



Agenda

CITY CLERK'S OFFICE

DATE 12/6/17 TIME 9:45

SERVED BY Christine Chavez

PREPARED BY SSS

SANTA FE WATER CONSERVATION COMMITTEE MEETING

CITY HALL – 200 LINCOLN AVE.

CITY COUNCILORS' CONFERENCE ROOM

December 12, 2017

4:00 PM TO 6:00 PM

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF CONSENT AGENDA
5. APPROVAL OF MINUTES FROM THE NOVEMBER 14, 2017 MEETING

CONSENT AGENDA:

6. UPDATE ON CURRENT WATER SUPPLY STATUS (Christine Chavez)
7. MONTHLY OVERVIEW OF SCORECARD PROGRESS (Christine Chavez)
8. ANNUAL WATER REPORT (Arianna Espinoza, Christine Chavez)

ACTION ITEMS:

9. STRATEGIC MARKETING PLAN TIMELINE DOCUMENT (Stephen Wiman, Doug Pushard, Christine Chavez)
10. SUBCOMMITTEE CHANGES AND RE-APPOINTMENTS (Christine Chavez)

INFORMATIONAL ITEMS:

11. NEXT GENERATION WATER SUMMIT UPDATE (Doug Pushard, Christine Chavez)
12. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE WORKING GROUPS
 - A. GROUP 1 – Irrigation Subcommittee (No update)
 - B. GROUP 2 – General Education Program (Aaron Kauffman, Christine Chavez)
 - C. GROUP 3 – Marketing Outreach (Stephen Wiman, Christine Chavez)
 - D. GROUP 4 – Water Conservation Codes / Ordinances / Regulation (Christine Chavez)
 - E. GROUP 5 – Grants (Bob Coombe) (Christine Chavez)
 - F. GROUP 6 – Commercial (Christine Chavez)

MATTERS FROM PUBLIC:

MATTERS FROM STAFF:

MATTERS FROM COMMITTEE:

NEXT MEETING – (Councilor's Conference Room):

CAPTIONS:

PACKET MATERIAL:

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.

**SUMMARY OF ACTION
SANTA FE WATER CONSERVATION COMMITTEE
RAILYARD ROUNDHOUSE CONFERENCE ROOM
500 MARKET STATION, SUITE 200
TUESDAY, NOVEMBER 14, 2017, 4:00 PM**

<u>ITEM</u>	<u>ACTION</u>	<u>PAGE</u>
CALL TO ORDER		1
ROLL CALL	QUORUM	1
APPROVAL OF AGENDA	APPROVED	1
APPROVAL OF CONSENT AGENDA	APPROVED	2
APPROVAL OF MINUTES, OCTOBER 17, 2017	APPROVED	2
CONSENT AGENDA LISTING	INFORMATION/DISCUSSION	2
<u>INFORMATIONAL ITEMS</u>		
PRESENTATION FROM SCOTT CANNING, HORTICULTURE AND SPECIAL PROJECTS DIRECTOR FOR THE SANTA FE BOTANICAL GARDEN	INFORMATION/DISCUSSION	2-4
ENFORCEMENT PRESENTATION	INFORMATION/DISCUSSION	4-7
GPCD	INFORMATION/DISCUSSION	7-8
GROUP REPORTS FROM WATER CONSERVATION COMMITTEE WORKING GROUPS	INFORMATION/DISCUSSION	8
IRRIGATION SUBCOMMITTEE	NO REPORT	8
GENERAL EDUCATION PROGRAM	INFORMATION/DISCUSSION	8-9
MARKETING OUTREACH	INFORMATION/DISCUSSION	9

WATER CONSERVATION CODES/ORDINANCES	INFORMATION/DISCUSSION	10
GRANTS	NO REPORT	10
COMMERCIAL	INFORMATION/DISCUSSION	10
MATTERS FROM THE PUBLIC	NONE	10
MATTERS FROM THE STAFF	NONE	10
MATTERS FROM THE COMMITTEE	NONE	10
NEXT MEETING	DECEMBER 12, 2017	10
ADJOURN	ADJOURNED	11

**SANTA FE WATER CONSERVATION COMMITTEE
RAILYARD ROUNDHOUSE CONFERENCE ROOM
500 MARKET STATION, SUITE 200
TUESDAY, NOVEMBER 14, 2017, 4:00 PM**

1. CALL TO ORDER

The meeting of the Santa Fe Water Conservation Committee was called to order by Co-Chair Lisa Randall at 4:00 pm on Tuesday, November 14, 2017, at the Railyard Roundhouse Conference Room, 500 Market Station, Suite 200, Santa Fe, New Mexico.

2. ROLL CALL

MEMBERS PRESENT

Councilor Peter Ives, Chair
Lisa Randall, Co-Chair
Aaron Kauffman
Tim Michael
Stephen K. Wiman
Ken Kirk
Doug Pushard
Bill Roth
Scott Bunton
Justin Lyon

MEMBERS ABSENT

Robert D. Coombe

OTHERS PRESENT

Scott Canning, Santa Fe Botanical Garden
Andy Otto, Watershed Association
Christine Chavez, City of Santa Fe, Water Conservation Manager
Caryn Grosse, Water Conservation
Patricio Pacheco, Water Conservation
Elizabeth Martin, Stenographer

3. APPROVAL OF AGENDA

MOTION A motion was made by Mr. Pushard, seconded by Mr. Lyon, to approve the agenda as presented.

VOTE The motion passed unanimously by voice vote.

4. APPROVAL OF CONSENT AGENDA

MOTION A motion was made by Mr. Pushard, seconded by Mr. Wiman, to approve the consent agenda as presented.

VOTE The motion passed unanimously by voice vote.

5. APPROVAL OF MINUTES, OCTOBER 17, 2017

MOTION A motion was made by Mr. Lyon, seconded by Mr. Kirk, to approve the minutes as presented.

VOTE The motion passed unanimously by voice vote.

CONSENT AGENDA

6. UPDATE ON CURRENT WATER SUPPLY STATUS

7. MONTHLY OVERVIEW OF SCORECARD PROGRESS

INFORMATIONAL ITEMS

8. PRESENTATION FROM SCOTT CANNING, HORTICULTURE AND SPECIAL PROJECTS DIRECTOR FOR THE SANTA FE BOTANICAL GARDEN

Mr. Canning made a presentation which is incorporated herewith into these minutes as Exhibit "1".

Councilor Ives arrived at the meeting and assumed the Chair position.

Mr. Canning said on opening day he was there. It was July 2013 and was a great monsoon day and the meadow filled up. Visitors thought there would be a flood in the garden and that we had designed poorly, but that was what it was supposed to do.

Mr. Kauffman asked what is the annual water use.

Mr. Canning said about 2 households of water on average annually for the entire garden. June is our peak water use.

Ms. Randall asked what value are you giving the household gallon usage.

Mr. Canning said he did not have that available. He used information he obtained from the City.

Chair Ives asked are you aware of the new stormwater plan the city is developing.

Mr. Canning said yes, we met with Melissa McDonald and hope the regulations shake out so that we can use more stormwater.

Chair Ives said we are using an EPA Technical Assistance grant to get the plan done and Tetra Tech for the balance. The more coordination with Melissa the better. We are also looking at more rain gardens around the City.

Chair Ives asked has partnering with the City been done.

Mr. Canning said it is a pass through. We lease land from the City for the footpath. We are hoping it will be extended. They are doing a Museum Hill master plan now with a coordinated effort.

Chair Ives asked who is doing the master plan work.

Mr. Canning said the Museum Hill partners.

Chair Ives asked are they using State funding.

Mr. Canning said yes, and some City funding as well. Both in partnership.

Mr. Kirk said we have talked to Melissa about the stormwater plan and are staying in close contact. The schedule is to wrap up that project by August or September. We will know then where the City is heading and what type of projects are being thought of.

Mr. Lyons asked with the newly acquired land what structure will be there.

Mr. Canning said maybe our Visitors Center but probably not. Maybe the catering kitchen. Our intention is to interoperate what a Juniper and Pinion area looks like.

Ms. Chavez said thank you for coming today. It has been great partnering with the Botanical Gardens. They have so many classes and workshops. We are trying to help promote those. Scott was on the radio show and promoted Eye On Water.

Mr. Canning said he is so glad the City did the smart meters. He goes to that app all the time. When it first started he signed on and within a month he had tracked down some leaks.

Mr. Pushard asked what about a partnership in designing our demonstration garden.

Ms. Chavez said we have the Master Gardeners on board to help with that. They are very excited.

Mr. Canning said thank you for your time.

9. ENFORCEMENT PRESENTATION

Mr. Pacheco with the City of Santa Fe Water Conservation Enforcement Office made a presentation to the Committee.

Mr. Pushard asked is a fee of \$200 enough.

Ms. Chavez said part of the rewrite of Chapter 25 is to allow us to change those amounts. There is lots of discussion right now about that.

Ms. Chavez said this program will be growing this year.

Mr. Pushard asked how many repeat offenders are there. Chronic offenders.

Mr. Pacheco said this summer there were not too many. We do have those offenders who are chronic.

Mr. Roth asked what is the most common offence

Mr. Pacheco said fugitive water and time of day watering. Also sprinkler controllers that are not set properly. They don't know how to set their controllers. He has had to sit down with property manager with a repeat offender to take care of the situation.

Mr. Pushard asked where does the fee money go.

Ms. Chavez said back to the Water Division. Not to us. We have had a lot of issues with enforcement. We had one recently where they had to shut off the water. Making contact with the person who is actually responsible is the biggest issue.

Mr. Roth asked have you popped the City Parks Department.

Ms. Chavez said we get the calls all the time. We always have to deal with things like that. Most of the issues happen very early in the morning.

Mr. Roth asked do you pop the schools.

Ms. Randall said we get courtesy calls, but have never gotten a violation. We

correct whatever the issue is as soon as we get a warning.

Ms. Chavez said most of the time that is what happens.

Chair Ives asked there is the Ordinance that provides for cut off if the water bill is not paid, but does it allow a cut off if someone fails to repair a leak or keeps on violating.

Ms. Chavez said they just developed a threshold for us. If we see continual flow and it continues after we make a visit we can go in and shut the water off. We will tag doors letting the resident know that they need to fix the leak and that if not we will shut them off. 800 leaks a day show up on Badger.

Mr. Pacheco said over 2,000 leaks showed today on Badger.

Ms. Chavez said now we are all partnering to address the problems. Now that we have Eye On Water. We pick the very highest offenders. We can only do about 50 a week.

Ms. Randall said we just got an email from Susan Mora with 10 contiguous flow sites and that is extraordinarily helpful. That is tremendous.

Ms. Chavez said we are trying to address the issue. The data helps us justify how much field work is needed.

Mr. Roth asked when you say Eye On Water you mean on your end.

Ms. Chavez said yes, we look at the Badger data every day.

Mr. Roth asked is there a way to set it up where you get a report of continue flow.

Ms. Chavez said it gives us all of that without a threshold.

Mr. Pacheco said if customers are signed up with Eye On Water a blue raindrop shows up on their account so we know they are signed up.

Chair Ives asked would customers only get their information if they set their own alerts.

Mr. Pacheco said yes.

Chair Ives asked when you put door hangers on you might take a picture of it on the door.

Mr. Pacheco said that is a good idea. At a gated property we have to put in on the gate. He puts it on the gate and in the mailbox as well.

Chair Ives asked does the City need to be able, in the circumstance of a property owner who will not act, to lien the property.

Ms. Chavez said she doesn't know the answer to that. We have a \$36,000 bill that we are looking at right now. At what point do we stop letting them keep racking up that bill. We had to have the authority to shut that water off.

Mr. Pacheco said it is a huge leak. 300,000 gallons a day. It started as a small leak under a portable building and led to bigger leak. Capital Plumbing could not find the leak. We went out there and shut off the water and had Capital Plumbing go in and redo the whole system.

Ms. Chavez said millions of gallons of water were lost.

Ms. Chavez said we are now involved with the meter reader issues and customer service issues. That amount of water lost was so huge. Our enforcement is taking a big role in that. Another thing we are taking on in our office is back flow issues. We will be doing Badger reported reads and our partners will be helping with other issues. We are the only ones with an enforcement mechanism. We will probably be able to justify hiring 3 or 4 more people.

Mr. Roth asked what kind of responses do you get from people.

Mr. Pacheco said we have had a couple of people come in and ask for leak adjustments. In this situation with the large bill it is pretty hostile.

Ms. Randall asked they can only apply for one waiver a year correct

Ms. Chavez said correct.

Ms. Randall asked are we going to take a look at the exceptions like grass, parks and playing fields.

Ms. Chavez said we are looking at that.

Mr. Wiman asked do you have any advice for approaching individuals. Emphasizing rules for vacation rentals would be advisable.

Mr. Pacheco said he approaches people in an apologetic way and has been as considerate as possible. He is not confrontational.

Ms. Chavez said Patricio is very good in the field in interacting with the public. Mario as well. This is a huge opportunity for us now to coordinate with meter readers and customer service in an efficient way. It takes a lot of work and coordination. Thank you Patricio. You are such an amazing person to work with. Great job. He is an

amazing resource.

Chair Ives said bravo.

Ms. Randall said she invited him to take a hard look at the schools. It will help her so she is not the only one knocking on the maintenance guys office. She will have a partner in monitoring.

Mr. Pacheco said he will do that.

Ms. Randall said we will get you any access you need. She was in Boston for a conference and they gave us a \$5 card to spend in the hotel if we choose to not have the sheet and towel service. We could not use it for booze. It was a normal operations thing they did.

Mr. Lyon said that is a good idea

Mr. Roth agreed as well.

Chair Ives said it is a green concierge program. Thank you Patricio for all you are doing.

10. GPCD

Ms. Chavez said there is a memo in your packet on this project. She went to the Public Utility Commission meeting to present this. She wanted to say how grateful she is for Tim's work on this. To have his consent is really good for her. He spent a lot of time helping her figure out the spread sheet.

Ms. Chavez reviewed the memo. It will be 2018 in a couple of months. The trend is going down no matter how we tweak the population. We want to put more information out to the public about how we use this information. It is the individual GPCD numbers that mean more. Our total number went down, single family down, multi family up and commercial up. Any of you that are approached please give them the whole story. Our numbers have been filed with the State Engineer.

Mr. Michael asked did you talk about trying to do this quarterly.

Ms. Chavez said she thought we could pull data quarterly, but because this process went on for so long we were unable to do that. Now that we have the query down we can. 2016 was a challenge. She is so glad we have this information and that it is in our office. We need these indicators to drive what we go after next. Along with the audit.

Chair Ives said having faith in your numbers is so important. Good work. Thank you.

11. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE WORKING GROUPS

A. IRRIGATION SUBCOMMITTEE

No report

B. GENERAL EDUCATION PROGRAM

Ms. Chavez said we have not met in subcommittees since our last meeting. We have been very busy with the passport program. She will be setting up times to meet again. There are some things that have happened.

Mr. Wiman said he happened to have a meeting with Kim Shanahan and he talked about water and education programs. He asked about the Community College and 2 issues that the Committee might want to look at and might be interested in having a condition report on. We have no signage for the Water Program at the Community College. We have enough courses on water at the Community College to do an Associates Degree so water should be advertised to students. It is an Associates Degree that you can transfer to a State College. It is directly transferable. The second item is they are very interested in discussing linking water training programs to jobs. That does not currently exist within the Community College and there is funding for that. We need to have a discussion with them and the water businesses to let them know that there will be trained students.

Mr. Kauffman asked what kind of signage are you talking about.

Mr. Wiman said when you walk into the Trades Building there are signs for Building Sciences and others but not Water. The signs list areas that have Associate Degrees opportunities. We have 5 water classes. He is more than happy to help to get that done.

Mr. Kauffman said his impression is that the majority of students in that program focus on the photo voltaic track. They assume the working opportunities are better through that track. He also has the impression that there is not as much investment on the part of staff to push the water track.

Mr. Wiman said he will work on getting a meeting set up with Carmela.

Ms. Chavez said we will coordinate that through the subcommittee.

Ms. Chavez said the passport program is underway.

Mr. Lyon said through Leadership Santa Fe last month we went out there to the Community College and he was blown away by the bio fuel program. It made him really proud to see what we have out there. It seemed really popular. Maybe in the future we can have a meeting out there and see the greenhouses.

Mr. Wiman said we have one of the best greenhouse guys in the country out there now. He is the instructor.

C. MARKETING OUTREACH

Ms. Chavez said the strategic Marketing Plan is just about completed. She will bring it to the meeting next time.

Mr. Pushard said Councilor Ives asked that a report be done and it is now done. The City of Santa Fe Water Conservation Report. It is in the packet. He reviewed the report which is meant to be all inclusive. He added some things from the Land Use Code that impact our GPCD. A few other things as well. He would like the Committee to comment, update it and send the comments to him. Then we will get it out to the people running for office in the City.

Ms. Chavez said she will send it out electronically.

Mr. Bunton asked are the tables on page 2 comparable.

Mr. Pushard said yes.

Mr. Bunton said he suggests you put a year comparison in.

Chair Ives said we can bring changes to the next meeting or submit them to Doug in between.

Mr. Pushard said that approach will work. Send the information to him in between and we can get toward finalizing that at the next meeting.

Chair Ives said maybe have all input in by the 28th and you can turn it around for the packet for the next meeting.

Chair Ives said he introduced the measure on aquifer storage and recovery. We will put that on the next agenda.

D. WATER CONSERVATION CODES/ORDINANCES

Ms. Chavez said we will have 3 Resolutions coming to the Committee next month. We are working on the Next Generation Water Summit as well. We will be working with some of you to take a look at some of it. Jesse Guillen was very happy with the draft from Scott. It was a huge help to him.

E. GRANTS

No report

F. COMMERCIAL

Ms. Chavez said there is quite a bit of work going on in the commercial area.

She and Glen met with the Restaurant Association President and he was so excited and is a great guy to work with. He is going to push out a big email to all the members and let them know about the program. He had great questions. This is a great start for us. She thinks we will get our 30. There are lots of partnerships to be made there. An email will go out shortly and we should be getting a list.

Chair Ives said please share the email with all of us when it goes out.

Ms. Chavez said we are behind on the timeline, but he will let us present at their meeting to pick up some sites for the program. We will start sitting down with the restaurants this week.

Chair Ives said he is happy to help them with that.

12. MATTERS FROM THE PUBLIC

None.

13. MATTERS FROM THE STATE

None.

14. MATTERS FROM THE COMMITTEE

None

15. NEXT MEETING DECEMBER 12, 2017

16. ADJOURN

There being no further business before the Committee the meeting adjourned at 5:45 pm.

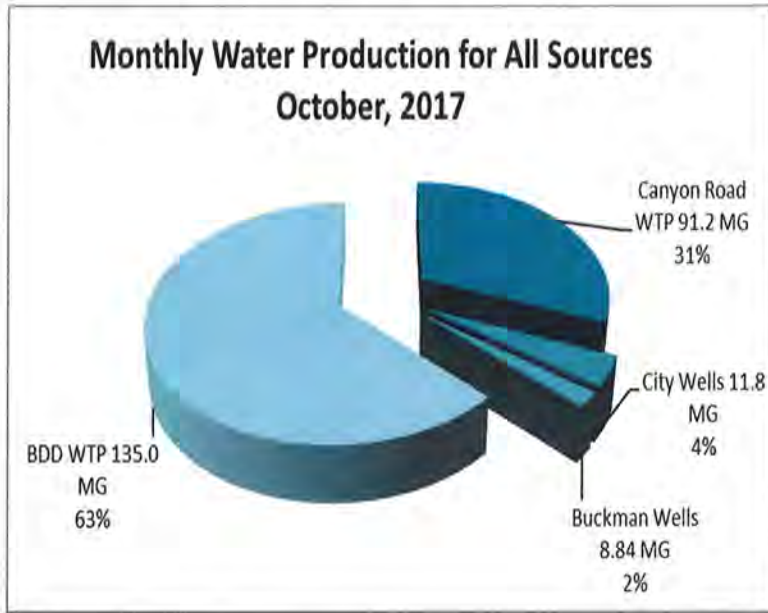
Councilor Peter Ives, Chair

A handwritten signature in blue ink, appearing to be 'Elizabeth Martin', written over a horizontal line.

Elizabeth Martin, Stenographer

**City of Santa Fe, Source of Supply Section
Water Production and Environment Office Update
Public Utilities Committee Meeting
December 6, 2017**

Water Production Update for October, 2017



Total Production of System

Sum: 246.84 MG million gallons (MG) for 30 days

Daily Average Consumption: 7.96 million gallons per day (MGD)

Reservoir Storage Levels:

McClure: 43.8% or 478.27 MG

Nichols: 60.1% or 192.52 MG

Combined: 46.54% or 607.79 MG

Santa Fe River Flow:

Below Nichols (Living River Flows): 0.30 cubic feet per second (cfs) or 0.194 MGD

Streamflow at Gage below Nichols: 0.32 cfs (Actual including Living River Flows)

Above McClure (Reservoir Inflow): 2.02 MGD

Baca Street Well

The City has arranged to meet with NMED Petroleum Storage Tank Bureau (PSTB) on December 12th for review and discussion of a continuing revised work plan for continued investigation of the well site. The work plan will include new monitoring wells, geologic investigations, past data compilation, and groundwater sampling and monitoring. PNM has obtained a new contractor for the site investigation and monitoring. That contractor, the contract, and a proposed amended work plan is under review by the NMED-PSTB for approval for funding under the New Mexico Ground Water Corrective Action Fund.

Former Ortiz Landfill

A draft report of the outcomes of initial “Former Ortiz Landfill” investigation and proposed future action(s) was delivered to the City by INTERA Corporation on September 15th for review and comment. This report has been reviewed by the Public Utilities Department including the Environmental Services Division and Environment Office. A meeting with INTERA regarding the report and its finding was also held on November 9th. As a result of that meeting and the initial investigation, INTERA and the City will prepare and submit a revised Stage 1 Abatement Plan to the New Mexico Environment Department based on the findings of the study. The study does indicate the presence of soil contamination at the former Ortiz site but does not characterize the extent of this contamination or any possible effect on groundwater. Future amendments of the current Stage 1 Abatement Plan will be developed and implemented to determine the extent of known contamination and any impacts of this to groundwater at the site, as well as offsite migration.

Los Alamos National Laboratory Sitewide Monitoring Program

Buckman Wells 1, 6 and 8, as well as two surrounding ground water monitoring wells, will be sampled by Los Alamos National Laboratory under the 2017/2018 Los Alamos “Sitewide Monitoring Program”. Samples will be taken during the December 7th sampling event for High Explosives, Volatile Organic Compounds, Sem-Volatile Organic Compounds, PCBs, Radionuclides, Tritium, Percchlorate, Hexavalent Chromium, Metals, and general inorganic chemicals. Public interest regarding this sampling program has been heightened by recent media coverage of the Los Alamos Chromium plume and its possible migration toward Los Alamos County wells. The possible implications of this plume and other LANL related contamination to the Buckman Wellfield is not yet fully understood. However, sampling under this program has not yet detected the presence of LANL related contaminants since it was first implemented approximately eight years ago.

Drought/Monsoon, Storage, and ESA Update

NOAA has recently (11/09/17) updated ENSO (El Nino/La Niña) status to: **“La Niña conditions are predicted to continue (~65-75% chance) at least through the Northern Hemisphere winter 2017-18.”** Heron, Abiquiu, and El Vado reservoir levels on the Chama River are no longer rising. Local Upper Santa Fe River reservoir storage volume is slowly decreasing, but that is normal for this time of year (about 47% full). The City has received 100% delivery (5,230 AF) from BoR of full firm-yield of San Juan-Chama Project (SJCP) water. 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 are in effect, which means the City will not be allowed to impound “native” runoff into Nichols and McClure Reservoirs above the pre-Compact pool of 1,061 acre-feet (AF) (unless ISC relinquishment credits are exchanged). Rio Grande Compact status regarding Article VII is not expected to change any time soon. Updates to this condition will be made as needed.

Most current City of Santa Fe SJCP Reservoir Storage:

Heron:

5,230 AF. 2017 deliveries were 100% of annual total.

El Vado:

480 AF.

Abiquiu:

10,655 AF. SJCP carry-over from previous years plus 2017 deliveries. No time limit to vacate due to storage agreement with ABCWUA

TOTAL:

16,365 AF



Water Conservation Office

Monthly Overview of Scorecard Progress – November 2017



Education Outreach:

Education Initiative:

- BDD Field trip for Passport – Carlos Gilbert on 11/1
- Sustainable Santa Fe presentations for Carlos Gilbert on 11/7
- Sustainable Santa Fe presentations for Salazar on 11/8
- Sustainable Santa Fe presentations for Gonzales on 11/9
- Sustainable Santa Fe presentations for Amy Biehl on 11/15
- Environmental Passport Presentation for Gonzales on 11/27

General Outreach:

- Energy and Water Savings Event in coordination with PNM and NM Gas Company on 11/1 at the GCCC



Communication and Customer Service:

Eye On Water Rollout:

- Patricio working with Customer Service to address continuous leak accounts in Eye On Water
- 2,747 Eye On Water sign ups as of 11/17/17

Indoor Water Audits:

- 10/31/17 Don Gaspar Lane - High irrigation usage, toilet tank water level at top of overflow tube

Enforcement Activity:

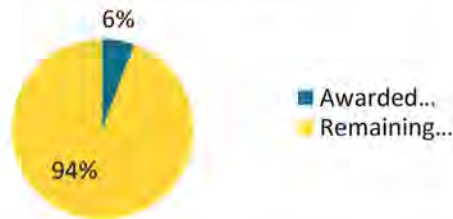
- 11/1/17 Downtown Water Street Warning: Fugitive Water/Water Waste
- 11/3/17 Lopez Lane Warning: Fugitive Water/Water Waste
- 11/3/17 Caja del Oro/Grant Road Warning: Fugitive Water/Water Waste
- 11/6/17 Canyon Road Warning: Fugitive Water/Water Waste
- 11/13/17 Cordova Road/Downtown Warning: Fugitive Water/Water Waste
- 11/14/17 Sawmill/Rodeo Road Warning: Fugitive Water/Water Waste

Strategic Marketing Plan:

- Radio show guests (Amanda Hatherly, Glenn Schiffbauer, Andrew Erdmann, Lisa Randall)
- Promoted on social and website channels the Energy/Water Savings Event
- Finalized winter Hutton ad and KSFR & KUNM PSAs on irrigation shut-off and winter tips/eye on water.
- Implementing Search Engine Optimization for savewatersantafe website
- Met with Christine re irrigation package needs
- identified Mini Social testimonial campaign for “I keep an eye on water because....”

Residential and Commercial Rebates:

Remaining fund balance as of November 17, 2017: \$283,129.50

Rebate Fund**Rebate Amounts per Device Type****Rebates awarded FY-to-date:**

- HET (all types) 58
- Clothes Washers (all types) 44
- Rain Water Harvesting (including rain barrels) 26
- Custom Commercial 0

**Effective Program Management****Organizational Development:**

- Christine attended mandatory ADA Training on 11/17
- Mario/ Patricio attended mandatory accident reporting training on 11/16
- Work with Customer Service on

Water Conservation Committee:

- Justin Lyon attended the Santa Fe River Commission meeting on 11/9
- Glenn and Christine met with the President of the Restaurant Association on the commercial pilot project on 11/6
- Graywater Resolution, Restaurant pilot project Resolution and Resolution supporting the Next Generation Water Summit all to be introduced to Council on 12/4 and come to the Water Conservation Committee on 12/12
- Strategic Marketing Plan will also come to the WCC on 12/12

Integration with Water Resources:


- GPCD work completed and submitted to NMOSE
- AWWA audit draft is currently being reviewed
- Annual Water Report information is being reviewed
- Caryn Grosse assisting with the Long Range Water Supply Plan

**Stewardship and Conservation:****Regional Collaborations:**

- Staff review of the Sustainability Plan
- Christine/ Caryn assisted with the Education Coordinator position over at Environmental Services (6 applicants were interviewed)

City of Santa Fe, New Mexico

memo

Date: December 6, 2017
To: Public Utilities Committee
Via: Shannon Jones, Interim Public Utilities Department Director 
Rick Carpenter, Water Division Director 
From: Arianna Espinoza, Water Resources Analyst 
Re: **Approval of the 2016 Annual Water Report**

Purpose:

The 2016 Annual Water Report compiles and summarizes useful information about the City of Santa Fe's Water Division (Water Division) including the water supply, water production, deliveries, conservation, potable and wastewater resources, and customer use. The information presented in the report contains water data through December 2016 and 2017 projections.

The purpose of this report is to provide the Santa Fe community with an annual report that summarizes the state of the Water Division and the water supplies we depend on. This report is submitted pursuant to City Code Section 25-9.6 SFCC 1987 and summarizes information about the Water Division's water supplies and the customer's drinking water usage.

Highlights of this report include:

- 2016 Water Supply production, including Buckman Regional Water Treatment Plant deliveries to the City of Santa Fe, of 8,659 acre-feet with 131 acre-feet of wholesale water delivered to the Santa Fe County Water Utility.
- The City of Santa Fe continued its outstanding water conservation efforts, resulting in service-area gallons per capita per day demand of 87.
- The City of Santa Fe's drinking water continues to be of excellent quality and the Water Division continued to the overall goal of ensuring that our water resources are managed and protected in an efficient and responsible manner to provide the Santa Fe community with clean, reliable, and safe drinking water.

Requested Action:

Staff requests that the Public Utilities Committee approve the 2016 Annual Water Report and forward it on to the full City Council for final approval.



2016 Annual Water Report

City of Santa Fe Water Division

City of Santa Fe, New Mexico

Javier Gonzales, Mayor
Brian Snyder, City Manager

City Councilors

Signe Lindell, Mayor Pro Tem, District 1
Renee Villarreal, District 1
Peter Ives, District 2
Joseph Maestas, District 2
Carmichael Dominguez, District 3
Chris Rivera, District 3
Ronald Trujillo, District 4
Mike Harris, District 4

Compiled, written, and edited by the

Water Resources Staff
City of Santa Fe Water Division
801 W. San Mateo Road
Santa Fe, NM 87504

Contributing Departments, Divisions, and Sections

City Attorney's Office
ITT Department
Land Use Department
Utility Building & Customer Service Division
Wastewater Division
Water Budget Office
Water Conservation Office

Acknowledgements

Victor Archuleta
David Barsanti
Chuck Bear
Diana Catanach
Rick Carpenter
Christine Chavez
Amanda Encinias
Andrew Erdmann

Arianna Espinoza
Lee Gagnon
Kathleen Garcia
Caryn Grosse
Alan Hook
Shannon Jones
Amy Lewis
Marcos Martinez

Maya Martinez
Michael Moya
Lisa Noriega
Alex Puglisi
Nick Schiavo
Bill Schneider

For more information visit www.santafenm.gov/water_division

Cover Photo: Santa Fe River

Table of Contents

City of Santa Fe, New Mexico.....	i
City Councilors	i
Compiled, written, and edited by the.....	i
Contributing Departments, Divisions, and Sections	i
Acknowledgements.....	i
Cover Photo: Santa Fe River.....	i
List of Figures	iii
List of Tables	iii
Executive Summary	1
2017 Water Demand and Supply Picture.....	2
Water Supply Sources.....	2
Water Rights	3
Surface Water.....	3
Ground Water.....	4
Surface Water Rights Used for Offsets.....	4
Relinquishment Credits.....	5
Water Production	5
Production by Supply Source.....	6
Wholesale Water Deliveries	6
Treated Effluent Water Deliveries	6
Drought & Precipitation.....	8
Water Demand	10
Per Capita Consumption	10
Contractual and Other Water Demands	13
Santa Fe River.....	13
Water Bank	14
Water Resources Planning.....	15
Fiscal Responsibility	16

List of Figures

Figure 1: 2017 Water Demand and Supply Picture	2
Figure 2: Map of City of Santa Fe Water Supply Sources	3
Figure 3: 2016 Monthly Production by Supply Source with the Annual Total in acre-feet5	
Figure 4: 2016 Treated Effluent Deliveries by Contractor	7
Figure 5: Secondary Clarifier Weirs and Clarivacs	8
Figure 6: Drought comparison for July 2016 (top) and December 2016 (bottom) courtesy of the Drought Monitor, which focuses on broad-scale conditions. Data is mapped weekly by National Oceanic and Atmospheric Administration (NOAA), the U.S Department of Agriculture (USDA), and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln.	9
Figure 7: 2016 Water Use by Sector	11
Figure 8: Gallons per capita per Day (GPCD) from 2012-2016.....	12
Figure 9: 2016-2017 Santa Fe River Target Flow Hydrograph	13
Figure 10: 2017-2018 Planned Hydrograph	14
Figure 11: Water Bank Balances	15
Figure 12: How the water division must balance its budget.....	16

List of Tables

Table 1: City of Santa Fe Diversion Water Rights and Supply Portfolio	3
Table 2: City's Surface Water Offsets	5
Table 3: NRCS SNOTEL Data for 2016 Calendar Year, Santa Fe Watershed	10

Executive Summary

The mission of the Santa Fe Water Division is to provide reliable, safe, and sustainable water supply to meet the needs of our customers and community.

The purpose of this report is to provide information about the state of the City of Santa Fe's Water Division and the water supplies we depend upon and to describe the 2016 operations of the system to citizens and customers.

This report is submitted pursuant to City Code Section 25-9.5 SFCC 1987 and summarizes information about the City of Santa Fe's Water Division including water supply, water rights, production water demand, types of water use, drought and precipitation, and water utility management.

The City's surface water comes from the Santa Fe River and San Juan-Chama Project (SJCP) water via the Rio Grande, both of which are treated through conventional and advanced treatment processes.

The City Well Field is mostly located in close proximity to the Santa Fe River and consists of seven active wells located within the City limits of Santa Fe. The Buckman Well Field consists of 13 wells located near the Rio Grande, approximately 15 miles northwest of Santa Fe.

The Water Division supplied 8,659 acre-feet of water to its water utility customers in 2016. Also, the Water Division met its acequia irrigation deliveries and provided "Living River" bypass flows to the Santa Fe River.

The City of Santa Fe continued its water conservation efforts that, in part, contributed to a service-area gallon per capita per day (GPCD) demand of 87.

2017 Water Demand and Supply Picture

In the chart below, the 2017 projected demand (black line) is approximately 9,195 acre-feet over the 12-month period. The BDD annual production is projected to be 4,061 acre-feet, Canyon Road Water Treatment Plant is projected to produce 3,229 acre-feet, the City Wells are projected to produce 922 acre-feet, and Buckman Wells are projected to produce 982 acre-feet over the 12 month period.

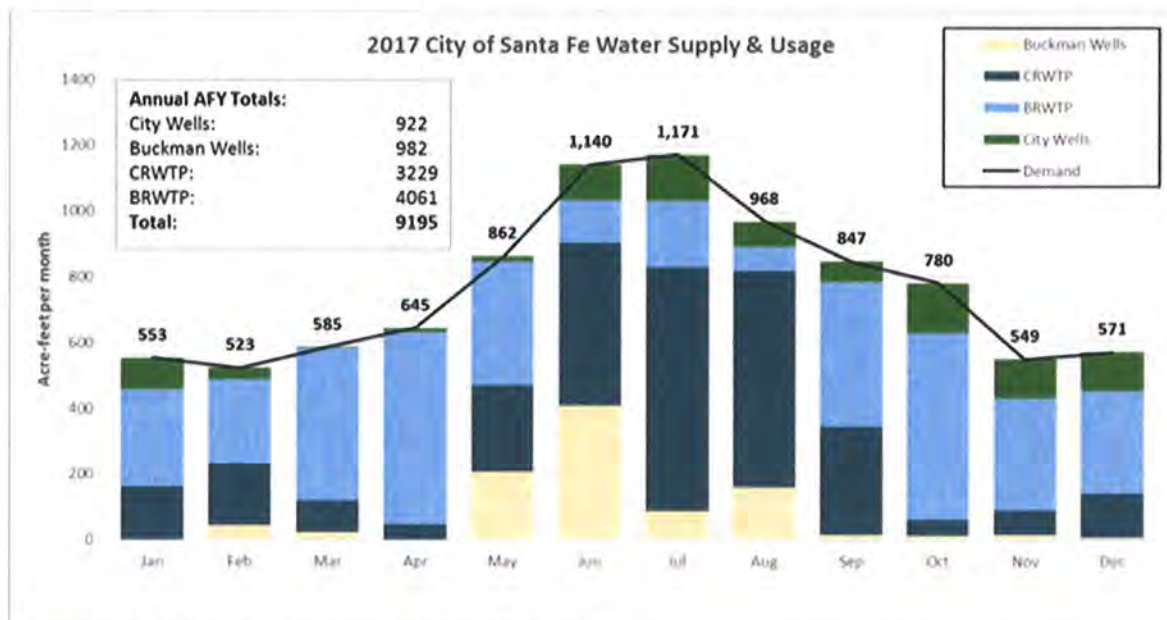


Figure 1: 2017 Water Demand and Supply Picture

Water Supply Sources

The City of Santa Fe has four sources for drinking water:

- Santa Fe River
- San Juan-Chama surface water via the Rio Grande
- City well Field
- Buckman well field

A fifth water supply source is the utilization of reclaimed water from the Paseo Real Wastewater Treatment Plant. Reclaimed water reduces the demand on the total supply of potable water.

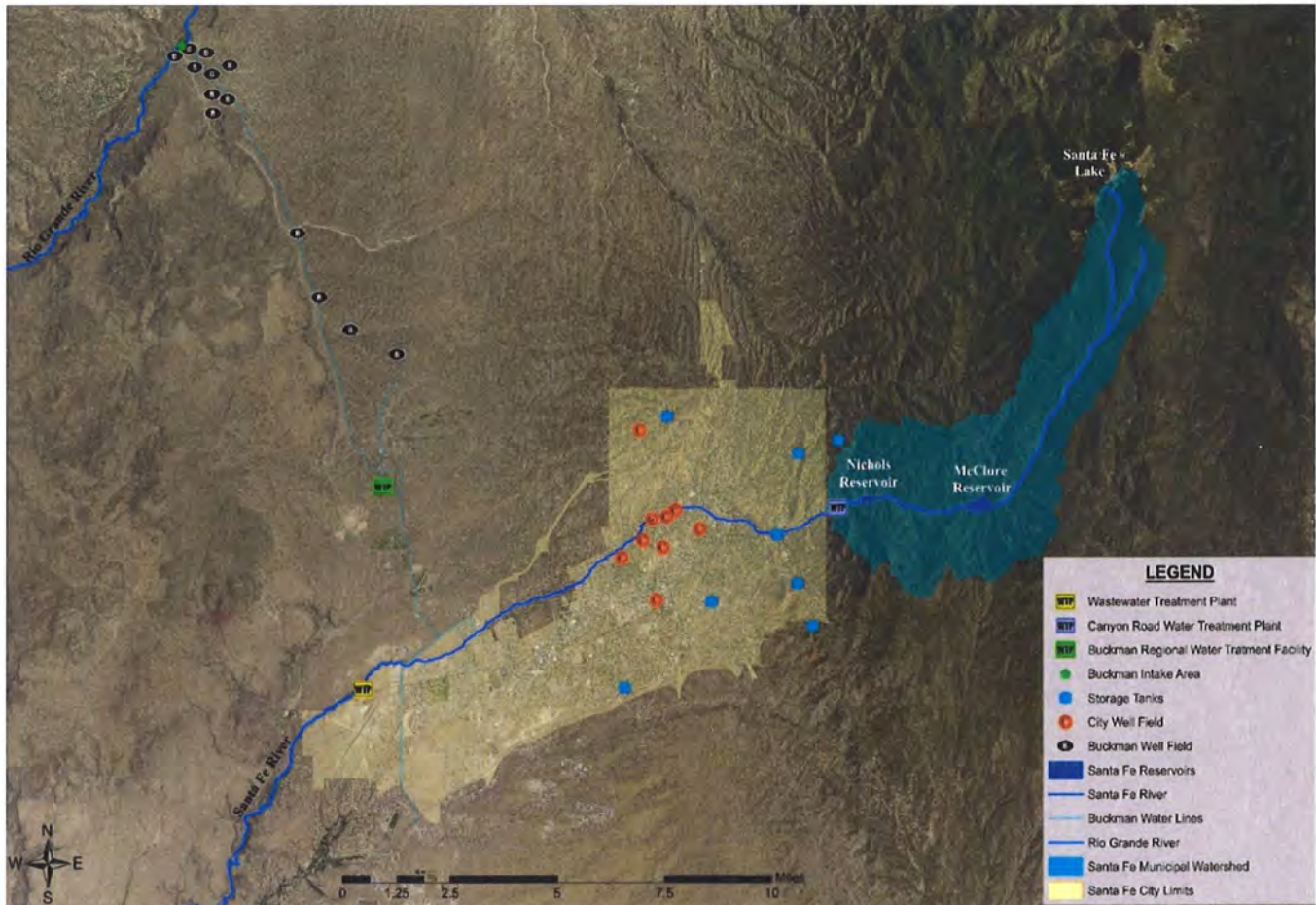


Figure 2: Map of City of Santa Fe Water Supply Sources

Water Rights

Surface Water

The City of Santa Fe has a license to store up to 3,985 acre-feet (combined) of Santa Fe River water in McClure and Nichols Reservoirs. Both municipal drinking water supply reservoirs are located east of the City within the Santa Municipal Watershed as shown in Figure 1. In 2015, a new intake tower was installed at McClure Reservoir.

Table 1: City of Santa Fe Diversion Water Rights and Supply Portfolio

Source	Water Rights (acre feet)	Available Water (acre feet)
Santa Fe River	5,040	4,040 assuming 1,000 bypassed to the river
City Wells	3,586/4,865	sustainable use when needed
Buckman Wells	10,000	sustainable use when needed
Buckman Direct Diversion	5,230	Imported San Juan-Chama water per the Colorado River Compact

The Buckman Regional Water Treatment Plant (BRWTP) treats San Juan-Chama Project water imported from the Colorado River Basin and delivered via the Rio Grande. As a contractor of the San Juan-Chama Project, the City of Santa Fe can consume up to 5,230 acre-feet per year of drinking water. A joint City of Santa Fe and Santa Fe County board governs the BRWTP and the Buckman Direct Diversion (BDD) Project facilities.

Ground Water

The City of Santa Fe has seven active groundwater wells within the City limits, most of which are focused near the Santa Fe River (see figure 1). Combined, the wells are permitted to produce up to 4,865 acre-feet per year of drinking water supply for Santa Fe.

In addition to the City well field, there are also thirteen groundwater wells in the Buckman well field, which is located near the Rio Grande, approximately 15 miles northwest of Santa Fe (see figure). The Buckman Wells are operated under one permit that allows the City of Santa Fe a maximum pumping rate of 10,000 acre-feet per year for drinking water supply and which requires groundwater pumping offsets in the Rio Grande, Nambe-Pojoaque-Tesuque, and La Cienega Basins. High rates of construction and the availability of SJCP water from BDD have allowed the city to minimize pumping from the Buckman Wells in recent years. The newest Buckman Wells are about 2,000 feet deep and began production in 2003. The older Buckman Wells began production in the 1970s.

Surface Water Rights Used for Offsets

In addition to water rights directly diverted for water supply, Santa Fe maintains a portfolio of 'offset' surface water rights that are associated with the Buckman well field and the Northwest Well.

The purpose of offset water rights is to allow the city to comply with the conditions of approval attached to the Buckman Well Field permit issued by the NM Office State of the Engineer (OSE). When wells are pumped surface water is likely to be absorbed into the aquifer at a greater rate in order to fill the void created by pumping the well. The OSE requires that the city offset reduced surface water availability due to increased infiltration to groundwater from Buckman Wellfield pumping by acquiring water rights in each impacted basin and reducing the demand for surface water. City water planners are working on strategies to minimize groundwater pumping and to meet offset obligations in different ways.

The City of Santa Fe has acquired sufficient water rights to satisfy its current obligation on the Rio Grande, Rio Tesuque, and Rio Nambe/Rio Pojoaque through acquired surface water rights.

Table 2: City's Surface Water Offsets

Stream system	Water rights (af)	Offsets needed in 2016 (af)
Rio Tesuque	49	34
Rio Pojoaque	88	57
Rio Grande	1,438	1,092
La Cienega	1	2.5

Relinquishment Credits

New Mexico water storage rights holders received relinquishment credits when the quantity of Rio Grande water provided to Texas is above that required by the Rio Grande Compact. Relinquishment water allows the City to store relinquishment 'credit' water in the municipal reservoirs during times when the Rio Grande Compact would otherwise limit the City's right to store water. Based on times when the city "over delivered" stored water in the past.

The OSE administers relinquishment credits to the City. As an alternative to using relinquishment credits, the City often releases its San Juan-Chama Project water into the Rio Grande in exchange for the right to store Santa Fe River water, at times when it would otherwise be prohibited by the Rio Grande Compact. The City has a current balance of 6,452 acre-feet in relinquishment credits.

Water Production

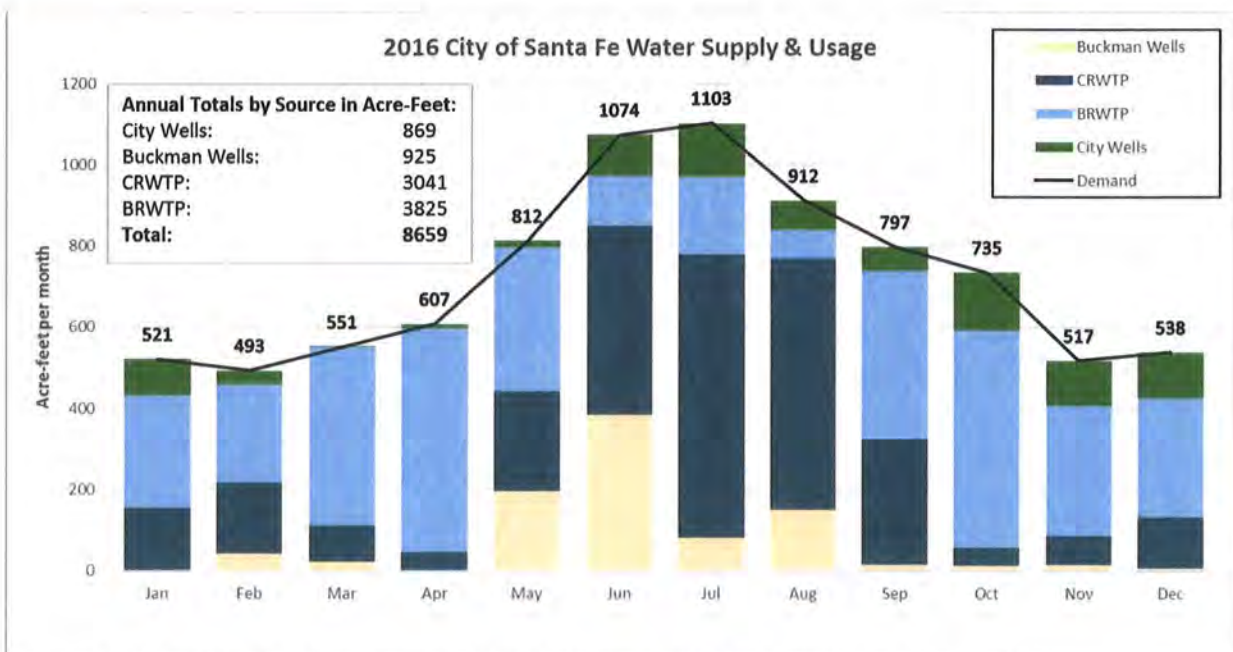


Figure 3: 2016 Monthly Production by Supply Source with the Annual Total in acre-feet

Production by Supply Source

As shown in the Production by Supply Source above (figure 2), the City has continued to take advantage of increased availability of surface water from the Buckman Regional Water Treatment Plant to decrease use of the City and Buckman well fields, allowing the wells to recover for use in drier years when surface water is not as readily available. In 2016, the total production for the City of Santa Fe's utility customers was 8,659 acre-feet with an additional 131 acre-feet of water produced for the Santa Fe County Water Utility and approximately 15% was groundwater.

Wholesale Water Deliveries

The Santa Fe County Water Utility is a ½ owner of the BDD facility and the majority of the water supplied to the County Water customers comes from the facility. The City Water utility also provides up to 1,350 acre-feet per year of wholesale water to the County Utility and an agreement between the City and County on the terms of that arrangement was signed at the end of 2016. Las Campanas receives drinking water service from the County Water Utility and also diverts untreated water via the BDD Diversion to be used for turf irrigation.

The Santa Fe County Water Utility typically is delivered potable water from the City of Santa Fe when the BDD facility is not producing drinking water due to poor water quality conditions in the Rio Grande. Under the Water Resources Agreement with the City of Santa Fe, Santa Fe County Water Utility took delivery of 131 acre-feet of water in 2016.

Treated Effluent Water Deliveries

The City of Santa Fe's reclaimed wastewater (treated effluent) has many uses including: irrigation to recreational fields and local golf courses; dust control at the regional landfill and for other construction projects; watering for livestock and wildlife on the Caja del Rio mesa; contribution to the on-site, wildlife, education; pond at the NM Game & Fish facility; and supporting the lower Santa Fe River downstream of the City's wastewater treatment plant which supports the riparian ecosystem and local agriculture in the La Cienega and La Bajada areas.

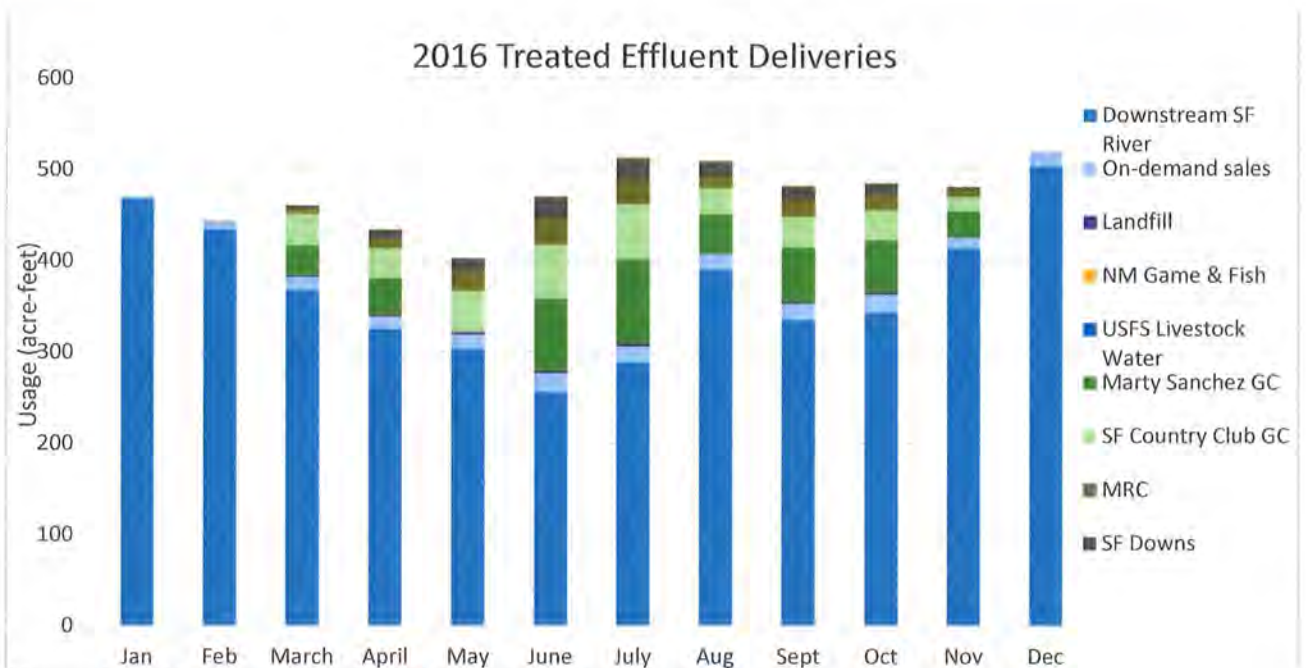


Figure 4: 2016 Treated Effluent Deliveries by Contractor

Treated effluent from the City's treatment plant is sold directly to contractors via an onsite standpipe. The total production of treated effluent was 5,727 acre-feet in 2016, or 66% of the City's total production of 8,659 acre-feet. 23% of the treated wastewater was reused and the remaining 77% flowed into the lower Santa Fe River.

In 2015, the City Water Division completed the Santa Fe Basin Study: Adaptations to Projected Changes in Water Supply and Demand. The purpose of this report was to evaluate the impacts of population growth and climate change on the Water Division's ability to meet future potable water demand. The report identified a potential shortfall of several thousand acre-feet by the year 2055 due to a combination of population growth and climate change reducing surface water availability in the Santa Fe River and Colorado River Basins. The report also identified Reclaimed Wastewater as the most viable alternative for augmenting future water supplies. In 2016, another report was completed – the Santa Fe Water Reuse Feasibility Study – which evaluated how to best utilize reclaimed wastewater to address the future water shortages predicted in the 2015 Basin Study. Seven potential options were evaluated and the alternative, which scored the highest, largely due to providing the greatest benefit in terms of acre-feet of water available and doing so at the lowest cost per acre-foot provided, was to pursue return flow credits on the Rio Grande. This alternative would involve construction of a pipeline to convey the portion of the City's treated effluent that is derived from imported SJCP water to a discharge location on the Rio Grande. Returning unconsumed water to the Rio Grande from which it was delivered would enable the City to divert additional water from the Rio Grande until the entire SJCP portion of the City's water rights – 5,230 acre-feet – is fully consumed. The City only consumes about 35% of the water that runs through the system this could be a benefit of several thousand acre-feet per year.



Figure 5: Secondary Clarifier Weirs and Clarivacs

Drought & Precipitation

Drought is a normal recurrent feature in the arid southwest. Santa Fe has a very dry, high desert climate with intense sunlight. On average, the city experiences more than 300 sunny days per year. The highest temperatures in July and August are 80-90 °F with only 3-6 days per year with 90+ °F highs.

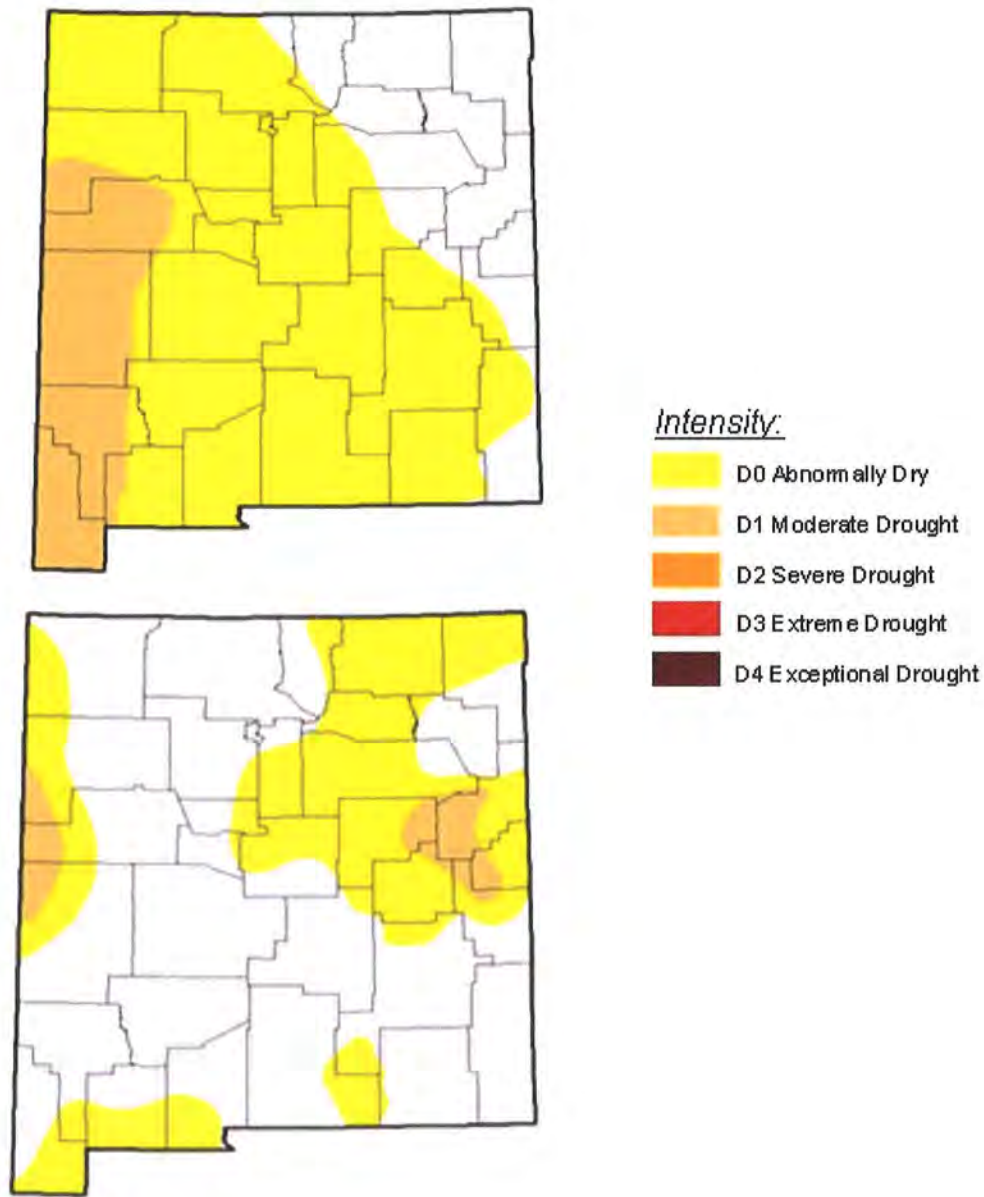


Figure 6: Drought comparison for July 2016 (top) and December 2016 (bottom) courtesy of the Drought Monitor, which focuses on broad-scale conditions. Data is mapped weekly by National Oceanic and Atmospheric Administration (NOAA), the U.S Department of Agriculture (USDA), and the National Drought Mitigation Center (NDMC) at the University of Nebraska-Lincoln.

Overall, Santa Fe received above average rainfall in 2016. Among other factors (water demand section), the precipitation likely contributed to a reduced need for outdoor watering, which accounts for approximately 40 percent of Santa Fe's total water use. Additionally, there are no returns from water used for outdoor watering, so water used for this purpose is not available for lower Santa Fe River (SFR) flow or reuse.

In 2016, precipitation in New Mexico was near the average rainfall. Spring 2016 snowmelt and subsequent runoff started early and was well below normal for the sixth year in a row, which follows climate change predictions. 2016 was well above normal temperatures in early spring and the dry and windy spring quickly reduced the snowpack. The monsoons arrived late and produced heavy rains.

Table 3: NRCS SNOTEL Data for 2016 Calendar Year, Santa Fe Watershed

SNOTEL Station	Elevation (Feet)	Accumulated Precipitation (inches)
Santa Fe	11,445	27
Elk Cabin	8,210	19.1
Seton Village*	6,834	14.65

*Not a SNOTEL Station

According to the Western Regional Climate Center, Santa Fe receives on average 13.84 inches annually of precipitation. National Resource Conservation Service (NRCS) 'SNOTEL' weather stations measure accumulated precipitation. There are two SNOTEL weather stations in the upper Santa Fe River municipal watershed (see Table 3).

Precipitation data is also gathered at additional locations near Santa Fe. Seton Village (approximately 4.5 miles south of downtown Santa Fe) reported 14.65 inches for the year 2016. With the geographic spread in Santa Fe, it is hard to generalize rain precipitation. The data from these three stations shows how different precipitation can be from one location to the next within Santa Fe.

Water Demand

Per Capita Consumption

A common metric for comparing annual water use and water conservation effectiveness is gallons per capita per day (gpcd). Essentially, it is derived by dividing the amount of water supplied to the City of Santa Fe by the population of utility customers served. In 2016, the City's water customers decreased average daily water use from 92 gpcd in 2015 to 87 gpcd in 2016.

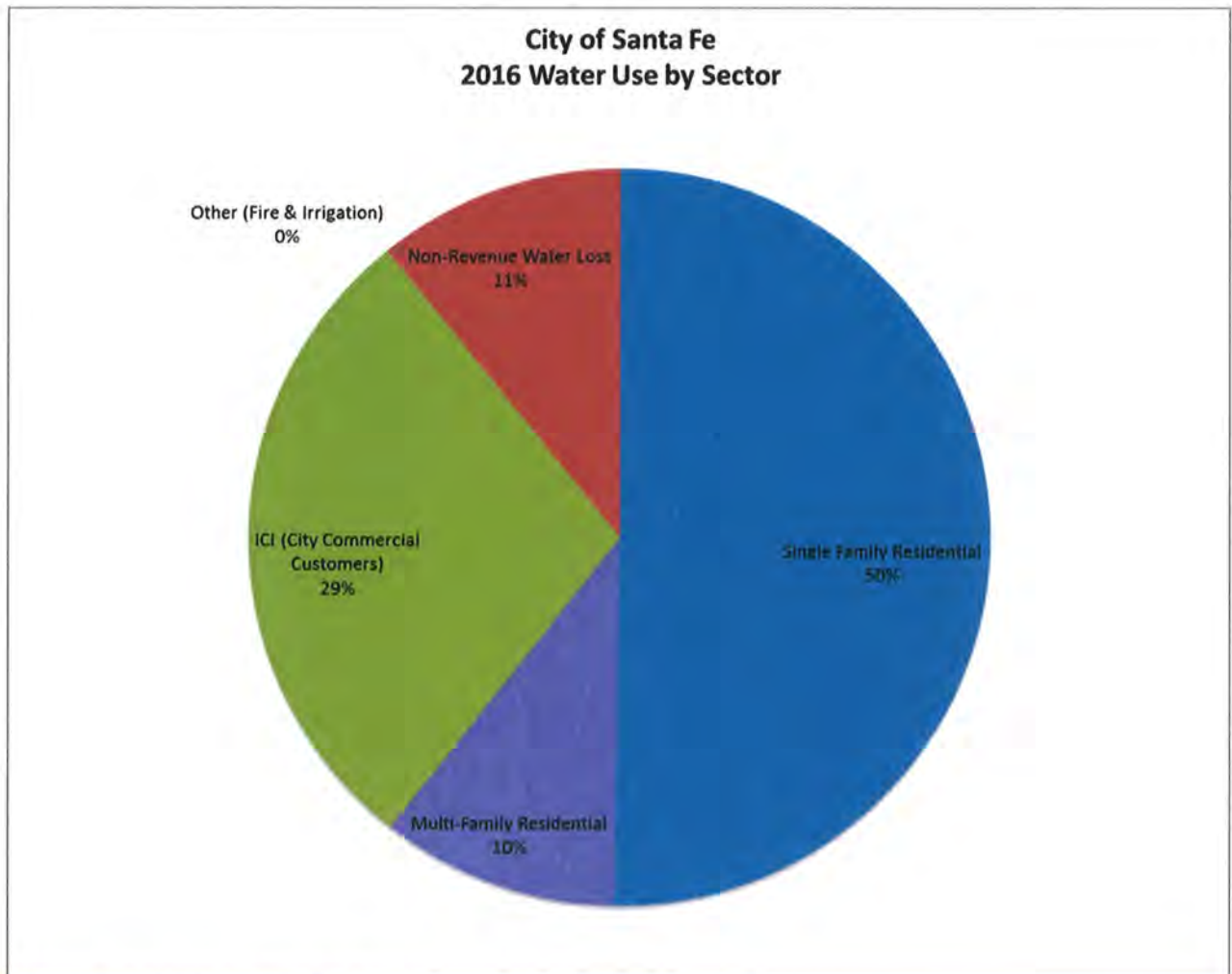


Figure 7: 2016 Water Use by Sector

The gpcd calculation is based upon the New Mexico Office of the State Engineer's (NM OSE) methodology*, which bases the population served upon the number of water division residential customers multiplied by 2014 American Community Survey (ACS)-derived vacancy rate, and an ACS-based residents per occupied household value. The submittal of the NM OSE gpcd fulfills a compliance requirement with the NM OSE's diversion permit for surface water to the Buckman Direct Diversion (BDD) facility and includes data for imported (SJCP) water and exported (wholesale sales) water.

Past GPCD calculations revealed a higher than expected single family GPCD. It was determined that several accounts were being pulled as part of the query that did not belong in the single family residential category but rather the commercial category. As a result the query was adjusted so that instead of address or meter location being used, specific billing tables were used instead. This change made a significant difference in the way the different customer classes were represented in the overall GPCD. This new approach changed the GPCD numbers slightly from the past but the important thing is that it more accurately represents each individual sector.

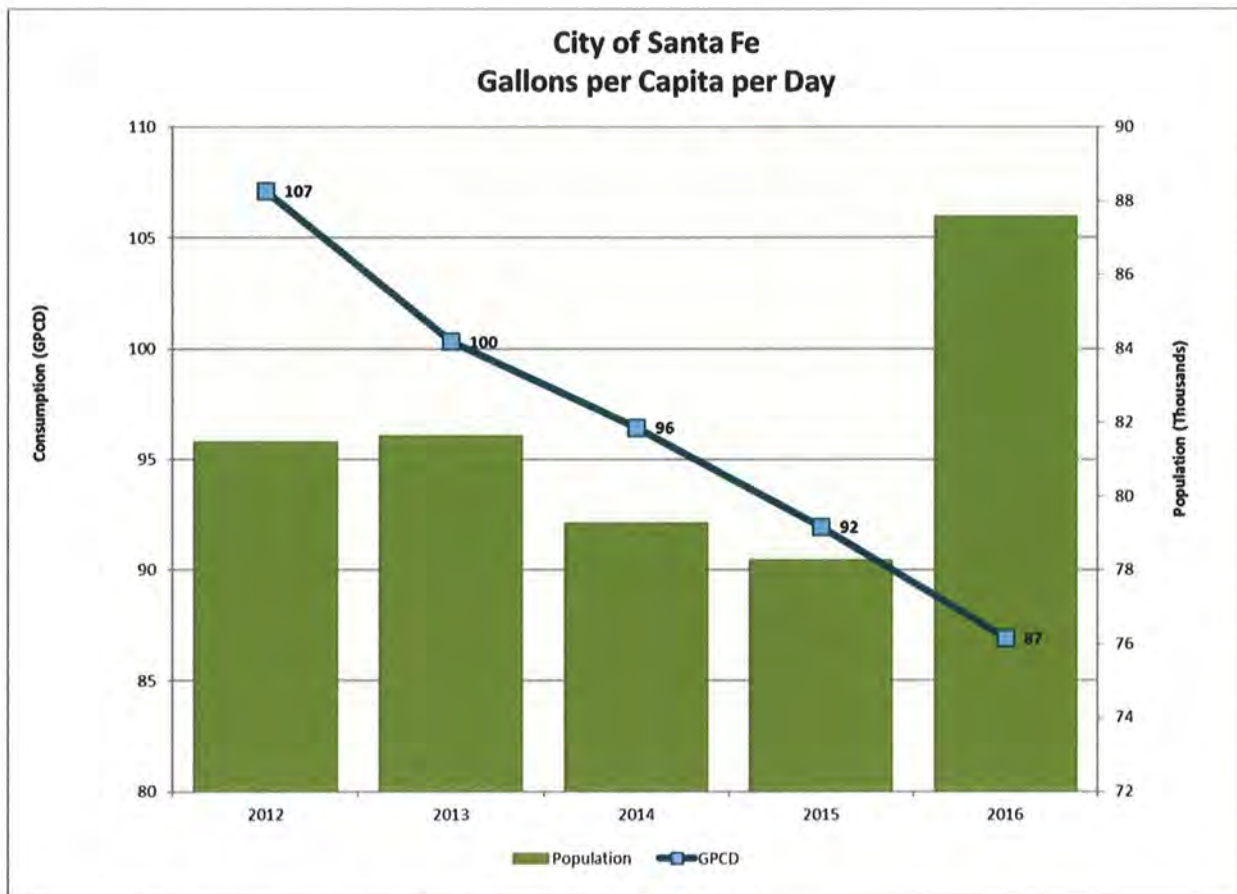


Figure 8: Gallons per capita per Day (GPCD) from 2012-2016

The population for the GPCD is calculated using several different factors and a 5 year average. Several discussions were held about whether or not changes should be made to the methodology to better represent the population. It was determined that the best approach would be to maintain consistency with how population was calculated in the past. Discussions with the NMOSE also revealed that several other utilities had the same issue but the idea was to have everyone calculate it the same using the census data outlined within the calculator itself, for consistency.

Although water conservation outreach and education programs contribute to the overall decrease in water consumption, there are several other factors to take into account. The city experienced a net loss in water customers after annexation to the county in which the typically high water use communities of La Tierra and La Campanas were transferred to Santa Fe County.

*Prior to utilizing the NM OSE gpcd methodology, the City of Santa Fe Water Division gpcd method, used for the previous seventeen years, determined the population served upon the most recent (2010) U.S. Census population data (adjusted for households that rely solely on domestic well water) and updated it annually utilizing growth rates from annual housing permits.

Contractual and Other Water Demands

Santa Fe River

As directed by ordinance, in mid-April of each year the annual target flow allocation is determined based upon projections for the year's anticipated watershed yield. The 2016 flow target was set at 740 acre-feet based upon moisture content in the Santa Fe Municipal Watershed snowpack, (see the 2016-17 Santa Fe River Target Flow Hydrograph in Figure 8). The 2016 target flow allocation began April 15, 2015 through April 30, 2017. It was extended due to construction in the Santa Fe River channel below Nichols Reservoir that occurred between September 4th through October 28th. The NRCS streamflow forecast on April 1st, 2017 for the Santa Fe River was 76% of the 30 year average, so 760 acre-feet was bypassed from the reservoirs for 'Living River' flows.

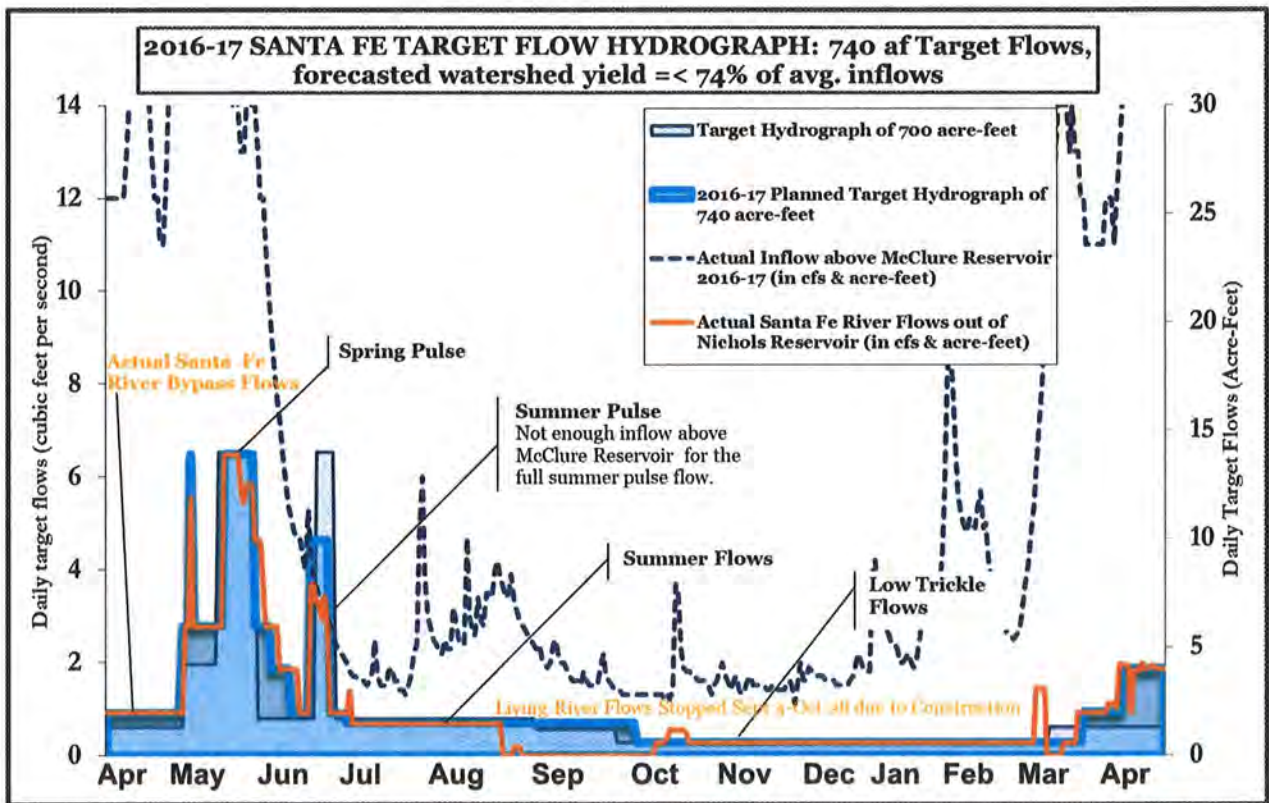


Figure 9: 2016-2017 Santa Fe River Target Flow Hydrograph

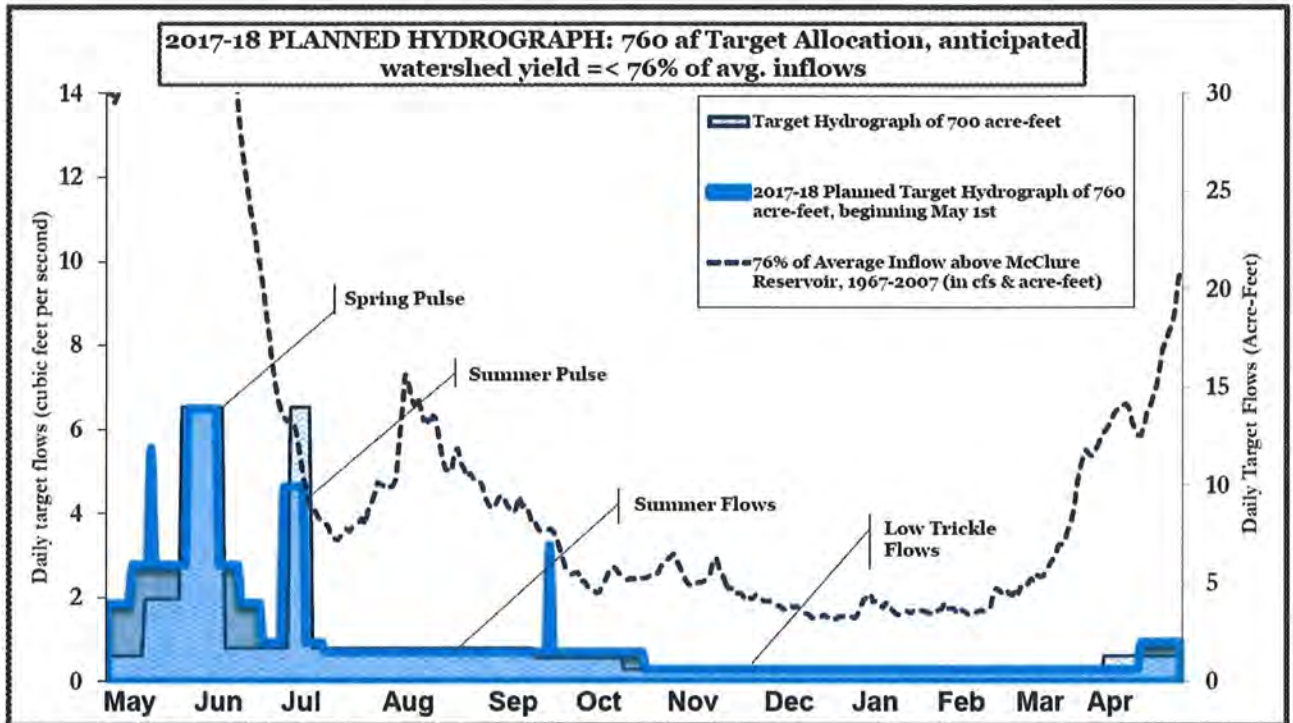


Figure 10: 2017-2018 Planned Hydrograph

Water Bank

New water demand on the City water system requires a water credit from the Water Bank in an equal amount, with the goal being to maintain sufficient rights to meet increasing water obligations. The City requires that any new construction project which will result in a net increase in demand on City water account for that increase either through purchasing water credits from the City's Water Bank, or by transferring Water Rights to the City Water Division. When water credits are purchased from the City, the source of these credits is conserved water realized through conservation rebate programs or water rights which have been purchased by the City. When water rights are transferred to the City water bank, these water rights are used as offset rights (see Water Rights Used for Offsets).

Affordable Housing Offsets	2009	2010	2011	2012	2013	2014	2015	2016
Initial Balance	-5.2	51.67	45.46	40.96	36.91	33.16	28.16	26.36
Governing Body allocations to Affordable Housing	59.32	0	0	0	0	0	0	0
Annual Dedications to Affordable Housing	2.45	6.21	4.5	4.05	3.75	5	1.8	2.04
End-of-year affordable housing water credit pool balance	51.67	45.46	40.96	36.91	33.16	28.16	26.36	24.32
WBAO Banked Water Balance	2009	2010	2011	2012	2013	2014	2015	2016
Initial Balance	0	0	26.27	25.44	16.05	5.34	34.6466	78.0326
City Allocations for Developer Sales						36.61	55	
Conservation Credits Generated	0	32.46	9.04	7.15	5.8	6.3226	2.926	8.0997
WBAO Sales	0	6.19	9.87	16.54	16.51	13.626	14.54	13.32
City Revenue From Sales	\$0.00	\$100,000.00	\$160,000.00	\$270,000.00	\$270,000.00	\$228,979.00	\$241,364.00	\$221,112.00
End-of-year conserved water credit reserve for sale to developers	0	26.27	25.44	16.05	5.34	34.6466	78.0326	72.8123
City Water Rights Credits	2009	2010	2011	2012	2013	2014	2015	2016
Initial Balance	0	0	39.64	39.64	40.73	40.73	58.2832	21.7002
Water Rights Deposits into water bank	9.62	39.64	0	1.09	0	54.1632	18.417	0
Toilet Retrofit Credit Deposits into water bank							54.325	32.7
Withdrawals (allocations by the governing body)	9.62	0	0	0	0	36.61	55	0
End-of-year balance of city owned water rights not yet allocated	0	39.64	39.64	40.73	40.73	58.2832	21.7002	21.7002
Privately Owned Water Credits	2009	2010	2011	2012	2013	2014	2015	2016
Initial Balance	403.28	455.89	483.5	518.21	498.9	489.95	578.654	656.549
Deposits into Water Bank	62.74	33.32	41.75	0	31.05	94.91	114.695	6.513
Withdrawals (dedications by developers to their projects)	10.13	5.71	7.04	19.31	40	6.206	36.8	25.214
End-of-year balance of privately owned water rights	455.89	483.5	518.21	498.9	489.95	578.654	656.549	637.848
Privately Owned Water Credits from Old Toilet Retrofit Program	2009	2010	2011	2012	2013	2014	2015	2016
Initial Balance	4379.025	4340.025	4322.025	4309.025	4291.025	4279.025	3895.025	3576.7
Withdrawals (dedications by developers to their projects / City Purchases)	39	18	13	18	12	384	318.325	32.7
End-of-year balance of privately owned water rights	4340.025	4322.025	4309.025	4291.025	4279.025	3895.025	3576.7	3544

Figure 11: Water Bank Balances

*The City's water bank tracks the inflows (credits), allocations (debits), ownership, and designated use. For detailed information, please refer to the following ordinances and city code: 2005 Water Transfer Ordinance, 2009-38 Water Budget Requirements (effective January 1, 2010), and Water Conservation provisions in City Code Chapter 25.

Water Resources Planning

The overall goal of water resources planning is to ensure that the City's water resources are managed efficiently in a manner reflecting the values of the community. City water planning staff work to find innovative solutions to improve system resiliency and to ensure water will be available to meet future demands without damaging the cultural or physical landscape of the region.

Management responsibility includes source water protection and watershed management under the City of Santa Fe's Municipal Watershed Management Program, protecting the source of 40% of the City's drinking water supply. Water resources planning and management efforts cover a broad range of duties, including being a good steward of the precious and finite resource: water.

Fiscal Responsibility

The Water Division is committed to fiscally responsible management of the water utility. This is achieved by an annual review of the finance plan. The review provides projections for both revenue and expenditures including the capital improvement plan (CIP). The goal is to be fiscally responsible while maintaining a high level of service and increasing effectiveness and efficiency. The last rate increase went into effect July 1, 2013 and the Water Division does not project another increase until 2019.

When we balance the plan we can show future costs and rates, and impacts from policies

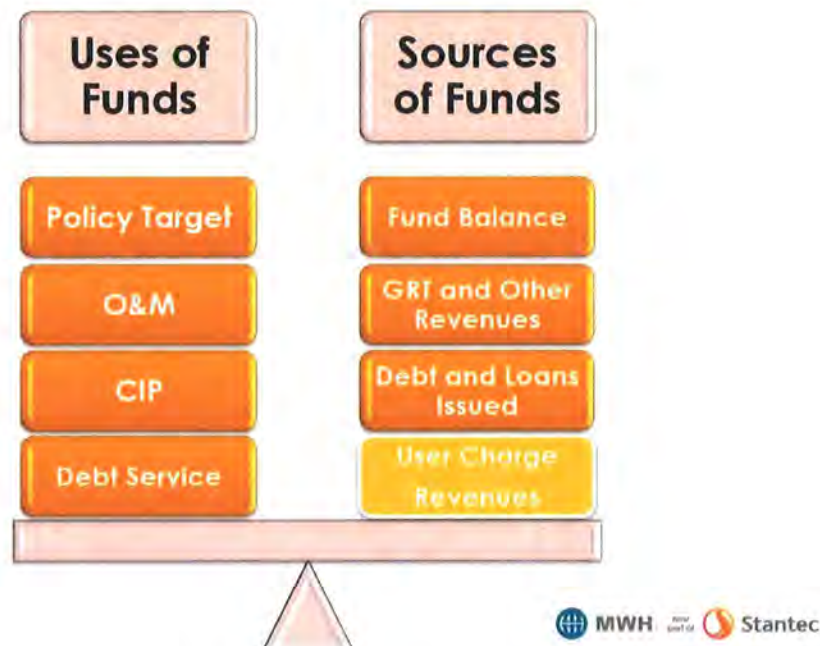


Figure 12: How the water division must balance its budget

In Fiscal Year 2016 several significant actions were taken in regard to the Water Division budget. The water division paid off \$55 million in debt, issued \$37 million in refunding revenue bonds, eliminated gross receipts tax revenue from the water division's funding, and initiated a franchise fee transfer from the Water Division to the City's general fund. This franchise fee, which is 4% of the Division's revenue, is used to replace the franchise fee formerly paid by PNM prior to the City's purchase of the water company and is a fee associated with operating a utility within City limits.



Save Water Santa Fe

FY 17-18 Strategic Marketing Plan
City of Santa Fe Water Conservation Office



BACKGROUND

The City of Santa Fe Water Division currently supplies water to about 80,000 residents in the City and portions of Santa Fe County.

Water conservation is one of six components of the City's investment in a robust and diverse mixture of ground and surface water sources: Buckman Well Field (ground), City Well Field (ground), Watershed (surface), Buckman Direct Diversion (surface), Water Reuse and Conservation.

DATA DRIVEN STRATEGY FOCUS

In 2016 and early 2017, the data for reporting gallons per person per day (GPCD) was audited and refined to better reflect total demand and was adjusted for census data. The new methodologies are more accurate. Water use in multi-family numbers and commercial accounts went up, while single family water use went down. While Santa Fe's average daily water use in 2016 was 87 gallons per person per day (see chart on following page), which is one of the lowest in the country, the program data is reflective of new and innovative programs, including new meter technology. EyeOnWater online tracking system and improved data collection.

The challenge remains to continue to be proactive in both water management and in water conservation efforts.

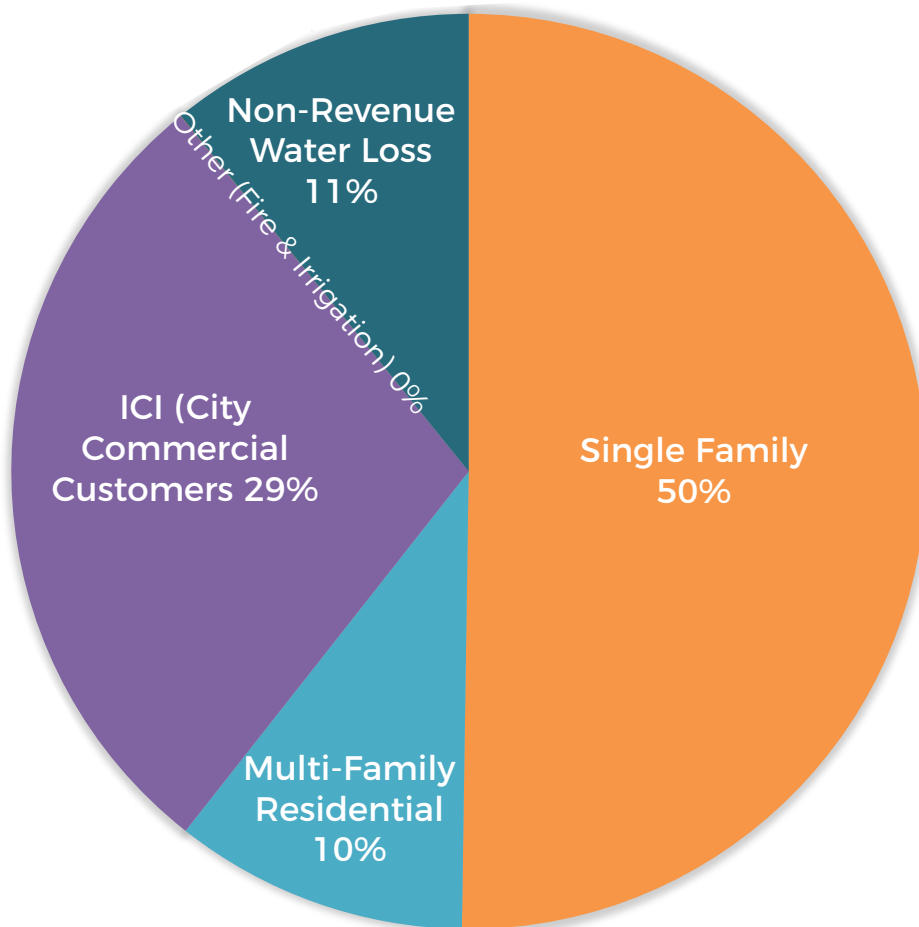
Water conservation remains key to addressing and responding to drought, so it is critical that Santa Feans, including commercial business and multi-family housing, remain committed to their water-wise lifestyles.

Studies of other water conscious communities note the water utility customers view supply, infrastructure, water reuse and conservation as a singular water issue, and best practices identified that water conservation efforts should include education on how all water utility programs work together.

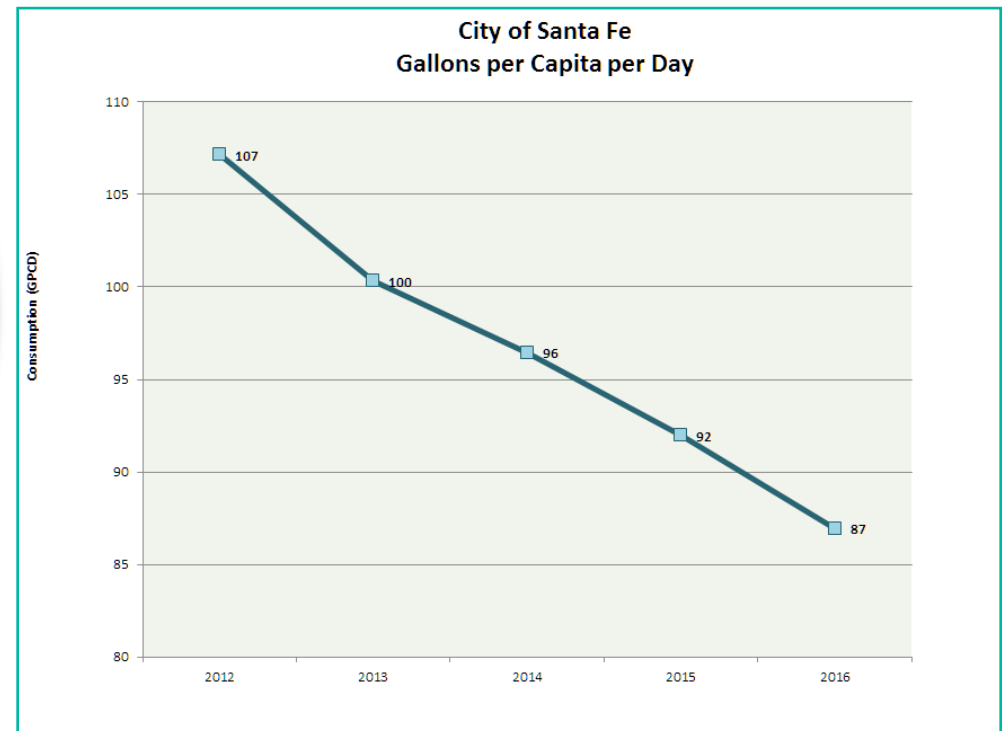


Gallons per capita per day (GPCD)

Santa Fe's average daily water use in 2016 was 87 gallons per person per day.

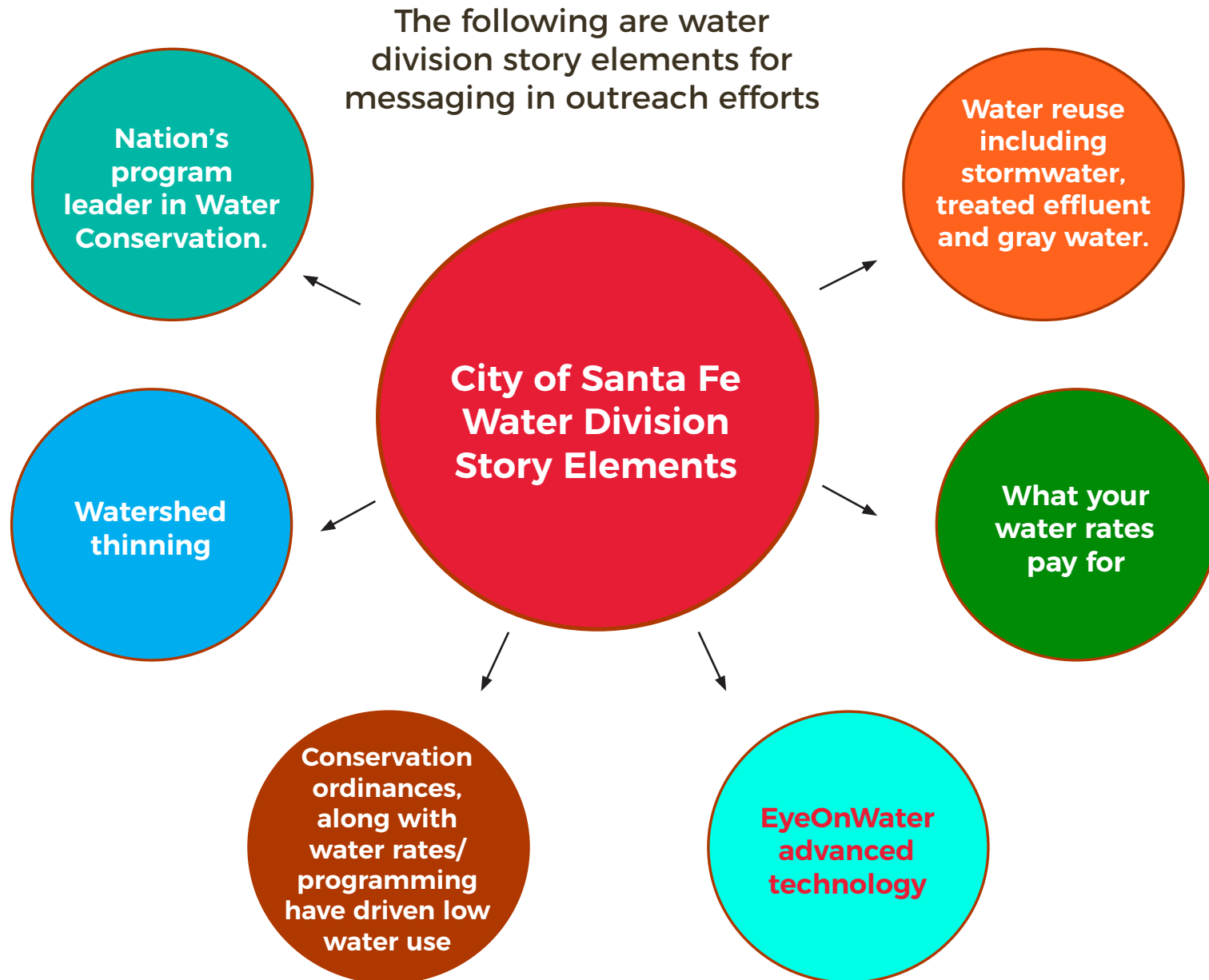


2016 Water Use by Sector



GPCD

WATER DIVISION STORY ELEMENTS



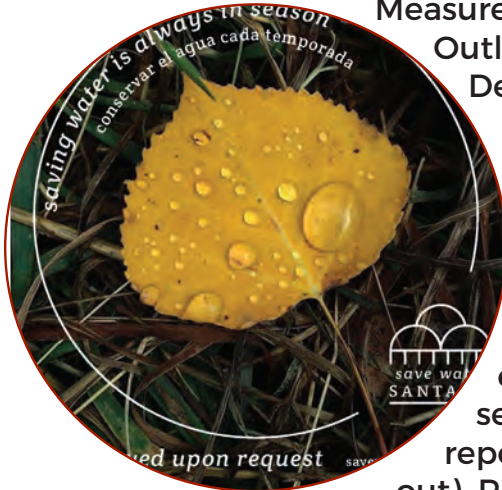
Parameter	Planning Details
Objectives	<ul style="list-style-type: none"> • Continue to promote water conservation programs and policies to meet the water management challenges of population growth and climate change, and ensure public safety and environmental stewardship. • Establish a sense of shared perspective on managing Santa Fe's water with an emphasis on commercial and multi-home use. • Promote confidence in the value of a safe, reliable water supply. • Encourage broad customer participation in water conservation programs.
Goal	<p>Goals will align with Scorecard and the strategic plan component measurements.</p> <ul style="list-style-type: none"> • Meet 90% of goals within SMP as coordinated by consultant • Align with conservation programming for FY 17/18 • Increase engagement across different demographics
Timeframe	FY 17-18

PRIORITIZED STRATEGIC COMPONENTS

1. Commercial Sector

OBJECTIVE: Promote commercial sector rebate & EyeOnWater participation.

Measurement/Deliverables:
Outlined in Tactical Brief on December 15



- A. Eye on Water participation (on-going).
- B. Pilot project to incentivize water efficiency in restaurant sector. (Fall intro/Winter report/Spring rebate roll-out). Restaurant specific rebate will follow commercial pilot project for promotion.
- C. Promote “Design Your Own” rebate (on-going)
- D. Commercial partnerships - Imagine a Day Without Water promotion.

2. Outdoor Irrigation

OBJECTIVE: Promote qualified rebates.

Measurement/Deliverables: Outlined in Tactical Brief for Campaign Roll-out in spring 2018.

A. “Laundry to Landscape” Rebate (1st Graywater Rebate)



- B. Customer-friendly self-audit guide.
- C. Customer-friendly drip irrigation guide.
- D. Customer-friendly graywater guide.
- E. Eligible rebate equipment list.
- F. Outdoor rainwater harvesting (rain barrel & cistern) - EARTH DAY
- G. Promote QWEL via SFCC classes
- H. EyeOnWater

PRIORITIZED STRATEGIC COMPONENTS CONT'D

3. Indoor Rebates

OBJECTIVE: Promote indoor rebate participation.
Measurement/Deliverables: Outlined in technical brief.



- A. On-going promotion
- B. Gather zip code data to determine quadrants utilizing rebates
- C. Spanish language
- D. Showcase customers who have received rebates (call for testimonials on social media and website).

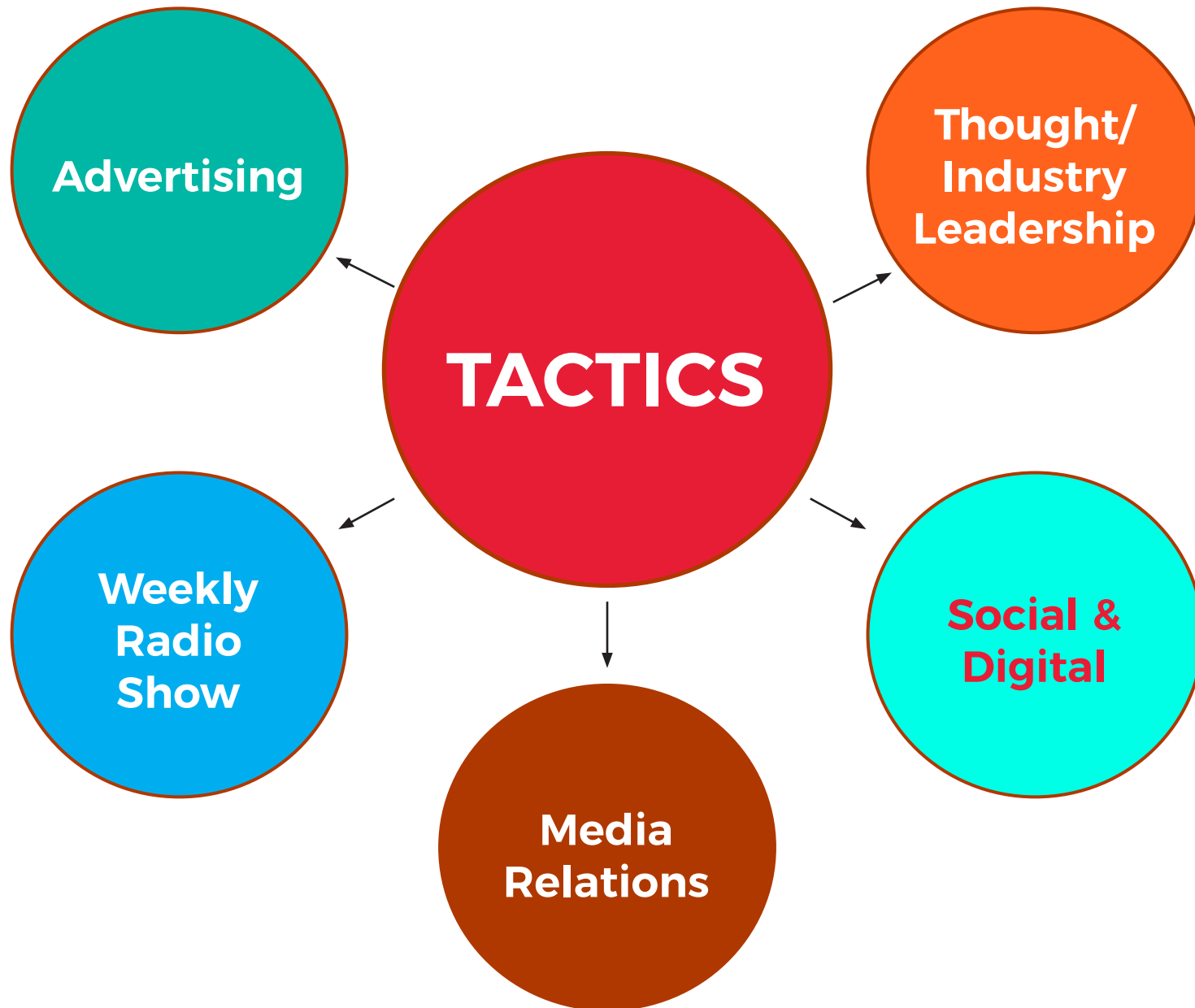
4. Community Wide Event

OBJECTIVE: Commercial customer Partnerships.
Measurement/Deliverables: Outlined in technical brief.

- A. Meow Wolf - partnership for late Spring or early Summer
- B. Event that includes rebate & demonstration booths by vendors.
- C. Family-focused.
- D. Incorporate Passport education and poster contest winner art.
- E. Planning meeting scheduled for January.



TACTICS TO MEET STRATEGIC COMPONENTS



TACTICS

Target Audience: Santa Fe Media - beat reporters (topic/industry specific) and editors.

Media Relations

Press Releases - highlight programs, projects, testimonials, benchmarks (GPCD - 10/30, pilot project, passport program, outdoor irrigation campaign, etc.)

Pitch story angles directly to **targeted media** (highlight water customers success & tell water division story)

Desk-side visits to key media, including SFNM, JN, SF Reporter, KSFR, KUNM, KTRC (Richard Eedes)

Media training



Op-eds: Teacher/student passport program, EyeOnWater **testimonials** (commercial and household), Next Generation Water Summit

Speaking engagements/speaker bureau request on website

Expert commentary

Next Generation Water Summit event promotion

Staff engagement training for professional development

Thought Leadership



TACTICS, CONT'D

Target Audience: Commercial, multi-housing and single-family

Social & Digital Media

1. Monthly **content library schedule** to align with WaterSense & other city initiatives.
2. Increase **video posts** (pilot restaurant participants, Qwel participants, customer testimonials, passport program,
3. CWF, BDD, wastewater, fire-shed, water model demonstration, etc.).
4. Increase **paid boosts** w geofencing demographics & commercial professional sector (homebuilders, architects, hospitality, food/beverage.
5. **InstaMeet** influencer event to highlight participating commercial entities using Eye on Water and other commercial rebates.
6. NextDoor postings announcing new rebates.
7. Call for **testimonials** via social channels and website.
8. Spanish-language (use Hablo español w/ phone number on ads when appropriate)



TACTICS, CONT'D

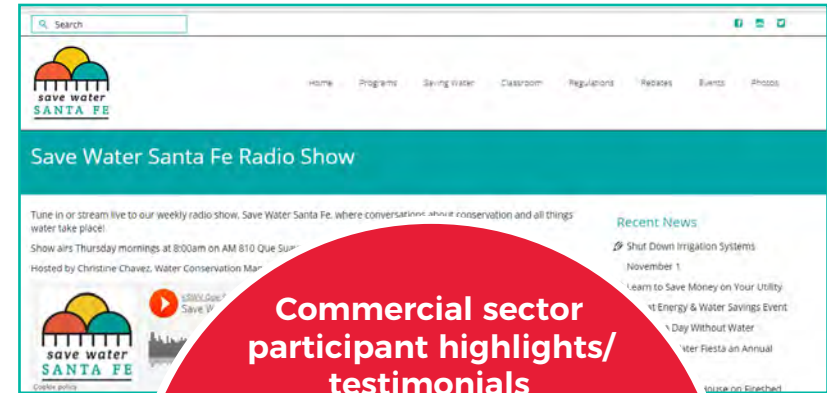
Target Audience: Commercial, multi-housing, single-family, renters

Advertising - testimonials by real customers

1. Eye on Water
2. Focus on **commercial campaign theme**. Highlight cost benefits w/ personal testimonials - *this is what it means to be green*.
3. On-going seasonal reminders/tips.
4. Identify digital advertising opportunities for commercial customers outreach.
5. **Spanish-language** (use *Hablo español* w/ phone number on ads when appropriate)
6. **Bill-inserts** (EyeOnWater, outdoor package & Meow Wolf event)
7. **Search Engine Optimization (SEO)** for website (commercial) to increase the amount of visitors to website

Website

On-going updates - revision completed.



Commercial sector participant highlights/ testimonials

1. **Collaboration** with city, county, state & regional partners
2. Calendar guests & **topics to align with seasons**, commercial sectors and other
3. Topical campaign roll-outs. Include **contact and messaging**.

Weekly Radio Show

DATA NEEDS

1. Zip code sector of where rebates given by type.
2. EyeOnWater/Badger - Can we determine a success metric of water saved or other by looking at Badger Meter Data
3. Can we determine which part of the city by zip code routinely saves more water than others?
4. How can AWWA audit inform marketing in FY19?
5. GPCD final calculations.
6. Water use by sector
7. Single Family Usage
8. Customer growth vs. water demand
9. Rebates (in/out) for FY 17/18
10. Identify **top 5 low-water users** to contact for Spring story pitch

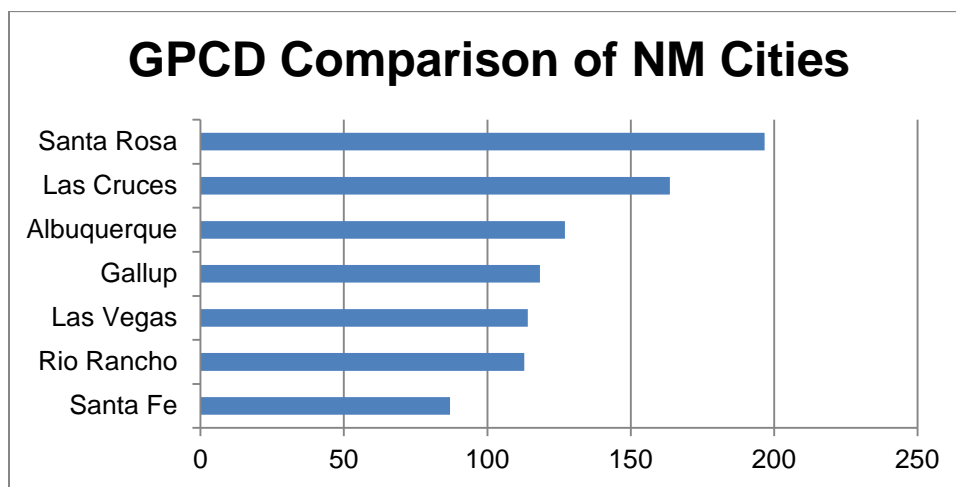
An Overview of The City of Santa Fe's Water Conservation

Cities in drought-prone-areas became leaders in water conservation out of necessity as drought is a strong motivating factor for local governments to enact water conservation programs. A reactionary approach to water conservation, however, is not always beneficial to the community nor is it well received.

Successful water conservation programs are not built overnight. Over the last 22 years, the City has enacted a number of water conservation ordinances to maximize water efficiency and to conserve our water supplies, both present and future. These ordinances include restrictions of water usage in drought conditions, landscape and site design standards, requirements for builders and developers to offset the water demands for new projects, the creation of a water budget, and establishing rebates for retrofitting water conservation devices, and created tiered water rates. These ordinances also granted enforcement authority to the Water Conservation Office.

Santa Fe has developed a diverse water supply portfolio consisting of two sources of groundwater and two sources of surface water, which improve resiliency by minimizing reliance upon a single source of water. Water conservation and reclaimed water reuse further improve resiliency by reducing demand for potable water.

A key performance metric of any municipal water conservation program is determined by the gallons per capita per day (GPCD) water use calculation. In New Mexico, the methodology for calculating this metric is set by the Office of the State Engineer (OSE). Prior to the droughts which were instrumental in the City's passage of the first water restrictions in 1996, the water consumption calculation for 1995 was 168 GPCD. Despite the persistence of drought and low to average annual rainfall conditions, and in spite of increasing population growth, this number has declined to 87 GPCD in 2016. Santa Feans are very aware of the importance of water; despite record-breaking heat and drought conditions, and growth in both tourism and population, the total production has remained consistent over the last several years.



As the City's programs have expanded and diversified over the last several years, a website, SaveWaterSantaFe.com, and social media tools such as Facebook and Instagram have been added to increase community engagement and outreach. The Water Conservation Office provides education activities designed for residents ranging from children to adults, and has

An Overview of The City of Santa Fe's Water Conservation

developed relationships with a number of organizations which allow all of us to reach larger audiences with coordinated messaging.

Among our outreach programs, the Annual Children's Water Fiesta has been expanded to include a Passport Program for 4th graders to show them where our water comes from, how it is treated, used, and how the resulting wastewater is processed. The program includes components about sustainable energy, and trash and recycling as well. We coordinate the dates and provide the transportation for field trips to the Buckman Direct Diversion and Paseo Real Wastewater Treatment Plant as part of this program. We hope to extend this program further, to follow the classes through 5th and 6th grades as well, coordinating with other organizations such as the Santa Fe Watershed Association, Randall Davey Audubon Society and Santa Fe Botanical Garden to provide opportunities to visit the watershed, and learn more about our unique environment.

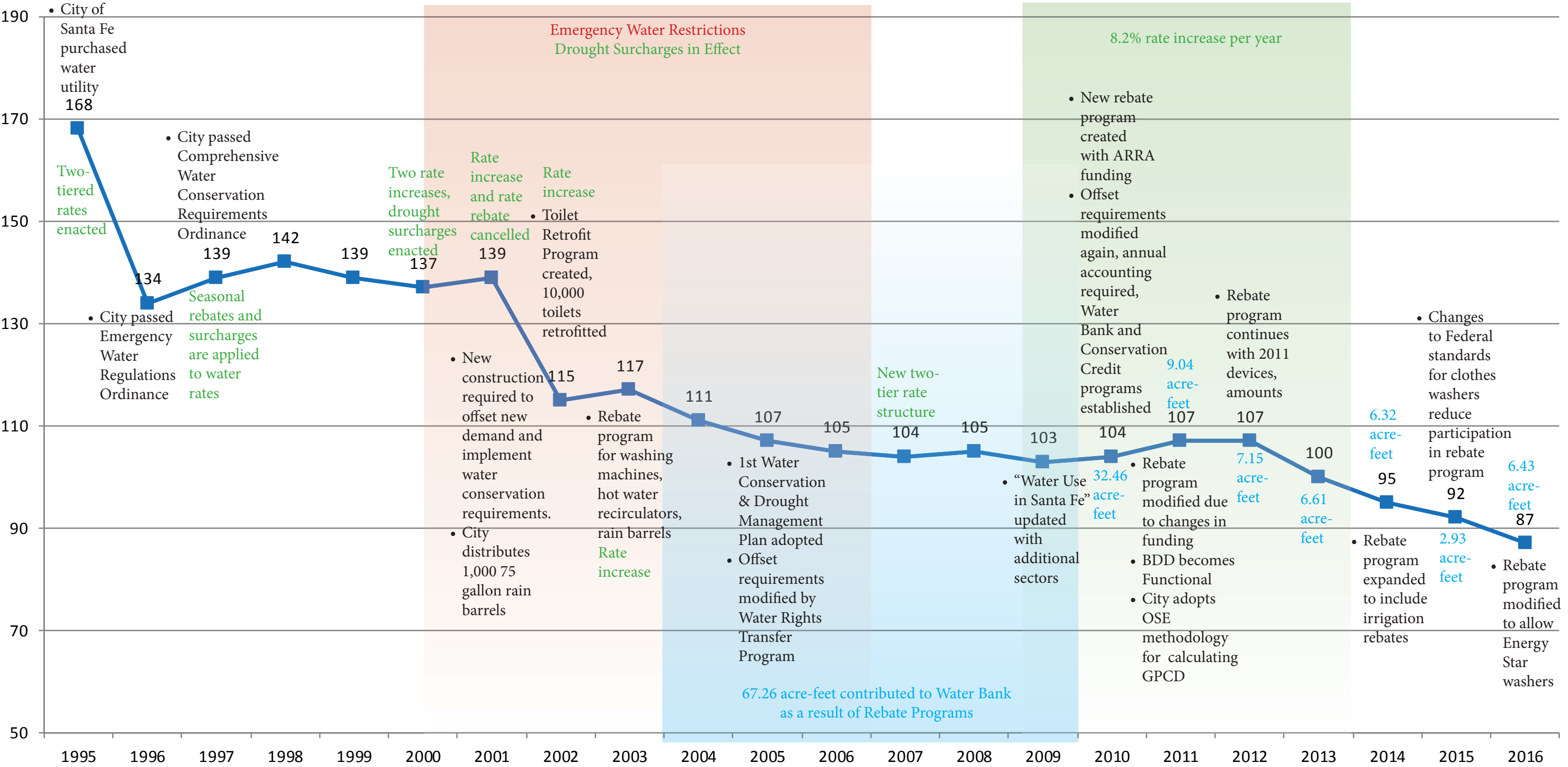
Santa Fe has nearly completed a full meter replacement program, with smart meters that send daily usage information, and has rolled out a FREE app, Eye On Water, which allows customers to see their water usage in real time, as well as set leak alerts. Water Conservation staff is working with customer service to notify customers who have not yet signed up for the app when high, continuous flows show up in the system. Customer service also developed a new billing summary which more clearly show water usage during the month.

Incentives for use of water efficient fixtures and appliances have been a vital component of Santa Fe's water conservation program. Beginning in 2004, the Water Conservation Office has offered various rebates and incentives for the installation of water saving devices ranging from high-efficiency clothes washers and toilets, to rain barrels and cisterns. The program is now looking at offering rebates for gray water irrigation systems, as well as sector specific rebates for restaurants and hotels. Since its inception through the end of calendar year 2016, the rebate program has contributed more than 138 acre-feet of savings to the Water Bank.

A proactive approach to water management requires consideration of both issues and resources. The City has made significant progress in planning and implementing solutions to its complex water challenges, and the knowledge gained will provide guidance into the future. Climate Change is expected to bring additional pressures to bear on the water resources, and Water Resources and Conservation are working to develop coordinated, long-range plans to ensure that Santa Fe has enough water for our needs into the foreseeable future.

This document contains a brief overview of the City of Santa Fe water conservation program. A more detailed document about the City's water conservation history is available upon request from the Water Conservation Office.

GPCD 1995-2016



The City of Santa Fe's Water Conservation Journey

INTRODUCTION

Cities in drought-prone-areas became leaders in water conservation out of necessity as drought is a strong motivating factor for local governments to enact water conservation programs. A reactionary approach, to water conservation, however, is not always beneficial to the community nor is it well received. Successful water conservation programs are not built overnight. The City of Santa Fe has built its water conservation programs incrementally, starting with ordinances enacted in 1996, requiring conservation of water, restrictions of water usage in drought conditions landscape and site design, requirements for builders and developers to have water rights or buy water rights before permitting a project, the creation of a water budget, and establishing provisions for Water Division customers to receive rebates for retrofitting water conservation devices. Tiered water rates have also played a key role in reducing consumption.

The City's programs have expanded and diversified to include the use of social media for community outreach, education activities designed for residents ranging from children to adults, rebate programs, and by leading by example. The programs have been expanded to incorporate Land Use and Stormwater Management best practices to reach beyond traditional water conservation practices. A demonstration garden at the Water Division features water harvesting techniques including a recycled water feature powered with solar energy. The garden consists of several areas designed behind a theme (e.g., desert rose garden, shades of purple, high desertcape, "zero-scape", etc.) and incorporates efficient irrigation technology including a weather-based controller.

Due to our history of droughts, Santa Fe residents are very aware of the importance of water and we have a receptive citizenry with regard to the implementation of water conservation programs. Despite recent record-breaking heat and drought conditions, Santa Fe's long-standing water conservation and drought management programs are among the best in the Southwest with respect to both comprehensiveness and effectiveness. Our dramatic reduction in water consumption documents the cooperation between the City and its residents.

OUR WATER SUPPLY SOURCES

In order to minimize dependence on any one source of water supply and to achieve resiliency, Santa Fe has developed a diverse water supply portfolio consisting of two sources of groundwater (the City Well Field and the Buckman Well Field) and two sources of surface water (Santa Fe River watershed water stored in the City reservoirs, McClure and Nichols, and treated at the Canyon Road Water Treatment Plant; and Rio Grande water, both native Rio Grande water rights and San Juan-Chama Project water, diverted at the Buckman Direct Diversion (BDD) and treated at the Buckman Regional Water Treatment Plant. The BDD allows us to extract what some residents call our fourth source of water. In reality we have six sources of water when water conservation and reclaimed water reuse are included. A map of the City's water supply sources and infrastructure is available online:

https://www.santafenm.gov/where_does_our_drinking_water_come_from

The City of Santa Fe's Water Conservation Journey

GALLONS PER CAPITA PER DAY (GPCD)

A key performance metric of any municipal water conservation program is determined by the gallons per capita per day (GPCD) water use calculation. In New Mexico, the methodology for calculating this metric is set by the Office of the State Engineer (OSE). Prior to the droughts which were instrumental in the City's passage of the first water restrictions in 1996, the water consumption calculation for 1995 was 168 GPCD. Despite the persistence of drought and low to average annual rainfall conditions, and in spite of increasing population growth, this number has declined to 87 GPCD in 2016.

WATER CONSERVATION ORDINANCES

The state water conservation plan statute (1978 NMSA § 72-14-3.2) language is "to encourage" water conservation through ordinances and codes. Beginning in 1996, the City of Santa Fe has enacted several ordinances and resolutions that go well beyond "encouragement" to create a comprehensive set of water conservation requirements, as well as a tiered water rate structure designed to provide water customers with financial incentives to conserve water.

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

<http://clerkshq.com/default.ashx?clientsite=Santafe-nm>

Comprehensive Water Conservation Requirements Ordinance

On June 25, 1997, the Governing Body adopted a comprehensive water conservation ordinance. This ordinance prescribed regulations and provided financial incentives for water customers to reduce their water use. The ordinance has been amended as new programs have been added.

Emergency Water Use Ordinance

The City's primary drought management tool is the Emergency Water Regulations Ordinance, adopted in 1996. This ordinance allows the imposition of more severe water-use restrictions, as necessary, to ensure that demand does not exceed sustainable available supply and production capacity during years of low precipitation in the upper Santa Fe River watershed.

Landscape and Site Design Ordinance

The Governing Body established a Landscape and Site Design Ordinance Task Force, which was charged with "reviewing and making recommendations on the proposed Landscape and Site Design Ordinance (LIDS)." LIDS was adopted by the City Council at the July 25, 2001, meeting and was effective as of August 6, 2001.

Annual Water Budget Ordinance

The 2003 Annual Water Budget Ordinance and the associated regulations and procedures that the Governing Body adopted by Resolution #2002-55 September 25, 2002, and revised by

The City of Santa Fe's Water Conservation Journey

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

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

In 2009, the City updated a 1998 analysis of water use by customer sectors necessary for the City's use in creating development water budgets. The Water Use in Santa Fe II analysis (and other reports related to water resource management) are available on the City's website at: http://www.santafenm.gov/how_much_water_do_we_use_reports_and_studies.

City Water Budget Ordinance

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

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

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

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

The City of Santa Fe's Water Conservation Journey

brings water rights). All water credit held in the water bank is accounted for in consumptive use acre-feet per year.

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

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

Green Building Code Update (SFCC 2017 § 7-4.2). The governing body adopted the first Residential Green Building Code in 2009 (Ordinance 2009-9). At that time the Code represented a major step towards reducing building energy and water efficiency along with cradle to grave impacts of building materials, ensuring healthy indoor air quality and providing homeowner education. The code has been amended several times with a significant streamlining in 2011 (Ordinance 2011-49). The proposed code changes would help achieve carbon neutrality by 2040.

The code updates include key mandates and, together with the computer modeling, will create a simpler, more flexible program that can more predictably save energy and water. This program can be used to drive energy and water savings by changing the required home energy rating system (HERS) index and water efficiency rating score (WERS) requirements and can also be used as a model for developing green codes for other building types such as residential remodels and commercial buildings.

The new Water Efficiency Rating Score (WERS) tool which replaces the checklist section for Water Efficiency under the current code as directed by Resolution 2015-28. The WERS tool measures the projected water savings of different water fixtures and appliances, both inside and outside of the building, and compares that projected usage to the same home if it were built under minimum code standards. The initial recommended requirement is for all new homes to achieve a score of 70, which is 30% better than buildings subject to no green code requirements. The current green code requires increased water efficiency using a checklist. It is estimated that a WERS of 70 will save about the same amount of water, or a little more, than the amount saved under the current green building code. While the tool calculates the water savings, should someone elect to install graywater or rainwater harvesting systems, such systems are not a requirement in order to achieve a score of 70.

WATER RATE STRUCTURE

In 1995, the City of Santa Fe has implemented a tiered pricing structure that encourages water conservation. High Tier 2 water rates along with surcharges for water use beyond limits defined by the Governing Body have greatly influenced the success of Santa Fe's water conservation and drought management programs.

The City of Santa Fe's Water Conservation Journey

Ordinance 2009-2 (SFCC 1987 § 25-4.2), adopted January 28, 2009, (effective March 1, 2009) provided for an 8.2% rate increase for five years and those rates are now in place.

Additional information about water rates can be found on the Public Utilities website at https://www.santafenm.gov/water_rates.

PUBLIC EDUCATION PROGRAMS

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

- Residential
 - Indoor leak audits
 - Outdoor Irrigation audits
 - Self-audit program for outdoor irrigation (spring 2018)
 - Laundry to landscape gray water rebate (spring 2018)
 - Gray water guide (spring 2018)
 - Drip-irrigation guide (spring 2018)
 - Rainwater harvesting equipment rebate program
 - Toilet, Washing Machine rebate program
 - Outdoor irrigation equipment rebate program (spring 2018)
 - Qualified Water Efficient Landscaper (QWEL) training at the SFCC
- Commercial Programs
 - Audit/leak detection
 - Irrigation evaluation
 - Commercial rebate program
 - Sector specific rebates starting with restaurants (spring 2018)
 - Free water conservation signage designed with winning photo from Instagram contest in 2016
- Education Programs
 - Water Fiesta 4th grade – last 16 years
 - Peer to peer education programs (training teenagers to present at the water fiesta)
 - 1st annual passport program
 - Approximately 325 students are currently part of our Passport Program which entails a comprehensive approach to teaching water conservation. City partners with outreach programs such as BDD, Environmental Services, WWTP and Water Conservation all offer components of the program which includes in-class presentations and field trips to the different facilities.
 - Partnered with the Santa Fe Watershed Association to act as escorts into the watershed for the My Water, My Watershed classes with staff teaching a portion of the activities on the field trip

The City of Santa Fe's Water Conservation Journey

- **Adult Programs**
 - Weekly “Save Water Santa Fe” radio show
 - Every week the show highlights different people and organizations in the City and their water conservation efforts
 - Outreach at local events throughout the year
 - Rainwater Harvesting and Drip Classes for the Santa Fe Master Gardeners program
 - Qualified Water Efficient Landscaper (QWEL) Certification Training
 - Demonstration Garden with low-water use plants, rainwater harvesting and SMART irrigation controller

RAISING WATER USE AWARENESS

- **EyeOnWater**
 - The City of Santa Fe has a free App which water customers can download and use to monitor their own water usage in real time from a smartphone, tablet or computer.
 - Water Conservation staff is using the tool to notify customers on high continuous flows showing up in the system with a letter, phone call or field visit.
- **New and Improved Utility Billing System**
 - During 2017, Public Utilities rolled out a new billing system which clarifies billing details and also helps water customers monitor monthly water use and compare usage with previous months. The format also provides a detailed breakdown of charges for water, sewer and refuse services.

PUBLIC OUTREACH & MARKETING

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

WEBSITE

In May 2013, a new website, www.savewatersantafe.com, was launched in conjunction with a newspaper insert in the Santa Fe New Mexican, to provide a clearinghouse for water conservation information. Rebate applications and instructions can be found there, as well as information about upcoming events, water saving tips, water use calculators and links to other organizations with a water conservation and/or education mission.

STRATEGIC MARKETING PLAN

An annual strategic marketing plan is developed with a consultant to coordinate outreach goals and targets. Website, Facebook and Instagram targets are included in the planning effort as well

The City of Santa Fe's Water Conservation Journey

as any print or digital advertising. The plan is reviewed by the Santa Fe Water Conservation Committee and goals are aligned with the program's annual scorecard.

PARTNERSHIPS

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

- Santa Fe Public Schools
- Santa Fe Community College
- Santa Fe Watershed Association
- New Mexico Office of the State Engineer
- U.S. EPA WaterSense
- Alliance for Water Efficiency

INCENTIVES AND REBATES

Incentives for use of water efficient fixtures and appliances are vital components of any water conservation program. From 2004 through 2016, the Water Conservation Office offered incentive rebates for the purchase of water-efficient appliances including, high efficiency clothes washers, and rainwater collection barrels and cisterns. The program is now looking at offering rebates for gray water applications and sector specific rebates such as restaurants and hotels.

- 2010 rebates resulted in conserved water savings of 32.46 Ac/Ft.
- 2011 rebates resulted in conserved water savings of 9.04 Ac/Ft.
- 2012 rebates resulted in conserved water savings of 7.15 Ac/Ft.
- 2013 rebates resulted in conserved water savings of 6.61 Ac/Ft.
- 2014 rebates resulted in conserved water savings of 6.33 Ac/Ft.
- 2015 rebates resulted in conserved water savings of 2.93 Ac/Ft.
- 2016 rebates resulted in conserved water savings of 6.43 Ac/Ft.

WATER MANAGEMENT PLANNING AND RECENT TECHNICAL REPORTS

A proactive approach to water conservation requires consideration of both issues and resources. Since 1996, the City has made significant progress in planning and implementing solutions to its complex water challenges, and the knowledge gained has provided guidance into the future.

- **Ordinances:** new and refinements to existing ordinances.
- **The 40-Year Plan:** The purpose of the forty-year water plan is to show the status of the supply and needed supplies planned for the future. The NMOSE requires municipalities to demonstrate that their water rights holdings do not exceed their projected needs over a 40-year planning period. The report includes a description of the City's water supply components, water rights owned by the City, details about the City Well Field, a summary of Santa Fe's historic uses and the projected utilization of these components in the short term and long term. Additionally, the forty-year water plan identified the Mayor's "Four Point Plan for a Sustainable Water Future," which was adopted by the

The City of Santa Fe's Water Conservation Journey

City Council in December 2000. The goal was to prioritize and implement conservation measures that can result in significant demand reduction in the near term – recognizing staffing and funding limitations

- **Long Range Water Supply Plan:** Santa Fe's Long-Range Water Supply Plan, adopted by the Governing Body in September 2008 comprehensively addresses Santa Fe's water supply sources, water supply capacity, and a roadmap of projects and programs to reliably and sustainably meet future water demand. The City is moving forward in implementing the strategies identified in the Water Supply Plan.
http://www.santafenm.gov/our_water_future.
- **Climate Change Update:** Much of the future water supply planning that has been incorporated in the Long Range Water Supply Plan contemplates how the City's water supply needs can be met using our diverse water portfolio under a range of conditions, including drought, while continuing to strive for sustainability. The utility recognizes the need to address potential vulnerabilities in the water system under predicted conditions and to reduce our own greenhouse gas emissions. Using climate modeling and staying abreast of ongoing developments in climate change science are vital for the Water Division to understand the impacts that global warming will likely have on our water supplies and water utility and to communicate that understanding to the community.
- **Santa Fe Basin Study: Adaptations to Projected Changes in Water Supply and Demand, 2015.** This was a cooperative study by the U.S. Bureau of the Interior Bureau of Reclamation, the City of Santa Fe and Santa Fe County and it constitutes the most recent climate change study focused on the Santa Fe Basin.
<https://www.usbr.gov/watersmart/bsp/docs/finalreport/SantaFe/Santa-Fe-Basin-Final.pdf>
- **Drought Management Plan:** Driven by the need to limit overall water use to a level commensurate with the available water supply, the City of Santa Fe has implemented a comprehensive and aggressive water conservation and water emergency management program. Santa Fe's water emergency management plan has demonstrated its ability to suppress water use to less than the limited supply available under the extraordinary drought conditions of 2002 and the drought years following. This plan is updated every five years to comply with OSE requirements. The 2015 update is available on the Water Division website: http://www.santafenm.gov/how_much_water_do_we_use_reports_and_studies.
- **Water Report:** The purpose of this report is to provide the Santa Fe community with an annual report that summarizes the state of the City of Santa Fe's Water Division and the water resources we depend upon. This report compiles and summarizes information about water demand, conservation, water supply, water rights, offsets and credits, types of water use, water quality, system maintenance, energy use, climate change, and utility financial information. This report fulfills the reporting requirements of the City of Santa Fe Ordinance 2009-38 "Water Budget Requirements". The 2015 Water Report is available online.
https://www.santafenm.gov/how_much_water_do_we_use_reports_and_studies

The City of Santa Fe's Water Conservation Journey

- **Reclaimed Water Reuse Plan:** Reclaimed wastewater (RW) is a vital and valuable water resource that helps the City of Santa Fe meet its current water supply needs; it can also play a critical role in meeting future potable water supply demand. In 2013 the City of Santa Fe created the Reclaimed Wastewater Reuse Plan (RWRP), which replaces the 1998 Treated Effluent Management Plan (TEMP). The RWRP allocates the reclaimed wastewater among the current needs and reserves 2,200 acre-feet to meet future potable water demand. The RWRP is available online:
https://www.santafenm.gov/document_center/document/5442
- **Santa Fe Water Reuse Feasibility Study**, Draft September, 2016. This study was prepared by Carollo Engineers, Inc. in association with RMC Water and Environment for the City of Santa Fe and Santa Fe County. The purpose of the study was to identify the highest value use of the reclaimed water currently available.
https://www.santafenm.gov/document_center/document/5812

2018 Meeting Schedule

Santa Fe Water Conservation Committee

Location: City Councilors' Conference Room, 200 Lincoln Avenue

Time: 4-6 PM

Day: Second Tuesday of the month (except as noted)

Meeting Date	Caption Deadline, 3 PM	Packet Material Deadline, 3 PM
Tuesday, January 9, 2018	Tuesday, December 26, 2017*	Wednesday, December 27, 2017
Tuesday, February 13, 2018	Monday, January 29, 2018	Wednesday, January 31, 2018
Tuesday, March 13, 2018	Monday, February 26, 2018	Wednesday, February 28, 2018
Tuesday, April 10, 2018	Monday, March 26, 2018	Wednesday, March 28, 2018
Tuesday, May 8, 2018	Monday, April 23, 2018	Wednesday, April 25, 2018
Tuesday, June 5, 2018*	Monday, May 21, 2018	Wednesday, May 23, 2018
Tuesday, July 10, 2018	Monday, June 25, 2018	Wednesday, June 27, 2018
Tuesday, August 14, 2018	Monday, July 30, 2018	Wednesday, August 1, 2018
Tuesday, September 11, 2018	Monday, August 27, 2018	Wednesday, August 29, 2018
Tuesday, October 16, 2018*	Monday, October 1, 2018	Wednesday, October 3, 2018
Tuesday, November 20, 2018*	Monday, October 29, 2018	Wednesday, October 31, 2018
Tuesday, December 11, 2018	Monday, November 26, 2018	Wednesday, November 28, 2018

*Date changed due to holiday or other event