



Agenda DATE 4/4/16 TIME 8:32a

SERVED BY Christine Chavez

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**SANTA FE WATER CONSERVATION COMMITTEE MEETING**

**CITY HALL - 200 LINCOLN AVE.**

**CITY COUNCILORS' CONFERENCE ROOM**

**April 12, 2016**

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

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES TUESDAY FEBRUARY 9, 2016 WATER CONSERVATION COMMITTEE MEETING
5. APPROVAL OF MINUTES TUESDAY MARCH 8, 2016 WATER CONSERVATION COMMITTEE MEETING

**ACTION ITEMS:**

6. A RESOLUTION AMENDING RESOLUTION NO. 2008-40 REGARDING MEMBERSHIP OF THE SANTA FE WATER CONSERVATION COMMITTEE TO INCLUDE TERM LIMITS FOR COMMITTEE MEMBERS. (Councilor Ives, Christine Chavez, 5 minutes)

**DISCUSSION ITEMS:**

7. DRAFT GPCD ANALYSIS (Christine Chavez, Alan Hook, 20 minutes)
8. WATER SYSTEM MAP (Christine Chavez, 10 minutes)
9. IMPLEMENTATION OF STRATEGIC MARKETING PLAN (Christine Chavez, 20 minutes)
10. DISCUSSION OF WATER CONSERVATION PROGRAM (Christine Chavez, 20 minutes)

**INFORMATIONAL ITEMS:**

11. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES: (Councilor Ives, 35 minutes)
  - A. GROUP #5- WATER SYSTEM MAP
  - B. GROUP #1- TREATED WASTE WATER AS DRINKING WATER SOURCE. (5 Minutes)
  - C. GROUP #2- WATER CONSERVATION EDUCATION/OUTREACH (5 minutes)
  - D. GROUP #3- WATER CONSERVATION CODES, ORDINANCES & REGULATIONS – LEGISLATIVE UPDATE (20 minutes)
12. Source of Supply – Drought Update

**MATTERS FROM STAFF:**

- Update on Water Conservation Program activities (10 minutes)

**MATTERS FROM PUBLIC:**

**MATTERS FROM COMMITTEE:**

**NEXT MEETING – TUESDAY MAY 10, 2016:**

**CAPTIONS: APRIL 25, 2016 @ 3 PM.**

**PACKET MATERIAL: APRIL 27, 2016 @ 3 PM.**

**ITEMS FOR NEXT AGENDA:**

Update on water reuse project – Bill Schneider (June Meeting)

**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.

WATER CONSERVATION COMMITTEE  
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FEBRUARY 9, 2016

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<b>Roll Call/Call to Order</b>	The Water Conservation Committee Meeting was called to order by Doug Pushard, Acting Chair, at 4:05 pm in the City Councilor's Conference Room. A quorum is reflected in roll call.	Page 1
Approval of Agenda	<i>Mr. Wiman moved to approve the agenda as presented, second by Mr. Michael, motion carried by unanimous voice vote.</i>	Page 1
Approval of Consent Agenda	<i>No items to approve, no action.</i>	Page 1
Approval of Minutes, January 12, 2016	<p>Mr. Pushard said that we had not included Kathryn on the Agenda for February meeting. Mr. Wood will include in March Agenda.</p> <p>Matters from Committee: 2014 Annual Water Report – Mr. Wood noted that the 2013 Annual Water Report is titled 2014. 2014 Annual Water Report is not ready. More discussion will follow and corrections will be made to the website.</p> <p>Items above are notations for staff, not changes to the minutes.</p> <p><i>Mr. Michael moved to approve the minutes of January 12, 2016 as presented, second by Mr. Wiman, motion carried by unanimous voice vote.</i></p>	Page 2
CONSENT AGENDA None	No action.	Page 2
Discussion Items <ul style="list-style-type: none"> <li>• Strategic Marketing Plan</li> <li>• Recruiting New Members</li> </ul>	Informational, no formal action.	Page 2 - 3
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CITY OF SANTA FE

# WATER CONSERVATION COMMITTEE

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## MINUTES

**Fran Lucero, Stenographer**

**2/9/2016**

DRAFT UNTIL APPROVED

**SANTA FE WATER CONSERVATION COMMITTEE MEETING**  
**CITY HALL - 200 LINCOLN AVE.**  
**CITY COUNCILORS' CONFERENCE ROOM**  
FEBRUARY 9, 2016  
4:00 PM TO 5:10 PM

**MINUTES**

**1. CALL TO ORDER**

Doug Pushard, Acting Chair for the Water Conservation Committee called the meeting to order at 4:05 pm in the City Councilors' Conference Room. A quorum is reflected in roll call.

**2. ROLL CALL**

Present:

Doug Pushard, Acting Chair

Bill Roth

Tim Michael

Stephen Wiman

Giselle Piburn

Not Present/Excused:

Councilor Ives, Chair

Lisa Randall, Vice Chair

Staff Present:

Robert Wood, Water Conservation Specialist Senior

Christine Chavez, Director, Water Conservation Department

Others Present:

Andy Otto, Santa Fe Watershed Association

Anna Serrano for Fran Lucero, Stenographer

**3. APPROVAL OF AGENDA**

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

**4. APPROVAL OF CONSENT AGENDA**

*No items to approve, no action.*



## 5. APPROVAL OF MINUTES – JANUARY 12, 2016

Mr. Pushard said that we had not included Kathryn on the Agenda for February meeting. Mr. Wood will include in March Agenda.

Matters from Committee: 2014 Annual Water Report – Mr. Wood noted that the 2013 Annual Water Report is titled 2014. 2014 Annual Water Report is not ready. More discussion will follow and corrections will be made to the website.

Items above are notations for staff, not changes to the minutes.

*Mr. Michael moved to approve the minutes of January 12, 2016 as presented, second by Mr. Wiman, motion carried by unanimous voice vote.*

## 6. CONSENT ITEMS

None

## 7. CONSENT AGENDA

No Action

## DISCUSSION ITEMS:

### 8. STRATEGIC MARKETING PLAN (Rick Carpenter)

#### **Exhibit A – Included in Packet**

Mr. Carpenter provided an update on the approval process and the road blocks he has hit. There was a contract for approval that went to Finance and City Council, and City Council did not approve and questioned items. Staff was instructed to take the Strategic Marketing Plan back to PUC as soon as possible, get their approval to be able to get the contract back to City. As many of you know we have a Strategic Marketing Plan dated back to 2012, it is a good plan and actually won an award in 2014. The issue is with that plan focused too much on the general wares, the Conservation Program has been growing by leaps and bounds and has been maturing and has been very successful. The direction and input that staff has received is to change our approach a little bit and gear it towards behavior change of individuals, residences, businesses, etc. and to be more data driven in our analysis so that we can be focused and have certain demographic targets. We are to have our outreach focus specifically on those targets. We also believe with the target demographics we will be more successful than we would have been with the new meter and billing system. We will be able to clear the data that this system collects. Lastly, there has been a lot of information in the last year, in the conservation plan; we did not have enough ability to measure success. We need the metrics and we have put them in this plan as goals, we will be able to measure and track our success. That is our philosophy in this plan. There is question if we should have a marketing person at this time. Many of the City Councilors like the plan itself and it was voted unanimously to accept the plan. Updates will be provided to the WCC members as staff enters in to the implementation process. The plan is to be implemented and measured over 4-years.

Mr. Wiman asked, on the single family usage, he always thought that the irrigation number was much higher than the storm water, are these factual numbers?

Mr. Wood said that as best they can determine they have had a lot of success in reducing the amount and type of landscapes since the year 2008 when water conservation became a priority so we do not fall within the nationwide averages of irrigation, the best shot we can get is going through a sampling of residential commercial meters to determine usage vs. taking the average. Depending on the

location you pick, say you pick a high school with football, field soccer field, baseball field, etc., it will run on national average and it will have a higher usage in the summer. Residential are not showing as big a variance as they had a decade ago. Mr. Wiman said he is pleased that the numbers are down; he thought it was between 35-38%.

Mr. Pushard said we actually do have the numbers; they are in the tool that is sent to the state, they breakout single family residences by month. Mr. Wood will go back and look at that number.

Mr. Carpenter offered to answer any questions should the members want to send him a note with their questions.

Mr. Pushard said he was disappointed that the plan did not come to the Water Conservation Committee first. One of the examples, in the goal section, there is no goal for saving water. It is a goal for the city and we should sync our goals with our plans. Mr. Carpenter said it is defined under the metrics of the plan.

Mr. Pushard said he would like staff to go back and look at the rebate analysis and the audits. He would like to see rebates for outdoor devices not linked to the program. Mr. Pushard said he is probably the number one paid auditor in the city and in the rebate amount he forces people to go through a water audit to buy a rainwater detector device. We are trying to leverage other programs and we are opposed to double dipping. There is also discussion on working with the utility companies, and there are other vendors in town that would partner with the city and do something on outdoor stuff. We have lumped everything in to QWELL.

Mr. Wood said they are planning on doing a training this month, more information to follow.

Mr. Pushard said he would also like Spanish literature for the plan and the public use.

Mr. Carpenter said that the intent is to have appropriate collateral when they target a certain market.

Mr. Pushard said that there is a large Spanish speaking population and we need the material. Mr.

Wood said that the QWELL testing is in English and it would be nice to have it in Spanish.

Thank you on behalf of the committee.

## **9. RECRUITING NEW MEMBERS FOR THE WATER CONSERVATION COMMITTEE**

Mr. Aaron Kaufman who was in the audience is a potential new member for the Water Conservation Committee and he provided a short introduction to the WCC members. Mr. Kaufman will submit his letter of interest and bio to Mayor Gonzales and the Acting Chair will send a positive recommendation to the Mayor and City Council for approval.

Mr. Wood asked the WCC members if they have any new ideas on how to recruit new members? We still have two vacancies to fill. Mr. Pushard also has a possible candidate who is on an HOA and he will make contact with this person.

## **ACTION ITEMS**

None

## **INFORMATIONAL ITEMS**

## 10. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES:

### a. GROUP #5 – WATER SYSTEM MAP

Mr. Wiman brought forward the map for review. We aren't sure what the next steps are, not knowing what the budget is to get this map circulated. Mr. Wiman would like to see a reference to the San Juan Chama project. If there was money we could create a web base with various overlays. Mr. Wiman said there is a lot that can be done with this map and it would be nice to get Mr. Carpenter involved. Mr. Roth wanted to know if this could be included in the City GIS map to show the overlays. Mr. David Versante should be contacted on behalf of the WCC members to ask if the overlays could be included adding the check boxes. Mr. Wiman said when you ask, where would people go to ask for a map like this, it would be Water Conservation. Additional discussion was held on the check boxes that the committee would like to see on the map.

Mr. Wood said we are looking at an end product, GIS needs to look at budgeting for the expansion of their system, we do not know their capacity. We would need to have someone in our area to do the updates. Mr. Carpenter has the map and Mr. Wood will follow up to see how they would add the static map and return an update to the WCC members at the next meeting.

### b. GROUP #1 – TREATED WASTE WATER AS DRINKING WATER SOURCE

– Stephen Wiman

There is a consulting firm already working on this project. They are supposed to have a draft very soon. Mr. Wiman will get more involved once the draft is available.

### c. GROUP #2 – WATER CONSERVATION EDUCATION/OUTREACH – Tim Michael

Nothing to report.

### d. GROUP #3 – WATER CONSERVATION CODES, ORDINANCES & REGULATIONS – Doug Pushard

WERS training class is scheduled for March 8, 9 and 10<sup>th</sup>. Mr. Pushard asked who would be attending from Water Conservation Department. The class is over 10 people right now and that is great.

Ms. Christine Chavez asked if accreditation would be available. Mr. Pushard and Ms. Chavez will continue this conversation off line.

## 11. SOURCE OF SUPPLY – DROUGHT UPDATE

Mr. Wood provided the WCC members the update from PUC for review. (Exhibit B) Mr. Wiman wanted to know if any numbers are available for review. Ms. Chavez said that numbers were required for the Mayor's address, the numbers are unofficial and it is at 90. Ms. Chavez will provide additional information when the internal GPDC is done. It has not been calculated per the N.M. OSE requirement that we are required to use. That number was not generated from the OSE.

## MATTERS FROM STAFF

Website and Advertising, Update

Ms. Chavez stated that she will lead the next WCC meeting, thank you to Mr. Wood for his help. Ms. Chavez will also bring information forward on the Rebate. Caryn Grosse is working on this information and by the end of the month they should have those numbers. Ms. Chavez noted that they have started to process the first commercial rebate; there may be possible changes to the ordinance. As far as the audits

that Ms. Grosse took to City Council that were approved, we need to push out a whole new set of rebate forms and launch the rebate changes on the website in a timely manner. We do not know if the contractor will be available to help us do this. We would like to have everything implemented by March. There are a lot of events for the WCC members to attend. A schedule is available in the Water Conservation Office. Mr. Andy Otto is going to participate in a collaborative discussion on the radio. More information will be brought to the committee as they materialize.

#### **MATTERS FROM COMMITTEE:**

Mr. Michael asked how does the strategic marketing plan integrate with this group.

Ms. Chavez said that Mr. Carpenter worked together with staff to identify what could be worked on in the absence of a contract and there is a lot that is already being done. Ads are being created in house and once the contractor is hired an advertising schedule will be available identifying where the ads are placed, etc. The contractor will bring in the measurement factor. We don't have that expertise in house, if the contract doesn't get approved the Director guaranteed that the work will continue in-house to make this workable.

Mr. Michael asked if the Department is still experiencing push back and if the Division needs any WCC member support to please let them know.

Ms. Chavez said that some of the ads that were going out were not data driven and staff was asked to reflect and refine a good advertising plan which resulted in the Strategic Marketing Plan. There were comments from the council and staff is following up on those concerns.

- **Mr. Wiman requested that the Map discussion be brought back next month as an Action Item.**
- **Hardware roll out and billing software update to be placed on next agenda.**
- **Mr. Wood would need items by way of e-mail no later than February 24, 2016 for agenda.**
- **Mr. Pushard would like to see the Strategic Plan on the Agenda next month.**

#### **MATTERS FROM THE PUBLIC**

Andy Otto – Love Your River Day this Saturday. Mayor to read proclamation at 10:15 am.

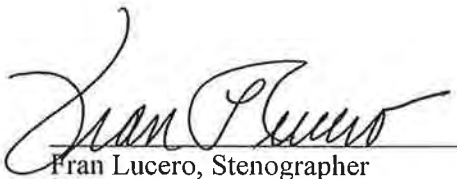
#### **NEXT MEETING – THURSDAY, MARCH 8, 2016**

#### **ADJOURN**

There being no further business to come before the Water Conservation Committee, the meeting was adjourned at 5:10 pm

**Signature Page:**

\_\_\_\_\_  
Doug Pushard, Acting Chair

  
Fran Lucero, Stenographer

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MARCH 8, 2016

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Approval of Agenda	<i>Mr. Wiman moved to approve the agenda as amended, second by Mr. Michael, motion carried by unanimous voice vote.</i>	Page 1
Approval of Consent Agenda	<i>No items to approve, no action.</i>	Page 1
Approval of Minutes, February 9, 2016	Minutes will be approved at April meeting, not included in packet.	Page 1
CONSENT AGENDA None	No action.	Page 1
Action Items <ul style="list-style-type: none"> <li>- Changes to Resolution No. 2008-40 to include term limits for WCC</li> <li>- Changes to Informational Items on the Agenda</li> <li>- Draft GPCD Analysis No Action, to be placed on April Agenda</li> <li>- 2015 Rebate Summary</li> <li>- Change to the Residential Rebate Form</li> </ul>	<i>NO FORMAL VOTE.</i>  <i>Informational</i>	Page 2-5
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Adjournment and signature	Meeting was adjourned at 6:10 pm	Page 6

**SANTA FE WATER CONSERVATION COMMITTEE MEETING**  
**CITY HALL - 200 LINCOLN AVE.**  
**CITY COUNCILORS' CONFERENCE ROOM**  
MARCH 8, 2016  
4:00 PM TO 6:10 PM

**MINUTES**

**1. CALL TO ORDER**

Councilor Peter Ives, Chair for the Water Conservation Committee called the meeting to order at 4:05 pm in the City Councilors' Conference Room. A quorum is reflected in roll call.

**2. ROLL CALL**

Present:

Councilor Peter Ives, Chair  
Lisa Randall, Vice Chair  
Doug Pushard  
Tim Michael  
Stephen Wiman

Not Present/Excused:

Bill Roth  
Giselle Piburn

Staff Present:

Christine Chavez, Director, Water Conservation Manager  
Lisa Noriega, Water Conservation Education & Compliance Specialist

Others Present:

Andy Otto, Santa Fe Watershed Association  
Anna Serrano for Fran Lucero, Stenographer

**3. APPROVAL OF AGENDA**

**Action Items #6 – For discussion only.**

**Discussion Items #9 – Draft GPCD Analysis, remove from Agenda as this item is not complete.**

*Mr. Wiman moved to approve the agenda as amended, second by Mr. Michael, motion carried by unanimous voice vote.*

**4. APPROVAL OF CONSENT AGENDA**

*No items to approve, no action.*

**5. APPROVAL OF MINUTES – FEBRUARY 9, 2016**

**No changes from staff.**

*Minutes could not be approved as they were not included in packet for review. The Chair asked that February 9, 2016 minutes be included in next month packet.*

## **ACTION ITEMS:**

### **6. CHANGES TO RESOLUTION NO. 2008-40 TO INCLUDE TERM LIMITS FOR WCC MEMBERS**

Ms. Chavez did solicit input from the City Manager. Ms. Chavez said that in reviewing the resolution there was no term limit for the Water Conservation Committee and the changes as indicated below outlines the terms.

The proposed resolution states: TERMS: Beginning with the adoption of this resolution, the five members who have served the longest uninterrupted terms shall be appointed to a one-year term, and the three existing members who have served the shortest period uninterrupted terms shall be appointed a two year term. Subsequent terms shall be for two years to maintain staggering for terms. Members may serve no more than two consecutive terms, but may be appointed following a minimum one year hiatus. After three consecutive unexcused absences, a commission member shall be automatically removed and notified thereof by the chairperson.

Basically it would be 2 – 2 year terms with reappointment after 1 year. Ms. Chavez feels that this will also help in recruitment and they can commit to a specific term. Councilor Ives will follow up with Jessie to request clarification in the contents of this proposal regarding the staggering of terms.

Ms. Randall said that it is a challenge to keep the seat full on committee and noted that we need a more defined term so people know what they are committing too. She asked if it would be possible to remove the 1 year hiatus and the excused and unexcused absences, possibly get rid of the “excused” absences. 3 months in a row whether you call or not remains the same as an absence. Mr. Michael noted that absences do not really fall under terms of membership and wasn’t sure if he agreed with the 1year hiatus. He noted that there are pros and cons and we have had problems keeping members on the committee.

The Chair noted that the objective is getting all of the groups represented and relevant voices heard.

Ms. Randall asked if they could propose a person from Santa Fe County as it says it would need to be approved by the Governing Body. The Chair said that he could see this playing out a number of ways; the governing body is the Mayor and City Council and it would need to be included in the resolution to assure that the boundaries are defined. Ms. Randall feels that the expertise that a county representative could contribute would be beneficial. (Item 9-c)

Mr. Michael asked that a draft copy be sent to the WCC members including all recommended changes.

Ms. Chavez noted that she would integrate all comments; adding 4 meetings total a year for unexcused absences and “remove excused” and look in to the staggering of the terms. She recognized the member’s commitment and investment in the committee and noted they need to manage term limits so that we are not always looking for members. She will continue to do research on membership and recruitment.

### **7. CHANGES TO INFORMATIONAL ITEMS ON THE AGENDA**

Ms. Chavez noted that she has been taking time to meet with each of the WCC members one-on-one to better acquaint herself with each one’s goals for the WCC. She will continue to reach out to those she has not made personal contact with.

Ms. Chavez proposed some slight changes to the agenda to designate stakeholder groups again and ask for specific input from each one. Question to the WCC members is if they were comfortable in volunteering to report on one of those. This would be different from the established Group reports. Ms. Chavez feels that more direction needs to be pin pointed and collaboration with the WCC members. Ms. Chavez respects the initiatives set by the WCC members and would like to add the staff reports to the WCC. Ms. Chavez referred to her memo of February 19, 2016 to the WCC members detailing the proposed changes to meeting agenda. (Exhibit A)

The WCC members welcomed this addition to the agenda and the open communication which will streamline information and be useful for the members. The Chair reiterated that this would open a positive line of communication for the members and staff. Mr. Michael complimented Ms. Chavez and said he looks forward to a more collaborative approach and noted that implementation has to be more global in educating the community and not just focusing in this meeting. Ms. Chavez reiterated that she is trying to build more of a collaborative program that staff can implement. She stated that the diverse and unique background that the WCC members possess is a priceless attribute to the Water Conservation Committee. The Chair also stated that one mechanism would be setting aside 15-20 minutes to talk about what is happening in the Division.

It was asked; "how can we improve and try new things?" Ms. Chavez reiterated that breaking up the agenda into stake holder groups will be one way to keep communications flowing outside of meeting dates to strengthen information sharing. Mr. Wiman suggested lectures and workshops in the community on water conservation; Ms. Chavez supports that idea.

Ms. Chavez said some of the item examples would be, 1) gearing up to on the revised rebate application. This new program will have new forms to be implemented May 1, 2016. It was noted that there is a resolution associated with the commercial rebate, information to be brought to next meeting. Irrigation rebate is currently not working. More training is needed in order to promote this information on the irrigation rebate program. Ms. Chavez noted that there was an application for the commercial rebate program and asked the committee members if they had an opportunity to review that. It did have a resolution with it and had a \$25,000 cap on it as far as changes. Ms. Chavez said that they have come across some issues, and this is the only application. Being that the way the resolution reads it doesn't necessarily match the application the way it reads, therefore there is a conflict. At this time Ms. Chavez is in review of that application, she will bring the information to the next meeting once it is corrected. This action is very important as it is the first one and we need to be prepared for future applicants. Ms. Chavez said that if changes are not expressed today to please send her the information.

Another important topic is the Irrigation Rebate, it is not working. Ms. Chavez is pulling all outreach on this rebate; not promoting it, not handing out information, not promoting it as part of QWELL. Ms. Chavez believes QWELL training is a stand along. Goal is to provide training. The irrigation part of it needs to be looked at to figure out another method of rebate earning.

Our school outreach is great with some of the programs that we presently have. Ms. Noriega, who is now on staff in the Water Division, will be extremely an asset to work with the schools. One way to change the behavior is to invest in educating our children. The children take the information back home to their families to implement; it is one good way to do outreach with our school children. In discussion with staff we need to build a program for our schools. We have ordered a great model display which explains many water components for education. We need to work together to create a K-12 water program. We can tie in to watershed tours and work closer with our collaborators and teachers and connect our current programs. Ms. Chavez asked for suggestions of contacts and



collaborators from the WCC members. Ms. Chavez also recognized Mr. Otto from the Santa Fe Watershed for the tours that are conducted and she would like to collaborate with him.

In mentioning these examples, Ms. Chavez looks forward to working with the WCC members. The Chair recommended that a 20-minute allowance be set on the Agenda for Staff Update and recommended that possibly two topics per meeting be discussed.

Ms. Chavez talked about the historical snags that have transpired on the map progress. Mr. Wiman met with Ms. Chavez to define what has not taken place and after review there is a compromise we can make. We should be able to make a first phase of this project and get it on to the website as we have good information available. With the other things that the WCC members have identified they would like to see on the map, we can continue to work on those items as a Phase II. Mr. Wiman and Ms. Chavez have worked with Andrew Erdman and after several meetings the information that should be placed on the website was discussed. Mr. Erdman was not available to bring the proposed map today as he is out; but the more complete map will be available at the next meeting. Ms. Wiman has ideas on what can be populated to bring up additional information on the reservoirs. Engineers are on board with that so the updates will be work in progress. It is important to inform people where they get their water from. As our meeting progress we need to continue that conversation on the use of non-potable water, treated effluent, water quality and other areas of interest. Today's presentation is to give the WCC members an opportunity to suggest any changes in the interim to Mr. Wiman or Ms. Chavez. Now that there is a common goal, it is nice to work on this initiative together.

WCC members were able to see the website and its content. Feedback is that there is way too much on the website. Staff would like to work on streamlining the information and making it more users friendly. Mr. Michael said he is fond of cartoons and has asked for 2 years to see the demonstration of systems dynamics model. He said if we got some cartoon pieces which could go on the website and see how it interacts. Ms. Chavez asked if he was referring to a flow chart or diagram and Mr. Michael said yes, something to that effect. Ms. Chavez noted that this got lost in the process; once it was brought up in a staff meeting everyone was supportive so we need to resurrect what it is we want and need. We also want to target messaging through social media and that will require more conversation. Ms. Chavez will bring the map back to the members next month. Ms. Chavez said they have made progress and they can now go back and identify who has looked at the website to measure if it is effective or not.

#### **8. *DRAFT GPCD ANALYSIS (NO ACTION AT THIS MEETING, NOT COMPLETED)***

#### **9. 2015 REBATE SUMMARY**

Ms. Grosse put together the summary for 2015. Mr. Pushard requested that the 2013-2014 summaries be included for review. In regards to the rebates, Lisa has provided the consistency that we needed in the actual processing of the rebates. Before we had 4-5 different staff members doing the input for rebates so there was inconsistency when end of year audit was conducted. Lisa is working on it consistently and Ms. Chavez feels comfortable that data will be accurate. Ms. Chavez noted that most rebates are for toilets. With the washing machines had the change in tiers and there were not a lot that qualified. They are now looking at the denials. Under the new rebate program there are a lot more washing machines that will qualify as they can be tier 2 or 3 models and that will help the programs.

The Chair commented that we need to get the State involved again.

Ms. Chavez said that this rebate program has been in place for such a long time that she feels it needs to re-energize. Mr. Michael offered himself and Mr. Pushard to meet with Ms. Chavez on the rebate

program. Ms. Chavez has made a contact with PNM to work on the rebate program and she will continue to contact NM Gas Company.

#### **10. CHANGES TO THE RESIDENTIAL REBATE FORM**

There is also discussion on a whole house rebate and we can continue to discuss that. Again, this rebate program hasn't changed for 8 years – we are now introducing a new form and asked that the WCC members make their changes and send to Ms. Chavez. We will also bring the commercial rebate form which is for hotels/motels. There is a commercial rebate related say to car washes, there is an applicant who has found a loop hole so we need to review carefully.

### **INFORMATIONAL ITEMS**

#### **11. Group Reports from Water Conservation Committee Initiatives**

- a. Group #5 – Water System Map  
(Reported on above.)
- b. Group #1 – Treated Waste Water as Drinking Water Source  
(Deferred back to the Water Division). Ms. Chavez said that she would follow up on this item and report at next meeting. The Chair stated that it would be helpful to have a chart, report and website list and dates with the links. Ms. Chavez said there is also discussion on making changes to Chapter 25.
- c. Group #2 – Water Conservation Education/Outreach (nothing to report)  
The Chair made note at the city level there are problems with billing at the water company. This hampers getting information out on water conservation for a while.
- d. Group #3 - Water Conservation Codes, Ordinances and Regulations – Legislative Update.

Mr. Pushard informed the members that the summary sheet was not included in the packet. The operating budget approval was not available; he will bring the water related items to the next meeting.

At the WERS level, the Sustainable Building Tax Credit was approved, gets refunded in 2017 and training is going on right now. WERS is part of that program, they are training in Albuquerque today and they will train for the builders here in Santa Fe. Mr. Pushard would like to see whole house rebates. Mr. Pushard said he is circulating legislation for next year for existing home and he will talk to Ms. Chavez on how we get this moving forward. The International Code Committee meeting is in 2 months, first draft is on rainwater harvesting codes and there are some new irrigation codes that are being published that might affect our standards and our irrigation codes. Hope is to have the draft of at least one of them in the packet for the next meeting. Mr. Pushard noted that the wire reports that Tucson is leading in the west in water conservation. Mr. Pushard will continue to share information with the members through the monthly meeting packet. Mr. Pushard said he would like to see press releases more frequent to report successes. Ms. Chavez welcomes help from the WCC members if they should ever want to draft any press releases. Mr. Pushard is happy to do both, write and get it posted.

Ms. Chavez has spoken to Katherine and Mr. Pushard said that she too is in the class. Katherine is expecting to be on the agenda next month.

*(Vice Chair Randall assumed leadership of WCC in the absence of the Chair)*

## **12. Source of Supply – Drought Update**

Mr. Pushard said that having Alex or Rick at the WCC meetings quarterly would be helpful. Ms. Chavez welcomes feedback if there are any questions to please send to Ms. Chavez beforehand. Mr. Pushard said that the summary report does not give enough information. Mr. Wiman added that having someone monthly from the Water Division. It was noted that Allen would represent the discussion on the GPCD at the April meeting. Mr. Wiman said that if there was representation this could eliminate items of discussion being deferred. Ms. Chavez will follow up on this request, possibly have representation every other month and identify who the person would be so questions could be given to Ms. Chavez on the agenda. Mr. Wiman suggested that staff should be placed at the beginning of the agenda for all meetings.

## **MATTERS FROM STAFF**

- Update On Water Conservation Program Activities
- Free Well Water Testing
- Home Show This Weekend.
- March 22<sup>nd</sup>, World Water Day
- March 18<sup>th</sup> – Flapper Friday. Information to Be E-Mailed To All Members. It Was Requested That Helping To Promote Any Of These Events Is Appreciated. Councilor Ives Will Promote On The Radio Weekly Show.

## **MATTERS FROM THE PUBLIC**

**NONE**

## **MATTERS FROM COMMITTEE:**

- Councilor Ives announced his successful re-election and he has been asked to remain on the Water Conservation Committee.
- Mr. Michael requested an update on the Strategic Marketing Plan. Ms. Chavez noted that there are some small changes that she wants to incorporate that were recommended by the WCC members.
- Next Agenda: Mr. Pushard would like to discuss on-going grants for water projects.
- Allen for GPCD at April meeting.
- May was the date identified by Bill. Report on Treated Effluent in June vs. May.
- Identify date for Rick Carpenter to attend meeting.

## **NEXT MEETING – TUESDAY, APRIL 12, 2016**

## **ADJOURN**

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

## **Signature Page:**

\_\_\_\_\_  
Councilor Peter Ives, Chair

  
\_\_\_\_\_  
Fran Lucero, Stenographer

# City of Santa Fe, New Mexico

## LEGISLATIVE SUMMARY

Resolution No. 2015-\_\_\_\_

### Water Conservation Committee Term Limits

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**SPONSOR(S):** Councilor Ives

**SUMMARY:** The proposed resolution amends Resolution No. 2008-40 regarding membership of the Santa Fe Water Conservation Committee to include term limits for committee members.

**PREPARED BY:** Rebecca Seligman, Legislative Liaison Assistant

**FISCAL IMPACT:** No

**DATE:** March 22, 2016

**ATTACHMENTS:** Resolution  
FIR

---

1 **CITY OF SANTA FE, NEW MEXICO**

2 **RESOLUTION NO. 2016-\_\_**

3 **INTRODUCED BY:**

4  
5 Councilor Peter N. Ives

6  
7  
8  
9  
10 **A RESOLUTION**

11 **AMENDING RESOLUTION NO. 2008-40 REGARDING MEMBERSHIP OF THE SANTA**  
12 **FE WATER CONSERVATION COMMITTEE TO INCLUDE TERM LIMITS FOR**  
13 **COMMITTEE MEMBERS.**

14  
15 **WHEREAS**, the Water Conservation Committee was established by Resolution No. 2002-25  
16 and amended by Resolution No. 2008-40; and

17 **WHEREAS**, the Water Conservation Committee is charged with promoting water  
18 conservation, developing conservation proposals, and advising the City of Santa Fe on water  
19 conservation activities; and

20 **WHEREAS**, on March 8, 2016 the Water Conservation Committee approved  
21 recommendation to the Governing Body that term limits be imposed for members of the Water  
22 Conservation Committee.

23 **NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE**  
24 **CITY OF SANTA FE** that Resolution No. 2008-40 is hereby amended as follows:

25 **NAME:** The Committee shall be called the Santa Fe Water Conservation Committee

1 (SFWCC).

2 **PURPOSE:** To promote water conservation, develop water conservation proposals and  
3 advise City government.

4 **DUTIES AND RESPONSIBILITIES:**

- 5 1. The SFWCC is charged with promoting water conservation, developing water  
6 conservation proposals and advising City government on water conservation  
7 activities;
- 8 2. Identifying ways to reach out to groups of all ages to educate them on additional  
9 ways to conserve water, discussing water conservation programs, their costs and  
10 benefits and methods of administration;
- 11 3. Examining building code provisions, construction practices and land use policies and  
12 their effect on water use;
- 13 4. Propose changes in code, practice and policy that will promote further water  
14 conservation; and
- 15 5. When time permits, the SFWCC shall be given the opportunity to discuss and make  
16 recommendations on water conservation programs being undertaken by the City, so  
17 long as that consideration does not delay implementation of any program.

18 **MEMBERSHIP:** The Committee shall be appointed by the Mayor and consist of ten  
19 members, not including the chair. The membership shall be balanced with no more than two persons  
20 per group. The membership shall include persons with the following kinds of expertise: (1)  
21 landscaping water conservation practices; (2) building construction practices; (3) creating and/or  
22 implementing education programs; (4) familiarity with land use policies; (5) familiarity with  
23 hydrology, engineering or other forms of water-related technical expertise; (6) water quality and  
24 water harvesting/water reuse and (7) the perspectives of other constituency groups that are an  
25 important part of a comprehensive discussion and strategy on water conservation. These other

1 constituencies include homeowners, business owners, youth, and state government.

2 **TERMS:** Commencing upon the effective date of this resolution, the five members who  
3 have served the longest uninterrupted terms shall be appointed to a one year term, and the three  
4 existing members who have served the shortest uninterrupted terms shall be appointed to a two year  
5 term. Subsequent terms shall be for two years to maintain staggering of terms. Members may serve  
6 no more than two consecutive terms, but may be reappointed following a minimum one year hiatus.  
7 After three unexcused absences per term year, a commission member shall be automatically removed  
8 and notified thereof by the chairperson.

9 **OFFICERS:** The Mayor shall appoint the chair. The chair shall be a City Councilor and the  
10 vice chair shall be designated by the chair in accordance with Article 8 of Resolution 1984-56.

11 **MEETINGS:** The Committee shall meet on an as needed basis to complete its assigned  
12 duties.

13 **STAFF LIAISON:** The staff liaison shall be from the Water Division.

14 **TIME:** The Committee shall serve until terminated by the Governing Body.

15 PASSED, APPROVED and ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

16  
17  
18 \_\_\_\_\_  
19 JAVIER M. GONZALES, MAYOR  
20

21 ATTEST:

22  
23 \_\_\_\_\_  
24 YOLANDA Y. VIGIL, CITY CLERK  
25

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APPROVED AS TO FORM:

A handwritten signature in black ink, reading "Kelley A. Brennan", written over a horizontal line.

KELLEY A BRENNAN, CITY ATTORNEY



## City of Santa Fe Fiscal Impact Report (FIR)

This Fiscal Impact Report (FIR) shall be completed for each proposed bill or resolution as to its direct impact upon the City's operating budget and is intended for use by any of the standing committees of and the Governing Body of the City of Santa Fe. Bills or resolutions with no fiscal impact still require a completed FIR. Bills or resolutions with a fiscal impact must be reviewed by the Finance Committee. Bills or resolutions without a fiscal impact generally do not require review by the Finance Committee unless the subject of the bill or resolution is financial in nature.

### Section A.      **General Information**

(Check) Bill: \_\_\_\_\_ Resolution:   X  

(A single FIR may be used for related bills and/or resolutions)

Short Title(s): **A RESOLUTION AMENDING RESOLUTION NO. 2008-40 REGARDING MEMBERSHIP OF THE SANTA FE WATER CONSERVATION COMMITTEE TO INCLUDE TERM LIMITS FOR COMMITTEE MEMBERS.**

Sponsor(s): \_\_\_\_\_

Reviewing Department(s): Water Division

Persons Completing FIR: Christine Chavez Date: 3/8/16 Phone: x4219

Reviewed by City Attorney: Kelly A. Brennan Date: 3/24/16  
(Signature)

Reviewed by Finance Director: [Signature] Date: 3-24-2016  
(Signature)

### Section B.      **Summary**

Briefly explain the purpose and major provisions of the bill/resolution:

**This resolution amends Resolution No. 2008-40 regarding membership of the Water Conservation Committee to include term limits for the committee members. Currently members are permitted to serve until such time as they choose to resign, or are removed by the Mayor. The new language adopts a limit of two consecutive terms, but members may be reappointed after a minimum one year hiatus from the committee.**

### Section C.      **Fiscal Impact**

**Note:** Financial information on this FIR does not directly translate into a City of Santa Fe budget increase. For a budget increase, the following are required:

- a. The item must be on the agenda at the Finance Committee and City Council as a "Request for Approval of a City of Santa Fe Budget Increase" with a definitive funding source (could be same item and same time as bill/resolution)
- b. Detailed budget information must be attached as to fund, business units, and line item, amounts, and explanations (similar to annual requests for budget)
- c. Detailed personnel forms must be attached as to range, salary, and benefit allocation and signed by Human Resource Department for each new position(s) requested (prorated for period to be employed by fiscal year)\*

#### **1. Projected Expenditures:**

- a. Indicate Fiscal Year(s) affected – usually current fiscal year and following fiscal year (i.e., FY 03/04 and FY 04/05)
- b. Indicate:      "A" if current budget and level of staffing will absorb the costs  
                      "N" if new, additional, or increased budget or staffing will be required
- c. Indicate:      "R" – if recurring annual costs  
                      "NR" if one-time, non-recurring costs, such as start-up, contract or equipment costs
- d. Attach additional projection schedules if two years does not adequately project revenue and cost patterns
- e. Costs may be netted or shown as an offset if some cost savings are projected (explain in Section 3 Narrative)

Finance Director: \_\_\_\_\_

X   Check here if no fiscal impact

Column #:	1	2	3	4	5	6	7	8
	Expenditure Classification	FY _____	"A" Costs Absorbed or "N" New Budget Required	"R" Costs Recurring or "NR" Non-recurring	FY _____	"A" Costs Absorbed or "N" New Budget Required	"R" Costs – Recurring or "NR" Non-recurring	Fund Affected

Personnel\*      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Fringe\*\*      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Capital Outlay      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Land/ Building      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Professional Services      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

All Other Operating Costs      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Total:      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

\* Any indication that additional staffing would be required must be reviewed and approved in advance by the City Manager by attached memo before release of FIR to committees. \*\*For fringe benefits contact the Finance Dept.

## 2. Revenue Sources:

a. To indicate new revenues and/or

b. Required for costs for which new expenditure budget is proposed above in item 1.

Column #:	1	2	3	4	5	6
	Type of Revenue	FY _____	"R" Costs Recurring or "NR" Non-recurring	FY _____	"R" Costs – Recurring or "NR" Non-recurring	Fund Affected

\_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

\_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

\_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

Total:      \$ \_\_\_\_\_      \_\_\_\_\_      \$ \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_

### 3. Expenditure/Revenue Narrative:

Explain revenue source(s). Include revenue calculations, grant(s) available, anticipated date of receipt of revenues/grants, etc. Explain expenditures, grant match(s), justify personnel increase(s), detail capital and operating uses, etc. (Attach supplemental page, if necessary.)

N/A.

---

### Section D.      **General Narrative**

**1. Conflicts:** Does this proposed bill/resolution duplicate/conflict with/companion to/relate to any City code, approved ordinance or resolution, other adopted policies or proposed legislation? Include details of city adopted laws/ordinance/resolutions and dates. Summarize the relationships, conflicts or overlaps.

None identified.

---

### **2. Consequences of Not Enacting This Bill/Resolution:**

Are there consequences of not enacting this bill/resolution? If so, describe.

Members of the Water Conservation Committee will not be bound by term limits.

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### **3. Technical Issues:**

Are there incorrect citations of law, drafting errors or other problems? Are there any amendments that should be considered? Are there any other alternatives which should be considered? If so, describe.

None identified.

---

### **4. Community Impact:**

Briefly describe the major positive or negative effects the Bill/Resolution might have on the community including, but not limited to, businesses, neighborhoods, families, children and youth, social service providers and other institutions such as schools, churches, etc.

The term limits will help in recruitment of new members and follows the City Rules for Committees and Advisory Groups.

---

# City of Santa Fe, New Mexico

# memo

**Date:** March 24, 2016

**To:** Public Utilities Committee

**From:** Alan G. Hook, Water Resources Analyst *A.G.H.*  
Christine Y. Chavez, Water Conservation Manager *CYF*

**Via:** Rick Carpenter, Water Resources and Conservation Manager *RC*  
Nicholas Schiavo, Public Utilities Department and Water Division Director *NC for Nick Schiavo*

**RE:** 2015 GPCD (gallons per capita per day) Reporting Utilizing the NM Office of the State Engineer Methodology

---

## **Introduction:**

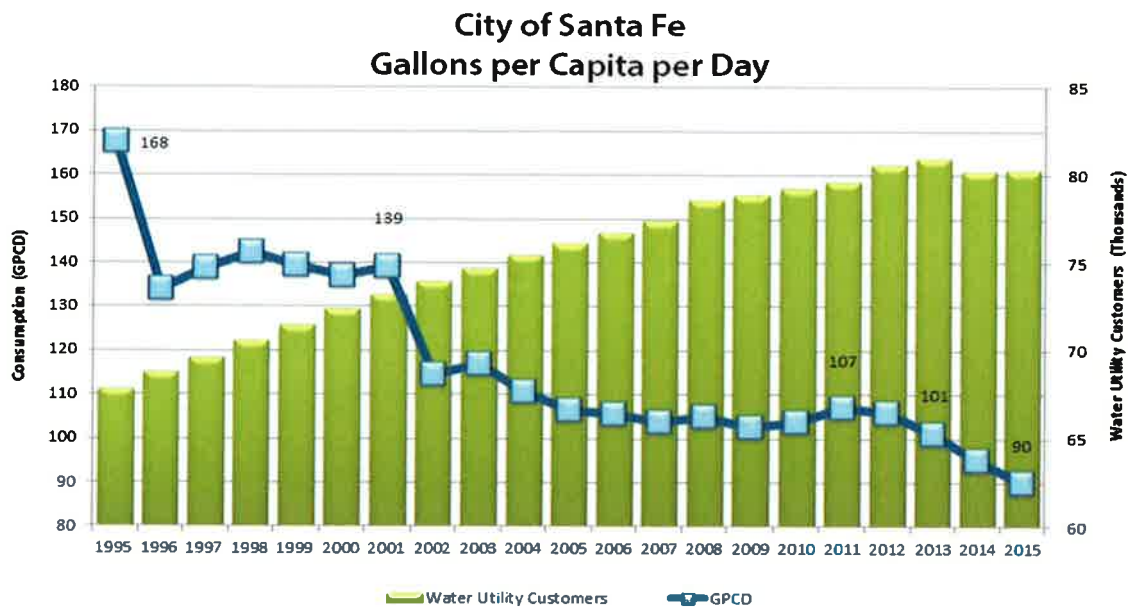
The 2015 City of Santa Fe Water Division's (City) water production for customers within the water utility's service area remained under 10,000 acre-feet (af), due to water conservation efforts practiced by the community along with significant precipitation for the year. Another measurement of water conservation success is the use of the gallons per capita per day (GPCD) calculation. Staff has completed the annual GPCD report for 2015 using the New Mexico Office of the State Engineer's (NMOSE) methodology referenced below. The NMOSE GPCD calculation for 2015 resulted in 90 gallons per capita per day. As part of the conditions applied to the City's water right permits, the City must submit an annual GPCD calculation to the NMOSE. Though this region of New Mexico has experienced climatic and seasonal challenges, the calculated GPCD of 90 is a result of progressive on-going water conservation efforts by the City's water customers.

## **NMOSE GPCD Calculator Methodology:**

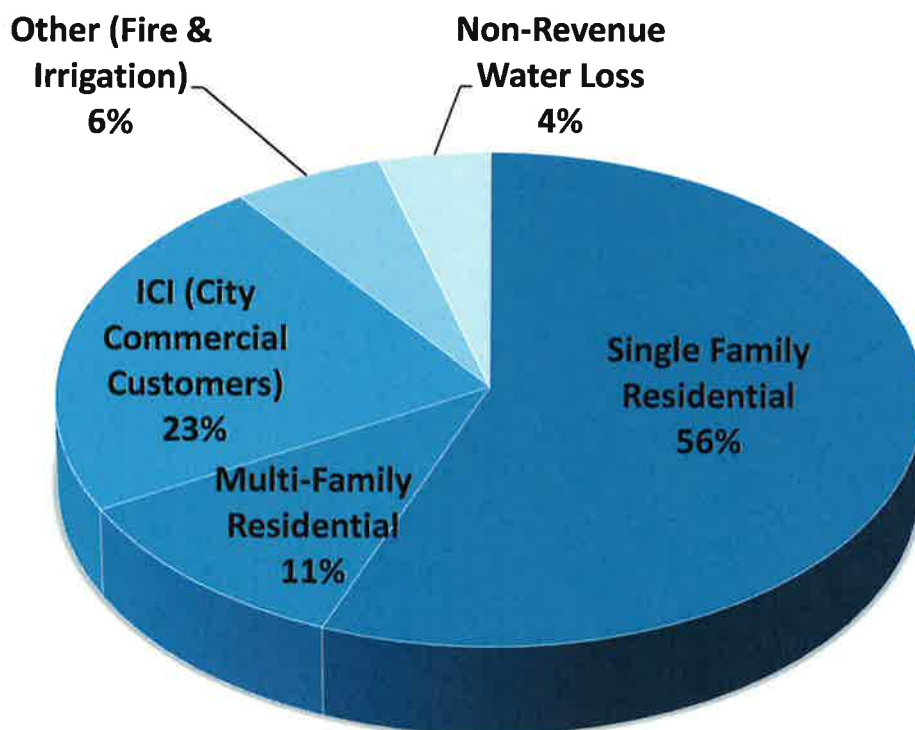
To better regulate municipal water use, the NMOSE began to condition municipal water-rights permits with the GPCD measurement and began a program to standardize the GPCD methodology (see attachment 1, Vogel, et al. 2009, Southwest Hydrology). On March 16, 2009, the NMOSE released the standardized GPCD methodology using the GPCD calculator, 2.04 Beta Version. The City was required to use the tool for the first time in 2010.

## **Results of the 2015 GPCD Calculator:**

For 2015, the GPCD of the City of Santa Fe Water Division customers was 90 gallons per capita per day. The previous year, the NMOSE methodology calculation for the City of Santa Fe was 95 GPCD. In comparison to other cities in the southwest, the City's GPCD is one of the lowest.



**Figure 1: GPCD for the City of Santa Fe from 1995-2015**



**Figure 2: 2015 Gallons per Capita per Day by Customer Service Type**

**Conclusion:**

The City has achieved lower water consumption through public outreach, ordinances requiring customers to comply with water conservation conditions and the utilization of incentives. Single-family residential customers are the largest category of the water utilities customer usage.

**Attachment:** *Apples to Apples: A Standardized Measure for Municipal Water.* Vogel, Cheri and J. Longwirth, NMOSE. Southwest Hydrology. November/December p. 24-25.





Photo: drip lines at Tucson Botanical Gardens

## Apples to Apples: A Standardized Measure for Municipal Water

*Cheri Vogel and John Longworth –  
New Mexico Office of the State Engineer*

In the mid 1980s water conservation became a standard by which the New Mexico state engineer evaluated water-rights transfers. In 1997, the state engineer required all water-rights permits to state that the permit “shall not be exercised ... in a manner that is contrary to the conservation of water within the state...”. Evaluating whether an applicant is utilizing water in a manner consistent with conservation principles is difficult; ever-evolving conservation technologies and practices add to the challenge.

The most widely recognized metric for water use is gallons per capita

per day (GPCD). Should a continued reduction of GPCD over time equate to a measurement of conservation? The answer is complicated. Numerous aspects affect a drinking-water supplier’s GPCD, such as demographics, climate, economics, and availability of supply. These can change over time to influence GPCD, but the calculation of GPCD itself must remain constant if valid use comparisons are to be made. Yet staffing changes, public-image pressures, and other influences have caused drinking-water suppliers to modify their GPCD calculations, further complicating the evaluation of conservation efforts.

### Need for Standardization

The New Mexico Office of the State Engineer (NMOSE) is charged with administering the state’s water resources. It has statutory responsibility over the supervision, measurement, appropriation, and distribution of all surface water and groundwater in the state. As in most southwestern states, municipal use is the principal area of increasing demand. Therefore, to better regulate municipal water use, the agency began to condition municipal water-rights permits with a target GPCD. And, aware of the many ways GPCD calculations can vary, it began a program to standardize them.

### Apples and Oranges

NMOSE first looked at how other states determine GPCD. When the study began in 2007, Florida, Texas, Kansas, and Arizona all were using some form of standard GPCD calculation, for which the primary variables are gallons of water and population. Three of the states researched used total gallons diverted from surface or groundwater prior to treatment or storage, while one used gallons billed to customers. Other states not included in the original research subsequently reported including reuse, raw (diverted water that may have been stored), or diverted water. Two of the original states allowed systems to define their own populations, one used a seasonally adjusted population, while the fourth used the number of living units times a person-per-household average from the U.S. Census Bureau. These may seem like subtle variations but they make a significant difference in the calculation.

Looking within New Mexico, NMOSE found similar variations. Approaches used to estimate population, the most difficult variable to isolate, varied widely. The Census Bureau’s population is most commonly used for cities or counties, however political boundaries do not always coincide with water suppliers’ service boundaries. Some water providers incorporated miscellaneous populations such as tourists, undocumented workers, and estimated incoming commuter population based on commercial space. Some population figures were reduced based on estimates of homes within the service area having privately owned domestic wells, and connections assumed to be second homes. Other systems used a form of housing units multiplied by persons-per-household, where the latter figures were undocumented, “educated” guesses. These different approaches underscored the need for standardization.

### NMOSE Methodology

NMOSE’s goal for a GPCD method focuses on tracking individual water delivery systems rather than comparing GPCD numbers between systems. This requires detailed information that allows each system to be analyzed separately. Therefore, the agency’s method provides subcategories of GPCD and requires a standard calculation of populations served. The subcategories include: system total, single-family residential, multi-family residential, CII (commercial, industrial, and institutional), other (as defined by the system), reuse, and non-revenue. The system total calculation is based on the total water diverted; all other categories use billed water except non-revenue, which uses the difference between diverted and billed. The population is calculated as the number of housing units multiplied by the Census Bureau’s average persons-per-household for occupied homes within the system’s service area. These details allow systems heavily influenced by a large industrial base to be distinguished from those that are primarily residential or that have spikes in commercial use during tourist season.

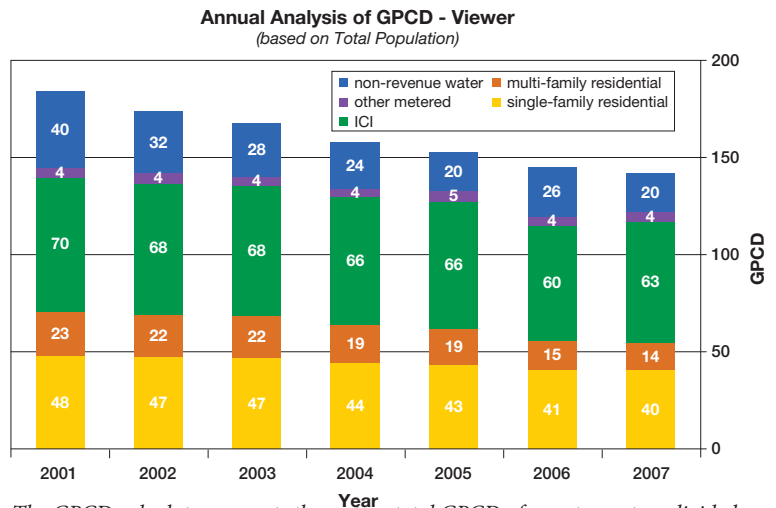
To assist with the actual calculation, NMOSE developed the GPCD Calculator, a freely downloadable Excel spreadsheet that organizes data entry and automatically calculates each subcategory’s GPCD.

## Lessons Learned

NMOSE pilot-tested the new methodology and calculator with six New Mexico drinking-water systems ranging in size from 116 to 120,000 connections. The tests, as well as comments collected from national water-conservation specialists, allowed the agency to fine-tune the approach.

The review process provided valuable insight into the development of standardized water-use calculations. While no two methods for calculating GPCD are exactly alike, standardization is possible; however NMOSE had to be clear about how the data would be used in order to ease concerns over its regulatory use and each system's public image. Keeping the calculations simple was also key; too many options led to complications and confusion. Defining populations is difficult even with a standard methodology;

billing cycles that often do not correlate to calendar months, and bills include adjustments for customer credits or fees. Additionally, when software is updated or water systems are sold, older data may be lost. Finally, internal politics can make it difficult for billing departments to work with engineers, planners, or conservation staff. These problems can be addressed, but require commitment from senior management.



The GPCD calculator presents the system total GPCD of a water system divided into sector uses. Note that each sector population is divided by the entire population here; actual sector GPCDs are calculated elsewhere in the program.

**The calculation of GPCD itself must remain constant if valid use comparisons are to be made.**

variations in how connections are defined and multi-family units are counted further confound the issue. Finally, transition time is needed during which utilities may submit their existing GPCD methodology along with the new version.

NMOSE found that the biggest obstacle to fully implementing the new calculator is that drinking-water systems configure their data for customer billing, not water-use accounting. Billing software uses

methods for tracking water efficiency, including GPCD, in order to establish an accepted repertoire of water-use-efficiency metrics that can be used to uniformly compare use and savings across utilities. The results will be published in the *Journal of AWWA*.

New Mexico's standard methodology was released as a beta version on March 16, 2009. It is now the standard method used for all water-rights permits required to submit a GPCD, and a standard component of water-conservation and water-management plans submitted to NMOSE. It provides the agency with a defensible method for evaluating water use in New Mexico's water-supply systems. ■

NMOSE's GPCD methodology and calculator are available at [www.ose.state.nm.us/wucp\\_gcpd.html](http://www.ose.state.nm.us/wucp_gcpd.html). Contact Cheri Vogel at [cheri.vogel@state.nm.us](mailto:cheri.vogel@state.nm.us).

## What's Next?

Since starting the project, NMOSE has been contacted by several state and regional authorities interested in standardizing their GPCD methods. These entities report pressure from elected officials, city managers, and even customers to track their systems' water use. In response, the American Water Works Association (AWWA) and the Alliance for Water Efficiency have teamed up to research and test



## Sustainable Groundwater Resources

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- Water use and supply auditing (balancing and conservation)
- Water quality evaluation and management
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[sws-services@slb.com](mailto:sws-services@slb.com)

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City of Santa Fe  
Water Conservation Office  
Strategic Marketing Plan 2016

# SANTA FE WATER CONSERVATION

NEXT LEVEL OF WATER EFFICICENY PRACTICES



public relations  
integrated marketing



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# 2016-2018 Strategic Marketing Plan Santa Fe Water Conservation Office Executive Summary

**Assignment:** Data driven plan with measurable results.

**Previous Strategy (2012-2015) General Awareness** 2012-2015 Award-winning general community-wide awareness campaign strategy focused on prolonged drought.

**For the Future** Recent studies conclude water conservation is a key adaption strategy to help reduce a predicted 40-year water demand production gap between supply and population demand.

**Proposed Strategy (2016-2018) Behavior Change Strategy** Next level of water efficiency practices targeted to audiences based on innovative water use data to help meet water conservation goals to address the City's long-term future projected water production demand.

**Approach** Integrated using the most effective and well-coordinated mix of promotional tools and methods to reinforce each strategy for increased impact.

**Data Driven** Analyzing and monitoring customer data to better understand household and commercial water use behaviors and influences results in refined and effective outreach tactics that can be continuously improved.

**Phase 1** – Current Customer Data (Tier 2) with Census demographics for SF homeowner to determine appropriate communication channels.

**Phase 2** – Household Water Conservation Behavior Survey (website) to determine what motivates households to adopt rainwater harvesting, recycle grey water or install high efficiency devices.

**Phase 3** – Badger/Orion AMI System Data  
Most useful data to customers is to know how much water is consumed.

*Marketing outreach contributed to a decrease in GPCD from 107 to 95 during four of the hottest and driest years on record.*

*73 percent of Tier 2 residential customers consistently billed at Tier 2 during peak demand season reside in 87501 zip code.*

## Plan Strategies

*It's kind of the oldest form of marketing—word of mouth—with the newest technology.*

Strategy	Compelling Information	Targets	Measurable Success Result
<p>Component A</p> <p><i>Guide targeted customers on how to take ownership of using water efficiently</i></p>	<p>Individuals and businesses need guidance on how to implement water conservation measures that produce easily understood measurable results for the customers.</p> <p>64 percent of homes in Santa Fe are built prior to the 1994 water efficient fixture national code:</p> <p>23% 1939-1959 16% 1970-79 15% 1980-89 10% 1960-69</p>	<p>Tier 2 water customers consistently charged during high-demand season</p> <p>Neighborhoods built prior to 1994</p> <p>New customers</p> <p>Multi-housing units</p> <p>Tier 1 water customers (on-going general awareness)</p>	<p>Maintain GPCD levels at 95 or below.</p> <p>2 percent increase in Water Bank.</p>
<p>Component B</p> <p><i>Promote commercial business incentives to assist commercial customers in changing water related equipment to make permanent reductions in water use and modify end-use customer behaviors.</i></p>	<p>Commercial customers make up 21 percent of the City's water users, but only 24 percent participate in rebates.</p> <p>350 permitted/licensed short-term rentals and estimated 576 operating without license.</p> <p>Tourism visits continue to increase with visitors spending 28 percent on lodging and 24 percent on food &amp; beverage.</p> <p>There are 31 spa facilities in Santa Fe that have many water use appliances (washers, dryers, showers, toilets, urinals; and some with pools.</p>	<p>Lodging – hotels, motels and short-term rentals</p> <p>Food &amp; beverage industry</p> <p>Spa and gym facilities</p>	<p>25 percent increase in hotel, food/beverage and spa participation.</p>

Strategy	Compelling Information	Targets	Measurable Success Result
<p>Component C</p> <p><i>Promote outdoor rebates</i></p>	<p>Residential irrigation has a significant impact on Santa Fe's water supply. 52 percent of customers are single-family with 40 percent of water used for irrigation.</p> <p>Studies indicate that up to 50 percent of the water used outdoors is wasted due to system inefficiencies and overwatering.</p>	<p>Single-family residences</p>	<p>20 percent increase in water audits conducted.</p>
<p>Component D</p> <p><i>Continuation of ongoing general awareness news items and event promotions</i></p>	<p>Existing programs have been successfully promoted and continue to play a key role in on-going awareness of the role water plays in how we live, work and play, and the community's role and obligation (ordinances) in using water efficiently.</p>	<p>Schools</p> <p>Community Events</p> <p>Parents</p>	<p>80,000 people reached in earned media (PR).</p> <p>Maintain current participation levels for existing programs and promotions.</p>
<p>Component E</p> <p><i>Add New &amp; Social Media to the Promotional Mix (reach more customers through the media they use).</i></p>	<p>2015 Santa Fe Economic Development Department survey indicates 94 percent of locals feel that promoting Santa Fe activities through social media is important, and 58 percent feel that social media is the most effective way to reach people.</p> <p>The majority of City neighborhoods actively participate on NextDoor social application to receive and provide news and services of interest to neighbors. (City of Santa Fe Police and Office of Neighborhood Planning joined in November, 2015)</p> <p>In 2014, mobile use surpassed desktop computer use, and combined sales of smartphones and tablets were up 50 percent. Sixty-six percent of emails are now opened using a smartphone or tablet.</p> <p>Seventy one percent of online adults use Facebook; eighty-two percent are ages 30-49; sixty five percent are ages 50-64, 63 percent of both Facebook and Twitter users receive news on the social networks, up from 52 percent of Twitter users and 47 percent of Facebook users last year.</p> <p>59 percent prefer Twitter for breaking news and 31 percent for Facebook.</p>	<p>Key household demographic targets based on data gathering and analysis.</p> <p><b>Platforms:</b></p> <p>Facebook</p> <p>Twitter</p> <p>Website</p> <p>Instagram</p> <p>Digital News Releases</p> <p>Digital Advertisement</p> <p>Videography – YouTube (how to demonstrations)</p>	<p>500,000 impressions on social media channels and new media channels.</p> <p>Monthly reporting of extensive and detailed demographic reporting on who are viewing and what are being viewed along with interactive data use.</p>

Strategy	Compelling Information	Targets	Measurable Success Result
<p>Component F</p> <p><i>Integrate digital (on-line/social) and traditional advertisement with targeted placement.</i></p>	<p>Advertisement firms are able to deliver the best return on investment for ad placement, scheduling and reporting.</p> <p>Advertisement media departments plan and negotiate buys for multiple clients and has direct relationships with hundreds of media partners. Through these relationships and through the volume of media they purchase, they are able to secure lower rates and more value-added placement than staff working directly with media buyers.</p> <p>One of the best ways to reach the Santa Fe community is online. Digital, pre-roll, in-app, mobile and banner ads are some of the most targeted and most trackable mediums. Digital provides the ability to test messaging and quickly optimize and it also allows us to target down to the zip code level, reaching the neighborhoods that need to hear messages the most.</p>	<p>Use analytic customer data to identify target demographics to pinpoint communication channels used most by the targeted audiences.</p> <p>Continue to target customers based on data through direct mail (bill insert), gas stations, transit, retail and print platforms as needed based on data and targets identified.</p>	<p>Place ads through the NM Broadcasters Association for added value.</p> <p>Monthly reporting of extensive and detailed analytic reporting on each media vehicle.</p>
<p>Component G</p> <p><i>Community Wide Signature Event</i></p>	<p>City of Santa Fe Water Conservation already has two highly successful events geared toward elementary age school children, and have participated in the National Mayor's Challenge for the past three years. There is not community-wide event geared toward the entire Santa Fe community. The City of Santa Fe Water Conservation Office should extend their outreach to a signature community-wide event as the kick-off to the high demand season.</p>	<p>General public</p>	
<p>Component H</p> <p><i>Success Metrics</i></p>			<p>Maintain GPCD at 95 or &lt;</p> <p>1 million ad impressions</p> <p>80,000 people reached</p> <p>earned media (PR) 500,000 impressions on social media/news</p> <p>20 percent &gt; water audits</p> <p>2 percent &gt; Water Bank</p> <p>25 increase Hotel/Motel/Spa participation</p>





## **ASSIGNMENT**

Develop a data-driven plan with measurable results.

## **ASSUMPTION**

Implementation of the multi-year plan is dependent on fully staffed water conservation office and acceptance by the Santa Fe City Council.

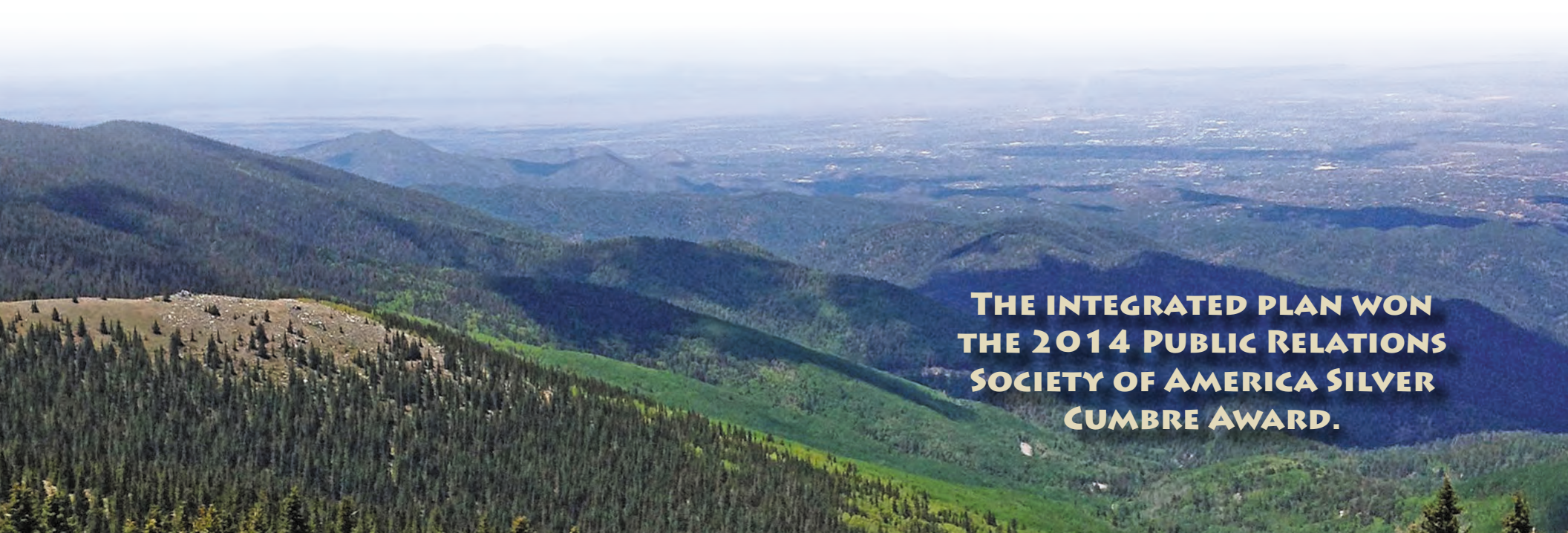


## BACKGROUND

One of the most valuable water sources is water that is conserved. Water conservation is the most economical and environmentally protective resource management tool available, helping Santa Fe meet the many challenges of water supply management.

Marketing outreach efforts played a role in halting and reversing the upward trend in customer daily water consumption during four of the hottest and driest drought years on record.

*Unique Challenge:* But how do you tailor your outreach and messaging to an audience that has already been conserving water? As the water provider with the lowest per capita residential overall, combined with commercial water use in the Southwest, the question of how customers can continue to reduce water use presents a unique challenge.



**THE INTEGRATED PLAN WON  
THE 2014 PUBLIC RELATIONS  
SOCIETY OF AMERICA SILVER  
CUMBRE AWARD.**



## PREVIOUS STRATEGY (2012-2015)

Highly effective and award-winning 2012-2015 general awareness campaign strategy, as approved by City Council in 2012, targeted community-wide with prolonged drought focus.

### SUCCESS MEASUREMENT

PR and marketing outreach contributed to decrease in GPCD from 106 to 95 during four of the hottest and driest drought years on record.







## RECENT DATA CONCLUSIONS & GOALS

### 2015 Santa Fe Basin Study: Adaptions to Projected Change in Water Supply and Demand

#### Conclusions:

Water conservation (reducing water use on a per person per day basis) is a key adaption strategy and action to help reduce a predicted 40-year water demand production gap between supply and population demand.

Projected supply and demand vulnerabilities have implications for water conservation messaging, including water supply, ecosystem, agriculture, land use, quality of life, economy, transportation and sociological conditions.



## RECENT DATA CONCLUSIONS & GOALS

### 2015 Water Conservation & Drought Management Goal

- ◆ Maintain GPCD
- ◆ Increase rebate program participation to maintain 25 acre feet Water Bank reserve
- ◆ Reduce summer peak demand from 2009-2013 average level
- ◆ Improve data validity
- ◆ Proactively implement emergency and non-emergency drought preparedness

### 2014 Water Conservation Committee Rebate Analysis

- ◆ Rebates programs combined with education and promotion should remain a significant component of an overall water conservation effort.
- ◆ Rebates should be promoted to all customer classifications and water uses

### 2013 Climate Change and the Santa Fe Basin

- Continue water conservation promotion:
- ◆ Tiered water rate structure that allows those that use less to pay less
  - ◆ Incentives and programs for addressing water leaks
  - ◆ Provide incentives to significantly reduce water use in the city, energy production and agriculture
  - ◆ The use of reclaimed water when feasible and appropriate
  - ◆ The use of municipal waste water to augment potable water supply.





## **PROPOSED STRATEGY (2016-2018)**

### **Behavior Change Strategy: Next Level of Water Efficiency Practices**

The plan continues to increase awareness, but with a focus on making it easier for individuals and businesses to implement water conservation efficiencies that produce measurable results.

# APPROACH

## DATA DRIVEN ENGAGEMENT

Utilize an integrated and data driven marketing plan approach using the most effective combination and well-coordinated mix of promotional tools and methods intended to reinforce each other to provide clarity, consistency, increased impact to achieve measurable objectives.



## INNOVATIVE METRICS

In order to take water conservation efforts to the next level, it is imperative that outreach be based on innovative uses of metrics to target larger water users and measure success. The plan proposes a phased approach to gathering, analyzing and monitoring customer data to better understand household and commercial water use behaviors and influences, so that more refined and effective outreach tactics can be continuously improved.

It is proposed that the current outreach plan be revised to move beyond the “low-hanging fruit” general awareness focus and refine targets and measurable outcomes in synergy with the 2015 Water Conservation and Drought Management Plan and the 2015 Santa Fe Basin Study by taking the water conservation outreach efforts to the next level of water efficiency practices.





## DATA GATHERING

### Phase 1 - Current Customer

Data (Tier 2 customers during peak season March - September) with census and zip code demographics for SF homeowner to determine appropriate communication channels.

**TACTIC:** Data Query Refinement

### Phase 2 - October through December 2015

Household Water Conservation Behavior Survey (website, and direct mail via bill insert) to determine the motivations and barriers to households to adopt rainwater harvesting, recycling grey water or installing high efficiency devices, To achieve more widespread adoption of water conservation practices and rebate participation among diverse communities, we must first understand what motivates single-family households to adopt these practices.

**TACTIC:** The plan will be refined using data from the survey promoted through the savewatersantafe.com website, direct bill mailing, Hutton radio advertisements, KSFR PSAs, santafe.com, neighborhood networks and City Council constituent mailings.

### Phase 3 - Badger/Orion AMI Data

Revise plan based on data when available (FY17). Metering is the most effective water conservation tool to customers, allowing them to know how much water they use.

**TACTIC:** Promote the Badger Meter's BEACON Advanced Metering Analytics (AMA) tools for customers to keep tabs on water use:

- ◆ Receive text alerts for potential leaks
- ◆ Monitor daily water use
- ◆ Understand their water consumption patterns and, if desired, relative to other “like” water customers

**NOTE:** It is important to clarify that the purpose of the public education program is to help meet water conservation goals to address the City's long-term future projected water demand. It is not simply designed to educate the public about the immediate need to conserve water due to drought conditions. The intent of the education outreach is to: 1) promote incentives offered by the City to assist residents in changing water related equipment and appliances that will make permanent reductions in water use; 2) modify ongoing behaviors to use less water during normal daily activities; and 3) provide education on how water savings can be best achieved. Therefore, while the program is anticipated to be most intensive in the first two years, some level of ongoing effort will need to be maintained in order to continue to achieve the water savings on a permanent basis through modified behavior by consistently reinforcing the information.

## COMPONENT A

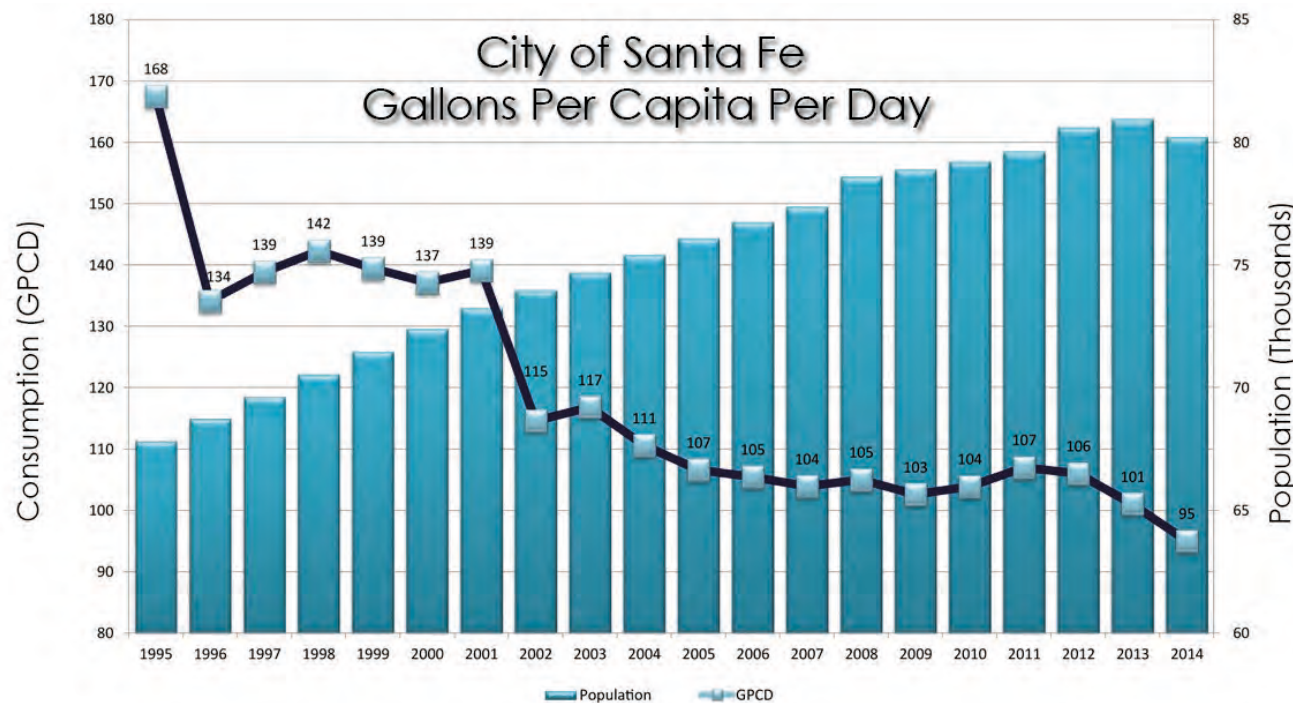
**Maintain GPCD levels at about 95, identifiable trending, and avoid summer peak demand increases (as identified in 2015 Water Conservation and Drought Management Plan)**

## STRATEGY

Give the greatest priority to developing program strategies and materials that target the identified audience segments through the communication channels they most utilize.

## MOST COMPELLING MESSAGE

Individuals and businesses need guidance on how to implement water conservation measures that produce easily understood measurable results for the customers. The City's Water Conservation Office must guide customers on how they can take ownership of water efficiency through interactive billing and interactive water use applications and a promotional mix of traditional, new and social media tools.







## HOMEOWNERSHIP DEMOGRAPHICS

### CITY HOMEOWNERSHIP (2013 ACS)

#### **Housing units (includes multi-housing):**

◆ There are 37,059 units, 84% of those are occupied; 61% are owner occupied and 39% is renter occupied.

### AGE OF HOME

#### **Newer built homes post-1994 will have water-efficient fixtures because that is per national Code.**

- ◆ 64% - Pre-1994 Homes
- ◆ 1980-89 15%
- ◆ 1970-79 16%
- ◆ 1960-69 10%
- ◆ 1939-1959 23%

### AGE/GENDER/LANGUAGE

#### **Total population: 68,800**

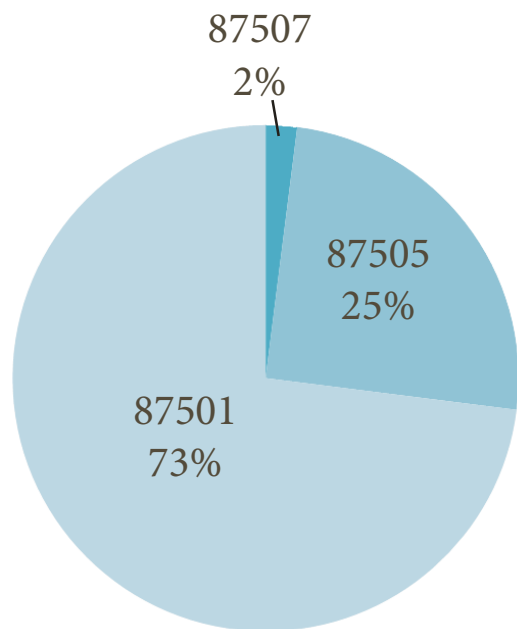
- ◆ 44 Median age
- ◆ 53% Female (77% 21-64 age)
- ◆ 47% Male
- ◆ 66% speak English
- ◆ 30% speak Spanish

### JOBS/INDUSTRY

- ◆ 20% Education/ Healthcare/Social Care
- ◆ 17.2% Management/Scientific/Professional
- ◆ 14% Arts/Recreation/Accommodation/Food Service
- ◆ 12% Retail

# CITY OF SANTA FE CUSTOMER DATA INQUIRY

**Residential customers who are consistently billed at Tier 2 rates during peak demand season (March through September):**



💧 73 percent of Tier 2 customers reside in 87501 Zip Code, while 25 percent reside in 87505 Zip Code (*source: [www.city-data.com](http://www.city-data.com)*).

💧  $\frac{3}{4}$  of those living in the 87501 Zip Code are white, and 54 percent are female, ages 45-70

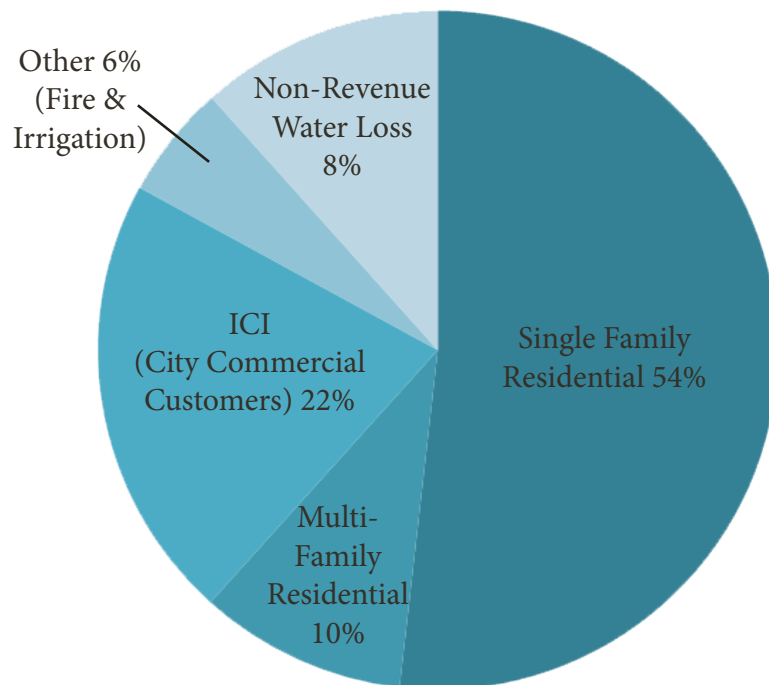




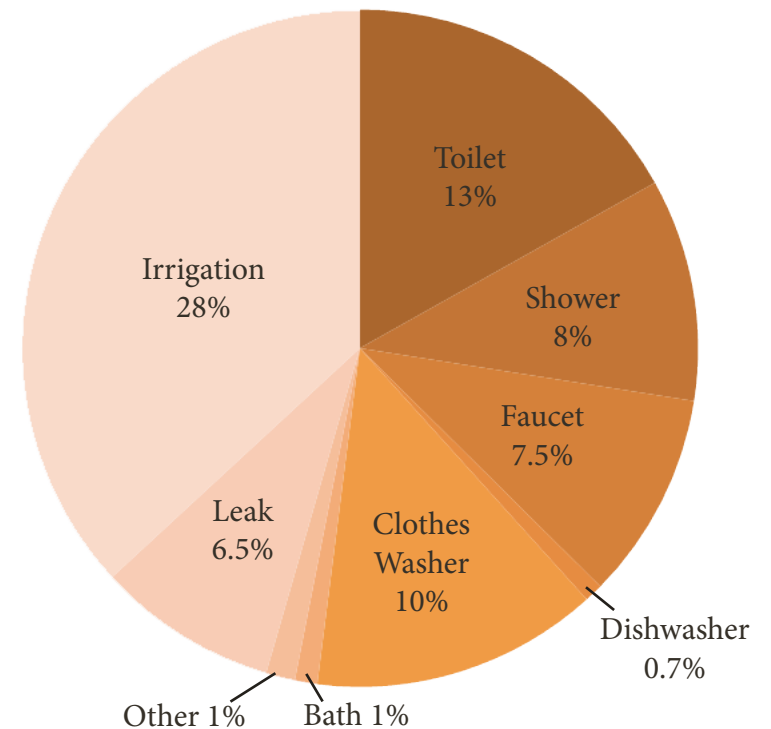


## 2014 CITY OF SANTA FE WATER USE DATA

Water Use by Type



Single Family Usage



# COMPONENT A

## TARGET 1: TIER 2 WATER CUSTOMERS (consistently charged during high-demand season)

Greatest priority is given to reaching this group in planning the initial phase of the program. Other demographic groups that currently model and advocate for the recommended water conservation practices will be targeted through general reminder awareness portions of the plan.



### TACTICS

- ◆ Promote water conservation audits by zip code via direct marketing to targeted demographic channels of communication.
- ◆ Proactively promote staff-conducted audits inside and outside of pre-1994 homes (currently only doing for major water leaks as identified by customer service work order).
- ◆ Promote Tier 1 daily and monthly water use targets to homeowner associations and online social media groups like NextDoor neighborhood groups (approximately 25 existing).
- ◆ Host a quarterly indoor efficiency workshop at home fixture showrooms and provide a coupon to redeem for indoor water efficiency items (similar to San Antonio).
- ◆ Host a quarterly outdoor efficiency workshop at home improvement stores for outside seasonal demonstrations with a home water form with a list of qualified QWEL landscape and irrigation specialists. Completed homeowner audits will qualify for a coupon to redeem outdoor water efficient items such as timers and water sensors.
- ◆ Include a permanent informational irrigation booth at home improvement stores.
- ◆ Develop a QWEL “Lite” training for residential customers with a qualifying coupon to redeem water saving outdoor devices.
- ◆ Provide customer outdoor water kits for check-out (similar to Ft. Collins) to get small water bill credit and qualify for QWEL rebates like timers and sensors.
- ◆ Design community-wide event around Fix-A-Leak Week to promote water efficiency tools and demonstrations.
- ◆ Directly target advertisement and new and social media to Tier 2 customer demographics.
- ◆ Pitch news stories and interviews that relate to Tier 2 and seasonal reminders/tips.
- ◆ Coordinate with City Land Use Department to include rebate information with remodel permits.



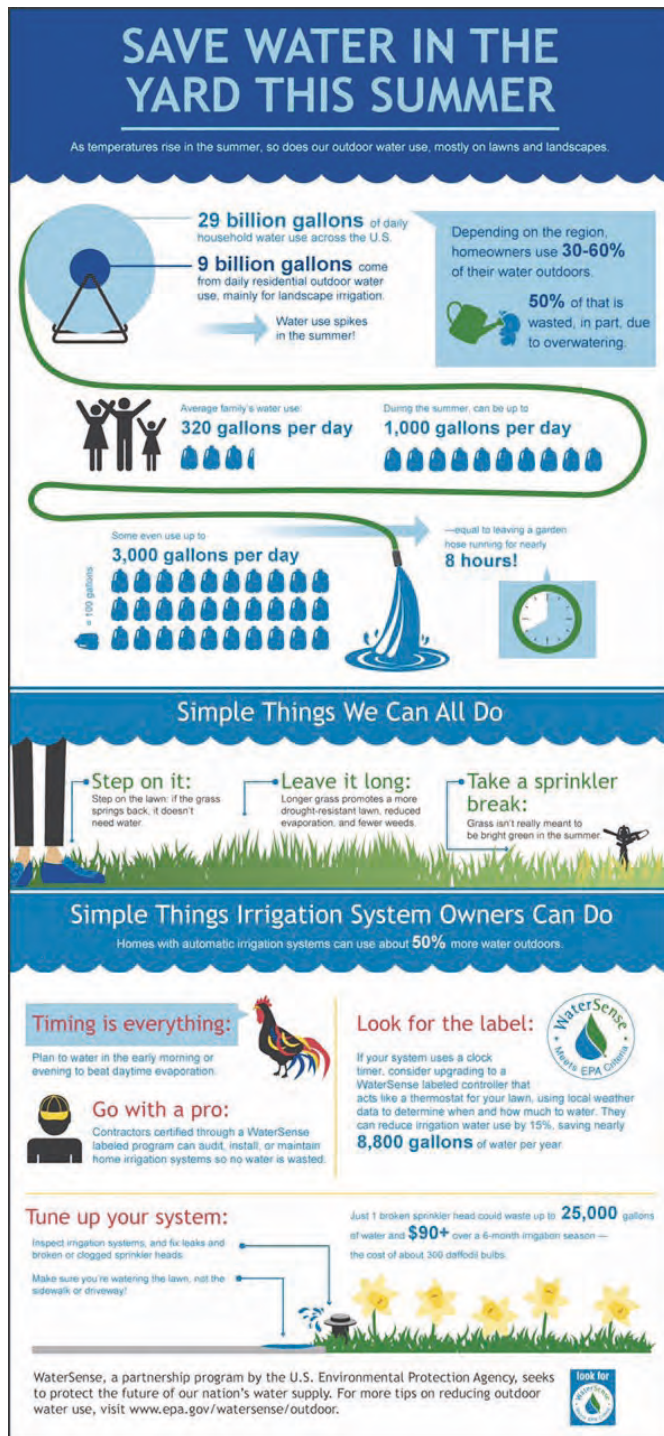


## COMPONENT A

### TARGET 2: NEW CUSTOMERS

#### TACTICS

- ◆ Revise and update new customer package with monthly water use targets and access to interactive tools.
- ◆ Develop partnership and information sharing opportunities with Santa Fe Chamber, Green Chamber, Hispanic Chamber and groups with new resident welcoming programs, Habitat for Humanity, Homewise, SF Community Housing Trust.
- ◆ Develop materials for title companies to provide educational information to new homeowners and a home water audit packet they can use to conduct an audit.
- ◆ Promote all residential rebates (washer/dryers, toilets, rain barrels) and encourage local vendors to sell affordable fixtures for retrofits that meet new technology.
- ◆ Vendor incentives would include cross-marketing mentions in marketing materials and advertisements, (e.g. PNM).
- ◆ Provide customer outdoor water kits for check-out (similar to Ft. Collins) to qualify for coupon with local plant nurseries for drought resistant plants.
- ◆ Provide general awareness seasonal ads on time-of-day watering and other rules and requirements.



## COMPONENT A

### TARGET 3: MULTI-HOUSING UNITS (APARTMENTS, DORMITORIES, ETC.)

#### TACTICS

- ◆ Identify outreach pathways to target multi-housing residents and determine motivating factors to encourage water conservation practices
- ◆ Spanish and English materials specific to multi-housing water saving habits.
- ◆ Promote water conservation via social media platforms to Santa Fe's four colleges (Santa Fe Community College, Santa Fe University of Art & Design, Institute of American Indian Art, St. John's College).

### TARGET 4: TIER 1 WATER CUSTOMERS

#### TACTICS:

- ◆ Continue on-going awareness via earned and paid media spots targeted by demographic data and channel type.
- ◆ Provide direct mail coupon to receive water saving devices such as a shower bucket, showerhead kit, outdoor water nozzle as a reward and thank you for their efforts.



## COMPONENT B

**Increase Commercial Businesses Rebate Participation by 10% and maintain the Water Bank Reserve at 25 acre feet.**



### MOST COMPELLING MESSAGE

Commercial customers make up 21 percent of the City's water users, but only 24 percent participate in rebates. (City data)

### DATA

- ◆ 350 permitted/licensed short-term rentals and 576 operating without license (2015 Tourism Santa Fe survey)
- ◆ Tourism visits to the City of Santa Fe continues to grow and visitor spending has increased 5.55 percent since 2013, with visitors spending 28 percent on Lodging and 24 percent on Food & Beverage (The Economic Impact of Tourism in NM, 2014 Analysis, August 2014, Tourism Economic Analysis - An Oxford Economics Company)



# COMPONENT B

## TARGET 1: LODGING

### HOTEL/MOTEL/SHORT-TERM RENTALS

(Increase proactive year-round promotion of ordinance to lodging)

### TACTICS

- ◆ Increase H2otel challenge participation (existing goal = 24 hotels and 6 restaurants)
- ◆ Showcase hotels that have already participated in rebates and water savings
- ◆ Develop more visually captivating new towel rack and nightstand and bath tents through a social media photo contest #simplysantafe #howtosavewatersantafe
- ◆ Outdoor facility manager QWEL Lite training
- ◆ Promote Green Lodging Initiative
- ◆ Information Partnership -SF Lodging Association, SF Tourism, SF Renters Association and Green Chamber
- ◆ Promote social media based photography contest via #simplysantafe and #howtosavewatersantafe to update posted materials in all lodging establishments.
- ◆ Work with Santa Fe Tourism to identify licensed short-term rentals for direct mailing and posting water conservation materials (similar to hotels/motels).
- ◆ Identify advertisement platforms (Arbnb & VRBO) promoting Santa Fe short-term rentals during peak demand season for direct ad placements on water conservation requirements/tips for visitors.
- ◆ Provide conservation materials for each rental.
- ◆ Design and provide visible window display from WCO.



## 7 Cost-Effective Ways to Conserve Water for Commercial Use

When it comes to cutting costs for your business, your efforts might be going down the drain—literally! Water conservation is often overlooked in business owners' budgetary decisions, and yet can be a great place to cut overhead costs without compromising products or services. This is especially true if your business is a hotel or run in an older building that uses outdated plumbing fixtures.

In honor of World Water Day coming up on March 22, Pacific Plumbing Specialties presents seven cost-effective ways to conserve water, saving the planet and your money at the same time.

### DID YOU KNOW?



The Earth has 1,386,000,000 km<sup>3</sup> of water total, but only 2.5% of that is fresh water.



Facilities such as schools, hotels, retail stores, office buildings, and hospitals account for up to 17% of publicly supplied water use in the United States.



Water costs account for 1-2 percent of a business's overhead. Saving water can help reduce overhead costs.

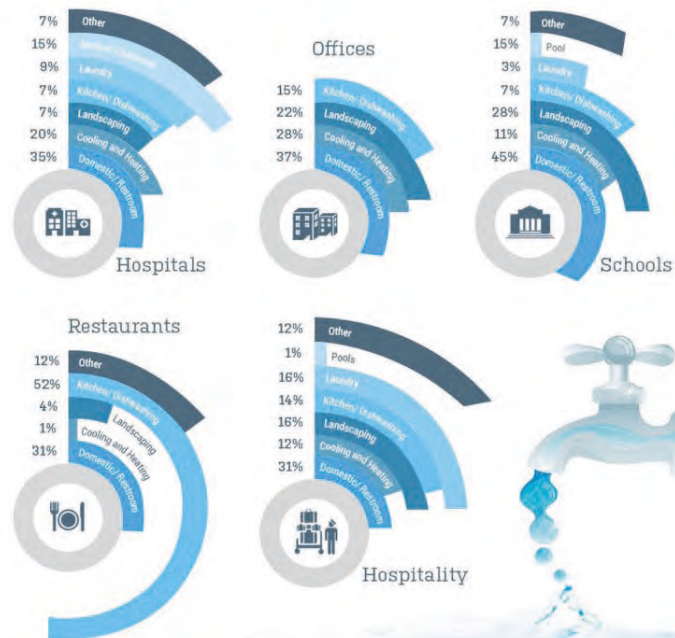


Many government agencies and water utilities provide rebates, grants, and tax relief to businesses to encourage water conservation.



Many technologies are **already available** to help conserve water while still allowing us to meet our needs for agricultural, industrial, and residential use.

### End Uses of Water in Various Types of Commercial and Institutional Facilities



## COMPONENT B

### TARGET 2: FOOD & BEVERAGE INDUSTRY

(Increase proactive year-round promotion of ordinance to food and beverage industry).

### TACTICS

- ◆ Develop staff/server informational training kits (English & Spanish)
- ◆ Training presentation for Santa Fe Restaurant Association
- ◆ Update tabletop and other signage via social media photo contest #simplysantafe #howtosavewatersantafe
- ◆ Promote social media and digital advertisement for targeted tourist establishments (Open Table, Yelp, etc.)



## COMPONENT B

### DATA

There are 31 spa facilities in Santa Fe that have many water use appliances (washers, dryers, showers, toilets, urinals; and some with pools).

### TARGET 3: SPA & GYM FACILITIES

#### TACTICS

- ◆ Direct outreach with informational kits
- ◆ Towel rack notes
- ◆ Restroom signs for locker rooms
- ◆ Video sharing library
- ◆ Promotional material placement
- ◆ Digital social media and digital advertisement





## COMPONENT C

**Increase participation in landscape and outdoor rebates by 10% and maintain Water Bank reserve of 25 Acre Feet.**

### MOST COMPELLING MESSAGE

Residential irrigation has a significant impact on Santa Fe's water supply. 52 percent of customers are single-family with 40 percent of water used for irrigation. Studies indicate that up to 50 percent of the water used outdoors is wasted due to system inefficiencies and overwatering.



## COMPONENT C

### TARGET 1: SINGLE-FAMILY RESIDENCES

#### TACTICS

- ◆ Promote outdoor rebates.
- ◆ Promote do-it-yourself sprinkler system inspections to save money and water
- ◆ Host water efficiency demonstrations and provide an incentive (coupon or other) for attendance.
- ◆ Host a quarterly outdoor “Blue Thumb” efficiency workshop at home improvement stores for outside seasonal demonstrations with a home water form that qualifies for water bill incentive (coupon or other) once completed.
- ◆ Include a permanent informational irrigation booth at home improvement store.
- ◆ Develop a QWEL “Lite” training for residential customers with water bill credit for attendance.
- ◆ Provide customer outdoor water kits for check-out (similar to Ft. Collins)
- ◆ Design community-wide event around Fix-A-Leak Week to promote water efficiency tools and demonstrations.
- ◆ Provide cross-promotion with water/energy audits.
- ◆ Fix A Leak Week – Outdoor focus with “Find it, Flag it and Fix it” WaterSense program demonstration.





## COMPONENT D

**Continuation of ongoing general awareness news items and event promotions.**

NO STRATEGIES HAVE BEEN IDENTIFIED FOR EXISTING CHILDREN'S PROGRAMS, AS THEY ARE ESTABLISHED TURN-KEY EVENTS.

## TACTICS

- ◆ Editorial calendar with topics and targeted traditional and new media news





## COMPONENT E

Add new & social media to the promotional mix



The objective of using social media platforms to provide water conservation program information is to reach more customers through the media they use.



# SOCIAL MEDIA INFLUENCE

## STRATEGIC COMMUNICATION IN THE DIGITAL AGE



◆ 2015 Santa Fe Economic Development Department survey indicates 94 percent of locals feel that promoting Santa Fe activities through social media is important, and 58 percent feel that social media is the most effective way to reach people.

◆ The City's recent #HowToSantaFe Social Media Campaign generated 52.3 million views.

◆ The number of mobile users has been rapidly growing in recent years. In 2014, mobile surpassed desktop computer use, and combined sales of smartphones and tablets were up 50 percent. Sixty-six percent of emails are now opened using a smartphone or a tablet.

◆ Social media allows the dissemination of a lot of information routinely and regularly to keep top-of-mind awareness and just-in-time information.

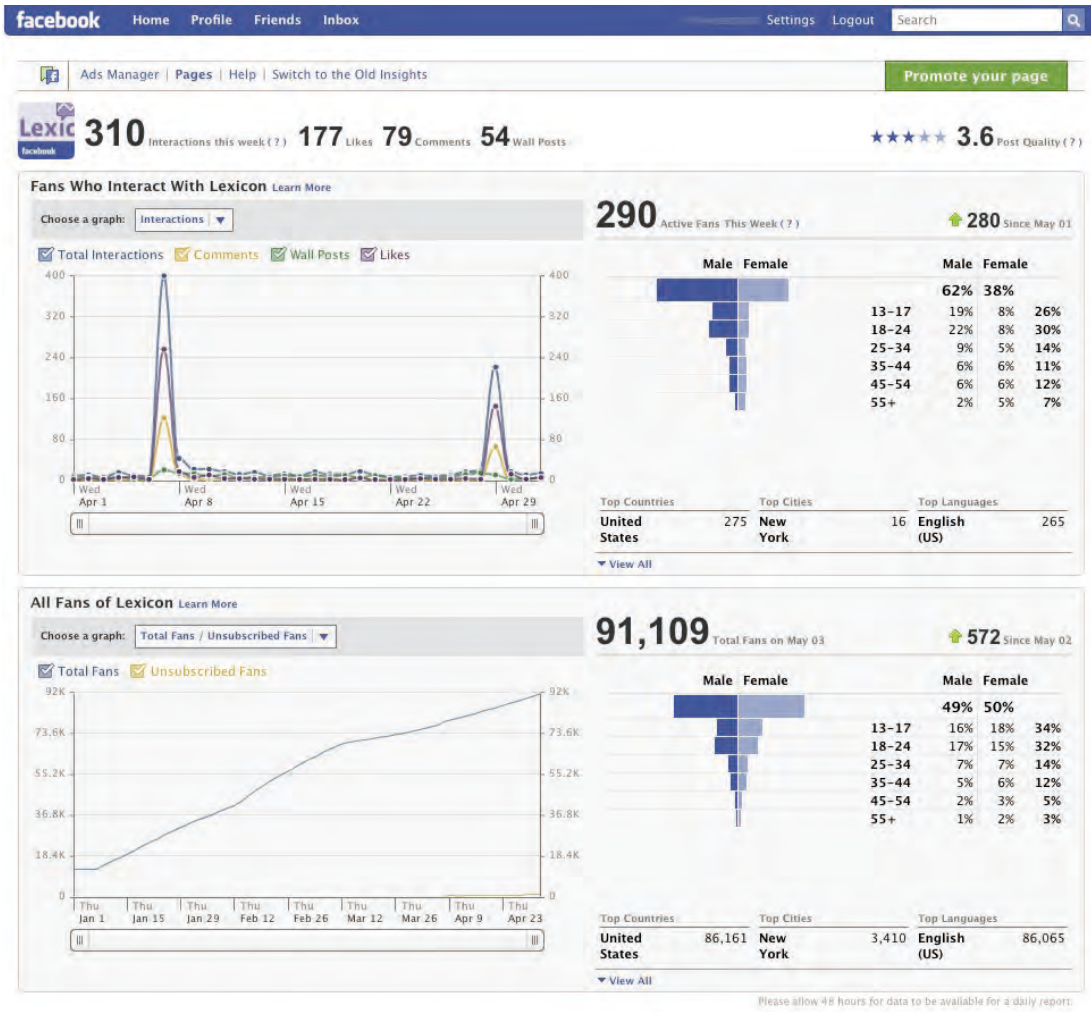
◆ Seventy one percent of online adults use Facebook; eight-two percent are ages 30-49; sixty five percent are ages 50-64.

◆ 63 percent of both Facebook and Twitter users receive news on the social networks, up from 52 percent of Twitter users and 47 percent of Facebook users last year.

◆ 59 percent prefer Twitter for breaking news and 31 percent who find it on Facebook.

# SOCIAL MEDIA METRIC TRACKING

Social media reporting provides extensive and detailed demographic reporting on who and what are being viewed along with interactive data.



## MEDIUMS INCLUDE

- ◆ Instagram
- ◆ Facebook
- ◆ Twitter
- ◆ Website Posts
- ◆ Website Events Calendar
- ◆ Digital News Releases
- ◆ Digital Advertisement
- ◆ Videography – YouTube

## SOCIAL MEDIA MANAGEMENT

New social media management is easier than ever before and can be pre-scheduled for posting with numerous analytic tools to monitor social media post.

WaterSense partner provides weekly social media commentary for use by municipal partners on seasonal topics and specific target audiences geared toward greater water efficiencies.

Social platforms will include the existing City of Santa Fe social platforms and development of social media platform on the [www.savewatersantafe.com](http://www.savewatersantafe.com) website.



# COMPONENT F

## Integrated digital and traditional advertisement



### BACKGROUND

The 2012 Strategic Plan called for general awareness paid advertisement campaigns as a first phase to building community awareness.

Currently, paid advertisement has focused on general awareness of water conservation programs to the community as a whole, primarily through traditional advertisement platforms. Ad campaigns have also been developed each year to focus on drought conditions. Water Conservation staff negotiated ad placement schedules and fees with limited tracking metrics. While successful and necessary for the extended drought, the advertising components now need to prompt customers to take water conservation to the next level. The creative development costs associated with yearly campaigns also need to be reduced. Badger mobile app "Eye on Water" allows for direct customer messaging.

# INTEGRATED DIGITAL & TRADITIONAL ADVERTISEMENT



## RECOMMENDATION

It is recommended that a multi-year ad campaign be developed to make it easier for individuals and businesses to implement water conservation measures that produce measurable results for the customer. This will reduce creative costs and promote a singular identifiable campaign brand/theme (like Denver Water, see ad at left).

## CONCEPTUAL APPROACH

The conceptual approach for identifying the ad campaign is based on the idea that tools and incentives are available that can make a big difference in conservation: It's easy to save, you have a part to play, and everyone benefits. The message would be graphically supported with a singular design. Others have successfully used “*Use it Like There's NONE Tomorrow*” and “*Save Water All Ways. Always*”. All advertising would drive customers to the website to learn more about how to understand their water bills and use water more efficiently.

## TACTICS

- ◆ Use both traditional and digital advertisement based on data that identifies target demographics to pinpoint communication channels used most.
- ◆ Multi-year campaign based on the idea that tools and incentives are available, guide customers to take ownership of water conservation.
- ◆ Use outside ad firm to develop campaign that meets industry standards.
- ◆ Place ads through New Mexico Broadcaster Association for added value.



## ADVERTISEMENTS

PLACEMENT/SCHEDULE/ADDED-VALUE

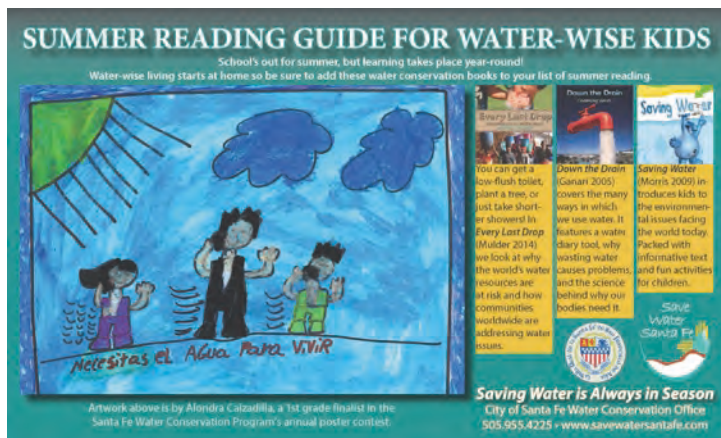
### RETURN ON INVESTMENT

Advertisement firms are able to deliver the best return on investment for ad placement, scheduling and reporting.

Advertisement media department plan and negotiate buys for multiple clients and has direct relationships with hundreds of media partners. Through these relationships and through the volume of media they purchase, they are able to secure lower rates and more value-added placements than a municipality would receive working directly with media buyers.

Advertisement companies work with a broad range of media outlets, allowing them to provide historical performance information on a media vehicle and allows them to be on the cusp of new and emerging media opportunities.





# LOCAL ADVERTISING

## INITIAL IDEAS FOR REACHING LOCALS WITH UNIQUE MESSAGING IN THE SANTA FE MARKET

### DIGITAL (ONLINE/SOCIAL)

One of the best ways to reach the Santa Fe community is online. Digital pre-roll, in-app, mobile and banner ads are some of the most targeted and most trackable mediums. Not only does digital give us the ability to test messaging and quickly optimize, it also allows us to target down to the zip code level, reaching the neighborhoods that need to hear the message most.

### DIRECT MAIL

As a highly targeted, personal medium, direct mail can serve as a way to get the water conservation message into the hands of individual Santa Feans. According to the United States Postal Service, 98 percent of people retrieve their mail daily, and 77 percent of people sort it immediately. Direct mail provides a lot of creative freedom and the ability to create a piece that will capture people's attention and may even be kept in the home, allowing the message to stay top-of-mind.

### GAS STATIONS

As Santa Fe outdoor advertising options are limited, gas station advertising is an alternative way to reach our target. Gas pump top advertising is the most popular form of gas station advertising. On average,

people visit a gas station within one mile of their home five times per month and tend to spend between three and five minutes at the pump each time they stop. This is a great opportunity to present our message.

### TRANSIT

Bus wraps and shelters can provide an advertising footprint that we are not able to access with any other media. With wraps serving as mobile billboards and shelters as stationary billboards, we are able to reach new areas of the city with large, impactful creative ads. Transit is also a great supplemental medium to reiterate a message someone may have seen at the gas station, grocery store or in their mailboxes.

### RETAIL

Again, with limited outdoor options in Santa Fe, grocery stores and malls are a great way to reach the intended target audience. The average grocery shopper visits the grocery store 2.2 times per week and spends 42 minutes in the store each trip. By having our message in grocery stores, as well as in malls like Santa Fe Place and De Vargas, significant impressions can be gained and people will have time to spend with the message.

## TARGETED PLACEMENT

Targeting will focus advertisement and will be based on the communication channels most used by segmented audiences and influencers. To be more cost effective in ad placements, ads would be placed through the New Mexico Broadcasters Association.



## GRAPHIC DESIGN

Move from individual project graphic design to a coordinated effort to reduce redundancy, better align with measurable strategic goals, messaging and reduction in edit time/cost. Includes press materials, presentations, reports, photographic materials, video, promotional materials, website, digital and traditional ads, social media and promotional events or programs.

## GIVEAWAYS

Align and coordinate giveaways to next level of water saving strategic planning with items that will create actual water savings and align with measurable strategic goals focusing on indoor and outdoor water efficiencies.





## COMPONENT G

### Community-Wide Signature Event

#### BACKGROUND

City of Santa Fe Water Conservation already has two highly successful events geared toward elementary age school children, and have participated in the National Mayor's Challenge for the past three years. There is not community-wide event geared toward the entire Santa Fe community.

#### RECOMMENDATION

The City of Santa Fe Water Conservation Office should extend their outreach to a signature community-wide event as the kick-off to the high demand season.

#### "COLOR FOR CONSERVATION" CONCEPT

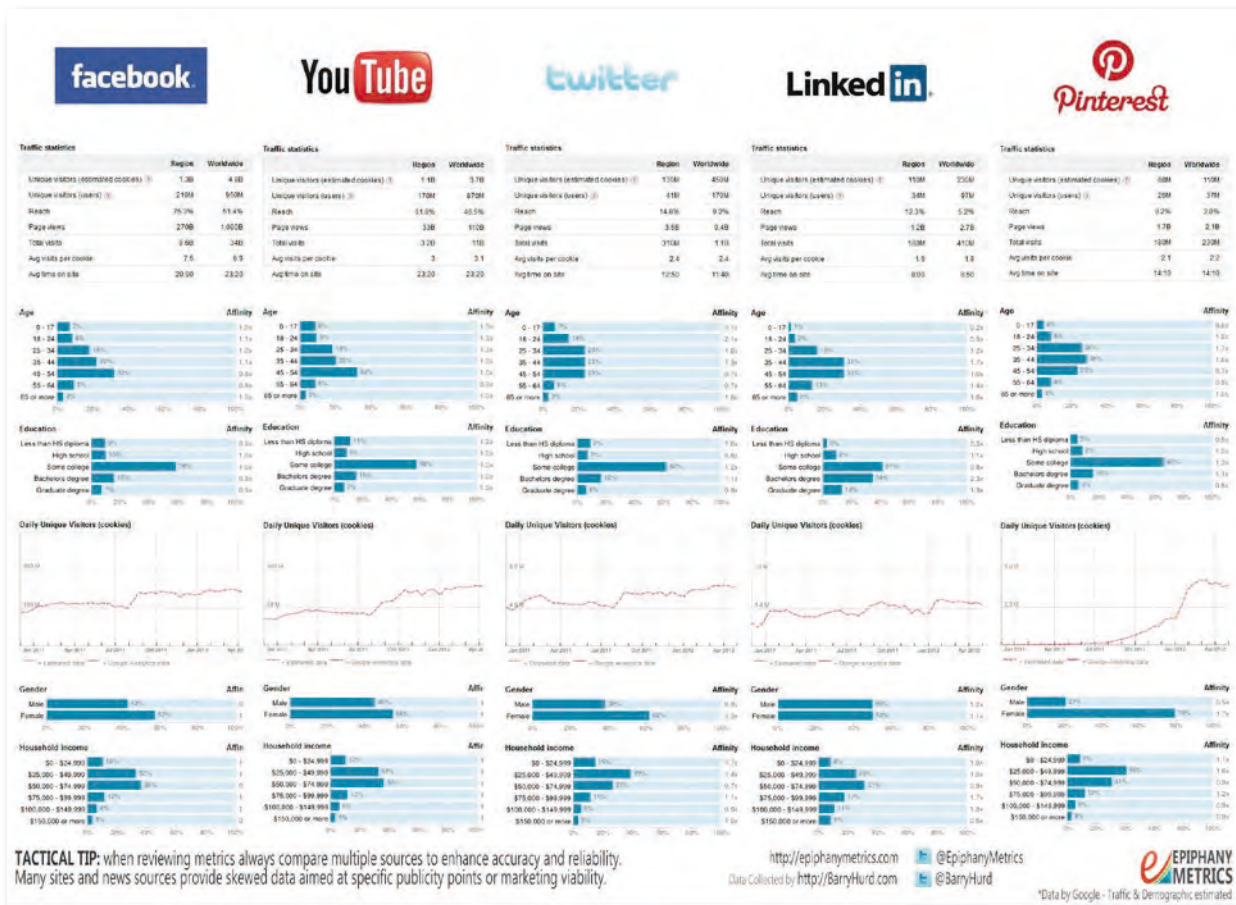
There would be an annual art event in coordination with the City of Santa Fe Arts Committee that would take place at the Santa Fe Plaza to raise awareness for what can really be accomplished with just one simple gallon of water.

Watercolor artists from all over Santa Fe would gather together for the all-day event where they would use just one gallon of water to create their visions depicting water conservation related themes. All of the art created that day (from just a simple gallon of water) would be displayed in the Santa Fe Convention Center gallery.

This event would be designed for all ages (kids could paint too), locals and visitors, and feature food, music and opportunities to learn more about how Santa Fe gets its water and why it is so critical to practice conservation.

This event would be a fun, yet powerful way to dramatically demonstrate how much can actually be created from just one single gallon of water. The event would make for great PR opportunities, as well as help raise awareness for our proposed "It Doesn't Take Much" water conservation campaign.



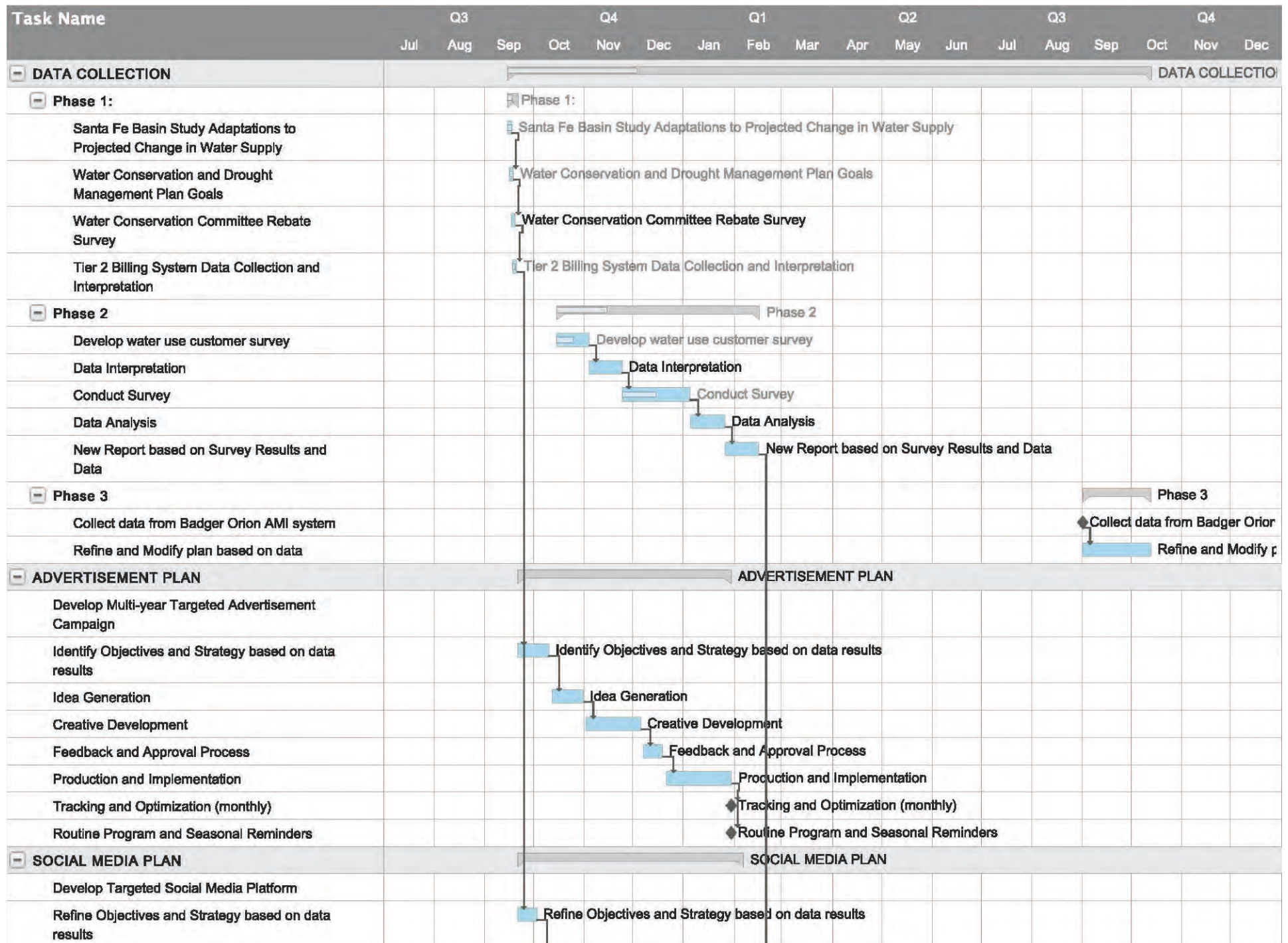


## COMPONENT H

### Success Metrics

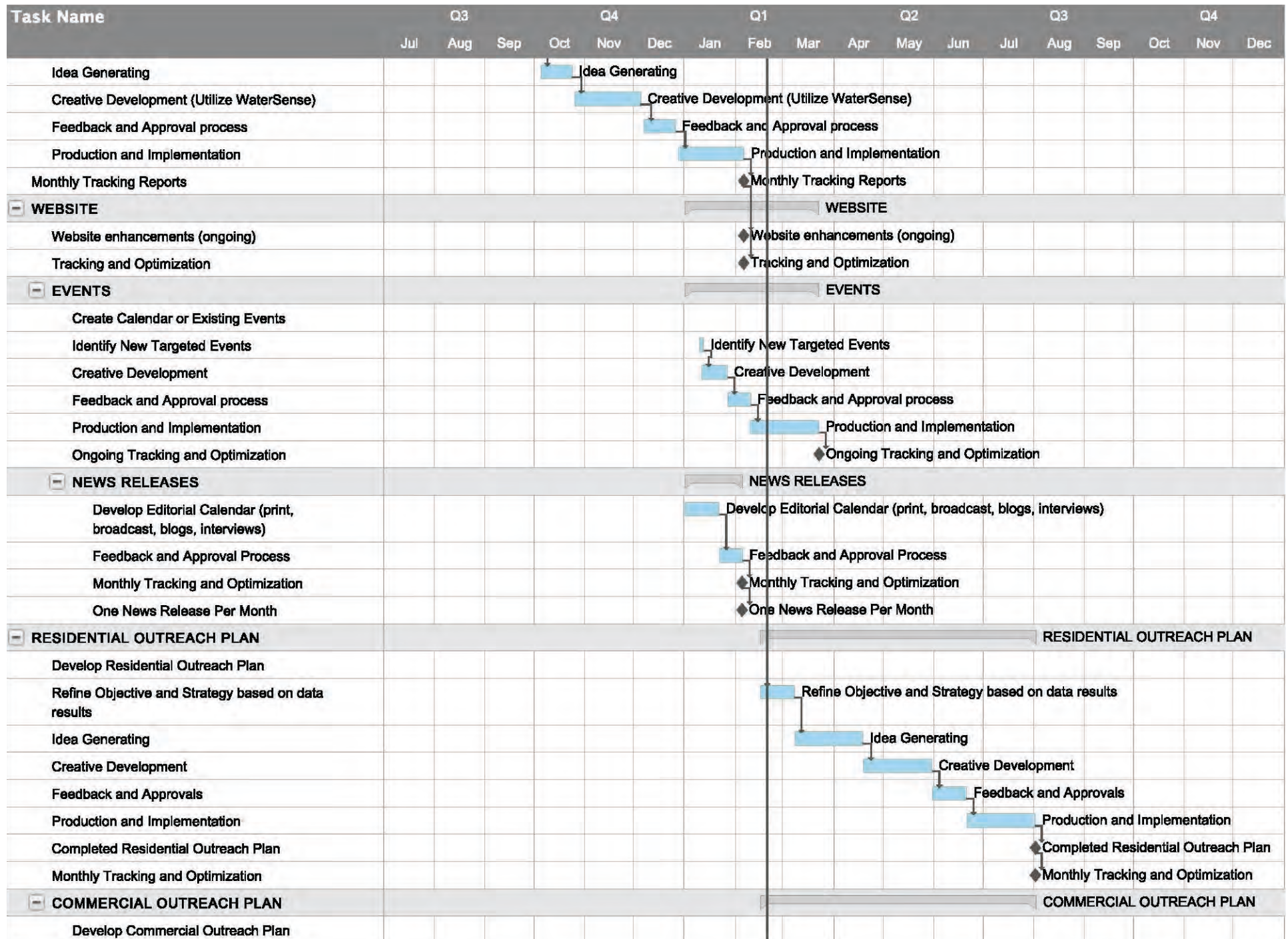
- ◆ Maintain GPCD at 95 or below
- ◆ 1 million ad impressions
- ◆ 80,000 people reached earned media (PR)
- ◆ 500,000 impressions on social media/news media channels
- ◆ 20 percent increase in water audits conducted
- ◆ 2 percent increase in Water Bank (or maintain)
- ◆ 25 percent increase in Hotel, Food/Beverage and Spa Participation

# IMPLEMENTATION TIMELINE





# IMPLEMENTATION TIMELINE CONT'D



# IMPLEMENTATION TIMELINE CONT'D

Task Name	Q3				Q4				Q1				Q2				Q3				Q4			
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec						
Refine Objectives and Strategy based on data results																								
Idea Generating																								
Creative Development																								
Feedback and Approval Process																								
Production and Implementation																								
Completed Commercial Outreach Plab																								
Monthly Tracking and Optimization																								





## **Below is a report from the Code/Regulations/Legislation Workgroup**

### **City of Santa Fe Investigating RWH Ordinance**

Supposed to report back in 60 days. Approved at November 2015 meeting. Tied to the Green Building Code update.

### **City of Santa Fe UPC 2015 Plumbing Code Approval**

UPC 2015 covers new alternatives water sources (i.e. rainwater and greywater). It requires locks on outdoor hydrants/spigots. It adopts Chapter 17, where the state made this optional.

- Approved City Council Meeting
- Public Utilities on 1/6/16
- Public Works on 1/11/16
- Council Request to Publish on 1/13/16
- Finance on 1/19/16
- Council Public Hearing on 2/10/1

The above were the original dates. Tied to the Green Building Code update.

### **2016 State Legislative Bills of Interest**

#### **1. MAKING AN APPROPRIATION FOR DRINKING WATER SYSTEM**

FINANCING \$1.8M bill - <https://legiscan.com/NM/text/HB19/2016>

2. Rapid Workforce Development Act - Monies available to higher learning institutions (SFCC) - <https://legiscan.com/NM/text/SB92/2016>

3. WASTEWATER SYSTEM FINANCING - \$1.4M - <https://legiscan.com/NM/text/HB160/2016>

4. <https://legiscan.com/NM/text/HB160/2016> - This is the bill with all funded projects - <https://legiscan.com/NM/text/HB167/2016>

18. to the city of Santa Fe in Santa Fe county for a water conservation or treatment, recycling or reuse project;

5. General funding bill - <https://legiscan.com/NM/text/HB2/2016>

(c) Water resource research institute - looks to be \$2M allocated to this. Not sure if we can leverage or not

6. forest land protection revolving fund - <https://legiscan.com/NM/text/SB110/2016>

### **ICC Rainwater Standard**

Draft is attached. Also a link

Next meeting is  
to review public comments and create next version.

[https://dl.dropboxusercontent.com/u/31660310/Public-Review-Draft-1-CSA\\_ICC-B805-201x-Rainwater-Harvesting-092315.pdf](https://dl.dropboxusercontent.com/u/31660310/Public-Review-Draft-1-CSA_ICC-B805-201x-Rainwater-Harvesting-092315.pdf)

### **ANSI/American Society of Agricultural and Biological Engineers (ASABE) Weather-based Landscape Irrigation Control Systems**

The above is in voting phase. Comments/votes done April 2nd.

### **X626, Uniformity Test for Landscape Irrigation Systems (formerly Auditing Landscape Irrigation Systems)**

ASABE has begun work to establish a uniformity test for landscape irrigation systems. The draft is approximately 90% complete. Per ASABE's ANSI-accredited standardization procedures, input from voting and non-voting members, as well as the general public, shall be addressed during the balloting process. If you wish to provide input on the project, please contact [Travis Tsunemori](#) with ASABE.

### **EPA End User Water Reuse Study**

Likely to be published in the spring of 2016. It will include outdoor watering. This is an update from 1991 study.

### **Additional information**

I attended the attached conference out in San Francisco as part of a trip to promote WERS. Good conference and I will include links to presentations in next months packet. They are not yet up on the website.

Bob you may be interested in the WELO presentation. The EnergyWater nexus presentation is of course interesting as well.

An interesting article on Tucson is also attached.

Presented at Alternative Water Sources Working Group in Marin. A presentation of interest was the College Water Efficiency Group. Doing some really cool stuff at the university level. Can forward presentation if any one is interested.

Also met with a QWEL representative. They are incorporating drip into the training, but not lengthening the course. Expect to have done this year.

## Nature News

# 'Promotoras' Enlisted to Grow Rainwater Harvest

Story by Sophia Paliza-Carre

last updated March 18, 2016



*Flor Morales leads a group of women in installing a passive rainwater harvesting system. The experiment is taking place in her yard.*

“I think a lot of what’s exciting is getting people excited about it. People get a bug as soon as they start collecting some water. Every drop they see leaving they think - that could be mine. That could be watering my plants.” - Jeff Rhody

### Listen:

Promotoras 2016

-6:47

Jeff Rhody of Dryland Design, a consulting firm that installs and consults for rainwater harvesting systems, wants people in Tucson to fully embrace rainwater harvesting.

Capturing rainwater in the desert makes sense.

It can help shade trees to grow, which cool down houses and [reduce noise pollution from traffic](#). The average Tucson family [uses 27 percent of their water outdoors](#), when rainwater that could be used to irrigate plants often just evaporates or runs into sewers.

That’s why Tucson Water created a [rebate program in 2012](#) to



incentivize the installation of rainwater harvesting systems.

Tucson Water spokesman Fernando Molina says water conservation, historically, has been about reducing water use and that is changing.

"We're looking at other water resources we can use to benefit the community and rainwater is one of those things," Molina said.

However, so far, the program has seen very little interest from the south and west sides of town.

*Rainwater harvesting and gray water rebate program participants. (PHOTO: City of Tucson )*

So, Tucson Water reached out for help from long-time nonprofit SERI, the [Sonoran Environmental Research Institute](#).

"We have been working with the community for over 20 years," Flor said. "We are well known, and the way they get to know us, is mostly by word of mouth."

Flor Morales is the program manager for SERI. She's also training 20 women to be promotoras. Promotoras are Latina community health educators, who work to explain anything from lead detectors to reproductive health.

And now, they've been activated to advocate for rainwater harvesting.

On this Friday morning, these women, all wearing hats and gym shoes, shovel dirt in the front yard of her home. They are preparing to install a passive, rainwater harvesting system as a demo.

She's an energetic blur - getting people water, shoveling dirt, taking iPhone photos, translating. The promotoras have been learning with her all week, but this is the first hands-on moment of training.

"All the things they are learning from this two week training, they are going to take all of that information and go talk to their community," Flor said.

The promotoras work primarily with a Spanish-speaking community. They'll do five home visits each in the southern metropolitan areas of Tucson, to explain what they've learned. Promotoras reach out through personal networks to inform and educate people. Flor has really seen it work in the last five years she has been with SERI.

"When I started as a volunteer, we used to go out on the streets, distributing the word. and they would always let us into their homes. Many of the times, it was the first time they were meeting us. Also as a Latina, probably if you were somebody else, they would not let them into their home as easy as they let us," Flor said.

Flor's mom, who also happens to be out here digging in the sun, has been doing promotora work for the last 12 years. Flor's mom is also named Flor.

The two of them together, she says in Spanish, make a garden. Which is very appropriate for their work today. Neither Flor is particularly delicate.

"Also as a Latina, probably if you were somebody else, they would not let them into their home as easy as they let us."

- Flor Morales, program manager for SERI



In 2004, 14 year-old daughter Flor told her family she wanted something different. They were living in Hermosillo, Mexico. But she had been born in the United States and her father was a permanent resident. As a teenager, she decided that she wanted to move back to Tucson to go to high school.

The whole family decided to move with her and support her. For her mom, who left behind her certified public accountant job and entered a country where she didn't speak the language, the transition was a bit abrupt. But for Flor, there was a lot to get excited about.

"It's funny, I remember, we used to drive by Tucson High and I had no clue that it was a high school, but I really liked it," Flor said. "Oh, I wish that that's a high school and I get to go to, and yes it was the one I had to go too!"

Her mom started volunteering in the community with SERI. She got Flor hooked on first volunteering with SERI and then working for them full-time.

Now, Flor has a business degree and wants to open her own business centered around health and obesity, which she identified as a problem she saw in the latino community.

The two Flors both believe that the knocking on doors as a form of outreach has real potential, and that the lack of interest in the rainwater harvesting rebate has to do with trust and outreach. Mostly because they have seen it work before so well for their other programs.

"I see families in the stores and they say 'listen, thank you for putting the detectors, the other day something was wrong in my house and the detector let me know'...that's very satisfying to me," Flor's mother said, in Spanish.

In part, it's because they know hear that people don't see the commercials that run on television, or they don't feel comfortable calling an office number to get more info, or they are worried about being charged extra. The cost of installation is also still prohibitive for some, even with a 50 percent rebate of up to \$2,000.

In a study done in September of 2015, the researchers found that SERI's promotora program over the course of 4 years, was able to pass on best practices [for pollution prevention to over 600 small Hispanic and "hard-to-reach" businesses](#) usually not impacted by government-led programs.

As part of this pilot promotora program, Tucson Water also hopes to install a rainwater harvesting system at the Iglesia Bautista on south 12th Avenue, as a demo for people to come see and touch. Also, SERI will be loaning money for 10 families to pursue the rebate, without having to put money up front. They already have five families committed.

They hope that will make all the difference. Tucson Water is currently evaluating their outreach efforts for the last two years, and perhaps the number will reflect a change in dwindling interest.

For promotora Aida Bustamante, she also gets something out of the training process.. She said in Spanish:

"I feel that I'm still useful ...there's no age limit to this. The more you learn, the more you get excited about continuing the work of passing the information along," Aida said.



Visit the [DímeLO: Stories of the Southwest](#) page or [read more stories](#) from the series.



*DímeLO is brought to you by KUAZ and Finding America, a national initiative produced by AIR, the*



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## Presentations

Conference Center  
1st Floor

Green Room  
2nd Floor

9:00am

**Exhibits Open**

10:00 -  
11:00am

**Building - Case Study Panel:  
Innovative Water Conservation  
at High Profile Facilities**

Marsha Sukardi, San Francisco Public  
Utilities Commission  
Mark Palmer, City of SF, Department of the  
Environment  
Susan Ecker, Integral Group

**NASA Airborne Snow  
Observatory Program  
Measurements of Sierra  
Snowpack and Water  
Resources**

Frank Gehrke, California Cooperative Snow  
Surveys

11:00am -  
12:00pm

**Break**

12:00 -  
1:00pm

**What Science Says About Our  
Climate Future: It's All About  
the Water**

Dr. Marcia McNutt, Science journals, AAAS  
(American Association for the Advancement  
of Science)

**Onsite Non-potable Water Use:  
Examples from San Francisco  
and Santa Monica**

Neal Shapiro, City of Santa Monica, Office  
of Sustainability & the Environment  
John Scarpulla, San Francisco Public  
Utilities Commission, Water Resources  
Division

1:00 -  
2:00pm

**Break**

2:00 -  
3:00pm

**The Energy-Water Nexus: A  
Holistic Perspective**

Dr. Ashlynn S. Stillwell, University of Illinois  
at Urbana-Champaign  
Dr. Kelly T. Sanders, University of Southern

**California Water: The Big  
Picture**

Caitrin Phillips Chappelle, Public Policy  
Institute of California

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### EVENT DETAILS

Tuesday, March 22, 2016  
9 a.m. - 6 p.m.

PG&E Pacific Energy Center  
851 Howard St.  
San Francisco

### EVENT SPONSORS

**GOLD**

**SLOAN.**

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at home • at work • at school

**SILVER**

**Waste Management**

**CERTIFIED**

**Contra Costa Water District**

**Zone 7 Water Agency**

Conference Center 1st Floor		Green Room 2nd Floor
California		
3:00 - 4:00pm	<b>Break</b>	
4:00 - 5:00pm	<b><u>Water Efficient Landscape Ordinance (WELO) and the New Normal for California Landscaping</u></b> <u>Julie Saare-Edmonds</u> , California Department of Water Resources representative <u>Peter Estournes</u> , Gardenworks Inc. <u>Glen Schmidt</u> , Schmidt Design Group	<b><u>Landscaping – Case Study Panel: Strategies That Will Reduce or Even Eliminate the Need for Outdoor Water Use</u></b> <u>Chad Sutton</u> , Gachina Landscape Management <u>Jackson Madnick</u> , Pearl's Premium Ultra Low Maintenance Lawn Seed
5:30pm	<b>Premium Passport Drawing</b> (Must be present to win)	

As video presentations become available, they will be posted on the [USGBC-NCC Vimeo Account](#).



Each session is approved for **1 Continuing Education Hour** for LEED Professional Credential Maintenance

## Course Descriptions:

### What Science Says About Our Climate Future: It's All About the Water

#### Presenter:

**Dr. Marcia McNutt**, Science journals, AAAS (American Association for the Advancement of Science)

Scientists are uncovering new information on what future water conditions will be like under the current climate warming trajectory. Whether the water-related impact is rising sea level, changing incidence of climate events such as drought, or changing intensity of weather-related impacts such as hurricanes, better understanding will lead to timely and less costly adaptation. Better yet, knowledge of what the future holds could be an incentive for mitigation of CO2 emissions.

GBCI Course #: 920007483

### The Energy-Water Nexus: A Holistic Perspective

#### Presenters:

**Dr. Ashlynn S. Stillwell**, University of Illinois at Urbana-Champaign

**Dr. Kelly T. Sanders**, University of Southern California

Part 1 The energy-water nexus at the power generation unit level Considerations about tradeoffs in environmental priorities in the power sector (Sanders) The power sector requires substantial amounts of water for cooling, which can affect



electricity and water reliability, as well as ecosystem services. However, the power sector also releases air quality and greenhouse gas emissions that are the subject of many statewide interventions. Consequently, environmental and public health concerns must be addressed holistically to avoid the unintended consequences of implementing interventions to address one priority at the expense of another.

Use of reclaimed water for thermoelectric power plant cooling (Stillwell) To mitigate strain on freshwater supplies, thermoelectric power plants can use reclaimed water (municipal wastewater treatment plant effluent) as a viable cooling water source. In many areas, use of reclaimed water for power plant cooling is both geographically and economically feasible when accounting for derating and thermal inefficiencies from use of surface water resources. Additional concerns arise regarding downstream flow depletion from consumptive use of reclaimed water; however, these flow impacts decrease with downstream distance.

Part 2: The energy-water nexus at the consumer/end-use level Energy for water supply: discussion of trends moving forward for California (Sanders) California is in the midst of an unprecedented drought, which has placed large strains on surface water availability and groundwater resources. While many communities dependent on surface water imports are developing plans for more local water supplies to reduce dependence on energy-intensive water transfers, new supply portfolios should be developed with economic, energy and ecosystem costs in mind. Here, tradeoffs between these priorities are discussed.

Synergistic water and energy efficiency measures in the residential environment (Stillwell) The link between energy and water resources translates to potential synergies in terms of resource conservation: saving water equals saving energy. In the residential environment, different appliance upgrades and infrastructure investments can be cost-saving approaches to reducing both water and energy consumption. When accounting for direct (in-home) and indirect (at water or energy utilities) water and energy consumption, several household appliance upgrades emerge as cost-saving approaches to reducing resource consumption, including efficient irrigation systems, water heaters, and HVAC equipment.

GBCI Course #: 920007484

## NASA Airborne Snow Observatory Program Measurements of Sierra Snowpack and Water Resources

### Presenter:

**Frank Gehrke**, California Cooperative Snow Surveys

The NASA Airborne Snow Observatory (ASO), an imaging spectrometer and imaging LiDAR system, quantifies snow water equivalent and snow albedo over mountain basins throughout the Western US and provides complete, robust inputs to snowmelt runoff models, water management models, and systems of the future. Frank Gehrke will present results from the Sierra Nevada during the intense California drought of spring 2015, a snow year far worse than the previously worst snow year on record of 2014. He also gives an update on current snow water equivalent conditions in the Sierra Nevada with early season flights of ASO.

GBCI Course #: 920007485

## Onsite Non-potable Water Use: Examples from San Francisco and Santa Monica

### Presenters:

**Neal Shapiro**, City of Santa Monica, Office of Sustainability & the Environment

**John Scarpulla**, San Francisco Public Utilities Commission, Water Resources Division

This presentation will describe the City of Santa Monica's watershed-stormwater management program, and how it focuses on rain harvesting to both supply local water and reduce water pollution. Rain harvesting solutions solve two problems – compliance with Clean Water Act NPDES regulations on stormwater management and runoff pollution, and developing a local water supply to replace imported water, making a city more sustainable. A structural system to harvest rainwater and stormwater keeps local water local to replace potable water for non-potable water uses, and keeps pollutants found in urban runoff from entering surface water bodies. One solution for multiple problems for multiple benefits. The presentation will also describe the City of San Francisco's Non-potable Program. In September 2012, the City and County of San Francisco adopted the Non-potable Water Ordinance, adding Article 12C to the San Francisco Health Code, allowing for the collection, treatment, and use of alternate water sources for non-potable applications. In October 2013, the ordinance was amended to allow district-scale water systems consisting of two or more buildings sharing non-potable water. In July 2015, the ordinance was again amended to mandate onsite water reuse in all new developments in San Francisco. This presentation will discuss the ordinance process and resulting projects.

GBCI Course #: 920007486

## California Water: The Big Picture

### Presenter:

**Caitrin Phillips Chappelle**, Public Policy Institute of California

This talk provides an overview of some basics you need to know about California water: patterns and trends in water use and related economic activity in the urban and farm sectors, a status check on California's fish and other aquatic wildlife, highlights of how we pay for water, and a look at what our experiences during the latest drought tell us about our preparedness for a warmer, possibly drier future.

GBCI Course #: 920007487

## Water Efficient Landscape Ordinance (WELO) and the New Normal for California Landscaping

### Presenters:

**Julie Saare-Edmonds**, California Department of Water Resources representative

**Peter Estournes**, Gardenworks Inc.

**Glen Schmidt**, Schmidt Design Group

The recent update and revisions to the California Model Water Efficient Landscape Ordinance (MWELO) have set new targets for landscape water use efficiency of approx. 45 - 55% less than traditional turf based landscapes once required. In order to meet these new standards, landscape designs and installations will need

to focus on the following strategies:

- Planning and site analysis
- Sustainable practices
- Efficient technologies
- Practical turf areas
- Soil Improvement
- Appropriate horticulture
- Proper management

Julie Saare-Edmonds of the California Department of Water Resources will provide an update on the Water Efficient Landscape Ordinance. Landscape designers Glen Schmidt and Peter Estournes will review recent changes in the Water Efficient Landscape Ordinance and how those changes may affect new landscapes in the State. Comparing hypothetical and existing case studies the presentation team will highlight design decisions and strategies that can be used to help meet the new ET reductions. In addition, the audience will take part in an exercise calculating how water use budgets are affected by certain plant material and irrigation choices.

GBCI Course #: 0920007490

## Landscaping – Case Study Panel: Strategies That Will Reduce or Even Eliminate the Need for Outdoor Water Use

### Presenters:

**Chad Sutton**, Gachina Landscape Management

**Jackson Madnick**, Pearl's Premium Ultra Low Maintenance Lawn Seed

Learn how one of the "biggest landscape water wasters" turned their issues and challenges into opportunities and savings. We will explore landscape irrigation and water management best practices across the spectrum, from simple to cutting edge. We will also explain how to become highly efficient in the application of our most vital resource, water. Learn how to lead your team to huge water savings success. Chad Sutton, water resource manager for Gachina landscape management, will share a case study project located in San Francisco that involved leak detection and low-water landscape solutions to convert an extremely wasteful site into a model of water efficiency. Water expert Jackson Madnick will discuss a revolutionary system of extreme deep root grasses that need 75% less water and no chemical fertilizer. His presentation will feature a case study project located in Hillsborough, California where roof water and ground water were routed away from the building's foundation and turned into a constant source of water for over an acre of property without drilling or negatively impacting the environment. Best management practices and recent university research will also be featured in this presentation.

GBCI Course #: 920007488

## Building - Case Study Panel: Innovative Water Conservation at High Profile Facilities



**Presenters:**

**Marsha Sukardi**, San Francisco Public Utilities Commission

**Mark Palmer**, City of SF, Department of the Environment

**Susan Ecker**, Integral Group

This panel presentation will highlight recently-constructed commercial buildings that deploy innovative and aggressive water conservation strategies. The panel will include a plumbing designer, environmental engineer and a green building specialist with a collective experience that includes many well-known projects that also happen to feature water-use reduction throughout the facilities.

The new San Francisco Public Safety Building serves 4 distinct public safety functions: San Francisco Police Department Headquarters, Mission Bay Police Station, Southern District Fire Station and a renovated 1929 historic fire station, now a community meeting room. Through an integrated water efficiency and reuse plan including three living roofs, graywater reuse and high performance fixture selection, these facilities are designed to exceed state water efficiency standards by nearly 50% and reduce potable water used for sewage conveyance by 76%. Added measures of resilience for this mission critical facility include solar water heating and 72-hour emergency storage for potable water and waste water. The project is LEED Registered with the goal of LEED v2009 BDC Gold certification. It is anticipated that the project will achieve 71 LEED points toward certification.

The SFPUC Headquarters is one of the first buildings in the nation with onsite treatment and reuse of gray and black water. Located in one of the densest neighborhoods in the US, the ecological treatment system is visible —it is located in the atrium and sidewalks where hundreds of people walk every day. All of the “Living Machine’s” treated water is used to flush the building’s low flow toilets and urinals, reducing water use by 60%. The first of its kind in a densely urban environment, its operators have been troubleshooting its quirks and problem-solving unique obstacles. Come learn about the SFPUC’s Living Machine and the lessons learned from its three years of operation.

The J. Craig Venter Institute in La Jolla, CA, the Exploratorium in San Francisco, CA and San Jose Environmental Innovation Center in San Jose, CA will be used as case studies to illustrate the challenges faced when trying to implement water reuse and conservation strategies and the lessons learned. From the beginning of a project the authorities having jurisdiction, including the local health departments and code officials, need to be included in discussions so that there is understanding between the design team and the authorities. The bad news is that at times the requirements of the local jurisdiction put a burden on the building owner, such that they are not able to accept, and so the water reuse strategy is eliminated from the project. The good news is that with every project where a water reuse or conservation strategy is implemented, we are overcoming the challenges and saving precious drinking water. When implementing these strategies unintended conditions may occur and need to be worked out. These become the lessons learned for future projects.

GBCI Course #: 920007489

**North California Chapter**

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**City of Santa Fe, Water Division  
Water Production Update  
Public Utilities Commission Meeting  
April 6, 2016**

**Filter Plant Demolition**

Asbestos abatement and building demolition of the old Canyon Road Filter Plant (near corner of Cerro Gordo and Upper Canyon Road) has been completed. The site will be contoured and reseeded for possible future use by the City, as part of the Dale Ball Trails network.

**Water Production for March (through 03/23/2016)**

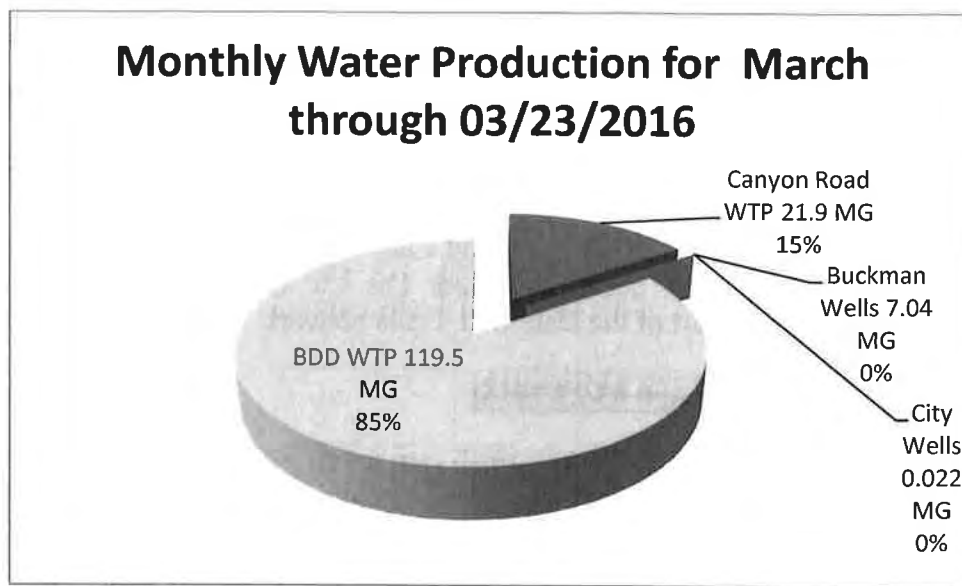
Water production at the Canyon Road Treatment Plant (CRWTP) decreased from February, and totaled around 21.9 million gallons (MG) for the first 18 days of March. This represents a daily average of 0.95 million gallons per day (MGD). Daily plant production has been scaled back to accommodate the filling of McClure and increased production by BDD. The City Wells were not used during the month of March, except for .022 MG used to increase distribution line pressures on occasion. The Buckman Wells were turned on for quarterly sampling by Los Alamos National Laboratory and to also decrease the static level in Buckman #1

BDD's total production of 119.5 MG was split between Entry Point(s) 04A at 85.48 MG, and 05A at 34.02 MG. Total Production for the month of January from all sources through the 23rd was 148.462 MG, or an average of approximately 6.21 MGD. This is virtually the same usage tracked during the last report presented to this Committee in January for the first 21 days of that month and a slight increase (0.185 MGD) in the daily use of 6.025 MGD tracked for the month of February.

Nichols Reservoir storage levels were at 133.15 MG (354 ac. ft.), or a 61.78% storage level on March 23rd. Flows out of the reservoir were decreased to accommodate construction in the river channel. This is a decrease of 3.5 million gallons since November. Nichols Reservoir levels will be brought down continuously over the next three months as irrigation deliveries are started on April 1<sup>st</sup> and Living River flows are increased to prepare for anticipated spring runoff. The McClure Reservoir storage level was brought up to 409.50 MG by March 23<sup>rd</sup> or approximately 38% of capacity. Reservoir levels are increasing at approximately 1.0 % of capacity every 5 days at current inflow rates of approximately 3 MGD a day. Runoff into McClure for the same week last year ranged from 6.0 – 8.2 MGD). Recent cooler daytime and nighttime temperatures have slowed snowmelt and inflow from the peak of 9.2 MGD that was observed in February. Outflow from McClure was kept to approximately 1.0 MGD or 1.55 cubic feet per second (cfs). The City is still filling McClure in conformance with the Office of State Engineer (OSE) guideline of less than one foot in surface elevation per day. Snow depth in the upper watershed remains at forty-four (44) inches despite periodic snow accumulations and snowmelt throughout the month. Snow-water equivalent for the Santa Fe Snotel Station (elevation: 11,445 ft.) is currently 17.2 inches and is at 109% of the median (15.8 in.)\* which has been calculated value for this station.

*(\* Median for this station is calculated from values obtained during the 30-yr period of 1981-2010)*





### **Long Term Enhanced Surface Water Rule (LT2-ESWR)**

The City's Source of Supply Section has completed five months of the Long Term Enhanced Surface Water Rule Monitoring Rule (LT2 ESWR) monitoring required by the federal Safe Drinking Water Act.. As of this date, no Cryptosporidium or Giardia has been found in the raw source water being released to the Canyon Road Water Treatment Plant from Nichols Reservoir. This is significant because these organisms, especially Cryptosporidium, can be resistant to conventional water treatment methods and disinfection. Continuous monthly monitoring will be continued by SOS for the City of Santa Fe Water System under the LT2 ESWTR for a total of two years ending in September, 2017.

### **Consumer Confidence Reports**

The Source of Supply Section has assembled all relevant compliance data for the 2015 Consumer Confidence Report (CCR), as required by the federal Safe Drinking Water Act. This information will be disseminated to all retail customers of the City of Santa Fe Water System by April 1<sup>st</sup>, as required by federal law, for inclusion in the CCRs for their respective public water supply systems.. Final dissemination of CCRs to all City of Santa Fe Water System customers is required under the SDWA by July 1, 2016. It is our goal to disseminate reports in customer bills starting with the billing cycle in mid-May or sooner. Once again, the City of Santa Fe Water System is in full compliance with all SDWA drinking water standards, as well as all required monitoring, analytical and reporting requirements.

### **Drought, Monsoon/El Nino, and ESA Update**

Drought conditions have eased this past year due to the reappearance of a strong El Nino. NOAA's latest update (03/11/16) indicates that El Nino conditions are present, and that El Nino is expected to remain strong through the rest of the winter with a transition to neutral conditions during late spring or early summer 2016, **with close to a 50% chance for La Nina conditions to develop by the fall - (hot/dry) conditions may return.** Dry conditions in 2016 could present significant challenges to all

water purveyors, water utilities, and irrigators going forward into the summer/fall if there is not significant filling and carry-over storage in regional reservoirs. Regional reservoir levels on the upper Santa Fe River, Rio Grande, and Chama Rivers are still low but rising slowly due to warmer temperatures and resultant snowmelt runoff. There are no water-related Endangered Species Act (ESA) updates. Updates on ESA issues will be made as needed. Rio Grande Compact Article VII storage restrictions were lifted by the NMISC on 02/16/16 which now means the City has begun to impound runoff into Nichols and McClure Reservoirs above the pre-Compact pool of 1,061 AF. The NMISC estimates that the State could remain outside of Article VII constraints through April. Updates to this condition will be made as needed.

City of Santa Fe SJCP Reservoir Storage as of February 16, 2016:

Heron:

5,196 AF (2015 SJCP water must be vacated by September 31, 2016 pursuant to a BoR waiver).

El Vado:

583 AF (Temporary storage, will be moved to Abiquiu as part of environmental winter/spring flow releases)

Abiquiu:

10,364 AF SJCP carry-over from previous years, no time limit to vacate due to storage agreement with ABCWUA

TOTAL:

16,143 AF



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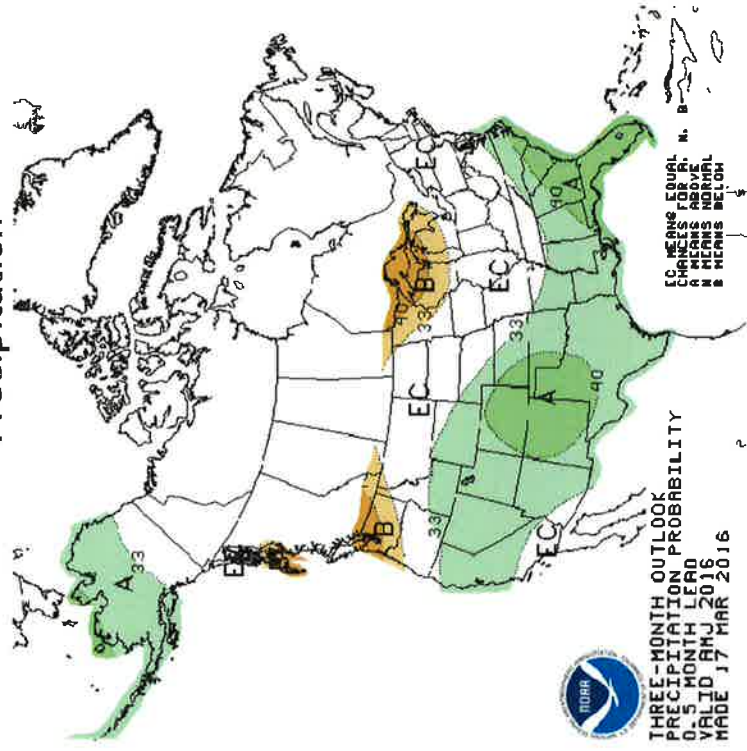


# U. S. Seasonal Outlooks

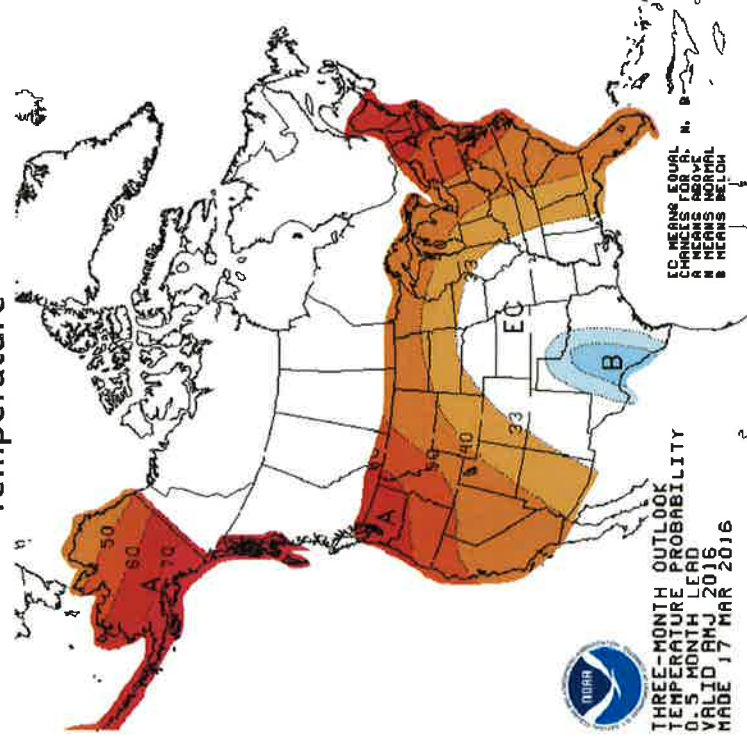
April - June 2016

The seasonal outlooks combine the effects of long-term trends, soil moisture, and, when appropriate, ENSO.

## Precipitation



## Temperature



# Summary

## ENSO Alert System Status: El Niño Advisory

A strong El Niño is present and is weakening.\*

Positive equatorial sea surface temperature (SST) anomalies continue across most of the Pacific Ocean.

A transition to ENSO-neutral is likely during late Northern Hemisphere spring or early summer 2016, with close to a 50% chance for La Niña conditions to develop by the fall.\*

\* Note: These statements are updated once a month (2<sup>nd</sup> Thursday of each month) in association with the ENSO Diagnostics Discussion, which can be found by clicking [here](#).