of Calendar Year (1/2/2012 map)	8.63	91.37	87.60	72.15	23.37	7.57
Start of Water Year (29/27/2011 map)	0.00	100.00	96.40	88.99	69.61	35.13
One Year Ago (06/14/2011 map)	0.75	99.25	93.96	87.35	67.86	44.90

#### Intensity:

D0 Abnormally Dry  
D1 Drought - Moderate  
D2 Drought - Severe  
D3 Drought - Extreme  
D4 Drought - Exceptional



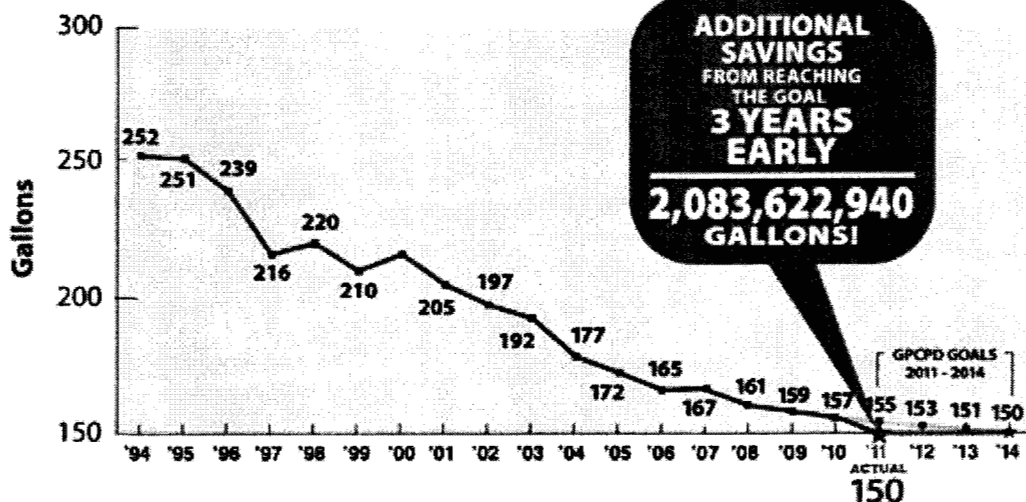
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>

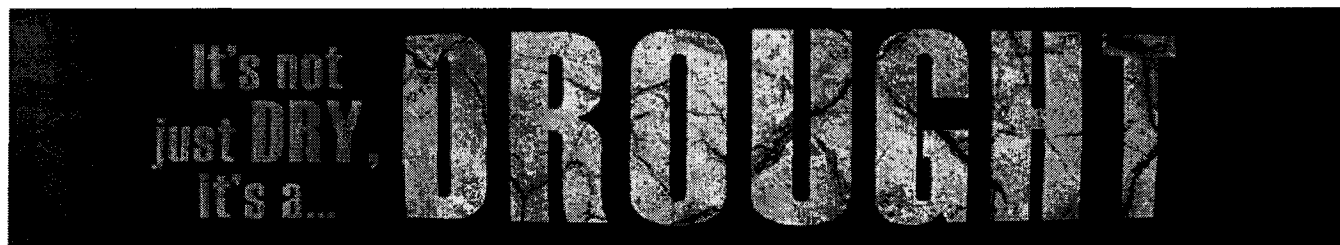


Released Thursday, June 21, 2012  
Richard Heim, National Climatic Data Center, NOAA

## Gallons Per Capita Per Day 1994 - 2011



Close Window



## DROUGHT WATCH IN EFFECT

During a drought, it's more important than ever to use water wisely and efficiently. To show you how, the **Water Authority** offers free classes to customers interested in getting the most from every drop. No reservations are necessary; first come, first seated.

### DROUGHT SMART" \*

This class provides guidance on how to best support your landscape during our current extended drought and how to determine when to water, how often, and how long to run your system. Discussion includes information on irrigation controller programming, landscape design, system upgrades and maintenance.

\*(Receive a \$20 Credit on Your Water Bill for Attending Class)

**Note: May 8<sup>th</sup> is on Wednesday and May 18<sup>th</sup> has PM Times**

DATE	DAY	1ST CLASS	2ND CLASS
April 13th, 2013	Saturday	9:00 am	10:30 am
April TBD	TBD	TBD	TBD
May 4 <sup>th</sup> , 2013	Saturday	9:00 am	10:30 am
May 8 <sup>th</sup> , 2013	Wednesday	9:00 am	10:30 am
May 18 <sup>th</sup> , 2013	Saturday	1:00 pm	2:30 pm
June 1 <sup>st</sup> , 2013	Saturday	9:00 am	See "Basics of Drip Irrigation" Class Schedule in the next table:
June 15 <sup>th</sup> , 2013	Saturday	9:00 am	
July 13 <sup>th</sup> , 2013	Saturday	9:00 am	
July 20 <sup>th</sup> , 2013	Saturday	9:00 am	
August 10 <sup>th</sup> , 2013	Saturday	9:00 am	
August 24 <sup>th</sup> , 2013	Saturday	9:00 am	
September 14 <sup>th</sup> , 2013	Saturday	9:00 am	

### "Basics of Drip Irrigation"

A useful class if you have inherited a drip system, but are unsure how it is supposed to work, or you want to put in a new drip system. You will learn how long and how often to operate it, how to maintain it, and how to install a drip system that matches your landscape needs.

**Note: No Credit on Your Water Bill for the Drip Class**

DATE	DAY	TIME
June 1 <sup>st</sup> , 2013	Saturday	10:30 am
June 15 <sup>th</sup> , 2013	Saturday	10:30 am
July 13 <sup>th</sup> , 2013	Saturday	10:30 am
July 20 <sup>th</sup> , 2013	Saturday	10:30 am
August 10 <sup>th</sup> , 2013	Saturday	10:30 am
August 24 <sup>th</sup> , 2013	Saturday	10:30 am
September 14 <sup>th</sup> , 2013	Saturday	10:30 am



If you are hearing or sight impaired notify Smart Use at 888-1722 or email [PenelopeSmartUse@yahoo.com](mailto:PenelopeSmartUse@yahoo.com)

# **City of Santa Fe, New Mexico**

## **memo**

Date: March 1, 2013

To: Water Conservation Committee

From: Councilor Peter Ives, Water Conservation Committee Chair

Re: Group Reports from Water Conservation Committee Initiatives Including Identifying Objectives, Goals and Prioritization of Initiatives

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As a group we will begin to prioritize the tasks set forth by each of us within the Water Conservation Committee Initiatives. Once these tasks have been prioritized then we shall discuss and determine the goals and the objectives to complete those goals.

### Steps to Prioritization:

1. Chose the scope. Focus on one initiative at a time.
2. Mark the importance of each task. Consider the value of each completed task mark each task with H for high, M for medium, L for low.
3. Mark the urgency of each task. Consider the upcoming deadlines. Mark each task with H, M, or L
4. Mark the effort required for each task. Consider the time needed to complete each task. Mark each task with S for short, M for medium or L for long.
5. Compare all tasks. Highlight the most important and urgent tasks that require the least amount of effort.
6. As a group we will make decisions about the importance and urgency of the tasks. We will decide which ones need to be done first based upon upcoming deadlines. Consider omitting or delaying tasks if they are of low importance and require a high amount of effort.

**Water Conservation Committee Prioritization Worksheet:**

Issue/ Task	Importance (H,M,L)	Urgency (L, M, S)	Effort (L, M, S)	Priority (1-High to 12-Low)
Update Santa Fe Water Conservation and Drought Management Plan				
Water Conservation Education/Outreach Program				
Evaluate Potential Storage/ Use of Storm Water in Conservation Strategies				
Evaluate/draft ordinances to promote outdoor water conservation				
Reestablish Trend of Net Annual Reductions in Per Capita Water Usage				
Proper Regulation of Water Usage and Waste Avoidance by Large Water Users				
Evaluate Potential Storage/Use of Treated Effluent in Conservation Strategies				
Evaluate/Report on Propriety of Current Water Use Regulations During Drought Conditions				
Water-Energy Nexus –Energy Production Uses Water: How to Respond to Nexus				
Evaluate and Assess resiliency in Water Supply and Delivery Systems				
Update Water Portion of Sustainable Santa Fe Plan				
Evaluate Private Wells and impact on the Santa Fe River				

**Water Conservation Committee Prioritization Worksheet:**

<b>Issue/ Task</b>	<b>Importance (H,M,L)</b>	<b>Urgency (L, M, S)</b>	<b>Effort (L, M, S)</b>	<b>Priority (1-High to 12-Low)</b>
Update Santa Fe Water Conservation and Drought Management Plan				
Water Conservation Education/Outreach Program				
Evaluate Potential Storage/ Use of Storm Water in Conservation Strategies				
Evaluate/draft ordinances to promote outdoor water conservation				
Reestablish Trend of Net Annual Reductions in Per Capita Water Usage				
Proper Regulation of Water Usage and Waste Avoidance by Large Water Users				
Evaluate Potential Storage/Use of Treated Effluent in Conservation Strategies				
Evaluate/Report on Propriety of Current Water Use Regulations During Drought Conditions				
Water-Energy Nexus –Energy Production Uses Water: How to Respond to Nexus				
Evaluate and Assess resiliency in Water Supply and Delivery Systems				
Update Water Portion of Sustainable Santa Fe Plan				
Evaluate Private Wells and impact on the Santa Fe River				

## WATER CONSERVATION COMMITTEE INITIATIVES 2012-13

The following matters have been identified as issues of significant interest to the members of the Water Conservation Committee. This list is prepared in order to allow for and plan the constructive addressing of these issues by the Committee during the course of the 2012-2013 fiscal year. The issues have been prioritized by staff based on the needs of the Water Conservation Office.

1. Update of Santa Fe Water Conservation and Drought Management Plan
2. Water Conservation Education/Outreach Program
3. Evaluation of the Potential Use and/or Storage of Storm Water in Water Conservation Strategies
4. Evaluation and drafting of changed or new ordinances to promote water conservation in irrigation and outdoor watering systems.
5. Reestablishing the Trend of Net Annual Reductions in Per Capita Water Usage
6. Proper Regulation of Water Usage and Waste Avoidance by Large Water Users, Such as the State of New Mexico, City of Santa Fe and Other Persons
7. Evaluation of the Potential Use and/or Storage of Treated Effluent in Water Conservation Strategies
8. Evaluation and Report on the Propriety of the City's Current Water Use Regulations During Drought Conditions
9. Water-Energy Nexus – Recognizing that Energy Production Uses Water and Determining How to Respond to this Nexus
10. Evaluation and assessment of resiliency in the Santa Fe Water Supply and Delivery Systems
11. Update of the Water Portion of the Sustainable Santa Fe Plan
12. Identification and Evaluation of Private Wells in the City of Santa Fe and their impact on the Santa Fe River

#	Issue	Strategic Goal	Objectives	Tasks	Working Group	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 next meeting	Doug Pushard Grace Perez Lisa Randall Bill Roth	Draft timeline created. Goal: Jan 2015
2.	Water Conservation Education/Outreach Program				Giselle Piburn	<i>Lisa Randall requested to be removed</i>
3.	Evaluate Potential Storage/ Use of Storm Water in Conservation Strategies				Stephen Wiman Melissa McDonald	<i>Inactive per Stephen Wiman</i>
4.	Evaluate/draft ordinances to promote outdoor water conservation				Doug Pushard Lise Knouse Bill Roth	<i>Request from Doug Pushard to City Parks clarify Land Use Code 14-8.4 in E (4)</i>
5.	Reestablish Trend of Net Annual Reductions in Per Capita Water Usage				Karyn Schmitt Melissa McDonald	
6.	Proper Regulation of Water Usage and Waste Avoidance by Large Water Users				Tim Michael Melissa McDonald	
7.	Evaluate Potential Storage/Use of Treated Effluent in Conservation Strategies				(no one signed up)	This is a current activity taking place in the Water Resources Group. The Public Utilities Committee is the recommending body.
8.	Evaluate/Report on Propriety of Current Water Use Regulations During Drought Conditions	<i>Lead discussion on voluntary restrictions in Water Consumption during drought</i>	<i>Request WCC vote as to whether drafting a plan for voluntary restrictions is appropriate</i>	<i>Review existing ordinances related to water conservation</i>	Stephen Wiman Lise Knouse (option) Tim Michael Doug Pushard	<i>Determine when to present discussion items to WCC</i>

#	Issue	Strategic Goal	Objectives	Tasks	Working Group	Notes
9.	Water-Energy Nexus –Energy Production Uses Water: How to Respond to Nexus				Peter Ives, Chair Tim Michael	
10.	Evaluate and Assess resiliency in Water Supply and Delivery Systems				Lise Knouse	
11.	Update Water Portion of Sustainable Santa Fe Plan				(no one signed up)	
12.	Identify and Evaluate Private Wells and their impact on the Santa Fe River				Grace Perez Stephen Wiman	<i>Inactive per Stephen Wiman</i>



# The City of Santa Fe's Water Conservation Journey

## EXECUTIVE SUMMARY

Drought prone areas have been leaders in water conservation out of necessity; drought is a strong motivating factor for local governments to enact water conservation programs, however, a reactionary approach is not always beneficial to the community nor is it well received. Water conservation programs are not built overnight. The City of Santa Fe built the water conservation program in incremental steps from a successful water conservation program begun in 1997.

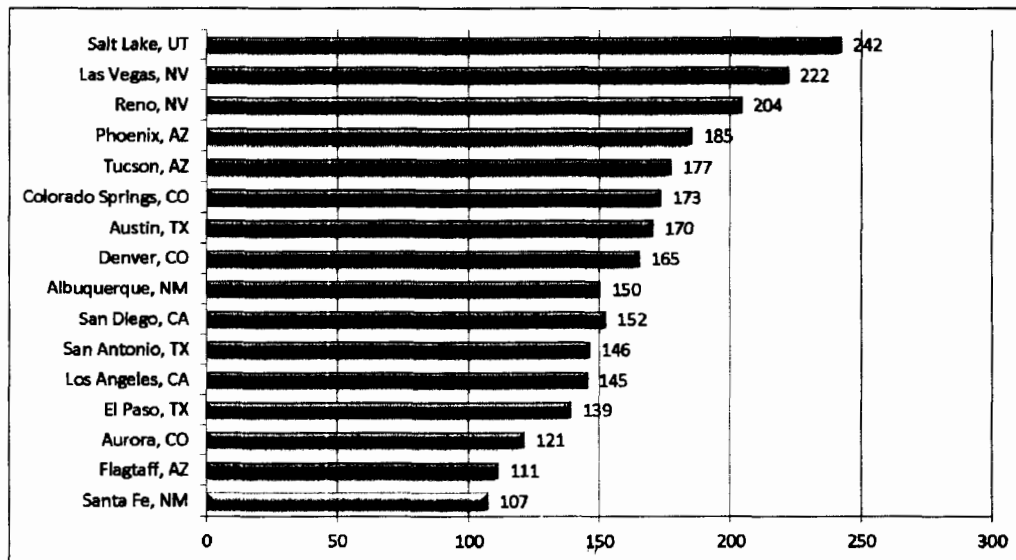
The program has expanded and diversified to include the use of media for outreach, education activities ranging from children to adult, rebate programs, and leading by example. A demonstration garden at the Water Division features water harvesting techniques including a recycled water feature powered with solar. The garden consists of several areas designed behind a theme (e.g., desert rose garden, shades of purple, high desertscape, "zero-scape", etc.) and incorporates efficient irrigation including a weather based controller.

The City has enacted a number of ordinances requiring conservation of water, restricting water usage in drought conditions, for landscape and site design, creating a water budget, and allowing Water Division customers to receive rebates for retrofitting water conservation devices in an effort to maximize water efficiency and to conserve our present and future water supply. Water rates have also played a key role in reducing consumption.

Despite recent record breaking heat and drought conditions during the past two years, Santa Fe's long-standing water conservation and drought management programs are the best in the Southwest with respect to both comprehensiveness and effectiveness.

## GPCD

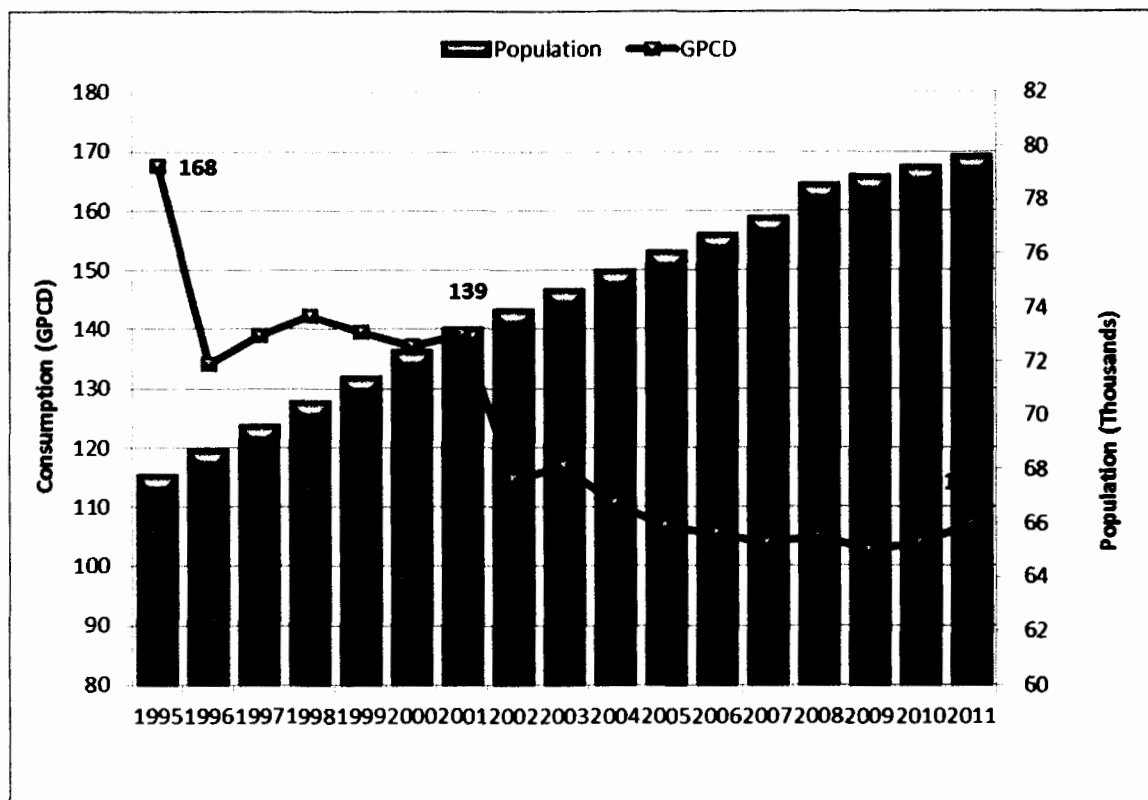
The key performance measure of any municipal water conservation program is determined by the per capita water use. City of Santa Fe Sangre de Cristo Water Division customers reduced their water use by 42 percent from 1995 to 2009.



Another measure of Santa Fe's water conservation and drought management success is declining total annual water diversions (29%) to serve a growing number of customers (15%) since 1995.

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The annual water diversions totaled 9,086 acre-feet in 2009, compared with 12,737 acre-feet in 1995, while the number of customers served by Sangre de Cristo Water increased to an estimated 79,808 people in 2009, from an estimated 67,839 in 1995.



### WATER CONSERVATION ORDINANCES

The state water conservation plan statute (1978 NMSA § 72-14-3.2) language is “to encourage” water conservation through ordinances and codes. The City of Santa Fe has enacted several ordinances and resolutions that go well beyond “encouragement” to create a comprehensive set of water conservation requirements, as well as a water rate structure designed to provide financial incentives to conserve water.

Water ordinances and regulations are compiled in Chapter 25 of the Santa Fe City Code. Water conservation and demand-offset requirements relating to new development are compiled in Chapter 14. The water conservation and drought management sections within these two chapters of the Santa Fe City Code effectively are Santa Fe’s water conservation plan.

#### Comprehensive Water Conservation Requirements Ordinance

On June 25, 1997, the City’s City Council adopted a comprehensive water conservation ordinance. This ordinance prescribes regulations and provides financial incentives for water customers to reduce their water use. Includes both indoor and outdoor water use requirements.

#### Emergency Water Use Ordinance

The City’s primary drought management tool is the Emergency Water Regulations Ordinance, which was adopted in 1996. This ordinance allows the imposition of more severe water-use

## **The City of Santa Fe's Water Conservation Journey**

restrictions as necessary to ensure that demand does not exceed sustainable available supply and production capacity during years of low snowfall in the upper Santa Fe river watershed.

### **Landscape and Site Design Ordinance**

The Governing Body established a Landscape and Site Design Ordinance Task Force, which was charged with "reviewing and making recommendations on the proposed Landscape and Site Design Ordinance." The Task Force was appointed in October of 2000 and held 13 public meetings beginning November 6, 2000. The Landscape and Site Design Ordinance was collaboratively written by City planning staff and Task Force using the 1997 Draft Landscape and Site Design Ordinance as a baseline document. The Landscape and Site Design Ordinance was adopted by the City Council at the July 25, 2001, meeting and was effective as of August 6, 2001.

### **Annual Water Budget Ordinance**

The 2003 Annual Water Budget Ordinance and the associated regulations and procedures that the Governing Body adopted by resolution #2002-55 September 25, 2002, and revised by resolution # 2003-106 December 10, 2003, requires that all new construction to be served by the Santa Fe water utility, whether located within or outside the City limits, implement stringent water conservation requirements and offset any new demand on the water system supplies through retrofitting existing high-use toilets (typically 3.5 or 5 gallons per flush) with low flow toilets (1.6 gallons per flush). In 2005, the Water Rights Transfer Program (SFFCC 1987 § 25-12) modified the 'offset' requirements in this ordinance by mandating that development projects with large water budgets (five acre-feet for commercial and ten for residential) 'offset' their future demand with Middle Rio Grande valley surface water rights instead of water conserved through toilet retrofits.

By explicitly stated legislative findings, purpose, and intent, this ordinance clearly states the need to pursue available avenues for increasing the City's water supply to quantify total system water supply and demand, and to develop annual water budgets reflecting current water supply and demand information. The ordinance explicitly recognizes that the water use of current customers has decreased by their commendable conservation efforts to the point that quantification of future system demand must consider the pent-up water demand of these customers. This recognition by the Governing Body relates to the discussion of per capita demand targets in the introductory section of this plan.

In 2009, the City updated a 1998 analysis of water use by customer sectors necessary for the City's use in creating development water budgets. The Water Use in Santa Fe II analysis is available on the City's website at <http://www.santafenm.gov/index.aspx?NID=1030>.

### **City Water Budget Ordinance**

The City Water Budget Ordinance #2009-38, adopted on August 12, 2009, became effective January 1, 2010, replacing the Annual Water Budget Ordinance. The City requires that the impact of new development be offset either through conservation in existing development or transfer of water rights to the City. The ordinance is organized into the following components:

## **The City of Santa Fe's Water Conservation Journey**

**Development Water Budgets and Building Permit Requirements (SFCC 1987 § 14-8.13).** Applicants either are required to offset their demand to obtain a building permit through dedication of water conservation credit or transferred water rights.

**City's Water Budget (SFCC 1987 § 25-9).** The annual process that City water managers undertake to account for current and projected water supplies and demands. This also includes the process by which the Governing Body allocates available water made available from City water rights purchases, leases, and City conservation measures to meet its priorities, including affordable housing.

**City Water Bank (SFCC 1987 § 25-10).** Water credit held in the City Water Bank is derived from conservation programs or from water rights transfers for future water demand offsets. Some of the water in the water bank is available either for purchase by developers for projects or for allocation by the Governing Body to a project of their choice. Additionally, water rights are reserved for specific projects (e.g., when a developer for a future project brings water rights). All water credit held in the water bank is accounted for in consumptive use acre-feet per year.

**Conservation Credit Programs (SFCC 1987 § 25-11).** Two programs generate conservation credit; water conservation rebates and water conservation contracts. Conserved water generated to offset new demand on the City's water system is referred to as water conservation credit.

**Water Rights Transfer Program (SFCC 1987 § 25-12).** The Water Right Transfer Program requires new development that will use more than five-acre-feet for commercial projects and more than ten-acre-feet for residential acquire and transfer water rights to the City of Santa Fe before building permits may be issued. (Appendix F contains the text of the ordinance SFCC 1987 § 25-9)

### **WATER RATE STRUCTURE**

The City of Santa Fe has implemented a pricing structure that encourages water conservation. High water rates along with surcharges for water use beyond limits defined by the Governing Body have greatly influenced the success of Santa Fe's water conservation and drought management programs.

#### **Current Rate Structure**

Ordinance 2006-53 (SFCC 1987 § 25-4), adopted August 28, 2006, (effective January 1, 2007)

***Note: Replaces both seasonal surcharges and drought emergency surcharges***

#### **Commodity Charge for all Customers**

<b>Effective Date</b>	<b>First tier</b>	<b>Second tier</b>
January 1, 2007	4.09 per 1,000 gallons	14.64 per 1,000 gallons

#### **8.2% Rate Increase for Five Years**

Ordinance 2009-2 (SFCC 1987 § 25-4.2), adopted January 28, 2009, (effective March 1, 2009)

## The City of Santa Fe's Water Conservation Journey

### All Customers Commodity Charge

<b>Effective Date</b>	<b>First tier</b>	<b>Second tier</b>
March 1, 2009	4.43 per 1,000 gallons	15.84 per 1,000 gallons
January 1, 2010	4.79 per 1,000 gallons	17.14 per 1,000 gallons
January 1, 2011	5.18 per 1,000 gallons	18.55 per 1,000 gallons
January 1, 2012	5.60 per 1,000 gallons	20.07 per 1,000 gallons
January 1, 2013	6.06 per 1,000 gallons	21.72 per 1,000 gallons

**Note: Monthly fixed fees for all meter sizes increase by 8.2% each year**

### PUBLIC EDUCATION PROGRAMS

A number of strategies have been developed to engage the many audiences that make up the City of Santa Fe. These programs are designed to educate each audience about the benefits of conserving water, as well as provide the necessary knowledge and tools to make the changes which are desired.

- Residential/Commercial Programs
  - Audit/leak detection
  - Irrigation evaluation
  - Water budget calculator
  - Rebates
- Children's Programs
  - Poster contest 1<sup>st</sup>-6<sup>th</sup> grades
  - Water Fiesta 4<sup>th</sup> grade
  - RiverXchange 5<sup>th</sup> grade
  - In-class presentations
- Adult Programs
  - Weekly Radio Show
  - Host Events
    - NM Landscape Conference
    - Water-Energy Summit
    - Fix-A-Leak Week
  - Drip Classes
  - Landscape Classes
  - Qualified Water Efficient Landscaper (QWEL) Certification Training
- Demonstration Garden

### PUBLIC OUTREACH & MARKETING

Monthly themes, often related to weather, holidays or events occurring that month, are used for the radio advertisements, newspaper ads, articles and water bill inserts.

January	Rate Increase
February	Winterizing, Frozen Pipe Myths
March	Fix a Leak
April	Earth Day, Mayors' Challenge
May	Time of Day Requirements, Garden and Irrigation Tips, Myth-busting
June	Restrictions Reminder, Appreciation
July	Reminder, Tips, Announcements about Bus Poster

## **The City of Santa Fe's Water Conservation Journey**

August	Reminder, Tips
September	Water Use Numbers, Timers/Rain Sensors (Monsoon Season)
October	Turn Off Irrigation
November	Winterizing, Give Thanks for Water
December	Prevent Frozen Pipes While on Vacation

Literature is distributed via information racks located throughout the City, and participation in community events provides opportunities to hand out promotional items and put a personal face on the Water Conservation Office. Additional outreach efforts include large exterior bus ads, television commercials, and promotional commercials in local movie theaters.

### **PARTNERSHIPS**

Cooperative working relationships have been developed with a variety of organizations which provide additional opportunities to disseminate information:

- Santa Fe Public Schools
- Santa Fe Community College
- New Mexico Office of the State Engineer
- New Mexico General Services Department
- U.S. EPA WaterSense
- U.S. Bureau of Reclamation Water Conservation Field Services Program

### **WATER SAVINGS**

Incentives for use of water efficient fixtures and appliances are vital components of any water conservation program. From 2004 through 2009, the Water Conservation Office offered incentive rebates for the purchase of water-efficient appliances including hot water recirculators, high efficiency clothes washers, and rainwater collection barrels. Conserved water savings for the years 2004-2009 totaled 67.26 Ac/Ft.

The rain barrel rebate program was phased out in October, 2008; however, it was reinstated in 2010. Beginning January 1, 2010, a new and expanded incentives and rebates program was incorporated into the Water Bank, which tracks conserved water to offset new development. The current program includes high-efficiency toilets, high-efficiency clothes washers, water free urinals, and rainwater harvesting. The City also offers several rebates in the commercial sector. In 2010, the water conservation rebates processed resulted in conserved water savings of 32.46 acre-feet (Ac/Ft). 2011 rebates resulted in conserved water savings of 9.04 Ac/Ft.

### **WHERE ARE WE HEADED**

A proactive approach to water conservation required

- Ordinances-new and refinements to existing
- Climate Change Report (Impact on Southwest, sources of supply)
- Long Range Water Supply Plan
- Drought Management Plan
- Reclaimed Wastewater Plan
- Automated Meter Readers for Customers to monitor individual usage
- Online Tools