



AGENDA

WATER CONSERVATION
COMMITTEE
OCTOBER 13, 2020
4:00 PM
ATTEND VIRTUALLY

SPECIAL PROCEDURES FOR WATER CONSERVATION COMMITTEE MEETING

Attendance: In response to the State's declaration of a Public Health Emergency, the Mayor's Proclamation of Emergency, and the ban on public gatherings of more than ten (10) people, the Water Conservation Committee meeting will be conducted virtually.

Viewing: Members of the public may join the Zoom meeting by internet or phone, as follows:

Internet: To join the Zoom meeting on the internet using a computer, laptop, smartphone, or tablet, use the following link: <https://santafenm.gov.zoom.us/j/91364964661?pwd=MkhiVUpSSEtXdGQ4M01zV2NZWFcwUT09>.

Passcode: 809305

Attendees should use the "Raise Hand" function to be recognized by the Chair to speak at the appropriate time.

Phone: To join the Zoom meeting using a phone, use the following phone numbers and Webinar ID: **US: 1 (346) 248-7799 - Webinar ID: 913 6496 4661 - Passcode: 809305**

Phone attendees should press *9 to use the "Raise Hand" function to be recognized by the Chair to speak at the appropriate time.

The agenda and packet for the meeting will be posted at <https://santafe.primegov.com/public/portal>.

1. **CALL TO ORDER**
2. **ROLL CALL**
3. **APPROVAL OF AGENDA**
4. **APPROVAL OF MINUTES**
 - a. Regular Meeting – March 10, 2020



AGENDA

**WATER CONSERVATION
COMMITTEE
OCTOBER 13, 2020
4:00 PM
ATTEND VIRTUALLY**

5. INFORMATIONAL ITEMS

- a. Annual Water Report (Andres Erdmann, Water Conservation Specialist Senior, paerdmann@santafenm.gov, 955-4223)
- b. 5-Year Water Resources Planning Effort (Jesse Roach, Water Division Director, jdroach@santafenm.gov, 955-4309)
- c. Discussion on Water Conservation Committee Work for the Remainder of the Year (Councilor Carol Romero Wirth)

6. SUBCOMMITTEE COMMUNICATIONS

- a. Spatial Analysis Subcommittee – Use of GIS Mapping to Evaluate Water Conservation Programs and Survey 123. (Christine Chavez, Water Conservation Manager, cychavez@santafenm.gov, 955-4209)
- b. Scorecard Subcommittee – July Public Input Process and Development of 2021 Scorecard (Christine Chavez)

7. MATTERS FROM THE PUBLIC

8. MATTERS FROM STAFF

9. MATTERS FROM THE COMMITTEE

10. NEXT MEETING: No Meeting Scheduled

11. ADJOURN

Persons with disabilities in need of accommodations, contact the City Clerk's office at 955-6521, five (5) working days prior to meeting date.



Agenda

SANTA FE WATER CONSERVATION COMMITTEE MEETING
CITY HALL – 200 LINCOLN AVE.
CITY COUNCILOR'S CONFERENCE ROOM
March 10, 2020
4pm

CALL TO ORDER

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF CONSENT AGENDA
4. APPROVAL OF MINUTES FROM THE FEBRUARY 11, 2020 MEETING

CONSENT AGENDA:

5. WATER DIVISION UPDATE (Andrew Erdmann, Water Conservation Specialist Senior, paerdmann@santafenm.gov, 955-4223)

ACTION ITEM:

6. APPROVAL OF DRAFT: REPEALING RESOLUTION NOS. 2002-25, 2008-40, 2016-31, AND 2016-91 THAT ESTABLISHED AND AMENDED THE SANTA FE WATER CONSERVATION COMMITTEE; AND RE-ESTABLISHING THE SANTA FE WATER CONSERVATION COMMITTEE. (Councilor Romero-Wirth)

INFORMATIONAL ITEMS:

7. DISCUSSION ON UPCOMING SPRING CAMPAIGNS WITH BOTANICAL GARDENS AND FIRE DEPARTMENT (Christine Chavez, cychavez@santafenm.gov, 955-4219)

SUBCOMMITTEE REPORTS:

8. ICI SUBCOMMITTEE (Christine Chavez, cychavez@santafenm.gov, 955-4219)
9. DATA SUBCOMMITTEE (Christine Chavez, cychavez@santafenm.gov, 955-4219)

MATTERS FROM PUBLIC:

MATTERS FROM STAFF:

MATTERS FROM COMMITTEE:

NEXT MEETING – (Councilor's Conference Room): TUESDAY, APRIL 14, 2020

CAPTIONS: DUE BY 3:00 PM, MARCH 30, 2020

PACKET MATERIAL: DUE BY 3:00 PM, APRIL 1, 2020

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.

RECEIVED AT THE CITY CLERK'S OFFICE

DATE: March 3, 2020

TIME: 3:52PM

**SUMMARY OF ACTION
 SANTA FE WATER CONSERVATION COMMITTEE MEETING
 CITY HALL - 200 LINCOLN AVE.
 CITY COUNCILOR'S CONFERENCE ROOM
 TUESDAY, MARCH 10, 2020, 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	APPROVED	2
 <u>CONSENT AGENDA</u>		
WATER DIVISION UPDATE	APPROVED ON CONSENT	2
 <u>ACTION ITEM</u>		
APPROVAL OF DRAFT: REPEALING RESOLUTION NOS: 2002-25, 2008-40, 2016-31, AND 2016-91 THAT ESTABLISHED AND AMENDED THE SANTA FE WATER CONSERVATION COMMITTEE; AND RE-ESTABLISHING THE SANTA FE WATER CONSERVATION COMMITTEE	APPROVED	2-5
 <u>INFORMATIONAL ITEMS</u>		
DISCUSSION ON UPCOMING SPRING CAMPAIGNS WITH BOTANICAL GARDENS AND FIRE DEPARTMENT	INFORMATION/DISCUSSION	5-8
 <u>SUBCOMMITTEE REPORTS</u>		

ICI SUBCOMMITTEE	INFORMATION/DISCUSSION	9-10
DATA SUBCOMMITTEE	INFORMATION/DISCUSSION	10
MATTERS FROM THE PUBLIC	NONE	10
MATTERS FROM STAFF	INFORMATION/DISCUSSION	10-11
MATTERS FROM COMMITTEE	NONE	11
NEXT MEETING	APRIL 14, 2020	11
ADJOURN	ADJOURNED	11

**SANTA FE WATER CONSERVATION COMMITTEE MEETING
CITY HALL - 200 LINCOLN AVE.
CITY COUNCILOR'S CONFERENCE ROOM
TUESDAY, MARCH 10, 2020, 4:00 PM**

CALL TO ORDER

The meeting of the Santa Fe Water Conservation Committee was called to order at 4:00 pm by Councilor Carol Romero-Wirth, Chair, on Tuesday, March 10, 2020, at City Hall, in the City Councilor's Conference Room, Santa Fe, New Mexico.

1. ROLL CALL

MEMBERS PRESENT

Councilor Carol Romero-Wirth, Chair
Scott Bunton
Bob Coombe
Ken Kirk
Maria DeAnda Hay
Beth Kirby
Reese Baker
Peggy Wright
Matt O'Reilly

MEMBERS ABSENT

Stephen Schmelling, Excused
Jerry Jacobi, Excused

OTHERS PRESENT

Christine Trujillo, Director, Water Conservation Division
Andrew Erdmann, Water Conservation Division
Andy Otto, Watershed Association
Elizabeth Martin, Stenographer

2. APPROVAL OF AGENDA

MOTION A motion was made by Mr. Bunton, seconded by Ms. DeAnda Hay, to approve the agenda as presented

VOTE The motion passed unanimously by voice vote.

3. APPROVAL OF CONSENT AGENDA

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

VOTE The motion passed unanimously by voice vote.

4. APPROVAL OF MINUTES

MOTION A motion was made by Mr. O'Reilly, seconded by Ms. DeAnda Hay, to approve the minutes as presented.

VOTE The motion passed unanimously by voice vote.

CONSENT AGENDA

5. WATER DIVISION UPDATE

Approved on consent.

ACTION ITEM

6. APPROVAL OF DRAFT: REPEALING RESOLUTION NOS: 2002-25, 2008-40, 2016-31, AND 2016-91 THAT ESTABLISHED AND AMENDED THE SANTA FE WATER CONSERVATION COMMITTEE; AND RE-ESTABLISHING THE SANTA FE WATER CONSERVATION COMMITTEE

Chair Romero-Wirth handed out the latest version of the Resolution. The Resolution is herewith attached to these minutes as Exhibit "1".

Chair Romero-Wirth said we took out the repealing language and said we were re-establishing it. We also added that this Resolution supercedes all other resolutions. There is also more flexibility in the membership of the committee as to expertise. We need your approval. What are your thoughts.

Mr. O'Reilly said on page 2 of the handout, item 1 lines, 22-24 talks generally about the purpose of the Committee. By it's name we are supposed to be working on conserving water. Number 1 is not necessary. He recommends getting rid of number 1 and renumbering that page. A, B and C could be part of the sentence in line 22 and does not need to be called out. Page 3, item 6 talks about notifying the City leadership. It seems to him that is not the job of this Committee. On number 6 it is staff's job to assess if we are aligned or not aligned. He recommends striking number 6 in its

entirety.

Mr. Coombe said his personnel preference is to keep the definition of duties and responsibilities written as broadly as it can be. It has changed over the course of his being on this committee. We are advisory certainly to Council and the Water Conservation Office. Any action we recommend has to be taken up by the office or Council. He doesn't want to limit ourselves to the narrow definition of water conservation. Perhaps being engaged in conservation of supply or demand.

Chair Romero-Wirth said we could change the language to advise the City as to any misalignment and change notify to advise. She agrees that staff is going to be doing a lot of that. She thinks staff welcomes the partnership.

Mr. Bunton said we can change the two verbs that say access to consider and notify to advise. Would that work.

Mr. O'Reilly said yes.

Chair Romero-Wirth said we can get rid of elected leadership and say advise the City.

Chair Romero-Wirth asked this Committee does promote water conservation, doesn't it.

Ms. Chavez said there was a disconnect before and they used to go out and do presentations and set up tables at events.

Mr. Bunton said the language in the three previous resolution reads that the Santa Fe Water Conservation Committee is charged with promoting water conservation.

Mr. O'Reilly said he imagined that, not this Councilor or this Council, but a later Council asked what has this committee done to promote water conservation. Maybe say assist with the promotion.

Chair Romero-Wirth said maybe it is redundant. It is in the purpose. We will take it out in that area.

Mr. Coombe said if he was writing this he would not write a list of responsibilities. Leave it as broad as possible so staff can use the Committee in ways they want without constraints. As long as it is clear that action taken by the Committee has to go by staff and the Governing Body.

Chair Romero-Wirth asked would you delete 1-9.

Mr. Coombe said yes. Have a statement with broad areas as to what the committee engages in. Say activities as defined by the Water Conservation Division and the Chair.

Ms. DeAnda Hay said she agreed with Bob. She feels the same way. The purpose statement is the most important. That serves our purposes better.

Chair Romero-Wirth asked are there any suggestions as to how to beef up the purpose.

Ms. DeAnda Hay said she did not have the history to do that. The language is very broad. It says advise the City of Santa Fe, but in what.

Mr. Kirk said 1-9 lays out examples of the types of work the Committee does. It is important to recognize that.

Mr. Coombe said the listing example is good. That is different from duties and responsibilities.

Chair Romero-Wirth said we could change the lead in language and the title.

Mr. O'Reilly said we could say including, but not limited to.

Chair Romero-Wirth said delete line 20. On purpose say to promote water conservation and advise the City of Santa Fe in the following ways including, but not limited to. Renumber the rest.

Ms. DeAnda Hay said line 22 needs to combine line 19 with it.

Chair Romero-Wirth said yes. We would need to clean that all up.

Mr. Coombe said it could say advise the City of Santa Fe concerning appropriate means of managing precious water resources including, but not limited to the following examples.

Everyone was good with that.

Mr. Bunton said strike line 21 and collapse the purpose and duties and change the language.

Chair Romero-Wirth said condense A and B into one and renumber.

MOTION A motion was made by Mr. O'Reilly, seconded by Mr. Bunton, to approve the Resolution as amended.

VOTE The motion passed unanimously by voice vote.

Chair Romero-Wirth thanked Scott for all his work and everyone else who has contributed to this.

INFORMATIONAL ITEMS

7. DISCUSSION ON UPCOMING SPRING CAMPAIGNS WITH BOTANICAL GARDENS AND FIRE DEPARTMENT

Ms. Chavez handed out the 5 Year Plan. It is on the website and has been presented to Council and we have had public meetings. It has been well received.

Ms. Chavez said we are going to bring in the outdoor rebates subcommittee in this discussion. It is part of the spring program.

Ms. Wright said we met three times. With water catchment she feels simplicity is better. We suggest combining the rebate for rain barrels to make it .25 per gallon across the board. The other idea was passive storage and including it as a rebate. It is difficult as to who is going to do the site visits.

Mr. Erdmann said we proposed that we would take that on seriously in 2021 and include pumice wicks as any other barrel this year.

Ms. Wright said and leave the rain sensor and controller the same as is. Laundry to landscape has not gotten many applications for that rebate.

Ms. Chavez said we just approved one rebate on that.

Ms. Wright asked do you want to keep it.

Ms. Chavez said yes and continue to work out the wrinkles.

Ms. Wright said the irrigation audit is an important component of this. You need certifications to do that.

Ms. Chavez said it would be great for someone in the landscaping business if they carry the certification. You could audit and give the rebate.

Mr. Baker said it is basically giving a free audit. It takes one hour.

Mr. Erdmann said based on zones it can be \$150 and up.

Mr. Wright said it is not on the website.

Ms. Chavez will check on that.

Mr. Baker said we have put a link on our website to the Water Conservation Division website.

Mr. Baker said regarding the rebate form there is the second tier for bigger systems that is not on the rebate form for them to complete. We need to update that.

Chair Romero-Wirth asked so you have evaluated the rebates.

Ms. Wright said we need to simplify and promote.

Ms. Chavez said we will meet with them one more time regarding how to get the information out to vendors to help us cross promote the rebates. We could meet through email then bring all that back with changes to the Committee at the next meeting.

Mr. Coombe asked how are you going to assign a dollar value to this rebate.

Ms. Chavez said right now all the rebates are valued at 1,500 gallon cost. For any of our outdoor rebates there is not a water savings factor associated. There is no way to measure it.

Mr. Erdmann said there are some water savings listed, but they are very low. We discussed an idea where we could raise that estimate. Raise it to one gallon per gallon of storage available. That was our proposal. It is a tentative first step.

Ms. Chavez said we need to look into that and do some more analysis on that. We don't have to take every single rebate change through Council. We can bring it to committee and have Shannon sign off on them. She will bring the value piece back for discussion in April.

Mr. Coombe said you need to define the objectives. That is how you define them, by the amount of money you have behind them. What the dollars do and what the money does.

Ms. Chavez said thank you, all of you, for evaluating these rebates and the promotion of them.

Chair Romero-Wirth said it seem like we could have a lot of irrigation audits.

Mr. Baker said for an audit you start from the beginning and check for leaks running the timer and making sure every valve works and running each zone to check

them. It takes about an hour. Maybe we could do some kind of writeup.

Ms. Wright said one of the most common issues, as far as wasting, water is a valve getting stuck.

Ms. Chavez said we would need documentation for a rebate. The assessment is the most important piece.

Mr. Baker said we should develop a check list for audits.

Ms. Chavez said we have that already developed. We were going to allow homeowners to do it themselves, but it did not work out.

Mr. Baker asked Ms. Chavez to send that list to the subcommittee members.

Ms. Chavez said we are promoting QWELL. We put on that program. It is specific to northern New Mexico. We can look at those pieces and will bring it back .

Mr. Coombe asked did anything ever come of the committee that was doing rate structures.

Chair Romero-Wirth said the flow task force still exists, but is in a holding pattern.

Mr. Coombe said we could consider the sort of stuff Jesse Roach talked about regarding the need for a certain amount of flow going through the sewer system and if the pipeline comes to pass conservation what rules and regulations there might be specific to outdoor irrigation. It becomes very important.

Mr. Baker said you could meter your irrigation system.

Ms. Chavez said that is defining the objectives of the outdoor program.

Mr. Coombe said he thinks you will find it will take an enormous amount of money to make a dent in usage. Is there another approach rather than rebates.

Ms. Chavez said we talked to the Botanical Gardens and created a partnership with them. We are going to help them promote their fundraiser. They have a whole new phase of the gardens coming in. We are going to use that site as another educational site for us.

Mr. Kirk said he recommends having them come as a speaker to this meeting. What they are doing out there is very interesting.

Ms. Chavez said she will reach out to them.

Ms. Chavez said this Saturday is a big fundraiser event where the Fire Fighters participate to raise money for cancer research. It will be at the mall. They approached us about doing a charity car wash to help raise money. Car washes are a really big issue for us. We asked them to think of something different. They are not going to use water and are just cleaning the inside of the cars. We are excited that they partnered with us on that. Andrew had an idea he had seen that worked with City residents who were washing their own cars. How can we get those big car washes to not use all that water.

Mr. Erdmann said it is a campaign to get people to pledge to not wash their car. It is a pledge for a certain amount of time. 30 or 60 days. That is the idea. Pledge to wash their car less.

Ms. Chavez said the car washes do recycle water. They are better than washing in front of your house. The public car washes are what she would like to push for. The tag line would be Driving Dirty. She wanted to vet that through this Committee.

Ms. DeAnda Hay said the first thing that comes to her mind is dirty dancing.

Ms. Chavez said we going to do soft launch of this to educate people about washing their car.

Chair Romero-Wirth asked how much water do we save by doing this.

Ms. Chavez said we can send that to the committee. It is effective and does save water. Our first push is car washes as fundraisers. Second would be car washing in general.

Mr. Coombe said if he was an owner of a car wash he would object.

Ms. Chavez said we would want people to take their car to car wash facilities rather than washing them at home or at fundraisers.

Chair Romero-Wirth said it seems to be a campaign to shame people from washing their cars.

Ms. Chavez said we can work further on it and bring it back.

Chair Romero-Wirth said there are real reasons to wash your car.

Ms. Chavez said we are working on amendment with Andy on the passport program for sixth grade and are looking at Santa Fe High School for a pilot program.

Chair Romero-Wirth said we need to clarify about where you want people to wash their cars.

SUBCOMMITTEE REPORTS

8. ICI SUBCOMMITTEE

Mr. O'Reilly said we did meet and as a starting point, we would like to see the data. We need to understand exactly how much water those particular users use and see what we can do to have the most impact before launching into ideas. We wanted to learn more about how the restaurant pilot is working. That is what we talked about. He has ideas, but doesn't want to go down that road if it would not save a lot of water. He asked staff to get some of that information for us before we meet again as a subcommittee.

Ms. Chavez said we had baseline data on restaurants and hotels when we started. We did not base the decision on data. Matt has a good point. He does have some data. We are going to start by looking at a small group of commercial operations as a pilot. We will look at the data before we start to move into hotels.

Mr. Coombe asked does that subcommittee also work with your office in continuing the progress of the restaurant program. The real end game is to have a large impact.

Ms. Chavez said our goal this year is 100 restaurants. She will work with Doug and Mr. Schiffbauer on that. Getting the data from FINN has been challenging.

Mr. Coombe said he remembered Glenn estimating the amount of water potentially saved. It was a lot.

Mr. Baker asked who is in charge of collecting and producing the data.

Ms. Chavez said every second data is transported. We just purchased 30 more FINN units for them to install. It is proprietary so we don't see it. As the City sponsor of the program we are not getting the white paper saying what the results are. We are also getting complaints from several people saying we cannot just use FINN, what about their product. We are working with FINN to resolve this issue. We need more data from that program.

Chair Romero-Wirth asked we don't have a signed agreement.

Ms. Chavez said no, we just agreed to be part of their pilot.

Chair Romero-Wirth said a signed agreement would have been a good idea.

Ms. Chavez said Doug is working on that.

Chair Romero-Wirth said we need the City Attorney to look at that. We need to talk more about this.

9. DATA SUBCOMMITTEE

Ms. Chavez said she has the list of people who want to serve on this subcommittee. We have no special analysis for any of our program. She can track the enforcement program, rebates, continuous flow letters and Eye On Water participation.

Mr. Erdmann said we are tracking continuous flow and rebates so far. We started in February.

Mr. Coombe said you did not say anything about actual usage patterns. That is the big thing. Usage patterns against population so you can target your information and rebate activities. Where does that fit.

Mr. Erdmann said he is working on how to sync our billing data. The billing data system is old. It is DOS based. It is due to get updated.

Mr. Bunton asked is that funded.

Chair Romero-Wirth said yes, it is happening.

Mr. Coombe asked is it possible to have a separate system not about billing.

Mr. Erdmann said he is working on that and a download from Badger meters.

Mr. Coombe asked does the company have examples of how this is used elsewhere.

Ms. Chavez said those are different modules that have to be budgeted. We are letting you know what types of things we are beginning to track. We need more time to look at trends before we bring you together.

Mr. Coombe said maybe it should be outsourced.

Mr. Erdmann said he spoke with the GIS staff and they would like to work on it as well.

MATTERS FROM THE PUBLIC

None.

MATTERS FROM STAFF

Ms. Chavez said Patricio's position closes tomorrow and we have had some people respond. She applied for the Chief of Staff position for the City and has an interview tomorrow.

MATTERS FROM COMMITTEE

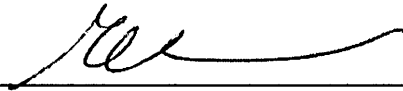
None.

**NEXT MEETING
APRIL 14, 2020**

ADJOURN

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

Councilor Carol Romero-Wirth, Chair



Elizabeth Martin, Stenographer

City of Santa Fe Water 2019 Annual Report



City of Santa Fe

Alan Webber, Mayor
Jarel Lapan Hill, City Manager

City Councilors

Signe Lindell, Mayor Pro Tem, District 1
Renee Villareal, District 1
Carol Romero-Wirth, District 2
Michael Garcia, District 2
Chris Rivera, District 3
Roman "Tiger" Abeyta, District 3
JoAnne Vigil Coppler, District 4
Jamie Cassutt-Sanchez, District 4

Contributing Departments

ITT Department
Land Use
Utility Billing & Customer Service Division
Water Resources & Conservation
Wastewater

Compiled, Written & Edited

Santa Fe Water Staff

Cover Photo

June 20, 2019 – The spillway at McClure reservoir during a rare overflow event. (R. Jorgensen)



Contents

Executive Summary	3
Acronyms	5
1. Introduction	7
2. Drought & Precipitation	7
3. Treated Water Demand	8
4. Per Capita Consumption	8
a. GPCD Calculator Methodology	8
5. Water Supply Sources	9
a. Surface Water	9
i. The Santa Fe River & the CRWTP	9
ii. San Juan-Chama Water & the BDD	11
b. Groundwater	11
c. Water Quality	12
6. Other Water Demands	14
a. Santa Fe’s Living River	14
b. Acequia Deliveries	15
c. Santa Fe River Mass Balance	15
d. Surface Offsets for Groundwater Pumping	16
7. Treated Effluent Water Deliveries	17
8. The Waterbank	17
9. Engineering: 2019 CSFW CIP Project Information	18
a. Planning	19
b. Design	19
c. Construction	20
d. CIP Budget Summary	21
10. Planning for the Future	21
a. Long-Range CSFW Planning	21
b. Water Conservation Planning	21
11. Closing	22

Executive Summary

Each year City of Santa Fe Water (CSFW) submits a report summarizing operational information from the previous year including water supply, water demand, system efficiency, non-potable water deliveries, capital projects, and water quality.

2018 was a very dry year in Santa Fe, but – beginning with a 100+ year storm and flooding event on July 23, 2018 – late 2018 and early 2019 were above average for precipitation. In 2019, a weather station in the upper watershed between the two reservoirs measured 17.41 inches of precipitation, almost 3.5” more than the average. The relatively high precipitation, and a late and cold spring, filled local reservoirs and reduced total water demand in the Santa Fe Water system.

Gallons per Capita per Day (gpcd) is a metric used to quantify water efficiency for water systems – water use per person per day. In 2019 Santa Fe’s average gpcd was 87, the lowest gpcd calculated for this system so far. The credit for this is due to Santa Fe’s culture of water conservation and the longstanding practice of Santa Feans to use only as much water as they need.

CSFW supplied 8,268 acre-feet (af) of potable water to utility customers in 2019, 5,040 af of which came from the Santa Fe River and was treated at the Canyon Road Water Treatment Plant (CRWTP). The high production of the CRWTP was the first time in many years that the City was able to produce the full water right from the Santa Fe River. With CRWTP production high and demand low, the Buckman Direct Diversion (BDD) delivered only 2,700 af and the City was almost entirely supplied with renewable surface water (93%) in 2019.

The CRWTP treats Santa Fe River water which collects in two reservoirs: Nichols dam from 1943 and McClure dam from 1926. Both dams have been the focus of numerous capital projects in recent years and CSFW has been working closely with the New Mexico Office of the State Engineer (OSE) Dam Safety Bureau on improvements. Unfortunately, the 2019 annual inspection of the dams resulted in a downgrade of both structures from a Satisfactory rating to a Poor rating. CSFW has major renovations to the dams slated for 2021 (Nichols) and 2023 (McClure) and expects to once again receive at least Satisfactory ratings at both dams once this work is complete.

As part of the management of the Santa Fe River, active vegetation management and prescribed burning is conducted annually. In April of 2019, prescribed burning was conducted on 442 acres. In September a prescribed burn was planned for 350 acres but was not conducted as a result of a court decision related to the Spotted Owl habitat.

CSFW also measures and reports on water quality with sampling and reporting schedules that address many potential contaminants. In 2019, CSFW had no exceedances of measured contaminants.

In addition to providing most of the drinking water utilized by CSFW in 2019, the Santa Fe River also met acequia deliveries and living river goals. Both acequia releases and living river releases are managed on an irrigation year which begins in April. In 2019, high flows in the Santa Fe River led to significant released water from Nichols – more than enough to meet the 1,000 af goal for the living river and the demands of the acequias.

Treated effluent water, released from the Paseo Real Water Reclamation Facility (PRWRF), is also used to meet some irrigation demands within the City and thus reduce the overall use of potable water. In

2019, an upset of the clarification process at the PRWRF resulted in treated water that did not meet standards for reuse and potable water had to be used to replace treated effluent during two periods over the summer of 2019.

Updated balances for the Waterbank, a mechanism the City uses to ensure that adequate water is available to meet the needs of new building stock as it is constructed, reflect the increase in construction in recent years.

CSFW's Engineering Section continues to upgrade and improve the water treatment and distribution system through capital projects. In 2019, notable projects included Nichols and McClure Electric and Security Improvements, the replacement of the 24" line delivering water from Nichols Reservoir to CRWTP, and the development of an Asset Management Plan.

CSFW is prioritizing public input and planning processes designed to facilitate the collection of insightful, representative, and diverse input. In 2019 two planning processes were completed: an informational meeting was held focused on the Rio Grande pipeline project, and the Water Conservation Office (WCO) completed an update to its 5-Year Conservation Plan based on input collected through a series of staff-led community input sessions.



1 - Santa Fe Watershed Association Volunteers posing with the trash they removed from the river. (A. Otto)

Acronyms

af - Acre-Feet = a unit of measurement for large quantities of water based on irrigation standards. An acre-foot is enough water to cover an acre of land in one foot of water, 325,851 gallons. In Santa Fe, that's enough to support roughly five average homes for a year.

afy - Acre-Feet per Year = This unit of measurement is generally used to quantify water rights

BDD – Buckman Direct Diversion, the diversion and treatment facility located NE of the city which diverts SJCP water into the City and County water systems.

BOR – Bureau of Reclamation

BS – Booster Station

CIP – Capital Improvement Projects

CoCoRaHS – Community Collaborative Rain Hail and Snow Network

CRWTP – Canyon Road Water Treatment Plant, the water treatment plant located at the top of Upper Canyon Road that treats Santa Fe River water.

CSFW – City of Santa Fe Water, formerly the Water Division or Sangre de Cristo Water.

DP289 – Discharge Permit 289, the NMED-managed Discharge Permit under which the PRWRF operates

gpcd – gallons per capita per day. This metric is used to measure water system efficiency by determining how many gallons of Santa Fe Water treated drinking water are used each day per resident of Santa Fe.

EPA – Environmental Protection Agency

LF – Linear Feet

MRC – Municipal Recreation Complex, the soccer fields NE of NM599.

NA – Not Applicable

ND – Non-Detect

NMED – the New Mexico Environment Department, the State agency that manages water quality in New Mexico.

NPDES – National Pollutant Discharge Elimination System.

NRCS – National Resource Conservation Service

NTU – Nephelometric Turbidity Units, a unit of measurement used in to measure suspended solids. The word Nephelometric comes from the Greek work for cloud, Nephos.

OSE – Office of the State Engineer, the State agency which manages water rights in New Mexico, including those used by CSFW.

PCi/L – picocuries per liter, a measurement of radioactivity. One PCi is one trillionth of a Curie.

PPB – Parts per Billion, a unit of measurement used in water quality that detects very small levels of contamination.

PPM – Parts per Million, a unit of measurement used in water quality that detects small levels of contamination.

PRV – Pressure Reducing Valve.

PRWRF – Paseo Real Water Reclamation Facility, the wastewater treatment plant located on Airport Rd west of NM 599.

RTU – Remote Terminal Unit

RWS – Raw Water System

SFCC – Santa Fe City Code

SFCWU – Santa Fe County Water Utility

SJCP – San Juan – Chama Project. This is a Bureau of Reclamation project that diverts water from the San Juan Basin, which is a tributary of the Colorado River, into the Rio Grande basin via the Chama River. The diversion consists of roughly 60 miles of tunnels beneath the Continental Divide and delivers water from the Colorado River for municipal use in the middle Rio Grande.

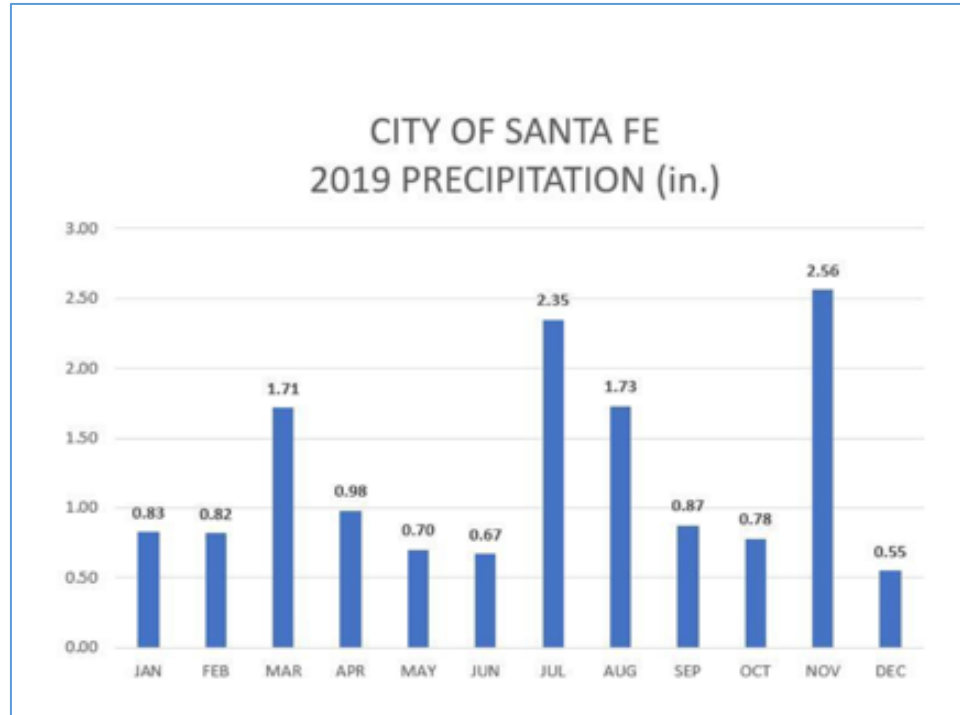
VFD – Variable Flow Drive

WCO – Water Conservation Office

1. Introduction

Submitted pursuant to City Code, the purpose of this report is to summarize information about City of Santa Fe Water (CSFW) including summaries of: water supply, water demand, efficiency and conservation, non-potable water deliveries, precipitation, capital projects, and water quality.

2019 was a good year for water in Santa Fe with a deep snowpack and cold spring that filled the reservoirs and reduced the amount of water used for outdoor irrigation. Outdoor irrigation accounts for nearly half of Santa Fe’s water use so the reduction in irrigation demand had a significant impact on the total water demand.



2 -2019 precipitation by month in Santa Fe based on CoCoRaHS reporting stations.

Water conservation in Santa Fe has

reduced total demand significantly since the City purchased the Sangre de Cristo water utility from PNM in 1995 and 2019 continues a positive trend of serving more people while using less water. 2019 also marks a change in name, from Sangre de Cristo Water or The Water Division, to City of Santa Fe Water (CSFW).

2. Drought & Precipitation

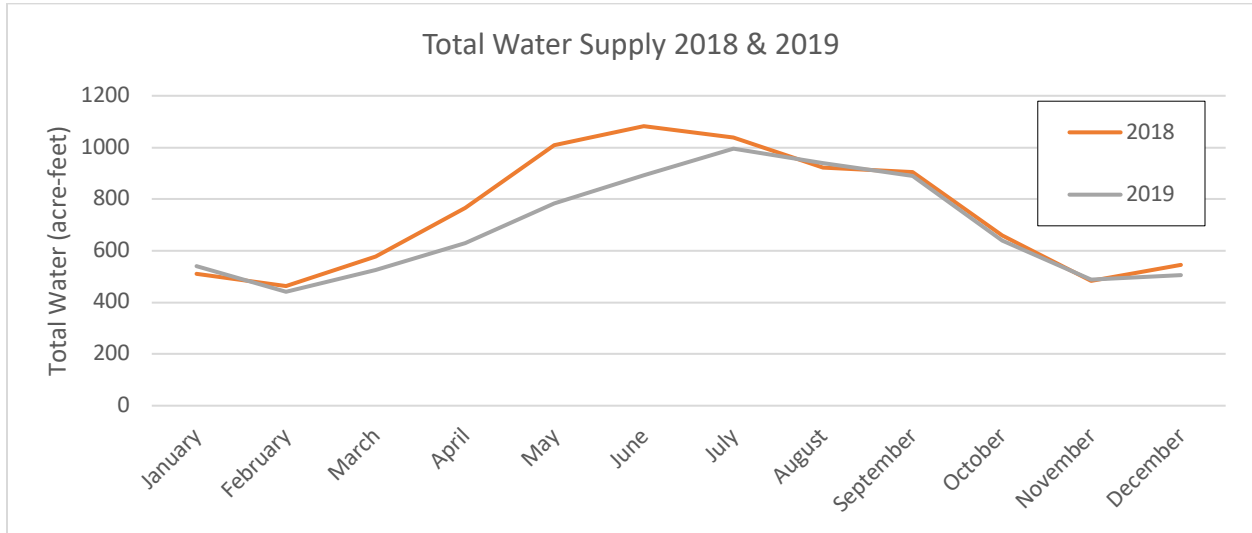
In late 2018 and early 2019, precipitation in northern New Mexico was well above the average. Spring 2019 snowmelt runoff began in March and April of 2019 and the subsequent streamflow yield in the Santa Fe River Basin was above average due to El Niño conditions during the winter throughout the Southwest. By August of 2019, the El Niño Conditions disappeared, and a period of below-average precipitation began. Precipitation is highly variable from one area of town to another, but one value from the Community Collaborative Rain Hail and Snow (CoCoRaHS) showed an average precipitation of 14.55” distributed as shown on the table above.

According to the Western Regional Climate Center, the Santa Fe Watershed weather station, at an elevation of 7,674’, receives an annual average of 13.84” of precipitation. In 2019, the Santa Fe Watershed station, located between Nichols and McClure reservoirs, recorded 17.41” of precipitation. Higher in elevation within the municipal watershed are two National Resource Conservation Service (NRCS) ‘SNOTEL’ weather stations that measure accumulated precipitation. The Santa Fe SNOTEL

station, located at 11,445', recorded 32.2" of precipitation and the Elk Cabin station, at 8,210', recorded 25.6"

3. Treated Water Demand

2019 began with heavy snowfall and remained cool into early June. The late, wet spring resulted in a slow start to irrigation season and a reduction in total demand from 2.9 to 2.67 billion gallons – from 8,955 acre-feet (af) to 8,268 af. Demand remained low through May and June and peaked in July at a level below the July water demands in 2018.



3 - Total water supplied for 2018 & 2019 showing substantially lower water demand in spring of 2019.

4. Per Capita Consumption

One measure of conservation effectiveness used by the Water Conservation Office (WCO) is gallons per capita per day (gpcd) which is an estimate of how much water is used on average per resident per day. This measurement is used internally to track program effectiveness over time and it is reported to the New Mexico Office of the State Engineer (OSE) who require submittal of the calculation annually for the City's water right permit compliance.

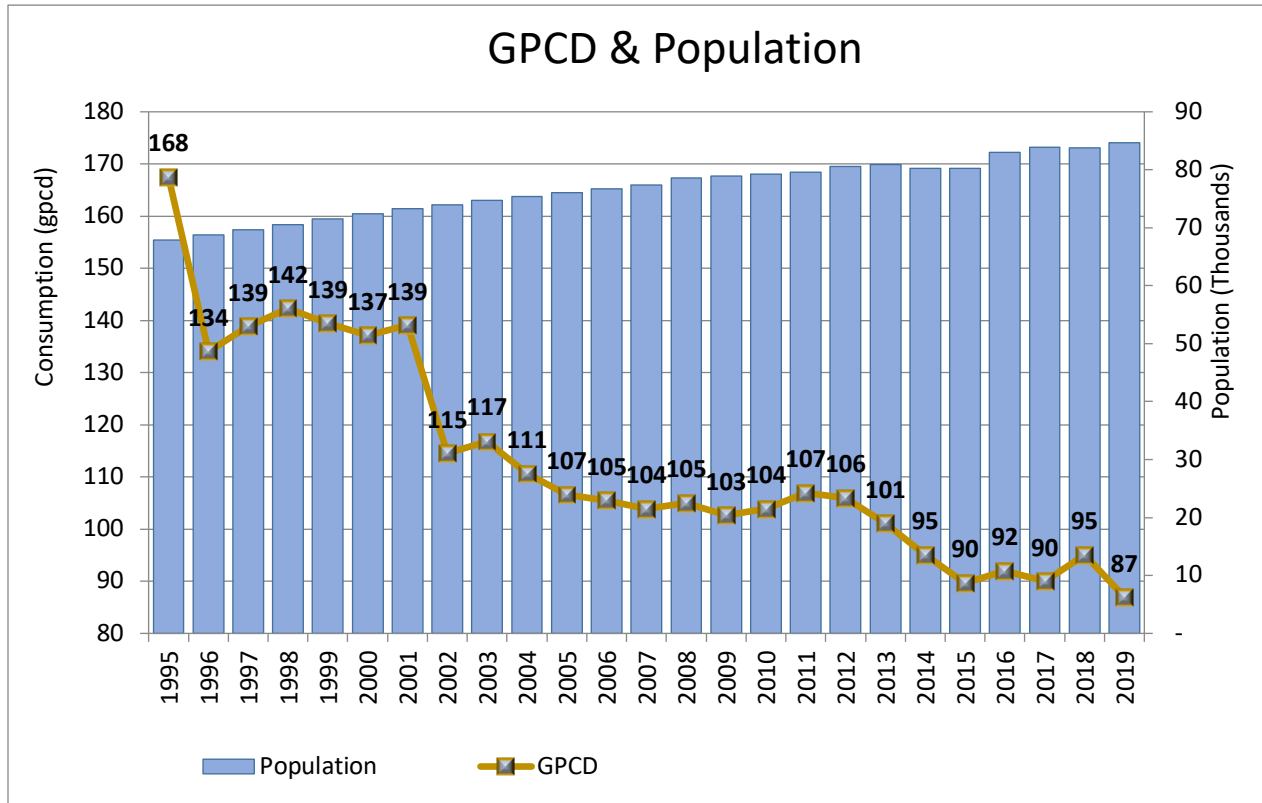
Santa Fe has been a regional leader in gpcd for many years and has reduced gpcd by over 30% on average since purchasing Sangre de Cristo Water in 1995. The gpcd for 2019 was 87, the lowest ever.

Comparison of the water consumption trends between 2018 – which was very dry – and 2019 reveals substantially lower total water use during the beginning and middle of the irrigation season.

a. GPCD Calculator Methodology

The gpcd calculator is designed to determine gpcd by using a combination of US Census/American Community Survey data and Water Utility Billing Data. There are two primary components to the gpcd calculation: total water supplied and total population.

US Census data is used to establish an average number of residents per household and to determine the total population for the City. Billing data is used to determine the quantities of water delivered by sector, and to determine the number of single-family connections in order to separate the population into single family- and multi-family-residential units.



4 - GPCD & population since the purchase of Sangre de Cristo water from PNM showing both reductions in gpcd and increased population. The savings from water conservation have more than kept pace with population growth.

5. Water Supply Sources

City of Santa Fe Water strives to use surface water to meet as much of the total supply as possible and balance the preservation of groundwater resources with enough utilization to keep wells ready in the event that they are needed. In 2019, surface water made up 93% of the total water supplied to Santa Fe Water customers as a result of highly efficient operation of the Canyon Road Water Treatment Plant (CRWTP), full reservoirs, and low overall demand.

a. Surface Water

Santa Fe Water has two sources for surface water: the Santa Fe River and the San Juan – Chama Project (SJCP). The Santa Fe River flows out of the Sangre de Cristo Mountains above Canyon Road. The SJCP is operated by the Bureau of Reclamation (BOR) to bring part of New Mexico’s allocation of the Colorado River under the Continental Divide for use in the Rio Grande Basin.

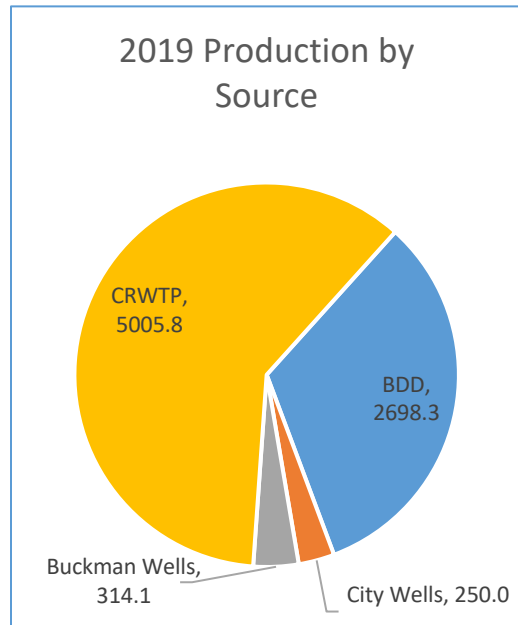
i. The Santa Fe River & the CRWTP

The Santa Fe River is the historic source of water in Santa Fe. Prior to the purchase of the water company from PNM in 1995, CSFW was known as the Sangre de Cristo Water Company because of the

original source of its water. The City is permitted to divert up to 5,040 acre-feet/year (afy) of water from the Santa Fe River. Santa Fe River water is stored in McClure and Nichols reservoirs before being treated at the CRWTP. With the hard work of Engineering and CRWTP staff, more than 5,000 af of water was diverted for the first time in many years. The CRWTP operated at a high daily capacity to realize that goal given the low overall system demand.

1. The Municipal Watershed

The management responsibility for the Santa Fe River includes source water protection and watershed management under the City of Santa Fe’s Municipal Watershed Program. In mid-April 2019, with



improving soil moisture and weather conditions, the Santa Fe National Forest conducted a prescribed burn of 442 acres, including 50 acres of piled vegetation, just north of Nichols Reservoir. Since 2015, City of Santa Fe Water customers, as the beneficiaries of a healthy watershed, have paid for over 5,800 acres of fuel treatments for vegetation management by the Santa Fe National Forest to protect the City’s municipal reservoirs from wildfire and improve forest resiliency.

In September 2019 in the run up to a planned prescribed burn of 350 acres near the drainage of Aztec Springs, the Forest Service received an order from the United States District Court for the District of Arizona stating that the agency’s timber management actions must cease on five national forests in New Mexico and on the Tonto National Forest in Arizona pending formal consultation regarding potential effects to the Mexican Spotted Owl. The previously planned prescribed burn or any other

vegetation management within the Santa Fe Municipal Watershed could not be initiated until the court order could be addressed. Within the municipal watershed there is a Mexican Spotted Owl protected activity center identified; however, previous fuels treatments within the lower, non-wilderness portion of the municipal watershed have not had a negative effect on any observed Mexican Spotted Owl.

2. Nichols and McClure Dam Downgrades

On August 19, 2019 the OSE’s Dam Safety Bureau sent CSFW the results of the Annual Dam Inspection completed on May 31, 2019, resulting in a downgrade from a rating of Satisfactory to Poor. The Water Division has been working with OSE for the past couple years and continues to do so to plan, study and make improvements to both McClure Dam constructed in 1926 and Nichols Dam constructed in 1943 and the associated infrastructure. CSFW has major renovations to the outlet conduits (tunnels through the dam) slated for 2021 (Nichols) and 2023 (McClure) and expects to once again receive at least Satisfactory ratings at both dams once this work is complete.

Work that has been completed and is ongoing is as follows: Emergency repair of CRWTP Raw Water Supply Pipeline (completed in 2013); Nichols Reservoir Intake Structure Rehabilitation (completed in 2014); McClure Reservoir Intake Structure Rehabilitation (completed in 2015); OSE Dam Safety Bureau Inspection (completed 2016); Initiated contract with AECOM to be Water Division’s Dam Engineer

(completed March 2018); Semi-Quantitative Risk Analysis for Nichols and McClure Dam completed by AECOM and presented to OSE Dam Safety Bureau (completed June 2018); Interim Risk Reduction Measures developed by AECOM with Outlet Inspection Checklists for Nichols and McClure Dam Outlet Conduits (completed December 2018); Nichols Dam Intake Structure Evaluation completed by AECOM with draft findings and recommendations report issued (completed January 2019); Emergency Action Plan (EAP) Tabletop Exercise (completed April 2019); Increased monitoring of Nichols and McClure toe drains and piezometers to measure dam seepage (initiated in early 2019 and scaled-back frequency June 2019); OSE Dam Safety Bureau Inspection (completed May 2019); 30% Nichols Outlet Conduit Design and Intake Structure Re-design by AECOM (completed July 2019); Nichols Dam to McClure Dam Fiber Optic, Electric and Security Improvements (completed in August 2019); Construction of CRWTP Raw Water Supply Pipeline CIP #3038C (initiated in Fall 2019 and currently on hold due to USFS Closure of Santa Fe National Forrest); Probable Maximum Precipitation/Flows (PMP/PMF) for Nichols and McClure Watershed analysis by AECOM (initiated in late 2019); 100% Nichols Outlet Conduit Design and Intake Structure Re-design and associated Geotechnical work by AECOM (scheduled to be completed summer 2021); Construction of Nichols Outlet Conduit Rehabilitation (scheduled for completion spring 2022); and McClure Outlet Conduit Rehabilitation (future project scheduled to be completed spring 2024).

ii. San Juan-Chama Water & the BDD

The SJCP is operated by the BOR and delivers water from the Upper Colorado River Basin into the Rio Grande Basin via tunnels. Santa Fe has 5,230 acre-feet of SJCP contract water which is diverted into the City via the BDD, a facility co-owned by the City and Santa Fe County Water Utility (SFCWU) and the Las Campanas association. The BDD diverts water from the Rio Grande at a point near the terminus of Diablo Canyon, which is also the former Buckman townsite along the historic Chili Line railroad.

1. Santa Fe County Water Deliveries

The SFCWU is a ½ owner of the BDD facility which provides up to 5,230 afy to the city in addition to being the source of all of Santa Fe County's water. SFCWU also provides up to 1,350 afy of backup water to SFCWU in the event that the BDD is shut down.

Las Campanas receives drinking water from SFCWU and also diverts untreated water via the BDD to be used for turf irrigation.

b. Groundwater

The City's groundwater comes from two wellfields: The City Wellfield, and the Buckman Wellfield. The City Wellfield is located within City limits, mostly along the Santa Fe River, and consists of seven active wells. The Buckman Wellfield consists of 12 active wells located near the Rio Grande approximately 15 miles northwest of Santa Fe and along the BDD water transmission line.



6 - Map showing sources of supply for CSFW

For many years the City relied heavily on groundwater to meet demand resulting in lowered groundwater tables. Since the BDD came online in 2011, the City has been able to reduce groundwater use and preserve groundwater. Some groundwater production is necessary because regular exercising of the wells maintains the motors and seals and sampling is required for environmental compliance and groundwater monitoring. In 2019 groundwater accounted for only 7% of total production.

c. Water Quality

Water quality information is reported in detail in the Annual Water Quality Report, sent – as required by law – to customers along with their bills annually. In 2019, the City’s drinking water met all U.S. Environmental Protection Agency (EPA) and State drinking water quality limits. A copy of the full report is available online at <https://savewatersantafe.com/2019-water-quality-report/>.

The New Mexico Environment Department (NMED) completed a Source Water Assessment for the City of Santa Fe. This assessment included a determination of source water protection areas of concern. NMED concluded: “The Susceptibility Analysis of the City of Santa Fe water utility reveals that the utility is well maintained and operated, and the sources of drinking water are generally protected from potential sources of contamination based on an evaluation of the available information. The susceptibility rank of the entire water system is ‘moderately low.’”

Sources of drinking water – both tap water and bottled water – include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances from the presence of animals or from human activity. Contaminants in drinking water may include microbial contaminants, inorganic contaminants, pesticides & herbicides, organic chemical contaminants, and radioactive contaminants. To ensure that tap water is safe to drink, the

Environmental Protection Agency (EPA) prescribes regulations that limit the number of certain contaminants in water provided by public systems.

A safe and dependable water supply is vital to our community. In 2019, Santa Fe's drinking water met all EPA and State Drinking Water Limits.

Contaminant	Units	Maximum Contaminant Load	Maximum Contaminant Level Goal	City Well Field	Buckman Tank	CRWTP	BDD	Violation?
Di(2-ethylhexyl) Phthalate	PPB	6	0	1 (ND-1)	ND	ND	ND	No
Arsenic	PPB	10	0	3.5 (ND-3.5)	ND	1.5	ND	No
Barium	PPM	2	2	0.7 (ND-0.7)	0.04	0.04	0.05	No
Fluoride	PPM	4	4	0.1 (ND-0.1)	0.37	0.19	0.26	No
Nitrate [as N]	PPM	10	10	5.7 (ND-5.7)	ND	ND	ND	No
Selenium	PPM	50	50	2 (ND-2)	ND	ND	ND	No
Gross Alpha Emitters	Pci/L	15	0	0.8 (0.2-0.8)	0.5	NA	5.9	No
Gross Beta/Proton Emitters	Pci/L	50 ^e	NA	1.4 (ND-1.4)	3.5	NA	2.6	No
Radium 226/228	Pci/L	5	0	0.8 (0.4-0.8)	0.03	NA	0.03	No
Uranium	PPB	30	0	1	2	NA	8	No
Turbidity (highest single measurement)	NTU	TT = 1.0	0	NA	NA	0.25	0.02-0.21	No
Turbidity (lowest monthly % meeting limits)	NTU	TT = %<0.3 NTU	0	NA	NA	100%	100%	No
Total Organic Carbon (removal ratio)	NA	TT ^f	NA	NA	NA	1.1 ^g (1.1-1.2)	NA	No

7 - Water quality table showing no violations in 2019.

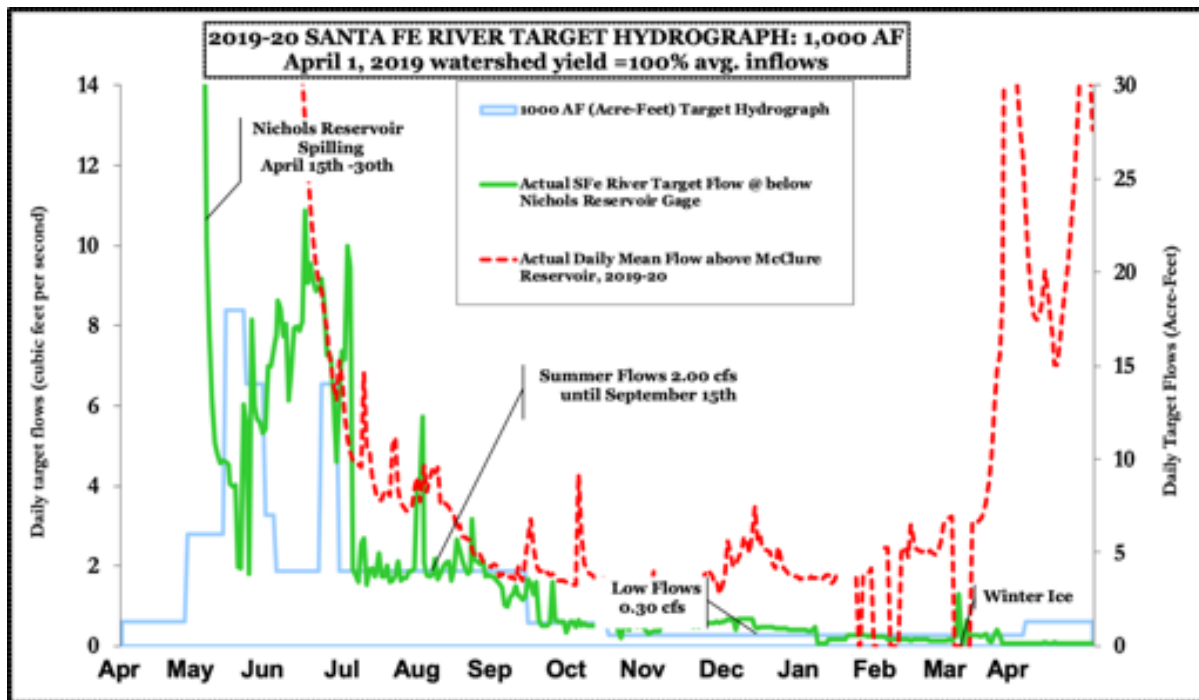
6. Other Water Demands

In addition to meeting potable water demands, CSFW also delivers untreated Santa Fe River water to acequias for irrigation and to the Santa Fe River channel through town to comply with the Living River Ordinance. CSFW also manages necessary water rights to assure delivery of water to the Rio Grande and tributaries, and La Cienega to offset groundwater pumping. Finally, working with the Wastewater Division of the Public Utilities Department – reclaimed wastewater is reused for non-potable turf irrigation.

a. Santa Fe’s Living River

The purposes of Santa Fe’s Living River Program are to help support the Santa Fe River’s green corridor of trees, grasses, and other plants; to support healthy wildlife habitat; and to add to the beauty of free-flowing water to the parklands along the Santa Fe River. Benefits of maintaining a vegetated, green river corridor include shading and cooling of the urban environment; supporting plants that convert carbon dioxide into oxygen; helping to clean stormwater runoff; and controlling erosion. The target flow hydrograph establishes a schedule for the release of Living River water from April to April in proportion to anticipated water availability.

The Natural Resource Conservation Service (NRCS) forecast for April 1st of 2019 was for the upper Santa Fe River to be 100% of the thirty-year average streamflow yield. Therefore – according to the City’s Living River Ordinance, the Santa Fe River Target flows were administered in accordance with the hydrograph of 1000 acre-feet for the 2019-2020 target year. The 1,000 af target was easily reached with bypass flows beginning in April 2019 combined with reservoir releases for flood management and continuing through early spring 2020.

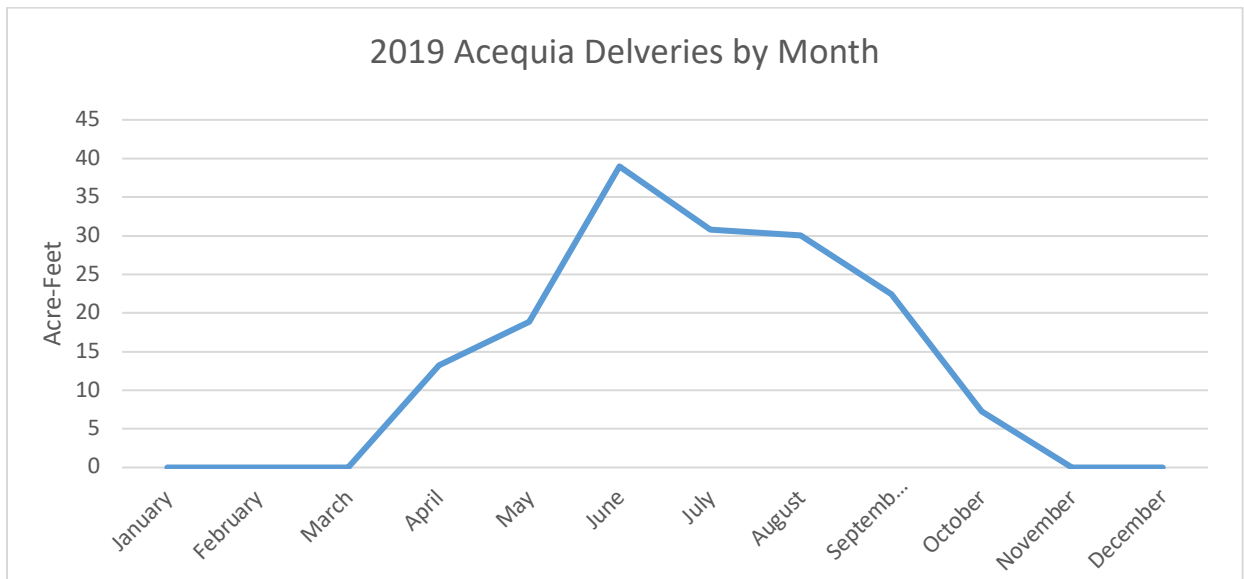


8 - Graph showing Santa Fe River Flows and projections for the Living River

b. Acequia Deliveries

2019 started with a strong runoff and acequia diversions were able to pull water from the Santa Fe River without coordinated releases from the City. Starting in June, coordination with the acequias allowed limited releases to be optimized for use. The graph of acequia deliveries undercounts total deliveries prior to June because high conditions in the river allowed diversion to the acequias without the City's assistance or knowledge.

Santa Fe River flows are allowed to "bypass" McClure and Nichols Reservoirs to meet irrigation water deliveries to three acequias near the top of Canyon Road: Acequia del Llano which serves lands south of Upper Canyon Road, Acequia Madre on the south side of the river which runs all the way to a farm located downstream of Siler Rd, and Acequia Cerro Gordo on the north side of the river. A fourth Acequia, Acequia Muralla on the north side of the river serves lands downstream of those watered by Acequia Cerro Gordo and pulls water from the Santa Fe River when available but it not factored into the City's bypass operations. When there is water in the river below the Municipal Watershed, diversions can be easily managed on a predetermined schedule, but when the channel is dry increased coordination is required to ensure adequate deliveries. In 2019, the river channel had water for the Living River and because of snowmelt but beginning in July reduced water in the channel required coordinated deliveries.



9 - 2019 Acequia deliveries by month. High river flows through May resulted in undercounting of acequia deliveries as the ditches were able to divert from the flowing river.

c. Santa Fe River Mass Balance

River management on the Santa Fe River is based on a 12-month cycle from mid-April to mid-April and in 2019 the volume of water released in that period was 2,730 acre-feet. An estimated water budget for the Santa Fe River releases from Nichols including the Living River and acequia diversions considered above is presented in the table below. The acequia diversions are estimated based on their requested irrigation schedule. In the past, acequia delivery estimates have been based on the increase in bypass flows; however, due to high bypass flows in 2019, no adjustments had to be made to the flow for most

of the irrigation season. Based on periodic field visits, the acequia diversions were greater than the estimates suggest.

Component	acre-feet	% of total
Evaporation	72	3
Estimated Acequia Diversions	87	3
2-Mile Pond Evaporation	21	1
Streamflow Past PRWRF	1,327	49
Infiltration	1,223	45
Total Volume of Bypassed Flows	2,730	100

10 - Table showing Santa Fe River releases

d. Surface Offsets for Groundwater Pumping

Santa Fe Water holds numerous surface water rights in surrounding basins which are used as offsets in compliance with OSE permitting. Each year the OSE determines the extent of the impact to surface water from groundwater pumping from city owned wells and these impacts are offset by the city's having purchased surrounding rights to reduce demand proportionately.

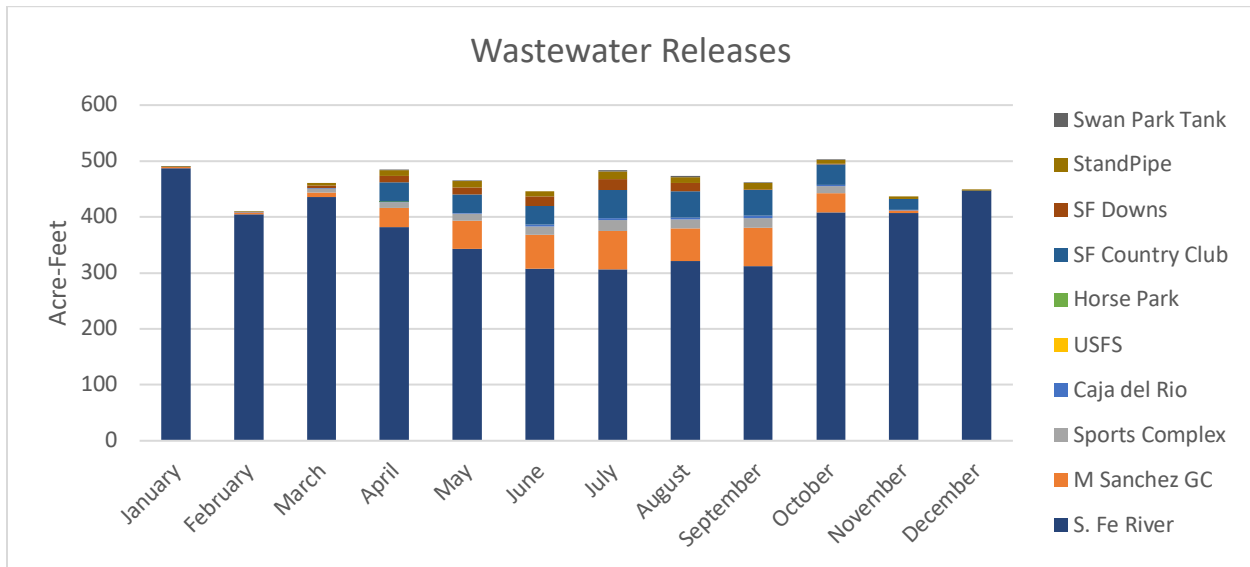
It can take many years to fully offset the impacts of a single year of groundwater pumping and as a result, even though 2019 had very low groundwater use and did not incur a significant number of offsets, offsets are still required to account for the impact of previous years.

Basin	Offsets (acre-feet)
Rio Pojoaque-Nambe	58.683
Rio Tesuque	33.716
Rio Grande above Otowi Gage	106.72
Rio Grande below Otowi Gage	714.5
La Cienega	2.9
TOTAL	916.519

11 - Table showing 2019 offsets as calculated by the OSE for each groundwater basin in which Santa Fe Water owes offsets.

CSFW has offset requirements in five Administrative Groundwater Basins: Rio Pojoaque – Nambe, Rio Tesuque, the Rio Grande above Otowi, the Rio Grande below Otowi, and in La Cienega. The offset requirements for the Rio Grande above Otowi are met through the release of SJCP surface water, the offset requirements in La Cienega have an application pending with the OSE to offset with a retired pre-basin groundwater right, and the offset requirements for all of the other basins are met with surface water rights purchased from irrigators in each basin. A secondary reason that CSFW tries to use as little groundwater as possible is that agricultural water rights are expensive, and no one wants to reduce the amount of water available for growing food along acequias in the region.

7. Treated Effluent Water Deliveries



12 - 2019 Wastewater releases by month

The City operates the Paseo Real Water Reclamation Facility (PRWRF) on Airport road which treats all of the city’s wastewater. Most of the cleaned water that leaves the facility is returned to the Santa Fe River and some is used to meet non-potable irrigation demands for large facilities including the Marty Sanchez golf course, the soccer fields at the Municipal Recreation Complex, SWAN Park, and the Santa Fe Country Club.

In June of 2019, the PRWRF experienced an upset of clarification process. This upset caused turbid effluent to enter the tertiary treatment area. As a result, the effectiveness of ultra-violet disinfection was reduced and bacteria counts exceeded permit limits for both the NPDES permit and the NMED Discharge Permit 289 (DP289). Because the bacteria count exceeded the requirements for DP289, wastewater stopped all deliveries for treated effluent. Temporary measures were put in place to provide potable water to Marty Sanchez Golf Course, the Municipal Recreation Complex (MRC), SWAN Park, and the Santa Fe County Club. CSFW is actively developing options for turf irrigation with untreated Rio Grande water to provide resiliency for potential PRWRF exceedance events.

8. The Waterbank

New water demand on the Santa Fe 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 CSFW. The determination of whether a project water budget is met with water rights or through purchased conservation credits is based on the size of the water budget – larger projects have to transfer in water rights while smaller ones can purchase conservation credits.

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).

'09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19

End of Year Balances	Public Banked Water Totals	10	82	91	99	105	165	241	282	297	305	311
	Dedicated Banked Water	0	6	16	33	49	63	77	91	119	144	179
	Undedicated Banked Water	10	76	75	66	56	103	164	191	178	161	132
	Private Banked Water Totals	485	513	547	527	518	597	667	648	618	671	687
	Privately Owned Water Rights	456	484	518	499	490	579	657	638	613	666	682
	Privately Owned Toilet Retrofit Credits	1184	1166	1153	1135	1123	739	420	388	210	201	193
	Affordable Housing	57	51	46	42	38	33	32	30	27	9	2

Xfer	Public Toilet Retrofit Credits Deposited (AFY)	0	0	0	0	0	0	54	33	8	5	0
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Acquisitions	Public Water Rights Acquired	10	40	0	1	0	54	18	0	0	0	2
	Private Water Rights Acquired	63	33	42	0	31	95	115	7	0	52	14
	Affordable Housing Credits Acquired	59	0	0	0	0	0	0	0	0	0	0
	Conservation Credits Acquired	0	32	9	7	6	6	3	8	7	3	4
	Total Acquisitions	132	105	51	8	37	155	136	15	7	55	20

Dedications	Public Banked Water Dedicated	0	6	10	17	17	14	15	13	28	25	35
	Affordable Housing Dedications	2	6	5	4	4	5	2	2	3	17	8
	Privately Owned Toilet Retrofit Credits Dedicated (1 credit = 0.025 acre-feet)	39	18	13	18	12	384	318	33	178	9	316
	Private Water Rights Dedicated	10	6	7	19	40	6	37	25	25	6	21
	Total Dedications	12.975	18	22	40	61	25	54	40	56	48	64

13 - 2019 end of year waterbank balances

9. Engineering: 2019 CSFW CIP Project Information

The purpose of the Water Division's Capital improvement Plan (CIP) is to look at a 5-year window of water infrastructure needs involving planning, design and construction for infrastructure that has reached the end of its useful service life and to implement with efficiencies and technologies that

improve the overall system operation. The Water Division CIP is accomplished with internal professional staff including engineers, a geologist, an archaeologist, technicians, mapping and drafting specialists along with supporting contracted professional expertise.

a. Planning

The foundation of any good design and construction project is a good plan. In 2019, planning work included:

- Development of an Asset Management Plan (AMP) for the Water Division that inventories and tracks key water system components. Work included inventorying assets and developing a hierarchy of importance by utilizing performance measure evaluations including: consequence of failure, likelihood of failure and life cycle analysis.
- Development of a Preliminary Engineering Report (PER) and Opinion of Probable Construction Costs (OPCC) for upgrades to Buckman Booster Stations 3 and 4. These booster stations were constructed in the 1970s and are a critical component to meeting our water system demands, by running continuously year-round to move water produced by BDD and the Buckman Wellfield, but reached the end of their useful service life. Upon completion and review of 30% design drawings, PER and OPCC it was determined the scoped improvements were cost prohibitive and needed to be re-assessed.
- Planning work was initiated to develop a Comprehensive Performance Evaluation (CPE) at CRWTP to evaluate the effectiveness of treatment processes for current and future water quality regulations. Evaluations were conducted of the rapid mix, flocculation and sedimentation, filtration, chemical feed systems, and electrical and control systems. The data collected from the CPE was used to develop a Facility Optimization and Evaluation (FOE) plan which identified options to address water quality concerns and reduce O&M and energy costs. A PER was also developed including system upgrades and partial designs.
- Planning work continued for a return flow water pipeline from PRWRF to the Rio Grande in the vicinity of the Buckman Direct Diversion. Work included a feasibility study, evaluation of stakeholder concerns, permitting challenges, viability of integrating with the existing non-potable reuse pipelines, and potential routes for a new pipeline.

b. Design

Water system designs are completed with internal staff and/or with consultants. In 2019, design work included:

- Design was initiated on an additional 4MG finished water storage tank at BDD to increase total onsite water storage to increase ability of BDD to provide water when Rio Grande river quality is less than optimal.
- On Call Engineering Contracts were used to supplement professional staff. Analysis and designs were initiated at Nichols Dam and McClure Dam in response to the NM OSE Dam Safety Bureau Annual Inspection report including: updated Emergency Action Plans; performed an Emergency Preparedness Exercise; developed a Watershed Snowmelt Prediction Tool; initiated an update to the Watershed's Probable Maximum Precipitation/Flood analysis; and initiated the design of the Nichols Outlet Conduit replacement. Analysis and designs were also initiated throughout the water system including: trained staff on the functionality of our hydraulic model; initiated the design of Hospital Tank drainage improvements; completed the CRWTP filter surveillance

program; initiated reuse plan support and permit analysis; initiated Water Division website support; and initiated water system operations model.

c. Construction

Construction of water system improvement projects are completed based on internal designs and designs provided by engineering consultants. In 2019, construction work included:

- Construction of a replacement line for the CRWTP Raw Water Pipeline that provides raw water from Nichols Reservoir to the CRWTP for treatment. Construction was initiated to replace approximately 3,200 LF of 24-inch pipe that is located in the Santa Fe River channel. The goal of this project is to replace pipe that has reached the end of its useful service life along with temporary piping and relocate it out of the Santa Fe River channel, where it endures harsh wet/dry and freeze/thaw conditions, to the Nichols Reservoir and Dam access road, where there are better pipe conditions.
- Construction of an Extension of Fiber Optic and Electric Lines between Nichols and McClure Reservoirs to expand power and connectivity at both sites and improve security with new cameras.
- Construction of Priority Line Replacements including water mains, valves, fire hydrants and services that had reached the end of their useful service life. Approximately 7,400 LF of 8-inch water main, 150 services, 11 fire hydrants and 28 valves were replaced on Lujan Street, Vitalia Street, Camino Rancheros, Caminos Ranchitos and Garcia Street.
- Construction of a replacement Pressure Reducing Valve (PRV) station that had inadequate working room, unsafe access for personnel and had reached the end of its useful service life. Three (3) PRV stations were consolidated into one (1) PRV station in the Camino Rancheros/Camino Ranchitos/Garcia Street area.
- On call Emergency Construction is used to supplement water staff and completed several emergency water repairs while water staff were busy on other repairs. Repairs included a service leak on Calle Lejano, discharge pipe at Buckman Well 8, a fire hydrant near Palace and E. Alameda.

d. CIP Budget Summary

Project Title	Contract Amount	Expended in 2019	% Complete
On Call Engineering - AECOM	\$542,188.00	\$125,311.62	23.11%
On Call Engineering – Hazen/Molzen Corbin/JSAI	\$487,968.75	\$86,321.67	17.69%
On Call Engineering - Carollo/JSAI	\$261,863.13	\$10,895.57	4.16%
Asset Management Plan	\$299,286.75	\$96,746.75	2.32%
24" CRWTP RWS Pipeline Replacement	\$2,935,706.75	\$31,681.34	1.07%
Comprehensive Performance Evaluation for CRWTP	\$463,774.88	\$119,376.00	25.74%
BS 3 & 4 Upgrades (incl. M-5 and M-6)	\$1,312,533.00	\$100,129.64	7.63%
PRV Station Replacement	\$250,000.00	\$169,160.31	67.66%
Priority Line Upgrade	\$1,626,562.50	\$1,254,248.45	77.11%
Citywide Emergency On-Call Contract - SOS	\$271,094.00	\$18,807.01	6.94%
Citywide Emergency On-Call Contract - T&D	\$271,094.00	\$45,165.44	16.66%
4 MG Tank at BDD	\$110,930.13	\$104,632.81	94.32%
Water Reuse Pipeline Implementation Plan	\$192,696.75	\$169,763.75	88.10%
Nichols & McClure Electric & Security Improvements	\$727,138.50	\$727,138.50	100%
Total	\$9,752,837.14	\$3,059,378.85	31.37%

14 2019 CIP Budget Table

10. Planning for the Future

Planning is an essential function of CSFW and work is being done to increase the role of public involvement in that process. In 2019, CSFW conducted public outreach and developed an addendum updating the 5-Year Water Conservation Plan and conducted two public meetings focused on a proposed pipeline redirecting wastewater from the PRWRF to the Rio Grande.

a. Long-Range CSFW Planning

2019 saw the first long range planning public meeting held by CSFW in several years. The event was focused on a proposed pipeline project and brought together stakeholders with wide ranging views along with technical experts able to answer questions. One of the primary takeaways for CSFW staff is that there is a desire for more public input and involvement in water planning. In response to this interest, developing a robust process and strategy for public input has become a central goal for 2020 with a multi-year process set to begin in 2020.

b. Water Conservation Planning

The City of Santa Fe WCO uses a five-year plan model to direct operations and for water right permit compliance. In 2019 the WCO developed an addendum to update the existing plan on file with the OSE. The goal of the addendum was to collect and use public input to guide the priorities and projects for the WCO over the next 5 years. A series of facilitated public discussions were held during the summer to

solicit input focused on specific themes including: Climate Change, Residential Conservation, and Commercial Conservation.

The data collected was wide ranging, insightful, and from a broad range of opinions. Numerous themes emerged from the data collected with many of the comments focused on the need for the City to lead by example and to utilize neighborhood insights to develop water conservation projects. The plan was designed to be flexible – a quality highly valued in 2020 – and to provide the small WCO with a framework that allowed for cooperation and partnerships to improve the scale of water conservation.

11. Closing

Thank you for taking the time to read through CSFW's 2019 Report. From a water perspective, 2019 was the sort of bountiful year we hope for in Santa Fe – snowy winters, full reservoirs, and healthy trees and gardens – and it's the sort of bountiful year that provides an opportunity to save for the future. Santa Feans rose to the occasion and, with more efficient water use than ever, kept demand low enough that more than 90% of it came from surface water, most of that with local Santa Fe River water thanks to the highly efficient operation of the CRWTP. This reliance on Santa Fe River water preserves SJCP water in Chama River reservoirs and keeps groundwater in the ground where it supports the local ecosystem and will be available in the future.



City of Santa Fe Water | Santa Fe County Utilities Division Five-Year Water Resource Planning Cycle - Year One 2020

Seeking public input to inform the development of Water Resources Plans



Scan barcode to
access 2020
Santa Fe Water
Resources
Planning Survey

Dear Santa Fe Area water user,

*We would like to know what you think about water and Santa Fe's water future. Below is an overview of a long range water planning effort that the City and County are kicking off. If you have 20-30 minutes to **fill out an online survey** we would be most appreciative.*

Please find the survey link at www.santafenm.gov/water_division, go directly to <https://forms.gle/cB7rNpqGxYtnMrcq9>, or scan the code at left. Thank you!

WATER RESOURCES PLANNING OVERVIEW:

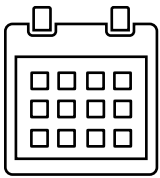
City of Santa Fe Water (City) and the Santa Fe County Utilities Division (County) are initiating a science-based, community informed, five year planning cycle to develop long range water resource management plans. The first cycle, which began in 2020 and is scheduled to be complete by the end of 2024, will be evaluated, refined, and repeated every 10 years or as necessary in future years. The product of the planning process will be Long Range Water Resources Plans for the City and County.

Understanding that planning for our water future requires participation and collaboration of both water managers and water users, the City and County are committed to engaging the broad diversity of area water users and stakeholders in this planning process. To that end they have developed a public engagement plan that provides a basic framework for a variety of opportunities for public input. In this first year of the planning cycle, the public will be asked for their input on the overall proposed process structure, and ideas and preferences about public engagement in that process. This engagement will inform the *Five-Year Water Resource Planning Cycle*—a roadmap for the planning process—to be completed by the end of 2020. The public will have the opportunity to work with the City and County through the five-year planning cycle to insure that the final plan responds to their needs and priorities.

THE FIVE YEAR PLANNING CYCLE 2020-2024:

The City and County have drafted an initial, 5-year process for the development of long-range Water Resource Management Plans for both the City and neighboring County communities, and are asking for input on this initial, proposed process in order to improve upon and finalize it. The City and County are committed to continued, regular public engagement throughout the five-year life of the project.

The current draft process includes the following core activities for each of the five years:



- Year 1:** Define the five year planning process
- Year 2:** Develop supply and demand scenarios
- Year 3:** Evaluate shortages
- Year 4:** Evaluate adaptation strategies
- Year 5:** Finalize the Long Range Water Resource Plan—or plans— through 2100

Outcomes for Year One 2020:

Desired outcomes of 2020 public engagement include the following:

- Meaningful public engagement for as many stakeholders as possible.
- Outreach for participation in the four Santa Fe City districts and County communities, with focus on Eldorado, Cañoncito, La Cienega, La Cieneguilla, Nambe, Pojoaque, and Tesuque.
- Provide specific, clearly presented input that is useful to the City and County.
- Provide citizens with education on issues related to long-range water resource planning.
- Provide opportunity for long-term public engagement for stakeholders interested in participating in the planning process.

WEBINAR & BREAKOUT SESSION SCHEDULE:

Overview Webinars (same material both times):

Monday	Tuesday
October 19 10:00 - 11:30 am	October 20 5:00 - 6:30 pm



Online: <https://santafenm-gov.zoom.us/j/92793199774>



By Phone: (669) 900-6833 Webinar ID 927 9319 9774

Breakout Small Group Sessions (same each time, will sub-divide into groups of 6-8):

Sunday	Monday	Thursday
October 25 3:30 - 5:00 pm	October 26 10:00 - 11:30 am	October 29 5:30 - 7:00 pm



Online: <https://santafenm-gov.zoom.us/j/8352202097>



By Phone: (669) 900-6833 Meeting ID 835 220 2097

Note: Due to the COVID-19 pandemic, all public engagement in 2020 will be accomplished remotely and/or via video conferencing. Facilitators will offer a variety of engagement options, including online meetings, surveys, interviews and other ways of ensuring all voices can participate.

For more information on this process and opportunities for involvement, please contact Anjali Bean: abean@santafecountynm.gov 986-2426, or Jesse Roach jdroach@santafenm.gov 955-4309



SCORECARD

Water Conservation Plan

Mid-year Progress Report

SUMMARY

The first half of 2020 has been unprecedented and water conservation is working to adapt, just like everyone else. Ongoing programs that have been essential components of the office, such as the Children's Passport Program, have been impacted and city budgets have impacted staffing levels and hours. The Water Conservation Office (WCO) is continuing critical programs including tracking water usage efficiency, issuing rebates to water customers, and sending out continuous flow letters to warn customers of likely leaks.

The WCO uses this scorecard to track progress against identified goals. The Water Conservation Committee (WCC) scores the WCO on the progress made mid-year – none, some, significant, or complete. This document contains a graphic snapshot for each goal, followed by detailed metrics on the complete mid-2020 WCO scorecard table.



GOAL 1

Education, Outreach, & Communication

	None	Some	Significant	Complete
Passport Program	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Passport Program Expansion	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children's Water Fiesta	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expand Adult Outreach	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Strategic Marketing Plan	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Classroom work was cancelled before students were able to complete the passport program and the school year ended before the WCO developed strategies to replace the watershed field trip, wastewater plant field trip, and in-class presentations. Opportunities for outreach and education have changed and the WCO is adapting.

- ◆ Began working on developing website-based presentations to continue educational component
- ◆ Developing new website-based outreach and input components
- ◆ Rolled out first few months of the monthly themes including an Urban Forest initiative that came directly from public input collected for the 5-year plan
- ◆ Increasing utilization of online platforms to accommodate social distancing

GOAL 2

Customer Service

	None	Some	Significant	Complete
EyeOnWater Optimization	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Rebate Program	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leak Detection	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Enforcement Program	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Customer Service program includes EyeOnWater, the Rebate Program, Leak Detection Letters, and the Enforcement Program. Customers have continued to utilize rebates and EyeOnWater Participation continues to climb. Hundreds of letters are sent out monthly to warn customers of likely leaks detected through the new metering system and the WCO is working to track and improve the impact of the program.

- ◆ 5,136 Eye on Water accounts as of 6/22/20
- ◆ Continued tracking and issuance of rebate program while losing critical staff and transitioning to working from home
- ◆ 127 rebate applications processed
- ◆ Sent out 457 continuous flow letters to customers with leaks

GOAL 3

Partnerships & Pilot Projects

	None	Some	Significant	Complete
Neighborhood Pilot Project	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational Collaborations	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Cooling Tower Pilot	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hotel Pilot	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restaurant Pilot Project	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Partnerships and Pilot Projects are a critical component of the WCO's strategy. The restaurant pilot project continues to expand participation and SFCC is developing a hotel auditing course. The WCO has been included in a Public Works project that will incorporate some Low Impact Development and Water Conservation strategies into a redesign of the stormwater infrastructure for Nava Ade.

- ◆ Neighborhood pilot continues to move forward
- ◆ Worked with Santa Fe Green Chamber and local partners to apply for BOR Waterwise grant
- ◆ 26 Phyn units have been installed
- ◆ City staff began training on dashboard and smartphone applications for Phyn units

GOAL 4

Effective Program Management

	None	Some	Significant	Complete
Human Resources	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial Resources & Budget	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organizational Development	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water Conservation Committee	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Facility Management	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reporting & Accountability	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Integration w/ Water Resources	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Covid-19 required rapid adaptation from City Mgt to continue providing services while protecting citizens/employees and coping with budget shortfalls. The hiring of an education coordinator and water resource specialist have been postponed, and current staff are working 90% of regular hours as part of citywide budget measure. WCC meetings have been postponed, however two subcommittees have been formed to continue working on the program's spatial analysis program and our public input process in July.

- ◆ Transitioned the office into working from home per Covid-19
- ◆ Maintenance of gardens ongoing with regular watering, pruning, etc.
- ◆ Succession plan for WCC membership being approved by governing body
- ◆ Completed GPCD calculations

2020 Water Conservation Scorecard							
Program	Performance Indicators	Q1	Q2	Progress			
				None	Some	Significant	Complete
Goal 1: Education, Outreach, & Communication							
Passport Program	<ul style="list-style-type: none"> Improved Feedback Mechanism Incorporate 2019-2020 Lessons Learned into Revisions for 2020-2021 Correlate Materials with Next Generation Science Standards & Common Core Virtual Tour of passport program on website 	<ul style="list-style-type: none"> Trained Sustainability Staff in educational modules for recycling and water-energy nexus Assisted in the completion of recycling, water-energy nexus & watershed tours Collected feedback from teachers at each event 	<ul style="list-style-type: none"> Recorded presentations typically given during watershed tours-not completed Began working on developing website-based presentations to continue educational component Last component of passport program – WWTP tour was not completed, no assessments collected 			x	
Passport Program Expansion	<ul style="list-style-type: none"> 5th grade component in alignment with the “My Water My Watershed” Program Pilot 6th grade component with small group of classes Evaluate opportunities for Middle School/High School Expansion 	<ul style="list-style-type: none"> Conducted Meetings with Santa Fe High to evaluate expansion 	<ul style="list-style-type: none"> April tours for SFHS staff not completed due to COVID SFWA deliverable for 6th graders 		x		
Children’s Water Fiesta	<ul style="list-style-type: none"> Increase emphasis on the inter-connection of the water issues presented Develop detailed presentations with High School student presenters Develop an explicit goal and vision for the 18th annual event Enhanced utilization and data collection for the value of peer to peer work 	<ul style="list-style-type: none"> Scheduled the Children’s Water Fiesta, including booking the Convention Center Space 	<ul style="list-style-type: none"> Water Fiesta will be cancelled for fall 	x			

Expand Adult Outreach Programs	<ul style="list-style-type: none"> • Education and tours for City staff to increase awareness of water and conservation issues • Create passport program for adults with facility tours/presentations • Seek out opportunities to partner with art related events to expand the reach of the conservation message • Work to partner with planned events/workshops already planned for 2020 • Identify groups such as HOA's, community clubs, community events that will provide education to more diverse groups • Align with Next Generation Water Summit to provide a community education event • Use of demonstration gardens for training/community engagement 		<ul style="list-style-type: none"> • Developing new website-based outreach and input components • City water departments connectivity and model presentation by staff • NGWS cancelled • Demonstration garden event scheduled for June 27, 2020 			x	
Strategic Marketing Plan	<ul style="list-style-type: none"> • Create quarterly plans to support objectives of the water conservation program related to marketing strategies • Quarterly reports on progress on all strategic briefs, including budget allocations, will be created • Marketing will be coordinated with other city PR strategies for better alignment 	<ul style="list-style-type: none"> • Developed quarterly plans with monthly themes to organize marketing strategies 	<ul style="list-style-type: none"> • Rolled out first few months of the monthly themes including an Urban Forest initiative that came directly from public input collected for the 5-year plan • Developed RFP to extend PR work thru next 5 years • Increasing utilization of online platforms to accommodate social distancing 			x	

Goal 2: Customer Service

<p>EyeOnWater Optimization</p>	<ul style="list-style-type: none"> • Market increased participation with EyeOnWater App with emphasis on threshold setting and alerts • Geographic analysis of customer data including water usage by tier, area / neighborhood, rebate utilization, lot size, irrigation practices, etc. • Work with legal to determine appropriate levels of aggregation of data to protect privacy and allow for detailed evaluation of water use trends • Build a science citizen program demonstrating use of EyeOnWater data in a household/business • Build EyeOnWater success stories for website / social media • Align EyeOnWater with current leak adjustment requirements 	<ul style="list-style-type: none"> • Continuing promotion of EyeOnWater through in person, telephonic, radio, and email interactions with customers 	<ul style="list-style-type: none"> • Working with Utility Billing department to optimize the use of leak data collected through AMI metering and the EyeOnWater App • Met with Beacon representatives to collect more information to refine our processes • EyeOnWater requirements have been built into leak adjustment credit but hasn't been approved by Council yet • 5,136 EyeOnWater accounts as of 6/22/20 			x	
<p>Rebate Program</p>	<ul style="list-style-type: none"> • Spatial analysis of rebate distribution • Align opportunities with rebates given by PNM and NM Gas Co • Maintain alignment with City and Water Division goals • Continue to examine Commercial Rebate Opportunities by sector • Streamline rebate application and processing • Align rebates with federal standards and industry changes 	<ul style="list-style-type: none"> • Developed a GIS layer to track rebates and tracked all 2020 rebates to date • Attended meetings with PNM staff to learn about PNM conservation programs • Created a subcommittee of Water Conservation Committee Members to evaluate commercial rebate opportunities 	<ul style="list-style-type: none"> • Continued tracking and issuance of rebate program while losing critical staff and transitioning to working from home • 127 rebate applications processed 		x		

Leak Detection	<ul style="list-style-type: none"> Continue to identify continuous flow and send out letters and calls and work in collaboration with customer service Track EyeOnWater adoption rates for recipients of continuous flow letters Spatial tracking of continuous flow program and data tracking for amount of water saved 	<ul style="list-style-type: none"> Sent out 250 continuous flow letters to customers with leaks Developed GIS layer for tracking continuous flow Identified leaks over 65 gph and worked with T&D staff to address large leaks 	<ul style="list-style-type: none"> Sent out 457 continuous flow letters to customers with leaks Working with billing and T&D to coordinate efforts and measure effectiveness Working with staff and WCC subcommittee members to measure effectiveness of the program – quantify savings 			x	
Enforcement Program	<ul style="list-style-type: none"> Build new outdoor water conservation program including using programs like ABCWUA as a model Spatial tracking analysis of enforcement activities Incorporate new technology into enforcement program such as EyeOnWater Align time of day messaging with the County for joint messaging opportunities 		<ul style="list-style-type: none"> Met with ABCWUA on their enforcement program Research on other utilities (Mario) Enforcement complaints are being researched using EyeOnWater and log kept with follow-up to business/homeowner 		x		
Goal 3: Partnerships & Pilot Projects							
Neighborhood Pilot Project	<ul style="list-style-type: none"> LID Pilot Project with Public Works Spatial analysis of rooftop disconnection potential Review of rainwater harvesting rebate opportunities Align the rebate structure with stormwater fees Development of neighborhood education program with HOA of pilot neighborhood 	<ul style="list-style-type: none"> Coordinated with Public Works staff to identify an opportunity to work with Nava Ade as a pilot neighborhood Evaluating opportunities for enhanced rebate values based on stormwater reductions 	<ul style="list-style-type: none"> Neighborhood pilot continues to move forward Spatial analysis by consultant of rooftop disconnection potential Piloting re-structured rebate values for cisterns and catchment systems per WCC subcommittee 		x		

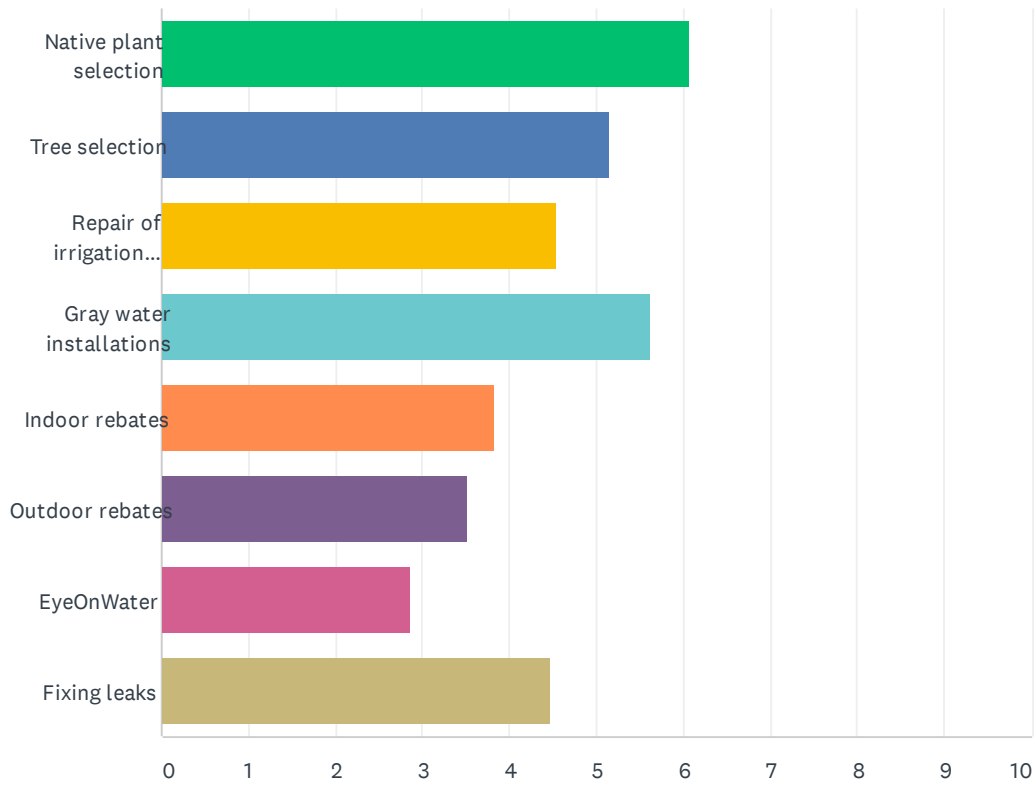
Organizational Collaborations	<ul style="list-style-type: none"> NM Water Conservation Alliance (NMWCA) NM Gas PNM Santa Fe County Santa Fe Green Chamber of Commerce Santa Fe Watershed Association Alliance for Water Efficiency Santa Fe Public Schools 	<ul style="list-style-type: none"> Held preliminary meetings with the Santa Fe Botanical Garden to explore partnership opportunities Continued coordination with SFCC to offer & promote water conservation training Watershed tours held in collaboration with SFWA Co-Sponsored, and attended, the NM Land and Water Summit 	<ul style="list-style-type: none"> Worked with SFGCC and local partners to apply for BOR Waterwise grant Restaurant Pilot with all partners Met with AWE and ABCWUA Webinar opportunity with AWE LEED Gold certification for City of Santa Fe from USGBC – 2nd City to have certification 			x	
Cooling Tower Pilot	<ul style="list-style-type: none"> Continue work with AWE to look at water savings potential with cooling towers and to look at potential rebate opportunities 	<ul style="list-style-type: none"> Project on hold by AWE for lack of funding 		x			
Hotel Pilot	<ul style="list-style-type: none"> Continue to train staff on auditing hotel facilities Research opportunities to develop a hotel pilot 		<ul style="list-style-type: none"> Hotel auditing class being developed – to be completed by December 2020 Badging process being created by SFCC 		x		
Restaurant Pilot Project	<ul style="list-style-type: none"> Continue Pilot with Uponsor/ Phyn Continue to work with SFCC to train workforce to do restaurant audits Continue with SFCC to develop online training in coordination with Lane Community College and the National Science Foundation grant Work with Green Chamber of Commerce to coordinate work with restaurants Develop administrative procedures for restaurant rebates 	<ul style="list-style-type: none"> Developed process for data requests from Green Chamber of Commerce Expanded restaurant participation 	<ul style="list-style-type: none"> 26 Phyn units have been installed Prepared and submitted grant application for BOR funding of 75K to assist with restaurant pilot City staff began training on dashboard and smartphone applications for Phyn units Restaurant Audit online class completed and being offered nationally 			x	

Goal 4: Effective Program Management							
Human Resources	<ul style="list-style-type: none"> PADP assessments with improved feedback from staff on program management Training Work load alignment with individual programs 	<ul style="list-style-type: none"> PADP goals identified with each employee based on 5-year conservation goals 	<ul style="list-style-type: none"> Transitioned the office into working from home per Covid-19 Prepared, advertised, received applications, and then withdrew position as education coordinator per budget crisis. SFCC training on COVID safety 		x		
Financial Resources & Budget	<ul style="list-style-type: none"> Submit conservation budget by February 2020 Track budget for each project/program for FY19/20-FY20/21 Track deposits from rebates into waterbank 	<ul style="list-style-type: none"> Conservation Budget submitted on time Water Bank deposits tracked for conservation programs 	<ul style="list-style-type: none"> Fiscal crisis – staff levels reduced from 5 to 3 Furloughs (10%) for all staff 		x		
Organizational Development	<ul style="list-style-type: none"> Staff cross-trained on all programs Staff certified as relevant to program (QWEL, WERS, CLIA, ARCSA, Backflow, etc.) 		<ul style="list-style-type: none"> Staff cross training Vacancies and absence of specific focus on programming et al education 		x		
Facility Management	<ul style="list-style-type: none"> Maintenance of 2 demonstration gardens including weeding, irrigation system repair, pruning, and plant care Building maintenance Installation of charging station for electric vehicle Installation of security barrier for water conservation office 	<ul style="list-style-type: none"> Purchasing process initiated for electric vehicle and charging station 	<ul style="list-style-type: none"> Purchase of electric vehicle cancelled Maintenance of gardens ongoing with regular watering, pruning, etc. Maintenance of rooftop irrigation system on hold pending purchases of new materials 		x		

Water Conservation Committee	<ul style="list-style-type: none"> • Water Conservation Manager to be liaison to Water Conservation Committee • Coordinate committee and subcommittee work with WCO • Assist with joint city/county work as it relates to water conservation • Develop better succession plan for vacancies 	<ul style="list-style-type: none"> • Succession plan under development with WCC input • Subcommittee work coordinated with WCO efforts 	<ul style="list-style-type: none"> • Succession plan being approved by governing body • Committee meetings postponed • 2 subcommittees formed and meeting 			x	
Reporting & Accountability	<ul style="list-style-type: none"> • Report quarterly work against the scorecard to governing body and to the WCC • End of FY reports to Stormwater division as it relates to MS4 permit • End of FY reports to Sustainability department as it relates to goals in the sustainability plan • Public input gathered in July of 2020 with public meetings and website to develop 2021 scorecard 	<ul style="list-style-type: none"> • Developed Q1 scorecard 	<ul style="list-style-type: none"> • Completed Q2 Scorecard • Reports to groups • Developing process 			x	
Integration with Water Resources	<ul style="list-style-type: none"> • Annual Water report • AWWA non-revenue water audit • GPCD analysis • Assist with Domestic Wells 	<ul style="list-style-type: none"> • Coordinated with water resources to assist with transition of new water resources analyst 	<ul style="list-style-type: none"> • Completed annual water report • Completed and released and awarded AWWA audit rfp-pending • Completed GPCD calculations 			x	

Q1 The COVID-19 pandemic has resulted in more people staying at home and many are working on remodels, home and garden projects. Please priority rank water conservation topics you are most interested in learning about where 1 has the most interest to you and 8 interests you the least.

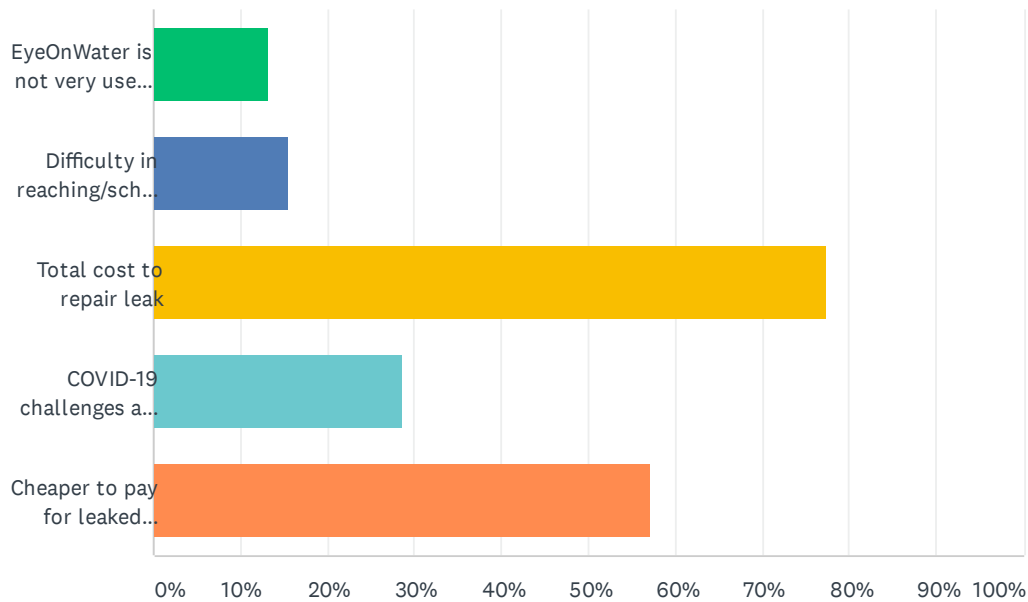
Answered: 88 Skipped: 1



	1	2	3	4	5	6	7	8	TOTAL	SCORE
Native plant selection	31.40% 27	19.77% 17	18.60% 16	6.98% 6	9.30% 8	6.98% 6	5.81% 5	1.16% 1	86	6.07
Tree selection	12.94% 11	22.35% 19	15.29% 13	14.12% 12	7.06% 6	15.29% 13	4.71% 4	8.24% 7	85	5.14
Repair of irrigation systems	4.71% 4	16.47% 14	11.76% 10	21.18% 18	15.29% 13	10.59% 9	10.59% 9	9.41% 8	85	4.53
Gray water installations	27.91% 24	10.47% 9	20.93% 18	15.12% 13	4.65% 4	9.30% 8	5.81% 5	5.81% 5	86	5.62
Indoor rebates	4.76% 4	10.71% 9	5.95% 5	10.71% 9	15.48% 13	21.43% 18	23.81% 20	7.14% 6	84	3.83
Outdoor rebates	2.35% 2	5.88% 5	7.06% 6	14.12% 12	14.12% 12	20.00% 17	25.88% 22	10.59% 9	85	3.52
EyeOnWater	1.19% 1	4.76% 4	8.33% 7	7.14% 6	14.29% 12	11.90% 10	11.90% 10	40.48% 34	84	2.86
Fixing leaks	17.24% 15	8.05% 7	12.64% 11	10.34% 9	18.39% 16	4.60% 4	10.34% 9	18.39% 16	87	4.48

Q2 The recent installation of smart metering technology has identified many residences where leaks have persisted for months or years. The WCO has sent letters to notify residents about the leak with no impact. Please choose why you believe people are not addressing these leaks. Check all that apply.

Answered: 84 Skipped: 5



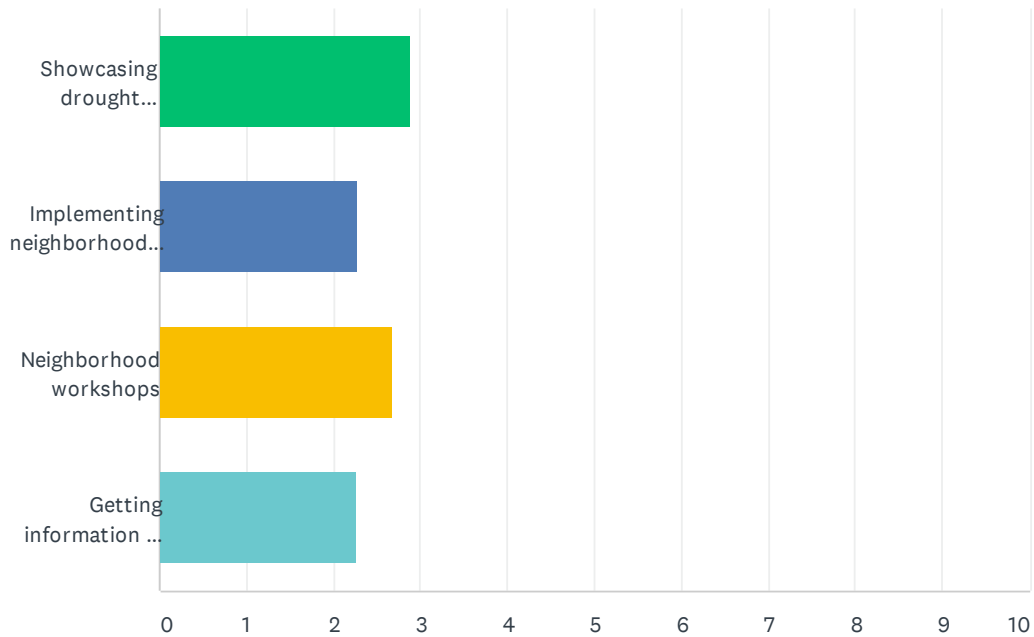
ANSWER CHOICES	RESPONSES	
EyeOnWater is not very user friendly	13.10%	11
Difficulty in reaching/scheduling a plumber	15.48%	13
Total cost to repair leak	77.38%	65
COVID-19 challenges and not wanting additional people on my property	28.57%	24
Cheaper to pay for leaked water than to fix the leak	57.14%	48
Total Respondents: 84		

Public Input for Water Conservation Planning

#	OTHER (PLEASE SPECIFY)	DATE
1	i didnt get a letter, how should I know why people don't answer it	7/15/2020 4:48 PM
2	Leak not communicated with landlord	7/15/2020 8:09 AM
3	I'm not familiar with this issue	7/14/2020 2:34 PM
4	No money.	7/13/2020 5:59 AM
5	people may not know.	7/12/2020 3:32 PM
6	To rich to bother, not worth it to them	7/12/2020 10:36 AM
7	Do people know what WCO is? I don't. Maybe they think it's junk mail or a scam, like the company that is always trying to get us to buy insurance for the water pipes between the street and our home. We get those at least once a year. I don't open mail I perceive as junk mail. Did you send it WITH the bater bill? That might help.	7/10/2020 5:58 AM
8	People don't have a reason that motivated them personally	7/9/2020 3:24 PM
9	apathy	7/9/2020 1:27 PM
10	no phone call responses	7/6/2020 10:13 AM
11	some people don't seem to care, nor realize the importance of not wasting water it seems	7/2/2020 1:06 PM

Q3 Currently the City is working on a Nava Ade neighborhood pilot program to look for smaller scale water conservation opportunities. Please priority rank the best ways we can work with you in your neighborhood where 1 is the most preferred way and 4 is the least preferred way.

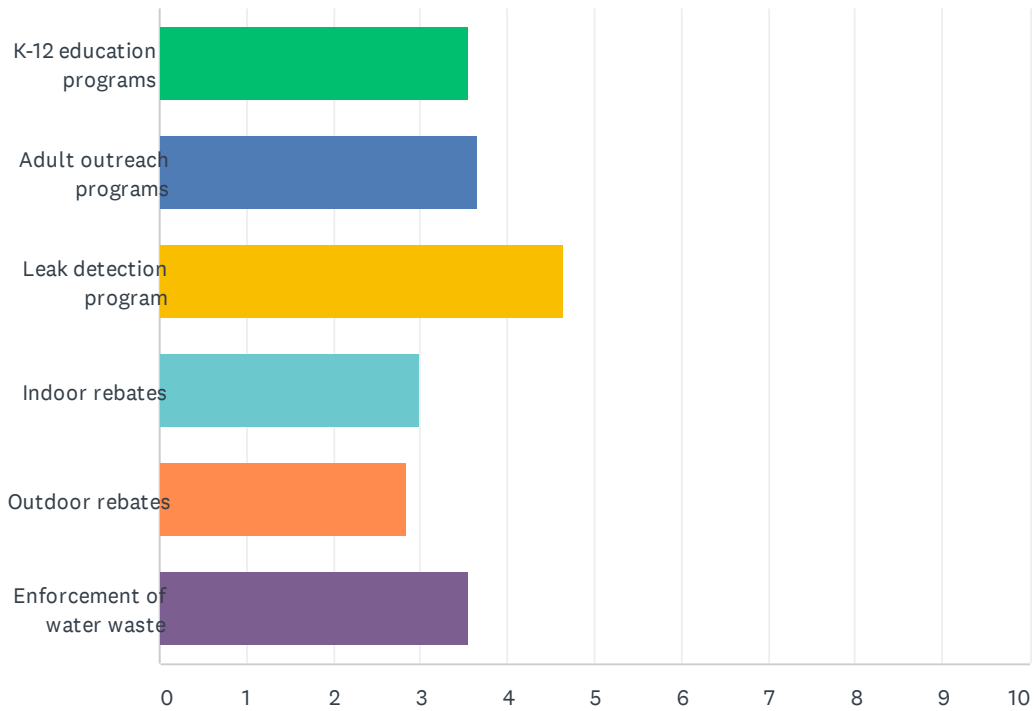
Answered: 87 Skipped: 2



	1	2	3	4	TOTAL	SCORE
Showcasing drought tolerant landscapes in your neighborhood	30.12% 25	40.96% 34	16.87% 14	12.05% 10	83	2.89
Implementing neighborhood challenges on reducing water usage	20.48% 17	19.28% 16	28.92% 24	31.33% 26	83	2.29
Neighborhood workshops	30.59% 26	24.71% 21	25.88% 22	18.82% 16	85	2.67
Getting information out through HOAs, NextDoor and other neighborhood newsletters	22.62% 19	15.48% 13	27.38% 23	34.52% 29	84	2.26

Q4 Due to COVID-19 the water conservation office is running under limited budgeting and total staff hours have been reduced by 46%. Please rank the following programs to help the office determine priorities for 2021, where 1 is the most important and 6 is the least important.

Answered: 87 Skipped: 2



	1	2	3	4	5	6	TOTAL	SCORE
K-12 education programs	21.69% 18	18.07% 15	13.25% 11	9.64% 8	15.66% 13	21.69% 18	83	3.55
Adult outreach programs	11.90% 10	20.24% 17	25.00% 21	14.29% 12	22.62% 19	5.95% 5	84	3.67
Leak detection program	38.55% 32	21.69% 18	18.07% 15	14.46% 12	2.41% 2	4.82% 4	83	4.65
Indoor rebates	3.75% 3	11.25% 9	18.75% 15	23.75% 19	32.50% 26	10.00% 8	80	3.00
Outdoor rebates	4.94% 4	9.88% 8	18.52% 15	20.99% 17	23.46% 19	22.22% 18	81	2.85
Enforcement of water waste	23.81% 20	20.24% 17	8.33% 7	14.29% 12	2.38% 2	30.95% 26	84	3.56

Q5 In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 00544 or 94305)

Answered: 85 Skipped: 4

Public Input for Water Conservation Planning

#	RESPONSES	DATE
1	87505	7/30/2020 2:20 PM
2	87505	7/30/2020 8:29 AM
3	87505	7/24/2020 5:36 PM
4	87505	7/24/2020 3:19 PM
5	87505	7/23/2020 9:08 PM
6	87507	7/23/2020 5:07 PM
7	87505	7/23/2020 4:31 PM
8	87506	7/23/2020 2:06 PM
9	87505	7/22/2020 7:07 AM
10	87505	7/22/2020 6:54 AM
11	87505	7/21/2020 6:30 PM
12	87507	7/21/2020 12:10 PM
13	87505	7/21/2020 12:06 AM
14	87505	7/20/2020 11:41 PM
15	87507	7/20/2020 2:38 PM
16	87505	7/19/2020 11:36 PM
17	87501	7/19/2020 3:13 PM
18	87507	7/19/2020 2:24 PM
19	87540	7/19/2020 9:17 AM
20	87501	7/19/2020 8:51 AM
21	87507	7/19/2020 6:42 AM
22	87535	7/19/2020 2:24 AM
23	87507	7/17/2020 7:37 PM
24	87501	7/17/2020 1:10 PM
25	87505	7/16/2020 7:53 PM
26	87505	7/16/2020 9:04 AM
27	87505	7/16/2020 7:22 AM
28	87505	7/16/2020 6:31 AM
29	87507	7/15/2020 9:15 PM
30	87505	7/15/2020 8:14 PM
31	87505	7/15/2020 6:26 PM
32	87505	7/15/2020 5:36 PM
33	87501	7/15/2020 4:04 PM
34	87507	7/15/2020 2:42 PM
35	87501	7/15/2020 2:34 PM
36	87507	7/15/2020 2:12 PM
37	87501	7/15/2020 2:11 PM

Public Input for Water Conservation Planning

38	87505	7/15/2020 2:10 PM
39	87505	7/15/2020 2:08 PM
40	87505	7/15/2020 2:08 PM
41	87505	7/15/2020 11:26 AM
42	87507	7/15/2020 8:09 AM
43	87508	7/15/2020 7:51 AM
44	87501	7/14/2020 2:34 PM
45	87507	7/14/2020 10:22 AM
46	87505	7/14/2020 9:52 AM
47	87507	7/13/2020 10:14 PM
48	87501	7/13/2020 9:15 PM
49	87501	7/13/2020 2:01 PM
50	87501	7/13/2020 5:59 AM
51	87507	7/13/2020 1:24 AM
52	87507	7/12/2020 9:22 PM
53	87505	7/12/2020 3:32 PM
54	87505	7/12/2020 3:31 PM
55	87507	7/12/2020 1:04 PM
56	87501	7/12/2020 12:23 PM
57	87505	7/12/2020 12:05 PM
58	87507	7/12/2020 10:36 AM
59	87505	7/12/2020 8:36 AM
60	87505	7/12/2020 7:14 AM
61	87501	7/11/2020 5:21 PM
62	87501	7/11/2020 5:06 PM
63	87501	7/11/2020 1:25 PM
64	87508	7/11/2020 12:23 PM
65	87507	7/11/2020 10:34 AM
66	87507	7/11/2020 10:13 AM
67	87501	7/11/2020 9:05 AM
68	87507	7/10/2020 11:26 PM
69	87505	7/10/2020 7:59 PM
70	87505	7/10/2020 2:57 PM
71	87505	7/10/2020 5:58 AM
72	87507	7/10/2020 12:25 AM
73	87501	7/9/2020 11:35 PM
74	87505	7/9/2020 3:54 PM
75	87507	7/9/2020 3:24 PM

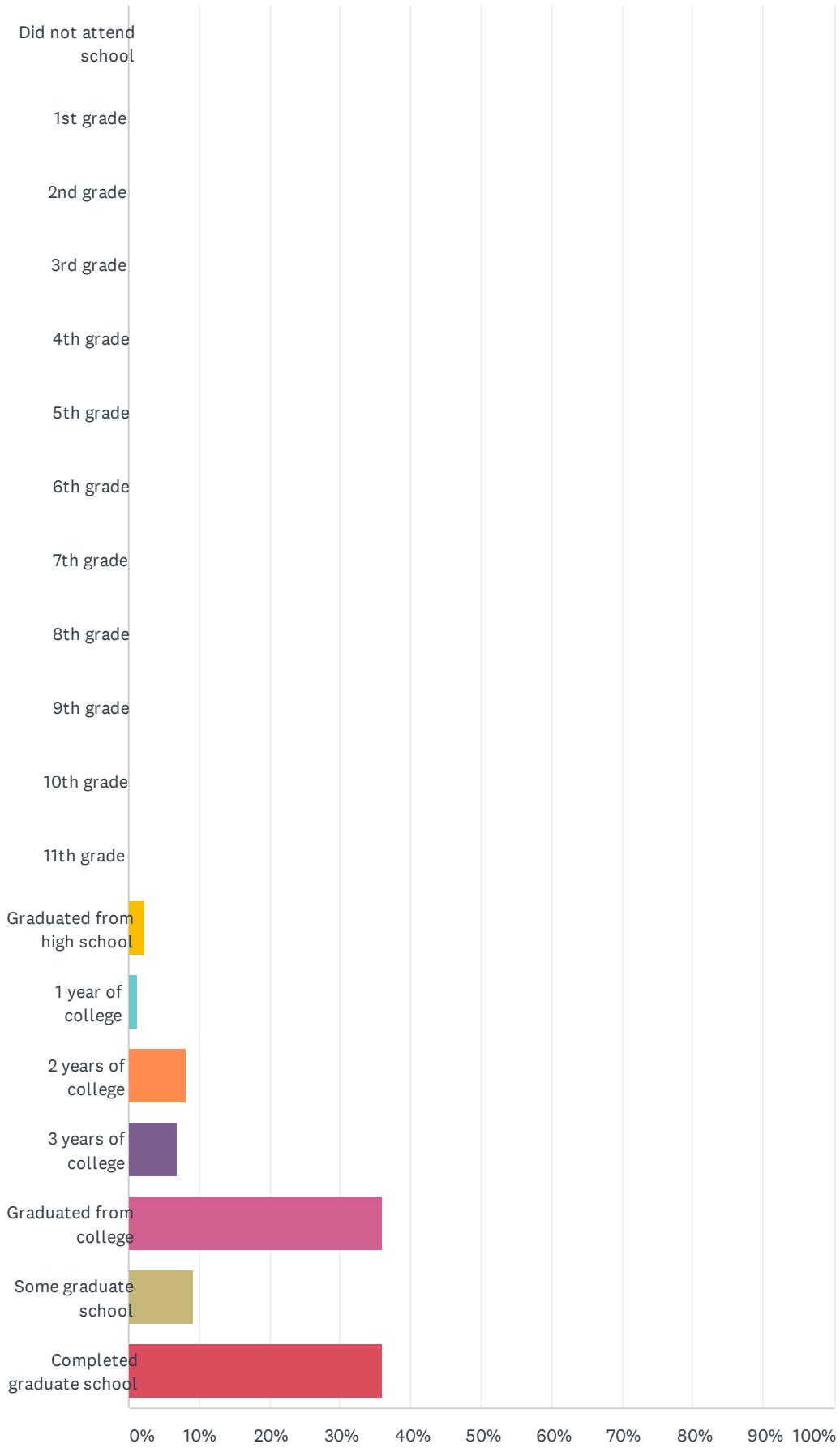
Public Input for Water Conservation Planning

76	87507	7/9/2020 3:23 PM
77	87501	7/9/2020 1:27 PM
78	87535	7/8/2020 10:52 PM
79	87501	7/6/2020 10:13 AM
80	87501	7/4/2020 12:33 AM
81	87507	7/2/2020 1:06 PM
82	87501	7/1/2020 8:40 PM
83	87507	7/1/2020 7:39 PM
84	87501	7/1/2020 7:18 PM
85	87501	7/1/2020 2:06 PM

Q6 What is the highest level of education you have completed?

Answered: 86 Skipped: 3

Public Input for Water Conservation Planning

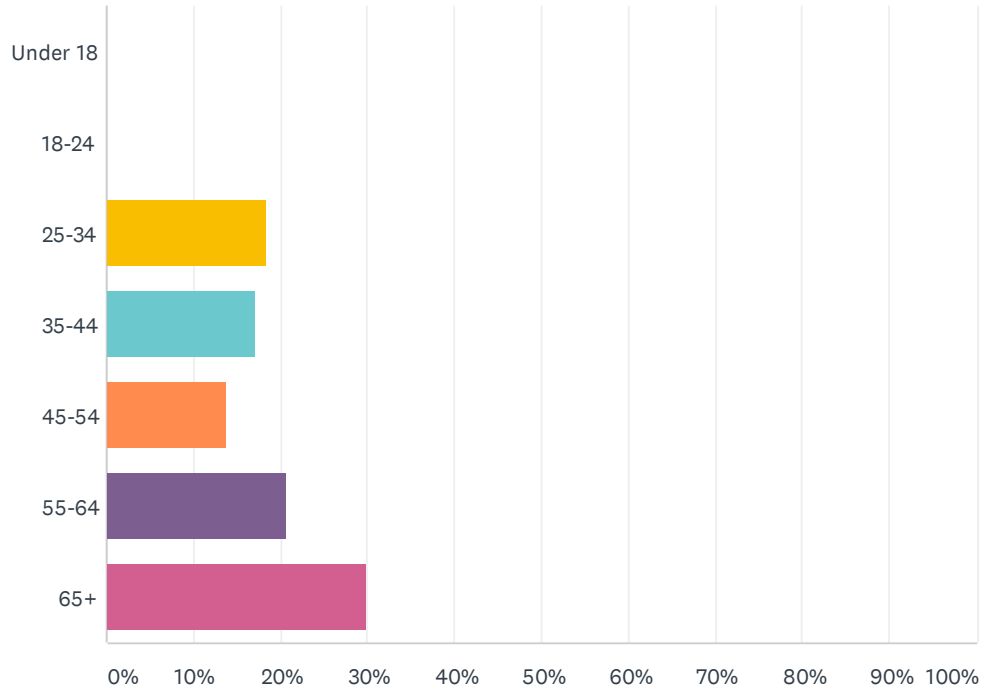


Public Input for Water Conservation Planning

ANSWER CHOICES	RESPONSES	
Did not attend school	0.00%	0
1st grade	0.00%	0
2nd grade	0.00%	0
3rd grade	0.00%	0
4th grade	0.00%	0
5th grade	0.00%	0
6th grade	0.00%	0
7th grade	0.00%	0
8th grade	0.00%	0
9th grade	0.00%	0
10th grade	0.00%	0
11th grade	0.00%	0
Graduated from high school	2.33%	2
1 year of college	1.16%	1
2 years of college	8.14%	7
3 years of college	6.98%	6
Graduated from college	36.05%	31
Some graduate school	9.30%	8
Completed graduate school	36.05%	31
TOTAL		86

Q7 What is your age?

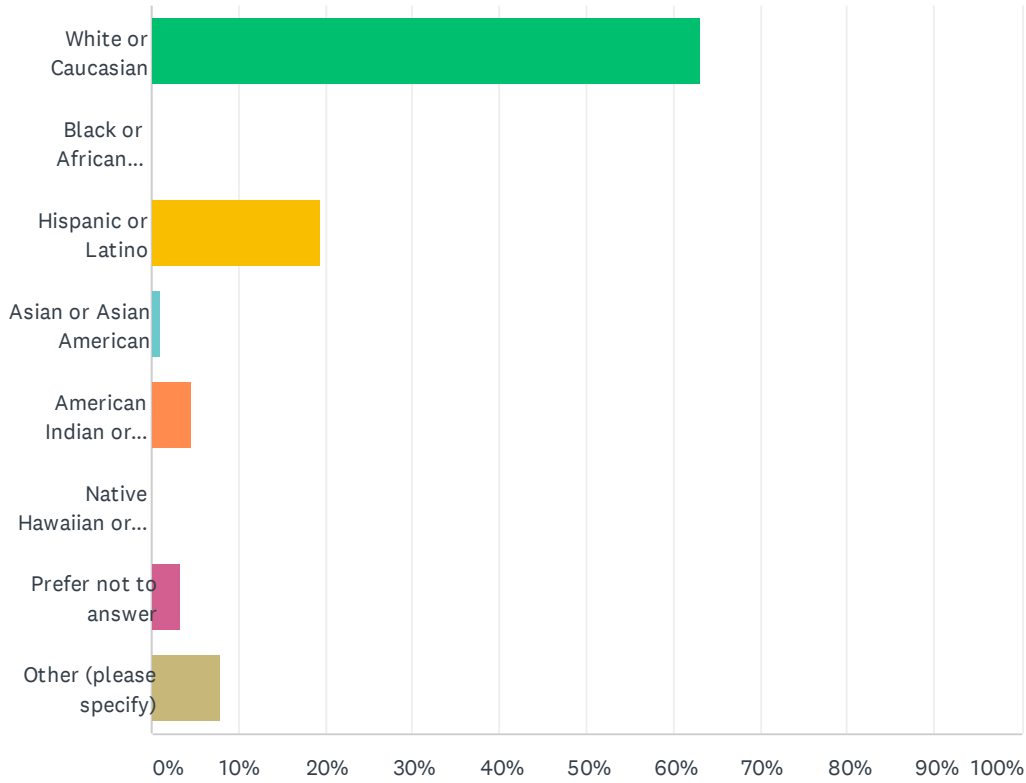
Answered: 87 Skipped: 2



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18-24	0.00%	0
25-34	18.39%	16
35-44	17.24%	15
45-54	13.79%	12
55-64	20.69%	18
65+	29.89%	26
TOTAL		87

Q8 Which race/ethnicity best describes you? (Please choose only one.)

Answered: 87 Skipped: 2



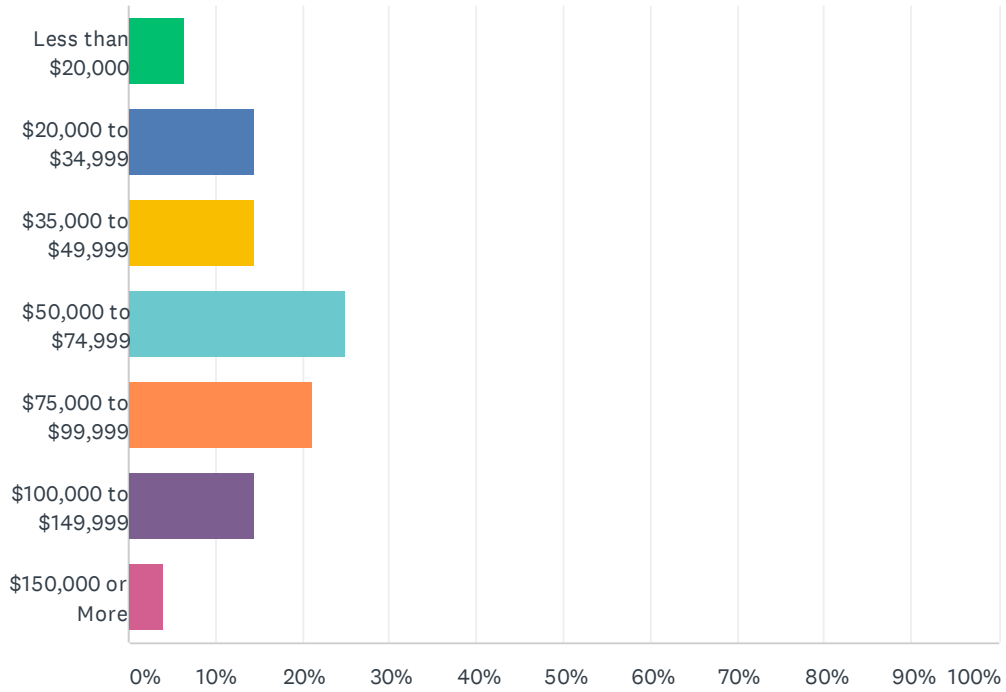
ANSWER CHOICES	RESPONSES	
White or Caucasian	63.22%	55
Black or African American	0.00%	0
Hispanic or Latino	19.54%	17
Asian or Asian American	1.15%	1
American Indian or Alaska Native	4.60%	4
Native Hawaiian or other Pacific Islander	0.00%	0
Prefer not to answer	3.45%	3
Other (please specify)	8.05%	7
TOTAL		87

Public Input for Water Conservation Planning

#	OTHER (PLEASE SPECIFY)	DATE
1	Human	7/23/2020 5:07 PM
2	Human race	7/19/2020 8:51 AM
3	Half White Half Hispanic	7/15/2020 4:04 PM
4	Mixed latina, native, german	7/13/2020 9:15 PM
5	American	7/12/2020 9:22 PM
6	Native American	7/12/2020 3:31 PM
7	No	7/1/2020 7:39 PM

Q9 What is your total household income?

Answered: 76 Skipped: 13



ANSWER CHOICES	RESPONSES	
Less than \$20,000	6.58%	5
\$20,000 to \$34,999	14.47%	11
\$35,000 to \$49,999	14.47%	11
\$50,000 to \$74,999	25.00%	19
\$75,000 to \$99,999	21.05%	16
\$100,000 to \$149,999	14.47%	11
\$150,000 or More	3.95%	3
TOTAL		76