City of Santa Fe

Agenda

CITY CLERK'S OFFICE
DATE 5/3/16 TIME 2:23pm
SERVED BY Christine Chavez
RECEIVED BY

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

1. CALL TO ORDER
2. ROLL CALL
3. APPROVAL OF AGENDA
4. APPROVAL OF MINUTES TUESDAY APRIL 12, 2016 WATER CONSERVATION COMMITTEE MEETING

ACTION ITEMS:

No Action Items

DISCUSSION ITEMS:

5. PARKS STUDY (Christine Chavez, Robert Wood, 15 minutes)
6. CONVERSION OF CONSERVATION LITERATURE TO SPANISH (Christine Chavez, 15 minutes)
7. DISCUSSION OF WATER CONSERVATION PROGRAM (Christine Chavez, 20 minutes)

INFORMATIONAL ITEMS:

8. 2015 ANNUAL WATER REPORT (Christine Chavez, 10 minutes)
9. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITATIVES: (Councilor Ives, 35 minutes)
   - A. GROUP #5- WATER SYSTEM MAP
   - B. GROUP #1- TREATED WASTE WATER AS DRINKING WATER SOURCE. (5 Minutes)
   - C. GROUP #2- WATER CONSERVATION EDUCATION/OUTREACH (5 minutes)
   - D. GROUP #3- WATER CONSERVATION CODES, ORDINANCES & REGULATIONS – LEGISLATIVE UPDATE (5 minutes)
10. DEMONSTRATION OF NEW DRINKING WATER MODEL (Christine Chavez, 15 minutes)
11. SOURCE OF SUPPLY – DROUGHT UPDATE

MATTERS FROM STAFF:

- Update on Water Conservation Program activities (10 minutes)

MATTERS FROM PUBLIC:

MATTERS FROM COMMITTEE:

NEXT MEETING – TUESDAY June 14th, 2016:
CAPTIONS: JUNE 1, 2016 @ 3 PM.
PACKET MATERIAL: JUNE 3, 2016 @ 3 PM.

ITEMS FOR NEXT AGENDA:
Update on water reuse project – Bill Schneider (June Meeting)

ADJOURN.

Persons with disabilities in need of accommodations, contact the City Clerk's office at 955-6520, five (5) working days prior to meeting date.

WATER CONSERVATION COMMITTEE
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APRIL 12, 2016

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Roll Call/Call to Order	Lisa Randall, Acting Chair, called the Water Conservation Committee Meeting to order at 4:05 pm in the City Councilor's Conference Room. A quorum is reflected in roll call.	Page 1
Approval of Agenda	***Mr. Pushard moved to approve the agenda as presented, second by Mr. Roth, motion carried by unanimous voice vote.***	Page 1
Approval of Minutes, February 9, 2016 and March 8, 2016	***Mr. Pushard moved to approve the minutes of February 9, 2016 as presented, second by Mr. Mr. Michael, motion carried by unanimous voice vote.*** ***Mr. Roth moved to approve the minutes of March 8, 2016 as presented, second by Mr. Wyman, motion carried by unanimous voice vote.***	Page 1-2
Action Items - A Resolution amending Resolution No. 2008-40 regarding membership of the Santa Fe Water Conservation Committee to include term limits for committee members.	***Mr. Pushard moved to approve the recommendation of Resolution amending Resolution No. 2008-40 regarding membership of the Santa Fe Water Conservation Committee to include term limits for committee members, second by Mr. Wyman, motion carried by unanimous voice vote.***	Page 2
Discussion Items: - Draft GPCD Analysis - Water System Map - Implementation of Strategic Marketing Plan - Discussion of Water Conservation Program	Informational: No formal action. All discussion pieces included in the meeting packet. Note: GPCD Analysis is no longer in draft status.	Page 2-5
Change of Chairmanship – Ms. Randall departed at 5:00 pm	***Mr. Roth moved to assign Mr. Pushard as Acting Chair in her departure at 5:00 pm, second by Mr. Wyman, motion carried by unanimous voice vote.***	
Informational Items: Group #1, 2, 3 & 5	Informational	Page 5-7
Source of Supply – Drought Update	Informational – report in meeting packet.	Page 7
Matters from Staff Update on Water Conservation Program Activities	Informational	Page 7
Matters from Committee	Informational	Page 7
Matters from the Public	Informational	Page 7
Next Meeting	Tuesday, May 10, 2016	Page 7
Adjournment and signature	Meeting was adjourned at 6:10 pm	Page 8

CITY OF SANTA FE

WATER CONSERVATION COMMITTEE

MINUTES

Fran Lucero, Stenographer

4/12/2016

DRAFT UNTIL APPROVED

SANTA FE WATER CONSERVATION COMMITTEE MEETING
CITY HALL - 200 LINCOLN AVE.
CITY COUNCILORS' CONFERENCE ROOM
APRIL 12, 2016
4:00 PM TO 6:10 PM

MINUTES

1. CALL TO ORDER

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

2. ROLL CALL

Present:
Lisa Randall, Vice Chair – Acting Chair
Doug Pushard
Tim Michael
Stephen Wiman
Bill Roth
Giselle Piburn

Not Present:
Councilor Peter Ives, Chair, Excused

Staff Present:
Christine Chavez, Water Conservation Department Manager
Jesse Guillen, Legislative Liaison, City of Santa Fe
Robert Wood, Water Conservation Specialist Senior

Others Present:
Andy Otto, Santa Fe Watershed Association
Aaron Kaufman, Prospective Member, Audience
Fran Lucero, Stenographer

3. APPROVAL OF AGENDA

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

4. APPROVAL OF MINUTES – FEBRUARY 9, 2016 AND MARCH 8, 2016

No changes from staff.

Mr. Pushard moved to approve the minutes of February 9, 2016 as presented, second by Mr. Mr. Michael, motion carried by unanimous voice vote.

Mr. Roth moved to approve the minutes of March 8, 2016 as presented, second by Mr. Wyman, motion carried by unanimous voice vote.

ACTION ITEMS:

5. A RESOLUTION AMENDING RESOLUTION NO. 2008-40 REGARDING MEMBERSHIP OF THE SANTA FE WATER CONSERVATION COMMITTEE TO INCLUDE TERM LIMITS FOR COMMITTEEMEMBERS

The Resolution was sent to PUC and was approved at that level. It will now go through Finance Committee and City Council. Resolution wording changes recommended by the Water conservation Committee have been incorporated. One of the Whereas specifies: "on March 8, 2016 the Water Conservation Committee approved recommendation to the Governing Body that term limits be imposed for members of the Water Conservation Committee". The Committee shall be appointed by the Mayor and consist of ten members not including the Chair. The recommendation is to have two – 2-year terms. Terms are spelled out in the resolution for the five members who have served the longest uninterrupted term.

Mr. Pushard moved to approve the recommendation of Resolution amending Resolution No. 2008-40 regarding membership of the Santa Fe Water Conservation Committee to include term limits for committee members, second by Mr. Wyman, motion carried by unanimous voice vote.

DISCUSSION ITEMS

6. DRAFT GPCD ANALYSIS

Ms. Chavez sent the analysis to each member by e-mail for review prior to this meeting. Ms. Chavez also asked if there were any questions or comments on this topic and reiterated that she invites discussion prior to the meeting on any subject.

Mr. Hook included the GPCD Analysis in final form. The 2015 GPCD Calculator reflects the City of Santa Fe Water Division customer's was 90 gallons per capita per day. The previous year, the NMOSE methodology calculation for the City of Santa Fe was 95 GPCD. In comparison to other cities in the southwest, the City's GPCD is one of the lowest.

Mr. Wyman: There is a comment that the city has achieved lower water consumption through public outreach, ordinances requiring customers to comply with water conservation conditions and the utilization of incentives. Mr. Wyman asked if there is a way to increase this number. Ms. Chavez said that when Mr. Hook presented to PUC they did not look at precipitation. Ms. Chavez said she feels that at some point they need to show how consumption affects precipitation and publish possibly through the website. Mr. Wyman said it sets the stage for an increase the way precipitation looks right now. Ms. Chavez said that what is good about this methodology is it provides a good comparison with other utilities.

Ms. Chavez said that future discussion could be scheduled to talk about the GPCD and the flaws. She stated that when they start to break up the family classes it is a little misleading. There are assumptions as far as the water use in the classes.

Mr. Pushard would like to spend time on the spreadsheet and possibly make recommendations back to OSE as a committee. Updates were made last year to OSE and he feels they would be receptive to suggestions from the Water Conservation Committee.

Mr. Michael asked if they want to make recommendations to OSE or stay with input strictly to the City of Santa Fe. Ms. Chavez feels that both are important and it would be good if there was a place to insert precipitation.

Mr. Pushard said that in the past the Water Conservation Department was listing two numbers and it was very confusing; we as a committee should review and understand what is listed before listing the two numbers. Mr. Pushard also supports more accurate information.

Ms. Chavez said that if at all possible a special meeting can be scheduled for GPCD.

Ms. Chavez showed the committee on the overhead the NMOSE GPCD Calculator reflecting the numbers and directed her comments to the monthly analysis of GPCD. Single family reflects numbers you would expect to see, when you go to multi-family, you would expect pretty consistent consumption. If you would see a peak it would be in the summer months and this graph reflects the peak in December. This is reflecting incorrect estimates when the meters were going in November. High usage in December is a make-up of usage rates.

Mr. Wood said that in some cases the meters could not all be read. In other instances the fire fly had failed, the estimates were from the old meters. New meters will be more accurate and provide warnings on usage.

Ms. Chavez noted that you can never have non-revenue water and December reflects negative non-revenue water. The first quarter will need to be reviewed to assure that the readings are accurate. The new meters will accurately measure and reflect the use of water. Ms. Chavez said that in the second phase they will be working on the customer portal.

Ms. Chavez informed the committee that Mr. Schiavo will attend the August meeting and demonstrate the customer portal. Ms. Chavez is happy to answer any questions off line. There is a lot of work to be done to get this matter corrected.

7. WATER SYSTEM MAP

Plan is to have the map be consistent. (Map shown on overhead and is published on the website. Ms. Chavez welcomes comments from the Water Conservation Committee members.) It is located under water supply sources. Mr. Wyman would like to see something on San Juan Chama on the map; it won't be possible on this scale on the capacity of the reservoirs. We need to compromise and be practical on what we can show. Ms. Chavez and Mr. Wyman will continue to work on the map and feels that it will be completed in phases, we consider this Phase I.

8. IMPLEMENTATION OF STRATEGIC MARKETING PLAN (Included in packet).
As a follow up to the request from the committee, Ms. Chavez was asked to bring this topic back. Ms. Chavez noted that Lynn's contract has been approved and she will provide us with the added manpower to move this plan forward.

Mr. Pushard said that the Goal was to reduce GPCD by 9%. Mr. Pushard also provided some comparative statistics on other states and countries. Our old goal used to be to reduce and now we use the word maintain.

Ms. Chavez noted that this document has now gone through committee and it has been approved. It now belongs to the WCC and we should now be able to change and reflect the accurate verbiage. Ms. Chavez asked that Mr. Pushard send his suggested changes to her by e-mail. This document is now owned by the Water Conservation Committee. If there are any inconsistencies, document and send to Ms. Chavez. Ms. Chavez said they are using this document as it reads and if there are edits it would be good to have a clean document before Lynn comes in. A corrected document will be brought back to the next meeting.

Mr. Wyman would like to see some demonstration homes that pertain to this application in a home. There is also a comment on 50% loss due to inefficiencies. What can we do about that?

Mr. Michael said he would also like to reach a point where the number is more realistic. Mr. Wood said now that they have conserve-a-track they should be able to get data quicker and more efficient. Ms. Chavez said they could also use the GPCD numbers from Santa Fe. Ms. Chavez also noted that this document is an internal document and the committee can work to have it reflect the best working data.

Mr. Roth moved to assign Mr. Pushard as Acting Chair in her departure at 5:00 pm, second by Mr. Wyman, motion carried by unanimous voice vote.

Mr. Pushard said that on the "how," "is there information on the rain harvesting and can you change the rebate in a quicker fashion and could it be done this summer." Ms. Chavez said that on this topic there is a draft that will come to the WCC for review. Once Ms. Katherine Mortimer has her documents and they are approved we can implement. New rebates with restricted use will be rolled out on May 1st.

Mr. Pushard: On the "how to" have you thought about how you will change the marketing collateral to Spanish? Ms. Chavez said that there are some documents translated. She said that the QWELL documents are one priority and possibly working with the Santa Fe Community College to get this done and research funding. Ms. Chavez asked if the WCC members have specific documents or priorities for them to be translated. Brochures are also a priority and the State of New Mexico would need to take responsibility for this. Ms. Chavez said that a translator with water verbiage knowledge would be needed and recommendations are welcomed.

Mr. Otto said that at the Watershed they had a proposal for translation and possibly could assist with this request. The individual he would recommend has a PhD in Water Science. Mr. Otto and Ms. Chavez will continue communications on this item.

9. DISCUSSION OF WATER CONSERVATION PROGRAM

Ms. Chavez noted two comments on items that she would like help from the WCC members. Thank you for the help that the members have given her away from meetings. We are pushing out the rebate program in May. Ms. Chavez asked the committee members on next steps for the WERS and whole house rebate. How would we handle that for existing construction and remodeling? The question is if staff could get certified and if they would do the actual WERS test in the households. With regards to Irrigation Rebate, it is still being reviewed. It is hard to change a Resolution and it would be helpful to tweak with what has already been stated. There are few cities that are working with a company called Sky Drop who bring in a team; they do an audit and program and install their AP, provide technical assistance and maintain for the life of the smart meter. The cost per unit is $350 but the city rebate is $375. The data that they gather is positive; they are based out of California but have done projects in Roswell and a few other cities in NM. They provided information to the Water Conservation Manager that will be shared with the Water Conservation Committee. Also, on the audit component, they could go in and do it as QWELL certified, the customer wouldn't pay anything.

Ms. Chavez is trying to develop a more extensive and comprehensive educational program. The goal is to provide this to the teachers by the spring. Ms. Chavez asked for help to identify partners who have the same goal and ideas on how to incentivize the teachers. Mr. Roth suggested the School of Sustainability where students could mentor other kids. Children get excited and they develop a passion that is infectious with the parents. Ms. Chavez will reach out to Ms. Randall for her support and ideas.

Mr. Michael asked who is "we" when you talk about the whole house rebate. Ms. Chavez said that the "we" is staff. We would need to know how many applications we are getting in, who would do the audit and the cost. Mr. Pushard will contact Ms. Chavez to discuss this individually and bring back additional information to the WCC members.

Ms. Piburn welcomes a document on this educational opportunity that she can share with educators. The WCC members would all like to receive a document of this sort for distribution.

INFORMATIONAL ITEMS

8. **Group Reports from Water Conservation Committee Initiatives**
   a. Group #5 – Water System Map
      Reported above.

   b. Group #1 – Treated Waste Water as Drinking Water Source
      Stephen Wyman: Memo was distributed to the members from Mr. Schneider where they are asking for more money. The question is it because they fell short

on budget? Ms. Chavez said that she will need to get direct information from Mr. Schneider and she will share with the WCC members when the information is available. Mr. Wyman will work on this topic and report at next month meeting.

c. Group #2 – Water Conservation Education/Outreach – Tim Michael
Mr. Michael was invited and participated in an interview with Que Suave Radio with the City Councilor where they provided good information to the public on Water Conservation. Ms. Chavez said that they will prepare an agenda to assure that the items they would like to cover are addressed during the radio show. She welcomes information from the WCC members and would like to provide more information to the public during that radio show. Also, if any WCC members would like to be on the show she accepts the offer.

d. Group #3 - Water Conservation Codes, Ordinances and Regulations – Legislative
Doug Pushard – Report included in packet (Exhibit A). Items that were approved and signed by the Governor and received funding are included in report. EPA user study was released yesterday and likely to be published in the spring of 2016. It will also include outdoor watering. Ms. Chavez will request a copy of that study. Mr. Pushard did attend a conference in San Francisco, CA to promote WERS. The contacts made were very positive and literature was shared with the WCC members and to be retained in the Water Conservation office. There is a list of the presentations and links will be shared with staff once they are received for informational purposes. A very different approach from what we are doing in a positive direction. Mr. Pushard made a presentation to an alternative water group; information from this meeting will be sent to Ms. Chavez. Another contact on the alternative water group – there is a College Water Efficiency Group – information will be shared also with Ms. Randall and Ms. Chavez. They are doing water savings on campuses and sharing data with different schools on how the program is doing. This would be worthy of researching to see what is working and not working. Mr. Pushard will again provide a link for contact to this group. Atlanta has created a demonstration site on reused water (total water) which we could look at as a role model and it would be nice to do something like that. This is a big tourist attraction and it could help secure funding.

Mr. Pushard did meet with the QWELL representative who was an attendee at this conference. They are working at incorporating drip in to the training and it won't lengthen the training term.

Mr. Pushard noted that they do a grey water class; they have agreed that training would need to be done in California. It would be good for staff to attend if at all possible.

WERS Training was done and it was a full class. The city can become certified to do their own WERS inspections. Next class is scheduled for June 14-15-16, 2016 at the Santa Fe Community College. First inspection will be done with a

customer tomorrow showing them their numbers and what they should be and how they can change it.

9. Source of Supply Drought Update, Included in Packet – No questions, informational report.

MATTERS FROM STAFF

Update On Water Conservation Program Activities

- Ms. Chavez – Earth Day Booth – April 22, 2016 at the Genoveva Chavez Center. They will be signing people up for the Mayor's Water Challenge – Ms. Chavez will send the pledge to the WCC members. We want to rank the City of Santa Fe as high as possible.
- There is a great deal of school presentations this month in Santa Fe that staff will attend. Ms. Chavez and Mr. Wood will attend the water festival in Los Alamos.
- The Water Conservation Department is bringing a Water Enforcement Officer on staff.
- Mr. Aaron Kaufman's paper work has been submitted to the Mayor as a future member, looking forward to him being on board very soon.
- Proposed Ad for Water Conservation openings was shared with the committee members for review. This Ad will be published in the Newspaper and will be sent to the WCC members to distribute to any contacts they have. There are three positions available. The five different areas of expertise are defined in the resolution; the goal is to attract individuals with commitment, diversity and willing to be a part of the process. It was reiterated that the full membership consists of 10 members not including the Chair.

MATTERS FROM THE PUBLIC

Mr. Otto will send a list of programs to Ms. Chavez for information and collaboration.

MATTERS FROM COMMITTEE

Monte del Sol Charter School Presentation – April 26, 27, 28 from 9 am – 4 pm, WCC members invited.

NEXT MEETING – TUESDAY, MAY 10, 2016

ITEMS FOR NEXT AGENDA

Update on Water Re-use Project. Bill Schneider (June Meeting)
Nick Schiavo to attend August Meeting, Customer Portal Discussion
QWELL documents to be translated in to Spanish: Ms. Chavez will bring documents to prioritize at next meeting.

ADJOURN

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

Signature Page:

Lisa Randall, Acting Chair

Fran Lucero, Stenographer

Doug Pushard, Acting Chair

City of Santa Fe, New Mexico

memo

DATE: May 4th, 2016

TO: Nicholas Schiavo, Public Utilities & Water Division Director ____

VIA: Rick Carpenter, Acting Water Division Director, Water Resources & Conservation Manager ___
Christine Chavez, Water Conservation Manager

FROM: Robert Wood, Water Conservation Specialist SR.

RE: Parks water use evaluation.

SUMMARY:

Water Conservation conducted a use study to determine the results of recent irrigation upgrades within local parks.

Projects were selected using the parks from a recent 2008 Bond Parks Irrigation Audit study.

RESULTS:

In general, the results show a decline in overall water usage as indicated by the trend line from 2002 to 2015.

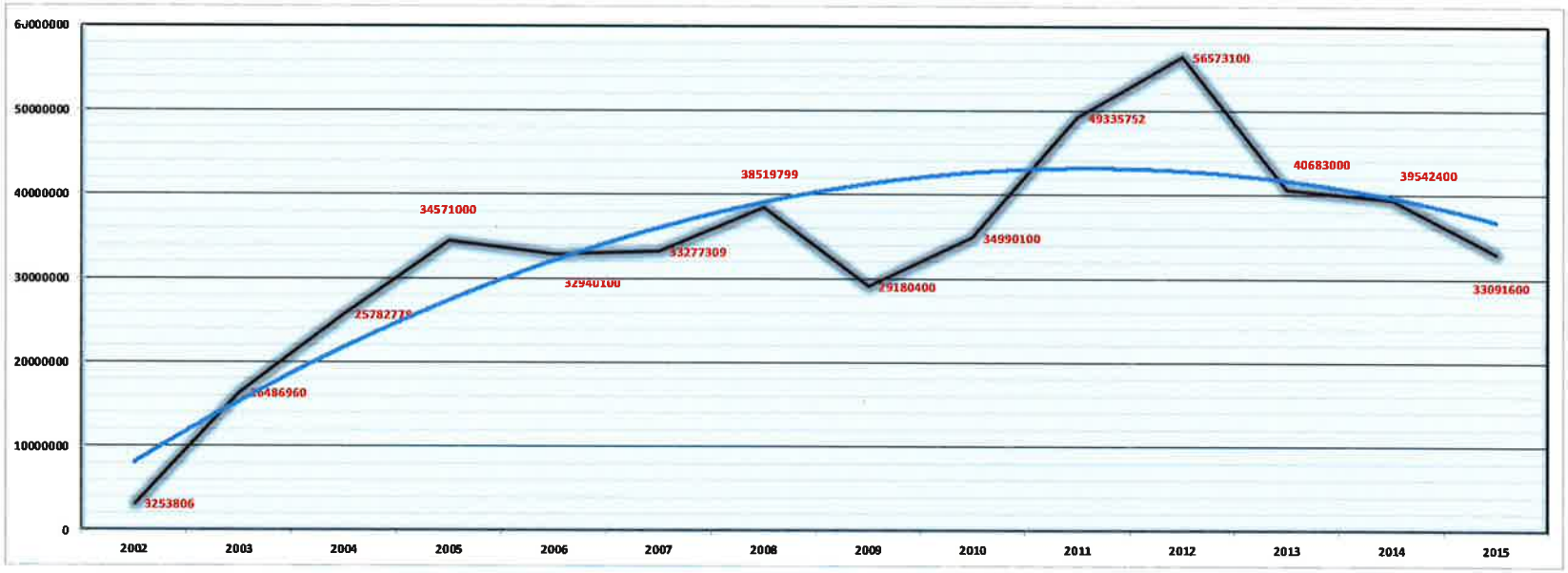
Factors affecting the trend line:

1. Several parks were added or space was upsized during the time frame indicated, notes are referenced within the worksheets.
2. Several parks had major leaks that affected usage during specific years.
3. Several parks had meter failures or system failures that affected usage during specific years.
4. Construction activity affected usage within several parks.
5. Yearly precipitation is not factored into results.

Parks Division Water Use Study

Represented sample: 30 Parks / 2002 - 2015

YEAR	
2002	3253806
2003	16486960
2004	25782778
2005	34571000
2006	32940100
2007	33277309
2008	38519799
2009	29180400
2010	34990100
2011	49335752
2012	56573100
2013	40683000
2014	39542400
2015	33091600

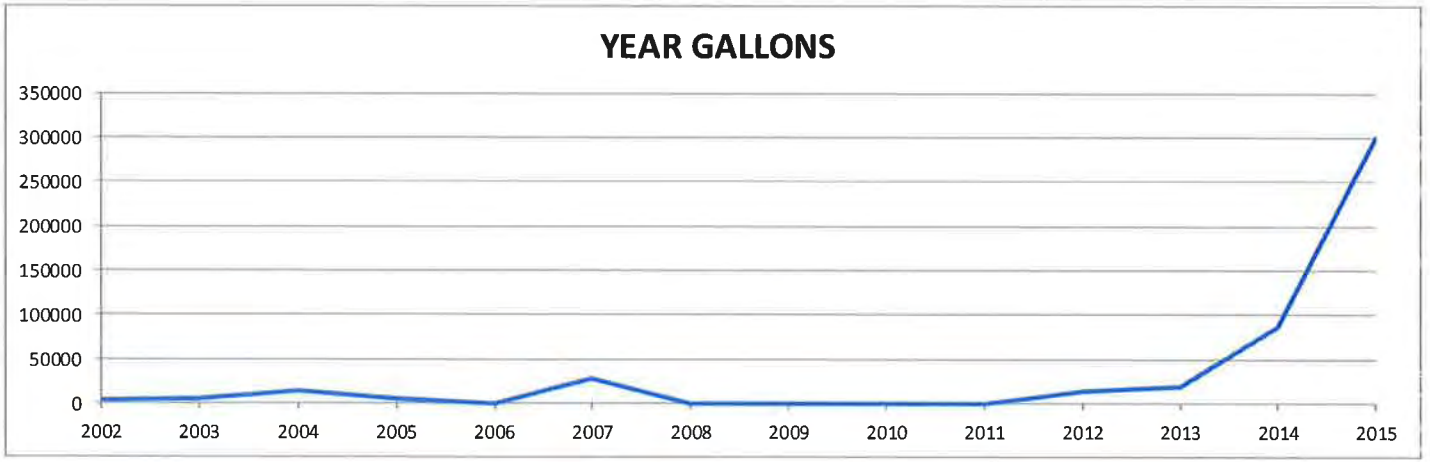


Actual Use – Black line

Trend line – Blue Line

	Account #	Meter #	Size	Service Address
Adam Gabriel Armijo	366926	9919926	2"	32254
1404 CERRO GORDO RD IRR				

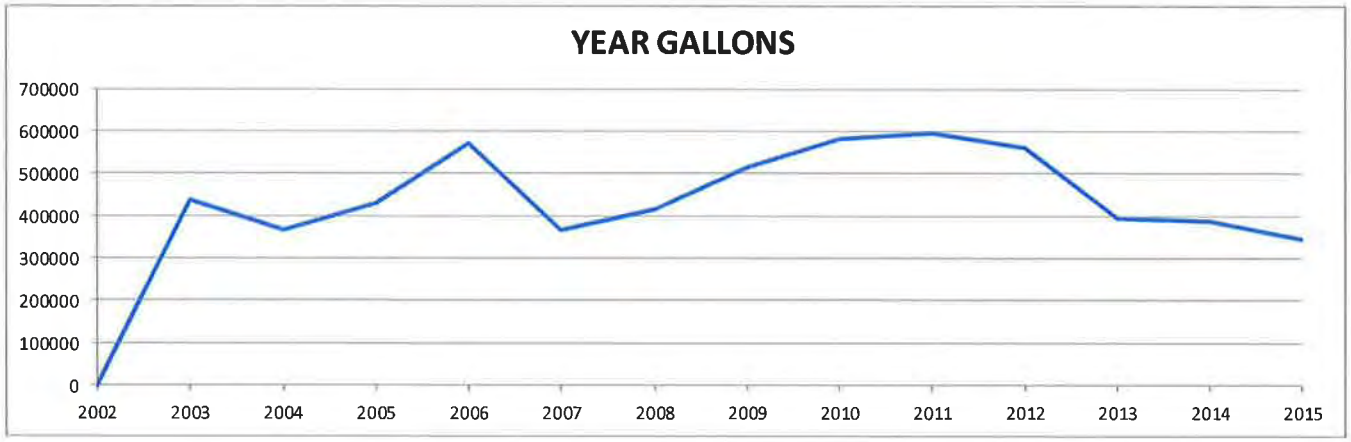
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		TOTAL YEAR GALLON
2002	100	2000	0	0	0	300	400	900	0	6	0	0	0	3706
2003	0	0	0	300	300	400	600	4300	0	0	0	0	0	5900
2004	0	0	500	14300	0	100	0	0	100	0	0	0	0	15000
2005	0	0	0	800	300	600	3900	0	0	0	0	0	0	5600
2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	800	27900	0	0	0	0	0	0	100	0	0	28800
2008	0	0	100	0	0	0	0	0	0	0	0	0	0	100
2009	0	0	0	0	0	0	0	0	200	0	0	0	0	200
2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	0	1300	100	0	0	0	0	0	12500	0	0	13900
2013	0	0	0	0	4600	2500	3100	2500	2400	3100	1200	0	0	19400
2014	0	0	0	0	3100	18200	19500	1700	19400	20900	3000	0	0	85800
2015	0	0	0	90700	110800	15400	17300	19500	16600	29800	0	0	0	300100



Additional plantings added 2012/2013 - Trees.

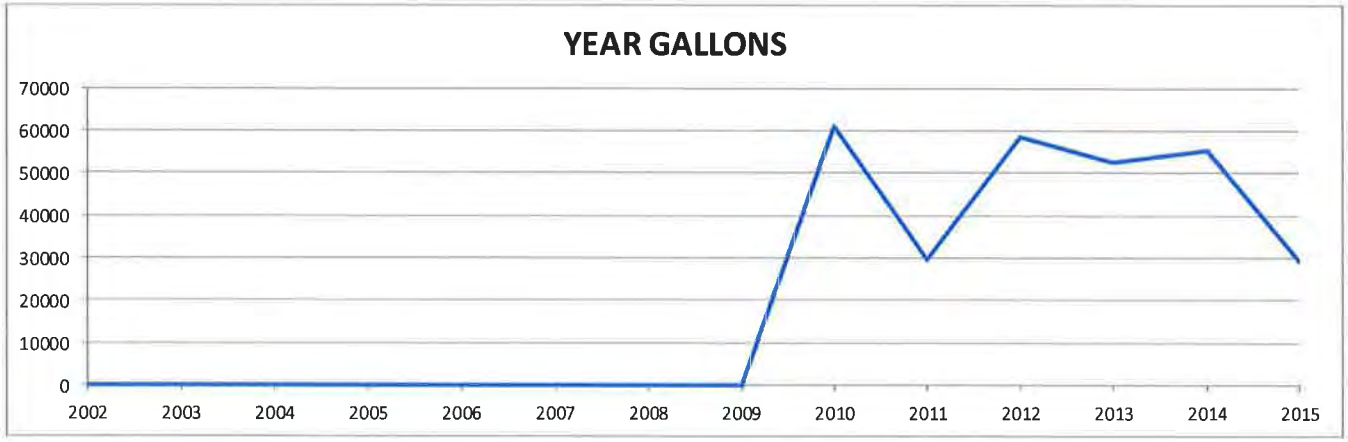
	Account #	Meter #	Size	Service Address
Cathedral	359662	9945793	1 1/2"	31970

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	0	0	0	0	2100		0	2100
2003	0	0	0	18600	68700	57800	84500	93500	26600	47400	40800		0	437900
2004	0	0	0	15400	82900	70500	87900	278	101300	7000	2100		0	367378
2005	0	0	0	10400	24800	127000	111600	80600	46800	23700	4200		0	429100
2006	0	0	1400	100000	164000	137600	52700	38300	44000	27400	6700		0	572100
2007	0	0	0	11200	43800	29300	97200	43300	85100	41700	16600		0	368200
2008	0	0	0	11200	61500	102700	85800	57600	38300	50400	7600		0	415100
2009	0	0	700	20500	82100	49000	165900	65800	78200	47100	6100		0	515400
2010	0	0	0	6100	41800	149800	80300	77200	134300	74900	18900		0	583300
2011	0	0	7400	19600	74700	113500	140200	145000	50800	34200	11900		0	597300
2012	0	0	0	26700	46900	91800	95600	104700	73900	88300	32700		0	560600
2013	0	0	0	3400	62600	85800	83200	43500	73800	26800	15300		0	394400
2014	0	0	0	6300	58700	82200	82300	52900	67300	28600	11000		0	389300
2015	0	0	0	0	31500	45500	67900	60200	67300	68600	5100		0	346100



	Account #	Meter #	Size	Service Address
Frank S. Ortiz Dog Park	548843	9956515	1"	46431

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002													0
2003													0
2004													0
2005													0
2006													0
2007													0
2008													0
2009													0
2010	0	0	0	0	0	0	0	0	0	0	60900	0	60900
2011	0	0	0	3400	8000	4200	5000	5100	1100	2400	400	0	29600
2012	0	0	0	1300	4900	10800	10600	9700	9200	7400	4800		58700
2013	0	0	0	0	9300	12200	10900	6000	11100	2100	1000	0	52600
2014	0	0	0	0	900	10800	12900	7900	12900	7600	2400	0	55400
2015	0	0	0	0	4700	5800	8100	3000	6100	1600	0	0	29300



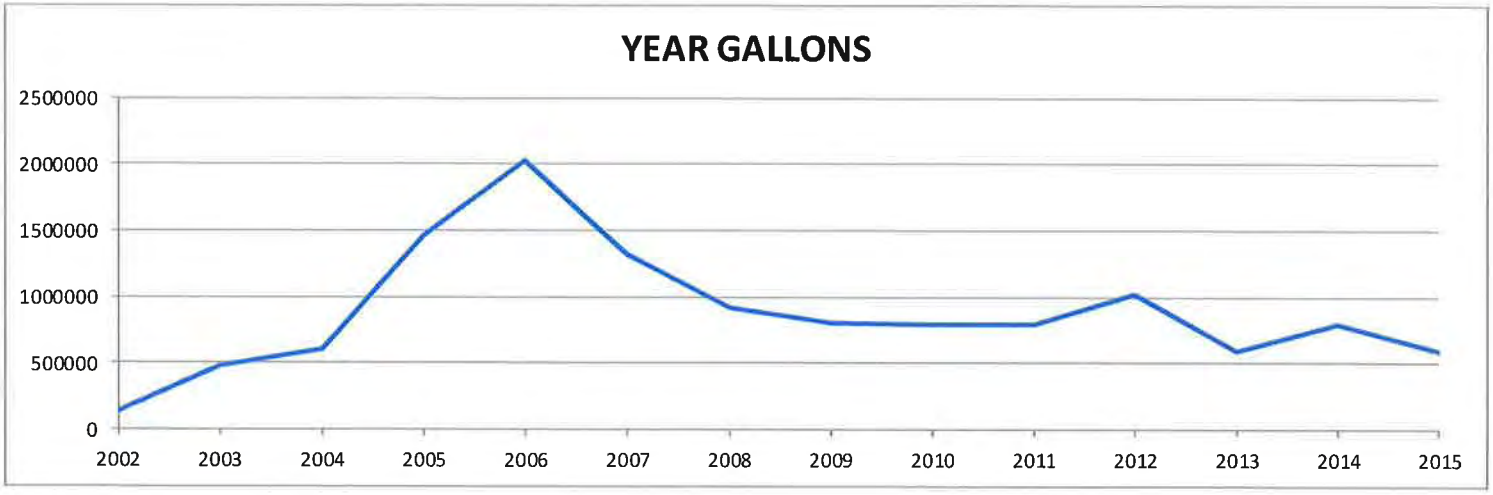
Additional small irrigated area added 2009

Walk-Through Irrigation System Audit and Site Evaluation							
Site Name: Frank Ortiz Park						Contacts:	
Site Address:						Phone #:	
Surveyor: Sam		Time: Start____ Finish_ ___				Contacts:	
Survey Date:		Catch Cup Date:				Phone #:	
		Landscape (sq. ft):			Turf (sq. ft):	Shrubs (sq. ft):	
Meter #'s	Begin Read	End Read	Backflow PSI		Comments:		
9956515	00259884	00260424	static	dynamic	Orginal install was RB .50 GPM bubblers. Many capped or have been replaced with Irritrol adjustable Bubblers. Trees with Irritrol are in distress from overwatering.		
			65	42			

Catch Cup Count	Zone	Head or Sprinkler Type and Location if needed	Head #	Test Time (min)	Head PSI on Zone	T=Slanted, C=Clogged, Bl=Blocked Spray, BS=Broken Stem, BH=Broken Head, BN=Broken Nozzle, CO=Cap Off, WS=Wrong Spacing, WA=Wrong Arc, RD=Radius Screw Down Too Far, RF=Runoff, OV= Overspray, LH= Low Head, LPSI=Low Pressure at Head, UP=Stuck Up, RTF= Rotation Too Fast, MH= Missing Head, BV= Broken Valve, NC= Nozzle Color, CNF= Can Not Find, NST=No Start Time, MPR= MP Rotator Nozzles/Heads Recommended for this area, RX=Remove turf for Xeriscape or Shrub Bed, **(Count number of Trees, Shrubs per Zone), Additional Notes as needed**
	1		**54**	**20**		Target: 540 Gal
						Actual: 322 Gal **77%**
	2		**15**	**20**		Target: 150 Gal
						Actual: 112 Gal **75%**
	3					
	4					
	5					

	Account #	Meter #	Size	Service Address
John Griego (Veterans)	407767	9940826	2"	31711
1605 PASEO DE LA CONQUISTADORA PARK				

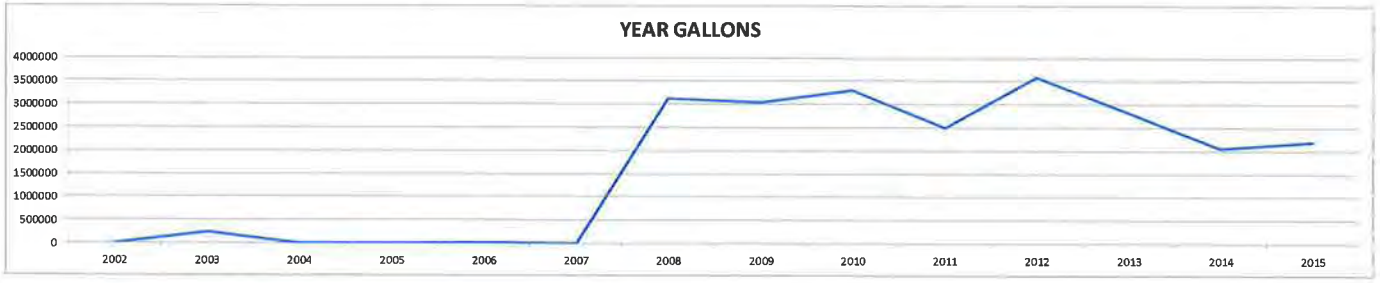
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		
2002	0	0	0	0	0	0	0	0	0	0	137200		0	137200
2003	0	0	0	0	64100	116800	119800	108800	0	44600	25700		0	479800
2004	0	0	0	20400	39500	103600	134900	75600	139700	68800	21200		0	603700
2005	0	0	0	32000	76300	179200	340800	356900	357500	120900	0		0	1463600
2006	0	0	4800	285800	235400	361000	332600	363000	338500	96900	13000		0	2031000
2007	0	0	0	33900	118200	80700	239700	217100	257500	363700	15900		0	1326700
2008	0	0	0	17000	120300	145600	209100	121700	118800	148800	40300		0	921600
2009	0	0	100	64400	86700	114800	169100	209500	160000	0	8500		0	813100
2010	0	0	0	21200	79100	139600	226600	84600	125500	92800	26500		0	795900
2011	0	0	0	51400	126100	113500	188500	172500	79300	53900	12700		0	797900
2012	0	0	0	46400	121500	165800	198600	203900	170600	90700	23800		0	1021300
2013	0	0	0	9200	76400	132800	120500	109700	117800	11900	9300		0	587600
2014	0	0	0	18000	129800	125700	206600	91300	127000	74500	24400		0	797300
2015	0	0	0	4900	59800	62800	122700	76200	137000	125200	0		0	588600



Irrigation upgrade in 2012

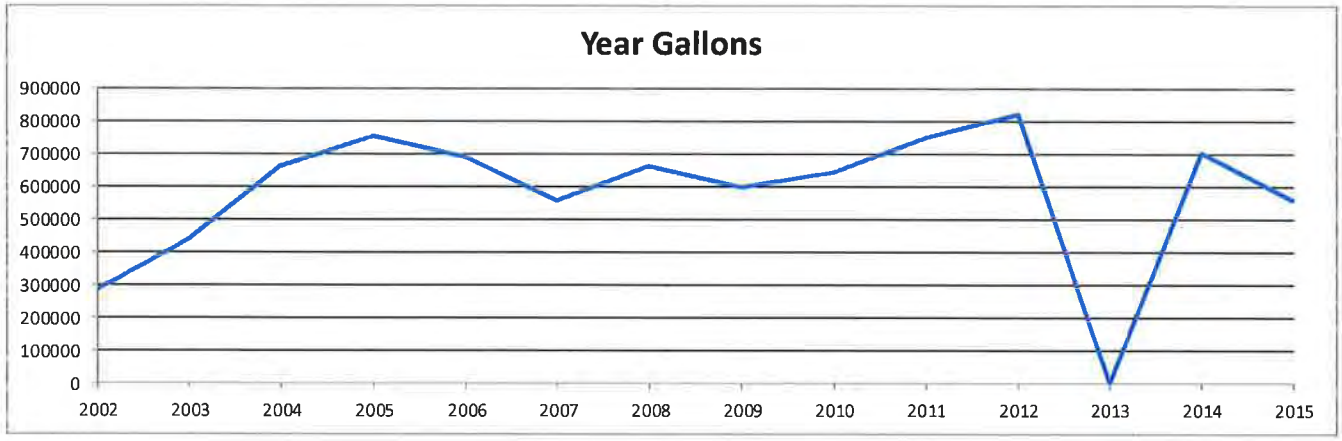
	Account #	Meter #	Size	Service Address
Mager's Field	360401	99557151/2	4"&4"	31952

YEAR	JAN A	JAN B	FEB A	FEB B	MAR A	MAR B	APR A	APR B	MAY A	MAY B	JUNE A	JUNE B	JULY A	JULY B	AUG A	AUG B	SEPT A	SEPT B	OCT A	OCT B	NOV A	NOV B	DEC A	DEC B	TOTAL YEAR GALLONS	
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	3000	0	1000	0	0	0	1000	0	0	0	164000	0	74000	0	0	0	0	243000
2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	2000	0	0	0	0	0	0	0	0	0	0	0	0	2000
2006	0	0	0	0	0	0	25000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25000
2007	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	100	400	0	0	14000	97300	29300	275200	51900	476900	80900	0	50300	1224300	0	0	44900	370200	46200	279500	7300	0	6500	63700	3118900	
2009	0	200	0	0	10800	4600	15300	122400	36500	327500	50500	459400	50800	467100	87000	764000	40500	338500	25600	234400	0	0	0	0	3035100	
2010	0	0	0	0	0	0	1500	27100	27100	237200	45600	418900	70000	599600	49300	414800	89000	832000	39200	339300	10200	100700	0	0	3301500	
2011	0	0	0	0	0	0	26300	257700	22700	215300	46300	417000	47700	445300	55500	504700	25600	236000	18100	160800	5100	19700	0	0	2503800	
2012	0	0	0	0	0	0	13700	145400	32900	324500	52300	497800	97800	932600	43700	406100	37800	352200	38300	393100	24100	195400	0	0	3587700	
2013	0	0	0	0	0	0	0	800	60600	564100	63500	605800	52800	473100	32100	305200	47500	457300	15900	76300	9800	54100	0	0	2818900	
2014	0	0	0	0	0	0	4700	49100	37700	356800	35000	337800	69900	374600	19000	182300	28700	290300	22200	212900	2500	25600	0	0	2049100	
2015	0	0	0	0	0	0	1100	34500	29500	387300	22900	205400	30100	659300	28600	10300	34700	401900	32000	308400	4200	0	0		2190200	



	Account #	Meter #	Size	Service Address
Plaza Park	382088	9961271/	2"&1"	27875

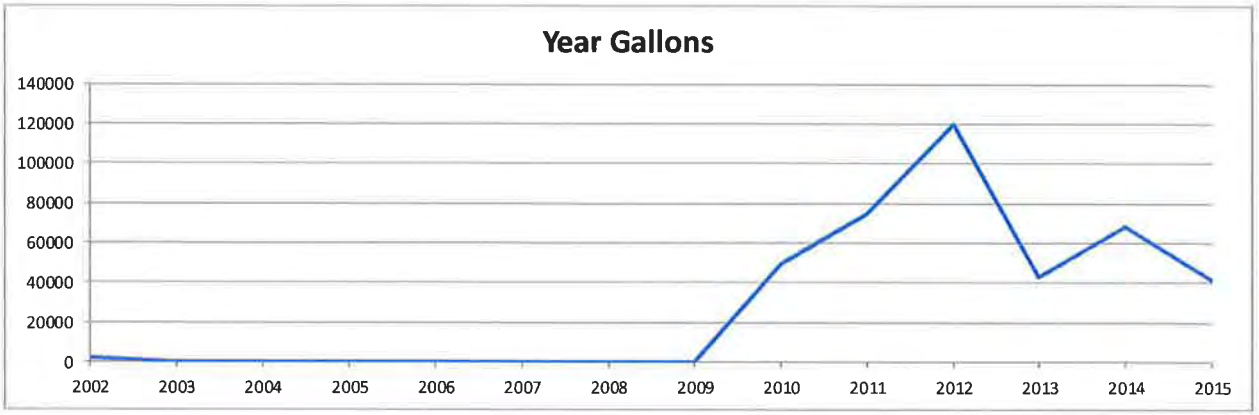
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS	
2002	0	0	133700	31800	45700	43300	100	900	12300	18700	100	400	287000	
2003	0	0	0	3000	41100	52300	115500	101900	58400	63300	6900	0	442400	
2004	0	0	0	4100	116600	163700	137000	79600	80300	56900	26000	0	664200	
2005	0	0	400	31700	116500	163500	175900	101500	104600	60600	0	0	754700	
2006	18300	0	13600	63800	128000	133000	99400	61600	54400	90000	26300	0	688400	
2007	0	0	0	23700	70500	96900	112300	66600	113000	70200	3500	0	556700	
2008	0	0	0	12500	160800	162500	102000	80100	76500	68700	0	0	663100	
2009	0	0	0	25500	127800	63300	88400	125400	93300	72900	800	0	597400	
2010	0	0	0	23900	112300	107200	118300	78100	82600	99600	24300	0	646300	
2011	0	0	0	67000	164500	68500	133100	136700	72700	94900	9000	0	746400	
2012	0	0	0	47300	79300	91400	137900	129200	111300	151100	72100	0	819600	
2013	0	0	0	0	0	0	0	0	0	0	0	0	0	Failed Meter
2014	0	0	0	57800	78000	74900	130500	80800	139400	119300	23700	0	704400	
2015	0	0	0	63100	69700	57000	89000	84800	84500	91400	17800	0	557300	



meter failure in 2013

	Account #	Meter #	Size	Service Address
Sunnyslope	560095	9957579	5/8"	46422

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	0	0	0	0	2100	0	2100
2003	0	0	0	0	0	0	0	0	0	0	0	0	0
2004	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	11400	0	0	0	38000	0	0	49400
2011	0	0	0	5400	0	0	0	0	0	0	69600	0	75000
2012	0	0	0	28800	31800	20600	11400	11600	9000	5100	1400	0	119700
2013	0	0	0	6400	3000	9100	10000	5300	7300	1800	200	0	43100
2014	0	0	0	500	2200	12500	19900	19300	9600	2700	1500	0	68200
2015	0	0	0	200	1500	5500	9000	7700	13300	4100	100	0	41400



Community Gardens added 2009

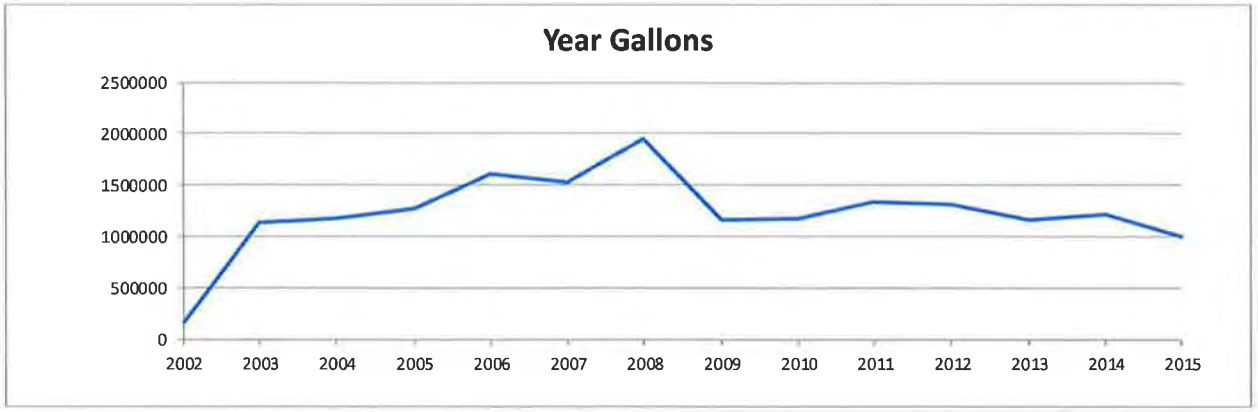
Walk-Through Irrigation System Audit and Site Evaluation							
Site Name: Sunny Slope						Contacts:	
Site Address:						Phone #:	
Surveyor: Sam			Time: Start___ Finish_			Contacts:	
Survey Date: 06/23/2015		Catch Cup Date:				Phone #:	
		Landscape (sq. ft):			Turf (sq. ft):	Shrubs (sq. ft):	
Meter #'s	Begin Read	End Read	Backflow PSI		Comments:		
	368149	368529	static	dynamic	Original install specified RB .50 GPM Bubblers. System is primarily Irritrol adjustable bubblers. Replace back to specifications with RB .50 GPM Bubblers. System needs new solenoids as currently some are non-functional.		
			125	20			

Catch Cup Count	Zone	Head or Sprinkler Type and Location if needed	Head #	Test Time (min)	Head PSI on Zone	T=Slanted, C=Clogged, Bl=Blocked Spray, BS=Broken Stem, BH=Broken Head, BN=Broken Nozzle, CO=Cap Off, WS=Wrong Spacing, WA=Wrong Arc, RD=Radius Screw Down Too Far, RF=Runoff, OV= Overspray, LH= Low Head, LPSI=Low Pressure at Head, UP=Stuck Up, RTF= Rotation Too Fast, MH= Missing Head, BV= Broken Valve, NC= Nozzle Color, CNF= Can Not Find, NST=No Start Time, MPR= MP Rotator Nozzles/Heads Recommended for this area, RX=Remove turf for Xeriscape or Shrub Bed, **(Count number of Trees, Shrubs per Zone), Additional Notes as needed**	
	1	**Irritrol & RB .50 GPM**	**24**	**20**		Target: 240 GPM	7 Trees
						Actual: 352 GPM	
	2	**Irritrol & RB .50 GPM**	**18**	**20**		Target: 180 GPM	6 Trees
						Actual: 380 GPM	
	3						

	Account #	Meter #	Size	Service Address	System DU report =
Torreon	357000	9961712	2"	31540	31%

1515 ALAMEDA ST -TORREON PARK

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	14900	54000	53300	1000	2900	0	26700	0	0	152800
2003	0	0	0	0	65600	257700	297800	218300	180900	300	119900	0	1140500
2004	0	0	0	0	119500	77600	248300	249700	252800	136900	97100	0	1181900
2005	0	0	0	47700	222700	288300	218100	195800	232900	67100	0	0	1272600
2006	0	0	300	272400	319900	308100	256500	187000	107900	163400	2900	0	1618400
2007	0	0	0	41000	143900	141900	306000	272200	299400	312000	13600	0	1530000
2008	0	0	0	30500	90600	192600	319400	513000	414500	339600	56100	0	1956300
2009	0	0	0	74000	91500	156100	210900	270900	178100	141700	36200	0	1159400
2010	0	0	0	32000	106000	205200	192500	191100	196500	209300	50300	0	1182900
2011	0	0	0	98600	178000	169100	258500	217300	210600	151500	61000	0	1344600
2012	0	0	0	47000	131200	181200	269000	196300	183000	248900	59500	0	1316100
2013	0	0	0	2800	175000	252800	212400	206500	193700	70100	53000	0	1166300
2014	0	0	0	59300	252900	227300	227800	124600	189700	106800	34700	0	1223100
2015	0	0	0	0	75600	115100	216600	143500	229800	221700	1200	0	1003500

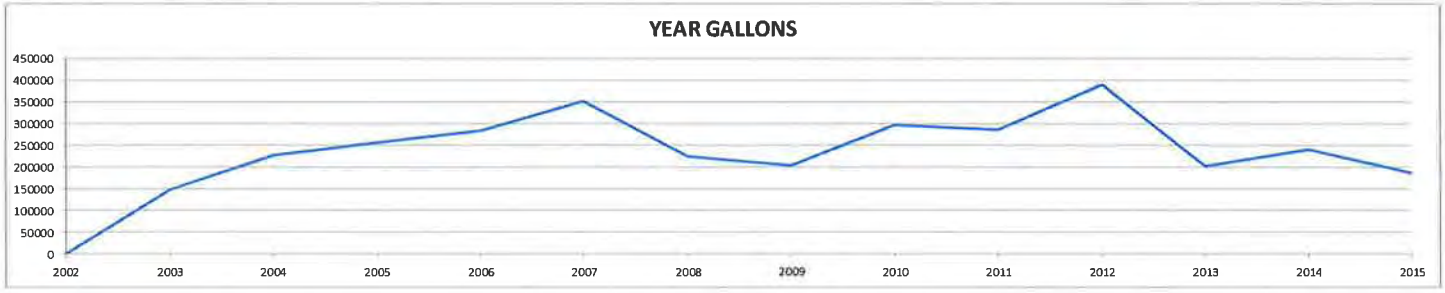


Document

Project Name		**Torreon**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**1.00**				
Test Area/Station				**1**							
Catch Device Volumes											
1	**4**	17	**20**	33	**20**	49		65	min		
2	**14**	18	**15**	34	**15**	50		66			
3	**15**	19	**25**	35	**15**	51		67		81	
4	**13**	20	**26**	36	**5**	52		68		82	
5	**25**	21	**26**	37		53		69		83	
6	**25**	22	**16**	38		54		70		84	
7	**40**	23	**15**	39		55		71		85	
8	**10**	24	**22**	40		56		72		86	
9	**14**	25	**17**	41		57		73		87	
10	**25**	26	**43**	42		58		74		88	
11	**14**	27	**7**	43		59		75		89	
12	**17**	28	**0**	44		60		76		90	
13	**15**	29	**15**	45		61		77		91	
14	**20**	30	**4**	46		62		78		92	
15	**25**	31	**4**	47		63		79		93	
16	**20**	32	**0**	48		64		80		94	
										95	
Number Catch Devices			**36**	1/4 Number Catch Devices			**9**			96	
Total Catch Volume			**606**	Total Low Quarter			**47**				
Average Volume (V_{avg})			**16.83**		Average Low Quarter (V_{lq})			**5.22**			
Calculate Distribution Uniformity											
DU_{LQ} =							Average Low Quarter (V_{lq})	=	0.31		
	Average Volume (V_{avg})										

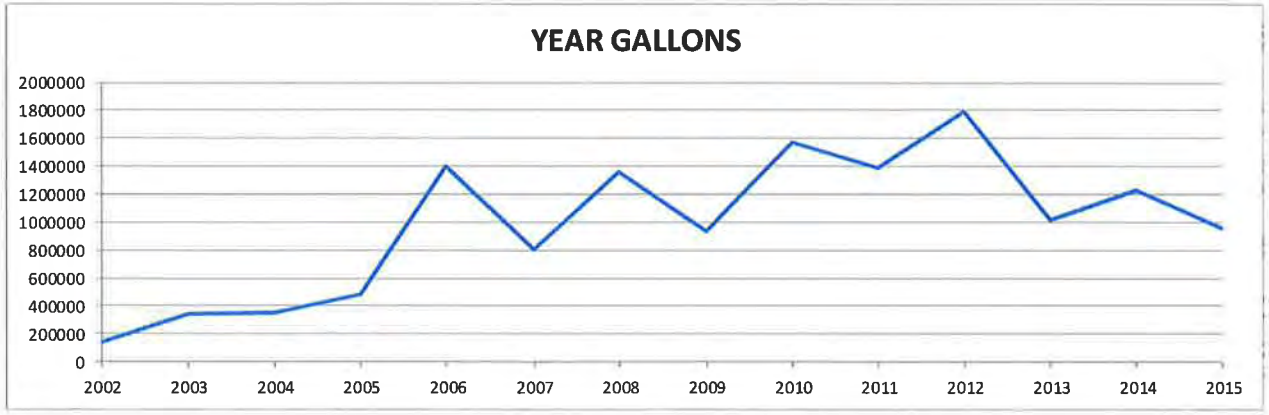
	Account #	Meter #	Size	Service Address
Macaione	360225	9920289/NONE	5/8"& 5/8	28607

YEAR	JAN A	JAN B	FEB A	FEB B	MAR A	MAR B	APR A	APR B	MAY A	MAY B	JUNE A	JUNE B	JULY A	JULY B	AUG A	AUG B	SEPT A	SEPT B	OCT A	OCT B	NOV A	NOV B	DEC A	DEC B	TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100
2003	0	0	0	0	0	0	0	0	500	1200	10100	9300	18800	14300	22400	19100	6100	2500	15100	14300	8000	6800	0	0	148500
2004	0	0	0	0	0	0	800	1100	17700	19600	31100	24700	18200	15000	25800	19200	20000	12100	14400	7600	0	100	0	0	227400
2005	0	0	0	0	0	0	5400	4600	14600	10000	31400	27800	39900	27400	29800	19400	13600	11200	11400	6800	2400	1300	0	0	257000
2006	0	0	0	0	900	800	31400	22800	23600	22900	25900	19500	100	17300	33200	11000	24200	16300	14500	18500	0	100	0	0	283000
2007	0	0	0	0	0	100	9200	16400	24600	62300	24800	43600	17900	13400	15600	13500	30400	20700	21900	20200	16700	1000	0	0	352300
2008	0	0	0	0	0	0	12000	3900	6000	9400	24500	27900	16800	27400	10500	20800	7700	18700	9400	22500	0	7900	0	0	225400
2009	0	0	0	0	0	0	1600	1400	15500	13600	13400	13000	26000	22800	24200	21500	19200	16900	5400	5100	2900	2500	0	0	205000
2010	0	0	0	0	0	0	4200	2700	17000	15100	34100	28800	28800	25100	22600	19700	32100	30100	20900	16300	0	0	0	0	297500
2011	0	0	0	0	0	0	12800	10800	23700	8700	28200	36300	9000	24400	42200	10000	33000	7200	20700	0	19100	0	0	0	286100
2012	0	0	0	0	0	0	15200	0	33200	0	95800	0	47300	0	82500	0	58600	0	46400	0	11000	0	0	0	390000
2013	0	0	0	0	0	0	3200	0	32200	0	44600	0	38800	0	17600	0	45200	0	12500	0	6900	0	0	0	201000
2014	0	0	0	0	0	0	4200	0	39600	0	49800	0	49400	0	27600	0	41900	0	26100	0	1300	0	0		239900
2015	0		0		0		0		20100		22200		29100		31400		42600		30100		9800		0		185300



Amelia White	Account #	Meter #	Size	Service Address	System DU report =
981 OLD SANTA FE TRL	374635	9938638	2"	27928	49%

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	19500	36300	41700	19900	0	0	21500	3300	0	142200
2003	0	0	0	33700	40000	58000	53200	51300	42500	42500	26400	0	347600
2004	0	0	0	8800	17300	39800	65600	57400	67900	43100	52000	0	351900
2005	0	0	0	11200	74000	71000	68700	83200	36200	99600	44400	0	488300
2006	0	0	0	381800	101600	154700	130900	257900	247900	107400	23400	0	1405600
2007	0	0	0	52700	86700	82000	91700	130100	198400	130500	38300	0	810400
2008	0	0	0	16200	199800	327000	281900	252000	128400	138500	15400	0	1359200
2009	0	0	0	1700	102800	160700	149000	250600	170000	99100	600	0	934500
2010	0	0	0	15200	69600	281600	439100	116300	335300	263000	56100	0	1576200
2011	0	0	0	87200	241400	192700	320500	285200	116800	114100	34500	0	1392400
2012	0	0	0	47800	189500	271900	348400	368500	304400	191600	70100	0	1792200
2013	0	0	0	12100	93700	112100	210700	194800	351300	41400	0	0	1016100
2014	0	0	0	48100	115200	195700	253000	156300	314500	141700	10100	0	1234600
2015	0	0	0	4800	74100	75800	225900	105300	216400	233500	27100	0	962900



Project Name		**Amelia White**			Date			**June 25, 2015**					
Address					Auditor			**Sam**					
City, State					Area/Zone/Station			**1.00**					
See instructions below on clearing input area													
Test Area/Station				**1**									
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min				
Catch Device Volumes													
1	**25**	17		33		49		65		81			
2	**45**	18		34		50		66		82			
3	**70**	19		35		51		67		83			
4	**80**	20		36		52		68		84			
5	**45**	21		37		53		69		85			
6	**50**	22		38		54		70		86			
7	**55**	23		39		55		71		87			
8	**40**	24		40		56		72		88			
9	**25**	25		41		57		73		89			
10	**25**	26		42		58		74		90			
11	**25**	27		43		59		75		91			
12	**30**	28		44		60		76		92			
13	**15**	29		45		61		77		93			
14	**25**	30		46		62		78		94			
15	**25**	31		47		63		79		95			
16	**25**	32		48		64		80		96			
Number Catch Devices				**16**	1/4 Number Catch Devices			**4**					
Total Catch Volume				**605**	Total Low Quarter			**90**					
Average Volume (V_{avg})				**37.81**	Average Low Quarter (V_{lq})			**22.50**					
Calculate Distribution Uniformity													
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.60**								
	Average Volume (V_{avg})												

Project Name		**Amelia White**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**2.00**				
See instructions below on clearing input area											
Test Area/Station				**2**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**10**	17	**10**	33		49		65		81	
2	**10**	18	**10**	34		50		66		82	
3	**15**	19	**5**	35		51		67		83	
4	**30**	20	**15**	36		52		68		84	
5	**85**	21	**25**	37		53		69		85	
6	**30**	22	**30**	38		54		70		86	
7	**25**	23		39		55		71		87	
8	**45**	24		40		56		72		88	
9	**35**	25		41		57		73		89	
10	**25**	26		42		58		74		90	
11	**25**	27		43		59		75		91	
12	**20**	28		44		60		76		92	
13	**15**	29		45		61		77		93	
14	**15**	30		46		62		78		94	
15	**15**	31		47		63		79		95	
16	**15**	32		48		64		80		96	
Number Catch Devices			**22**		1/4 Number Catch Devices			**6**			
Total Catch Volume			**510**		Total Low Quarter			**60**			
Average Volume (V_{avg})			**23.18**		Average Low Quarter (V_{lq})			**10.00**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.43**						
	Average Volume (V_{avg})										

Walk-Through Irrigation System Audit and Site Evaluation							
Site Name: Amelia White - bubbler zones						Contacts:	
Site Address:						Phone #:	
Surveyor:			Time: Start_____ Finish_____			Contacts:	
Survey Date:		Catch Cup Date:				Phone #:	
		Landscape (sq. ft):				Turf (sq. ft):	Shrubs (sq. ft):
Meter #'s	Begin Read	End Read		Backflow PSI		Comments:	
	14820300	14825050		static	dynamic	Bubbler zones were orginally installed with RB .50 GPM heads. Since installation some adjustable Irritrol bubbler heads have been installed. The system is now a mix of RB and Irritrol heads resulting in non-uniform application of water. Recommendation is that zones be restored to orginal specifications to improve DU. On average zones are applying 113% of design water with one system as low as 61% of design water.	

Catch Cup Count	Zone	Head or Sprinkler Type and Location if needed	Head #	Test Time (min)	Head PSI on Zone	T=Slanted, C=Clogged, Bl=Blocked Spray, BS=Broken Stem, BH=Broken Head, BN=Broken Nozzle, CO=Cap Off, WS=Wrong Spacing, WA=Wrong Arc, RD=Radius Screw Down Too Far, RF=Runoff, OV= Overspray, LH= Low Head, LPSI=Low Pressure at Head, UP=Stuck Up, RTF= Rotation Too Fast, MH= Missing Head, BV= Broken Valve, NC= Nozzle Color, CNF= Can Not Find, NST=No Start Time, MPR= MP Rotator Nozzles/Heads Recommended for this area, RX=Remove turf for Xeriscape or Shrub Bed, **(Count number of Trees, Shrubs per Zone), Additional Notes as needed**
	5	Rain Bird .50 GPM Bubbler	62	10		Target: 310 Gal
						Actual : 212 Gal 68%
	6	Rain Bird .50 GPM Bubbler	120	10		Target: 600 Gal
						Actual : 690 Gal 115%
	7	Rain Bird .50 GPM Bubbler	33	10		Target: 165 Gal
						Actual : 355 Gal 203%
	8	Rain Bird .50 GPM Bubbler	110	10		Target: 550 Gal
		-	-	-		Actual : 635 Gal 115%
	9	Rain Bird .50 GPM Bubbler	110	10		Target: 550 Gal
						Actual : 330 Gal 61%
	10	Rain Bird .50 GPM Bubbler	95	10		Target: 475 Gal
						Actual : 932 Gal 196%
	11	Rain Bird .50 GPM Bubbler	57	10		Target: 285 Gal
						Actual : 200 Gal 70%
	12	Rain Bird .50 GPM Bubbler	113	10		Target: 565 Gal
						Actual : 450 Gal 80%

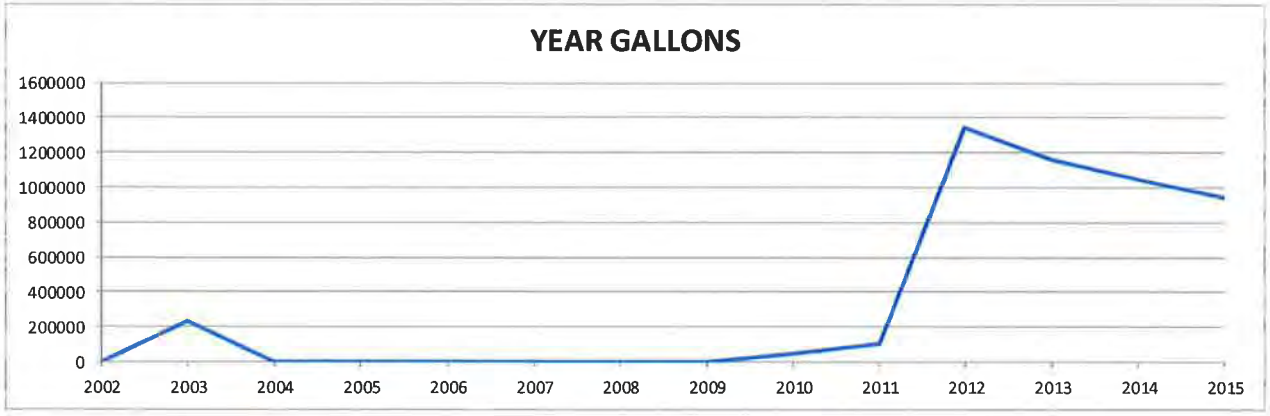
Account #	Meter #	Size	Service Address
360524	9958984	1 1/2"	31399

Calle Lorca
2075 CALLE LORCA

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	200	0	0	0	0	0	0	200
2003	0	0	0	200	400	3700	20400	41700	55300	67700	46900	0	236300
2004	0	0	0	0	0	0	0	0	0	0	0	0	0
2005	0	0	0	0	0	0	0	0	0	0	1300	0	1300
2006	0	0	0	0	0	0	0	0	0	0	0		0
2007	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0	0	0	0	0	0	0	14500	19800	14300	0	48600
2011	0	0	0	0	0	0	0	0	3000	66200	39500	0	108700
2012	0	0	0	35400	304400	207400	204000	216000	216500	119500	44600	0	1347800
2013	0	0	0	46500	168800	236000	242500	114100	246400	107900	0	0	1162200
2014	0	0	0	24400	154400	179900	220100	124400	196700	121500	27500	0	1048900
2015	0	0	0	2600	117200	122600	160500	154800	192100	173600	17500	0	940900

Document

DU = 58.3%



Meter failure December 2003, replaced 2010 again in 2011.

Project Name		**Calle Lorca**			Date			**June 22, 2015**		
Address					Auditor					
City, State					Area/Zone/Station					
See instructions below on clearing input area										
Test Area/Station				**0**						
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min	
Catch Device Volumes										
1	50	17	25	33	35	49		65		81
2	70	18	55	34		50		66		82
3	75	19	75	35		51		67		83
4	70	20	60	36		52		68		84
5	55	21	60	37		53		69		85
6	45	22	50	38		54		70		86
7	30	23	30	39		55		71		87
8	50	24	45	40		56		72		88
9	60	25	35	41		57		73		89
10	60	26	25	42		58		74		90
11	75	27	25	43		59		75		91
12	50	28	20	44		60		76		92
13	55	29	10	45		61		77		93
14	45	30	10	46		62		78		94
15	60	31	60	47		63		79		95
16	20	32	55	48		64		80		96
Number Catch Devices			**33**		1/4 Number Catch Devices			**9**		
Total Catch Volume			**1545**		Total Low Quarter			**195**		
Average Volume (V_{avg})			**46.82**		Average Low Quarter (V_{lq})			**21.67**		
Calculate Distribution Uniformity										
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.46**					
	Average Volume (V_{avg})									

Project Name		**Calle Lorca**			Date		**June 22, 2015**			
Address					Auditor					
City, State					Area/Zone/Station		**3.00**			
See instructions below on clearing input area										
Test Area/Station				**3**						
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min	
Catch Device Volumes										
1	30	17	15	33		49		65		81
2	20	18	15	34		50		66		82
3	20	19	10	35		51		67		83
4	15	20	15	36		52		68		84
5	30	21	25	37		53		69		85
6	30	22	40	38		54		70		86
7	25	23	10	39		55		71		87
8	25	24	15	40		56		72		88
9	20	25		41		57		73		89
10	5	26		42		58		74		90
11	25	27		43		59		75		91
12	20	28		44		60		76		92
13	30	29		45		61		77		93
14	30	30		46		62		78		94
15	20	31		47		63		79		95
16	15	32		48		64		80		96
Number Catch Devices			**24**		1/4 Number Catch Devices			**6**		
Total Catch Volume			**505**		Total Low Quarter			**70**		
Average Volume (V_{avg})			**21.04**		Average Low Quarter (V_{lq})			**11.67**		
Calculate Distribution Uniformity										
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.55**					
	Average Volume (V_{avg})									

Address		Auditor	
City, State		Area/Zone/Station	

See instructions below on clearing input area

Test Area/Station				5		
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)
Catch Device Volumes						
1	30	17	25	33	20	49
2	35	18	60	34	25	50
3	20	19	55	35	25	51
4	25	20	75	36	30	52
5	30	21	50	37		53
6	40	22	45	38		54
7	50	23	30	39		55
8	50	24	30	40		56
9	35	25	30	41		57
10	25	26	30	42		58
11	30	27	25	43		59
12	30	28	35	44		60
13	40	29	25	45		61
14	30	30	25	46		62
15	90	31	20	47		63
16	55	32	25	48		64

Number Catch Devices			**36**	1/4 Number Catch Devices	
Total Catch Volume			**1300**	Total Low Quarter	
Average Volume (V_{avg})			**36.11**	Average Low Quarter (V_{lq})	

Calculate Distribution Uniformity

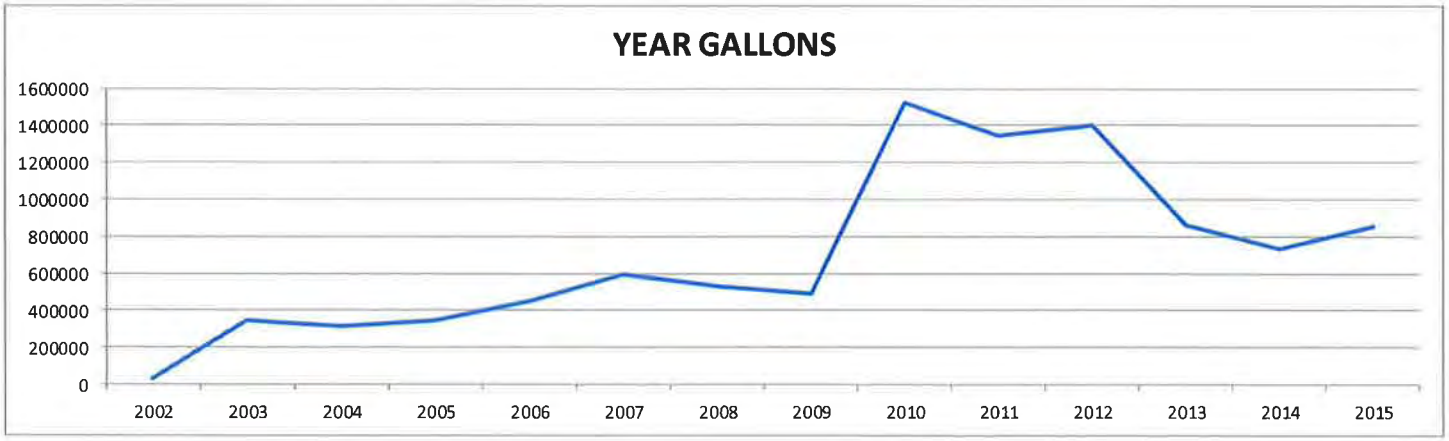
$$\frac{\text{Average Low Quarter } (V_{lq})}{\text{Average Volume } (V_{avg})} = \mathbf{0.65}$$

Project Name		**Calle Lorca**			Date		**June 22, 2015**			
Address					Auditor					
City, State					Area/Zone/Station		**7.00**			
See instructions below on clearing input area										
Test Area/Station				**7**						
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min	
Catch Device Volumes										
1	15	17	15	33		49		65		81
2	20	18	20	34		50		66		82
3	15	19	30	35		51		67		83
4	15	20	25	36		52		68		84
5	15	21	30	37		53		69		85
6	15	22	45	38		54		70		86
7	10	23	30	39		55		71		87
8	10	24	20	40		56		72		88
9	10	25	20	41		57		73		89
10	10	26	20	42		58		74		90
11	35	27	25	43		59		75		91
12	40	28	30	44		60		76		92
13	15	29	25	45		61		77		93
14	20	30	20	46		62		78		94
15	25	31	25	47		63		79		95
16	15	32	25	48		64		80		96
Number Catch Devices			**32**		1/4 Number Catch Devices			**8**		
Total Catch Volume			**690**		Total Low Quarter			**100**		
Average Volume (V_{avg})			**21.56**		Average Low Quarter (V_{lq})			**12.50**		
Calculate Distribution Uniformity										
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.58**					
	Average Volume (V_{avg})									

Project Name		**Calle Lorca**			Date		**June 22, 2015**		
Address					Auditor				
City, State					Area/Zone/Station		**9.00**		
See instructions below on clearing input area									
Test Area/Station				**9**					
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)		min	
Catch Device Volumes									
1	50	17	20	33		49	65		81
2	25	18	30	34		50	66		82
3	20	19	50	35		51	67		83
4	30	20	50	36		52	68		84
5	45	21	35	37		53	69		85
6	25	22	30	38		54	70		86
7	35	23	20	39		55	71		87
8	30	24	20	40		56	72		88
9	35	25	30	41		57	73		89
10	20	26	50	42		58	74		90
11	20	27		43		59	75		91
12	30	28		44		60	76		92
13	22	29		45		61	77		93
14	25	30		46		62	78		94
15	25	31		47		63	79		95
16	20	32		48		64	80		96
Number Catch Devices			**26**		1/4 Number Catch Devices		**7**		
Total Catch Volume			**792**		Total Low Quarter		**140**		
Average Volume (V_{avg})			**30.46**		Average Low Quarter (V_{lq})		**20.00**		
Calculate Distribution Uniformity									
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.66**				
	Average Volume (V_{avg})								

DeVargas West 360612 9947493 2" 31394

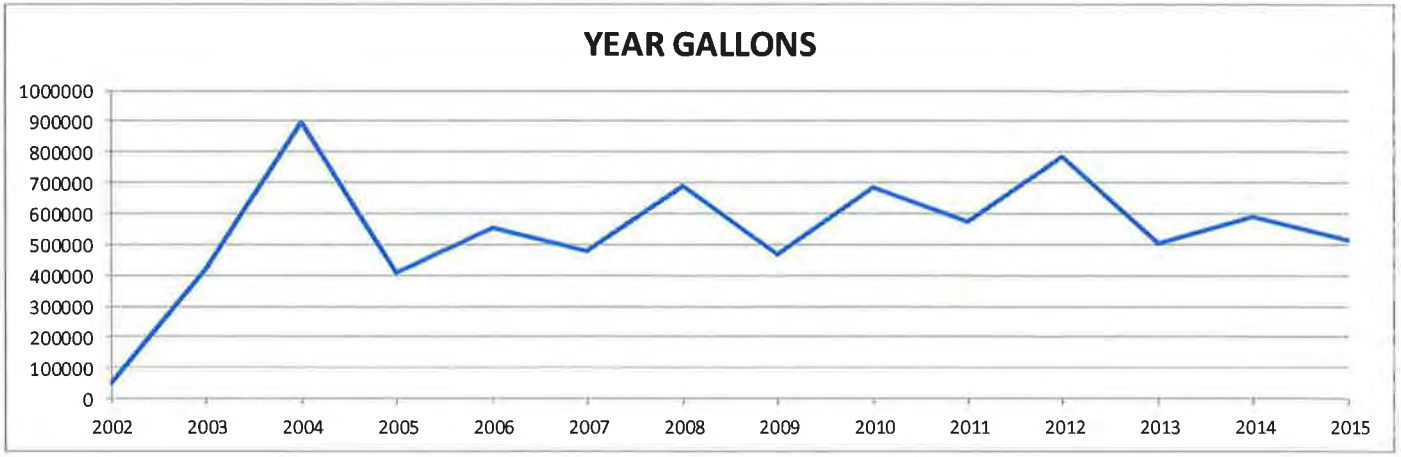
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		TOTAL YEAR GALLONS
2002	0	0	0	0	0	32200	0	0	0	0	0		0	32200
2003	0	0	0	0	1100	66400	103500	98000	33200	38200	8000		0	348400
2004	0	0	0	1100	25600	60100	67300	52500	38100	64500	3600		0	312800
2005	0	0	0	5700	44300	234200	66400	0	0	0	0		0	350600
2006	0	0	0	0	0	257700	52300	51200	40100	39300	12800		0	453400
2007	0	0	0	10200	78800	60200	154200	87100	111400	84700	11800		0	598400
2008	0	0	0	800	109000	136400	95400	74300	47600	72000	0		0	535500
2009	0	0	22500	19500	84200	69500	105800	91400	68700	31000	0		0	492600
2010	0	100	0	23000	168100	182700	410300	125000	289100	305200	18800		0	1522300
2011	0	0	0	19400	209000	221400	301200	298600	168800	109100	16800		0	1344300
2012	0	0	0	30200	184900	189600	327300	410800	159600	85600	11400		0	1399400
2013	0	0	0	86900	131800	158900	207900	84300	126000	42500	22400		0	860700
2014	0	0	0	18800	127400	138700	138200	132900	112800	59900	3300		0	732000
2015	0	0	0	900	84400	92900	153400	142400	192600	180100	12200		0	858900



DeVargas East

Account #	Meter #	Size	Service Address
430393	9933780	2"	31393

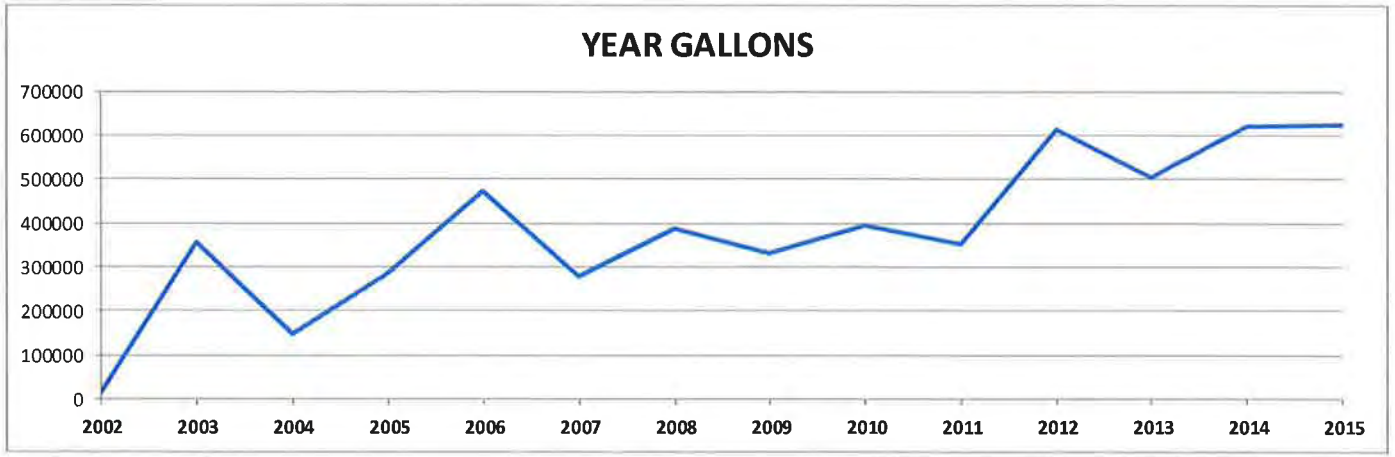
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	14500	34400	0	0	0	0	0	100	0	49000
2003	0	0	0	0	7600	76400	71200	64600	71600	69300	58200	0	418900
2004	0	0	0	48500	39800	233200	153400	109900	119200	130000	64200	0	898200
2005	0	0	0	8000	28100	107400	117000	76200	47300	18400	8400	0	410800
2006	0	0	0	83800	53300	149200	127900	86300	38500	16200	0	0	555200
2007	0	0	0	20500	45500	42100	129100	58200	124000	52300	5100	0	476800
2008	0	0	0	2000	34400	93200	195900	132500	125600	77600	30100	0	691300
2009	0	0	1400	13500	36600	119400	88200	113700	73000	21800	700	0	468300
2010	0	0	0	45000	112700	0	0	0	0	0	530000	0	687700
2011	0	0	0	33700	1037	87600	153100	175200	58500	56300	7800	0	573237
2012	0	0	0	41800	70800	112200	142400	157300	110700	96100	56900	0	788200
2013	0	0	0	19900	93900	100500	138200	24600	97500	24400	6900	0	505900
2014	0	0	0	23000	76900	122800	113900	79900	97900	71800	2900	0	589100
2015	0	0	0	4300	46000	47300	100400	89200	88800	125900	11300	0	513200



Galisteo Tennis Courts

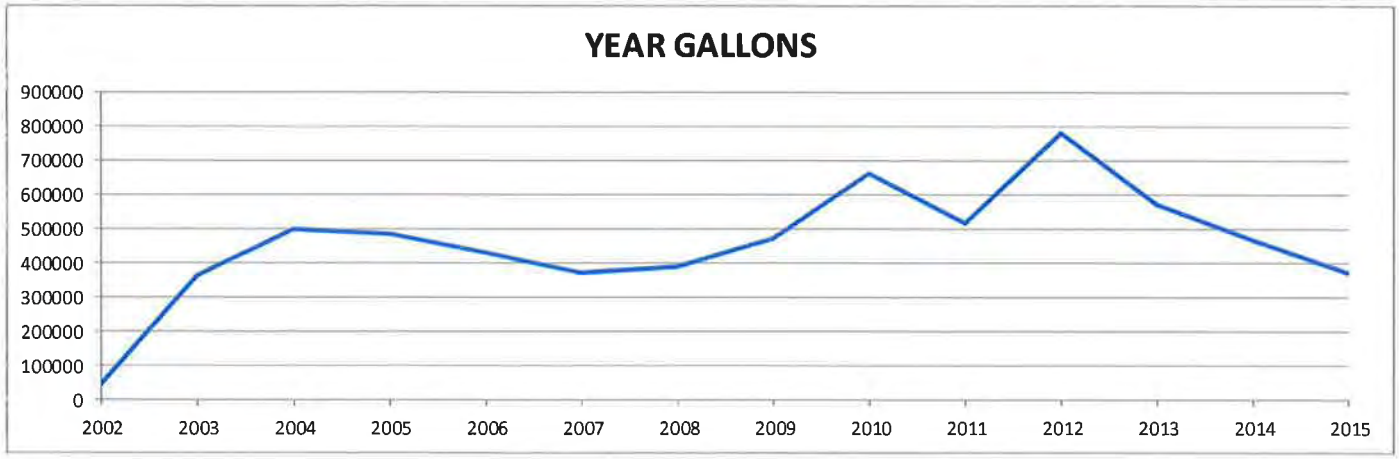
Account #	Meter #	Size	Service Address
360604	9916072	2"	31395

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	300	100	100	400	500	0	4500	9800	0	15700
2003	0	0	0	16200	25100	29700	166900	56600	22700	32400	7500	0	357100
2004	0	0	0	0	57200	48200	25700	6100	10300	0	0	0	147500
2005	0	0	0	100	7200	82200	0	0	0	0	196000	0	285500
2006	0	0	3300	600	1000	323600	63300	23900	0	28100	28600	0	472400
2007	0	0	0	0	21200	37300	0	0	0	0	219600	0	278100
2008	0	0	0	2800	63100	127800	52100	33700	36800	56200	16900	0	389400
2009	0	0	0	2700	97300	43300	61900	69200	43300	8700	6000	0	332400
2010	0	0	0	19400	29000	47600	123000	12100	70900	77500	14300	0	393800
2011	0	0	0	7100	6100	17000	30100	0	0	0	293000	0	353300
2012	0	0	0	13200	41800	61000	136900	88800	136900	121600	12500	0	612700
2013	0	0	0	18800	89000	81200	105000	69300	95300	46000	0	0	504600
2014	0	0	0	15400	68400	80000	122600	85000	123300	100200	25500	0	620400
2015	0	0	0	16000	42300	97200	118800	128600	108300	113100	0	0	624300



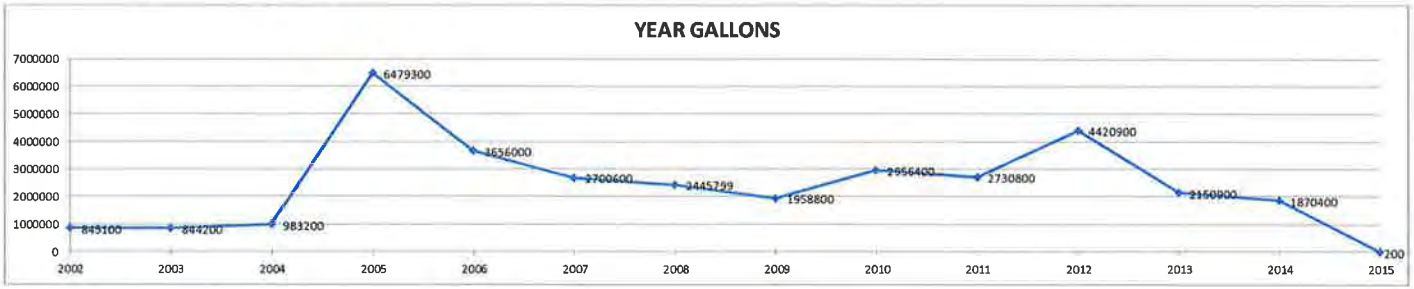
	Account #	Meter #	Size	Service Address
Orlando Fernandez	360516	9922356	1 1/2"	31400

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	44400	0	0	0	0	0	0	44400
2003	0	0	0	460	48000	88100	89300	68400	11800	36700	19600	0	362360
2004	0	0	0	5800	71500	108300	91500	75000	99300	46300	0	0	497700
2005	0	0	0	19100	46300	118400	97000	104500	81300	13600	4900	0	485100
2006	0	0	0	81300	65800	80800	66300	57900	39800	39300	0	0	431200
2007	0	0	0	26500	53400	48400	78900	47800	111900	6400	0	0	373300
2008	0	0	0	27400	46400	113900	52900	46700	50200	53000	0	0	390500
2009	0	0	0	9900	33900	67900	79300	102100	98300	79000	0	0	470400
2010	0	0	0	8400	61900	115000	133600	81000	133200	102100	29300	0	664500
2011	0	0	0	0	0	0	0	420500	10600	83800	2300	0	517200
2012	0	0	0	32500	67600	108400	165100	164200	125500	96400	20700	0	780400
2013	0	0	0	27400	101700	115600	110500	65300	112600	37500	0	0	570600
2014	0	0	0	8700	61100	75700	124900	15700	100300	74200	6800	0	467400
2015	0	0	0	500	43500	36800	66800	66300	79100	73600	6100	0	372700



	Account #	Meter #	Size	Service Address
Patrick Smith	369191	99370871/2	4"&4"	31017

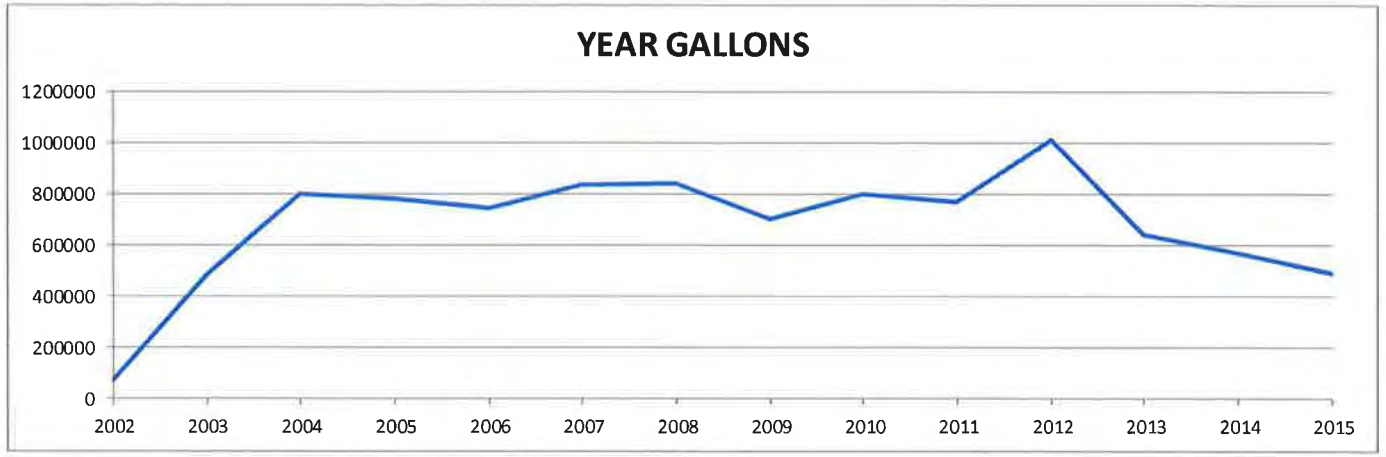
YEAR	JAN A	JAN B	FEB A	FEB B	MAR A	MAR B	APR A	APR B	MAY A	MAY B	JUNE A	JUNE B	JULY A	JULY B	AUG A	AUG B	SEPT A	SEPT B	OCT A	OCT B	NOV A	NOV B	DEC A	DEC B	TOTAL YEAR GALLONS
2002	26100	235800	61200	406900	4000	0	16300	0	16800	0	12500	0	14200	0	14000	0	15600	0	11700	0	9700	300	0	0	845100
2003	0	0	0	0	100	0	9300	1000	2400	3500	11900	106500	13400	140000	11800	123700	10300	103300	10600	104000	38300	154100	0	0	844200
2004	0	0	0	0	0	0	1000	0	2300	83200	17000	82200	15700	139500	17400	160700	15900	154700	16800	156000	17700	84400	18700	0	983200
2005	20300	0	19900	0	13300	0	19300	124600	64600	1204300	87500	969000	73800	1331400	63600	809000	70400	1191100	20500	395300	0	1100	0	300	6479300
2006	75200	0	16900	0	7100	0	0	0	50600	0	56800	1406600	45500	691500	72300	677000	18200	221300	19300	247000	6700	39000	5000	0	3656000
2007	2300	0	2400	0	2400	0	3900	39800	6100	198200	68700	416800	39100	314700	53700	421700	62000	489700	64800	513700	200	400	0	0	2700600
2008	0	0	0	0	0	0	59900	12600	38900	299900	53400	450400	43600	359800	45000	378000	41400	339300	37200	280700	0	0	5400	299	2445799
2009	0	0	0	0	2300	1200	25600	101800	29200	271600	22000	235100	58000	324100	72000	348600	60300	283100	0	123900	0	0	0	0	1958800
2010	0	0	0	0	0	0	27300	25400	30400	164800	26900	345500	214300	766500	70800	189800	25500	516900	72500	274400	93200	112200	0	0	2956400
2011	0	0	0	0	0	0	15800	183400	43600	211000	69400	332200	96000	426700	137200	775500	31200	167700	29300	153000	5200	53600	0	0	2730800
2012	0	0	0	0	0	0	16200	59800	56500	201100	81500	360700	157700	1731300	98000	588400	86000	420600	79900	359800	22800	100600	0	0	4420900
2013	0	0	0	0	0	0	2100	0	55300	249500	93000	435200	138600	530400	12500	201800	61200	275600	15100	71500	3000	6100	0	0	2150900
2014	0	0	0	0	0	0	300	1600	43600	213000	57700	290000	63200	314300	38600	189900	53400	294700	42000	232100	5300	30700	0	0	1870400
2015	0	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200



Irrigation upgrade 2005 - Irrigation upgrade 2011/2012, irrigation failure 2015. Replacement scheduled 2016

	Account #	Meter #	Size	Service Address
Young	357878	9937005	2"	31406

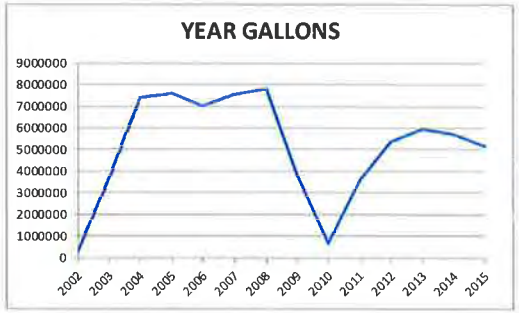
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	64700	100	10000	0	100	0	0	74900
2003	0	0	0	0	47200	86800	86900	142200	107100	15900	0	0	486100
2004	0	0	0	500	27200	133700	140300	143200	138800	144200	70500	0	798400
2005	0	0	0	20000	62700	81300	132500	201100	199500	82300	2000	0	781400
2006	0	0	0	116900	73400	114000	120400	157300	110400	42400	12200	0	747000
2007	0	0	0	27800	110900	69500	232500	126800	164000	100000	3100	0	834600
2008	0	0	100	43400	74400	209900	224100	90200	128000	72700	300	0	843100
2009	0	0	0	23600	106000	89900	129200	143300	133400	76000	800	0	702200
2010	0	0	0	9700	59200	99600	199600	97900	164000	132200	36300	0	798500
2011	0	0	0	35300	96100	122000	196200	178600	71300	55500	12700	0	767700
2012	0	0	0	43900	97900	180600	180900	191800	160000	120300	35500	0	1010900
2013	0	0	0	13700	72400	194300	156300	57900	97100	32200	17700	0	641600
2014	0	0	0	16900	87900	94000	109200	65400	102400	62900	32000	0	570700
2015	0	0	0	1500	61200	57600	95800	65100	105500	91300	9700	0	487700



Irrigation upgrade and tree planting 2012.

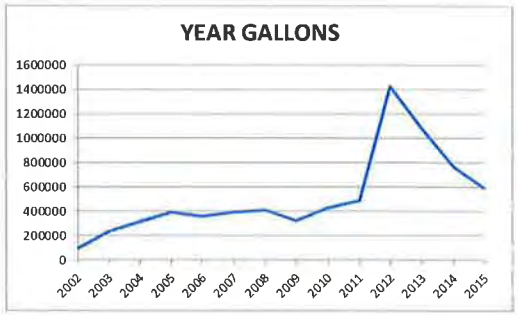
	Account #	Meter #	Size	Service Address
ASHBAUGH	359582	99291642	3"	31019

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	158900	138000	22500	0	0	0	0	0	319400
2003	0	0	0	0	696800	1143000	749200	398800	301500	423400	0		3712700
2004	0	0	0	20300	1176100	1672000	1662200	987800	1111400	709900	70400	0	7410100
2005	0	0	0	0	350300	2259600	1335700	1760600	1052900	603500	269200	0	7631800
2006	0	0	0	1227000	1337300	1973000	725600	577600	555400	508200	131200	0	7035300
2007	0	0	0	225900	708700	734500	1927309	1173800	1838000	858300	75200	0	7541709
2008	0	0	0	250300	1322700	1373100	1787200	1384300	901400	683900	109400	0	7812300
2009	0	0	0	195300	814400	649400	999500	697300	502000	500	100	0	3858500
2010	0	0	0	100	1600	5000	4700	1800	2700	507900	151300	0	675100
2011	0	0	0	421200	293100	767300	632100	792400	408000	283100	400	0	3597600
2012	0	0	0	210900	616000	42600	34900	1362100	1448600	1308100	361100	0	5384300
2013	0	0	0	304500	593000	1427800	1076000	735600	1413900	260000	144200	0	5955000
2014	0	0	0	79300	938100	1030600	1081800	600700	955600	735000	295200	0	5716300
2015	0	0	0	9100	629900	623300	1004200	720200	1039600	1029300	93800	0	5149400



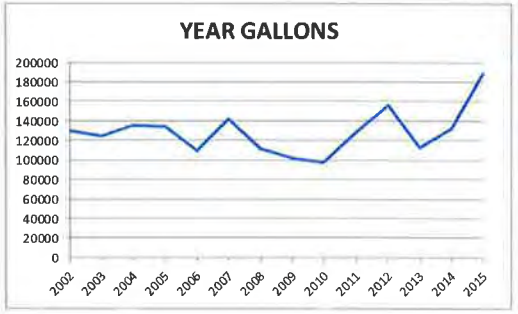
	Meter #	Size
	99291641	3"

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	30100	26700	28800	8200	0	0	0	0	0	93800
2003	0	0	0	0	6600	56300	53100	49700	26100	19100	23100	0	234000
2004	0	0	0	1100	46800	68300	72500	44800	47200	28600	2700	0	312000
2005	0	0	0	0	16500	113300	61100	92700	55300	32100	14000	0	385000
2006	0	0	0	60100	64500	102200	38800	30400	28500	25200	6400	0	356100
2007	0	0	0	11000	34900	40800	102800	58200	90500	48300	3800	0	390300
2008	0	0	0	12500	65600	69700	90300	70800	27300	0	68800	0	405000
2009	0	0	0	14600	62100	48300	66500	35200	66000	22200	6800	0	321700
2010	0	0	0	12900	40300	84000	86100	53400	73000	61500	9000	0	420200
2011	0	0	0	44100	29700	98700	93100	117500	59300	40400	0	0	482800
2012	0	0	0	71100	219800	163800	227000	237900	208800	202700	95000	0	1426100
2013	0	0	0	58600	93100	222000	187700	203700	258100	32200	17800	0	1073200
2014	0	0	0	10000	120000	132500	135200	74600	116500	163000	7400	0	759200
2015	0	0	0	37400	400	69500	129200	89600	130300	124800	11100	0	592300



	Meter #	Size
	9957632	1"

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	12400	10900	11300	10600	13400	12400	10000	9900	9100	8900	10700	10800	130400
2003	9800	10700	0	20200	8900	9400	12000	11400	11100	13100	8100	10300	125000
2004	10300	10500	10800	9400	12000	13200	14800	11200	17600	7800	9300	8400	135300
2005	10000	10500	10500	9800	8300	14400	16500	10100	12200	8800	10200	12900	134200
2006	10800	10000	8800	11100	10500	15100	11500	13400	2800	100	3700	11400	109200
2007	10700	11400	10600	9900	13000	30500	7500	0	21600	10500	7300	9500	142500
2008	9500	10300	9800	11000	9700	9500	11000	7700	7400	9700	8300	7600	111500
2009	9800	7100	8100	8600	7400	8100	7400	9300	9200	9000	9300	8800	102100
2010	9800	8400	8000	9300	12500	10800	9500	8600	7400	2000	6600	4800	97700
2011	900	0	0	0	12000	0	0	0	0	0	115600	0	128500
2012	15700	6400	6100	6100	8600	36200	18000	14500	14800	14500	8700	6000	155600
2013	6400	6600	6100	8200	11800	17500	9000	10200	14500	7700	6800	7400	112200
2014	6500	7400	7800	11400	17900	20500	15700	11100	14200	8800	5100	6300	132700
2015	5400	4400	4800	14700	10600	58200	24000	23100	25000	7600	5100	5900	188800

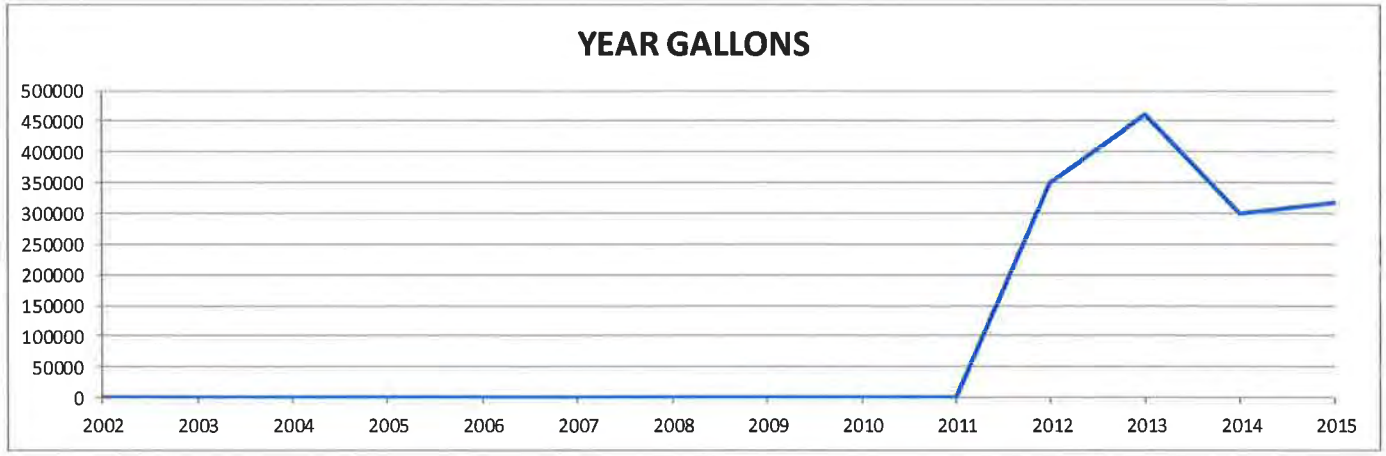


543600	319400	93800	130400	
4071700	3712700	234000	125000	
7857400	7410100	312000	135300	
8151000	7631800	385000	134200	
7500600	7035300	356100	109200	
8074509	7541709	390300	142500	
8328800	7812300	405000	111500	
4282300	3858500	321700	102100	
1193000	675100	420200	97700	
4208900	3597600	482800	128500	
6966000	5384300	1426100	155600	
7140400	5955000	1073200	112200	
6608200	5716300	759200	132700	
5930500	5149400	592300	188800	

	Account #	Meter #	Size	Service Address
Cielo Vista	558413	9958991	1 1/2"	47167

1058 Calle Carmelita

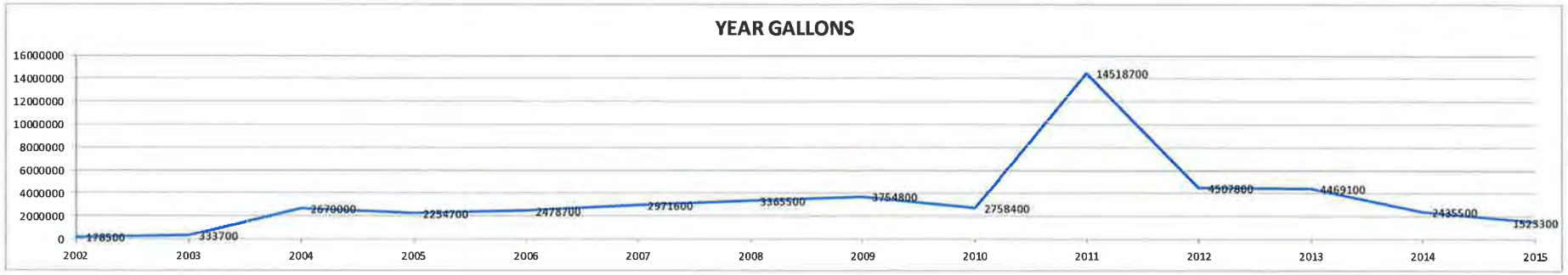
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002													0
2003													0
2004													0
2005													0
2006													0
2007													0
2008													0
2009													0
2010													0
2011													0
2012						0	17600	52200	97100	175800	7800	0	350500
2013	0	0	0	7400	78700	132400	99300	37700	71600	19100	14600	0	460800
2014	0	0	0	9400	44900	53200	51000	41800	57400	34200	8000	0	299900
2015	0	0	0	3600	57300	41700	51200	41600	52700	69000	0	0	317100



New Park - 2011

Account #	Meter #	Size	Service Address
360989	99355281/2	4"&4"	31810

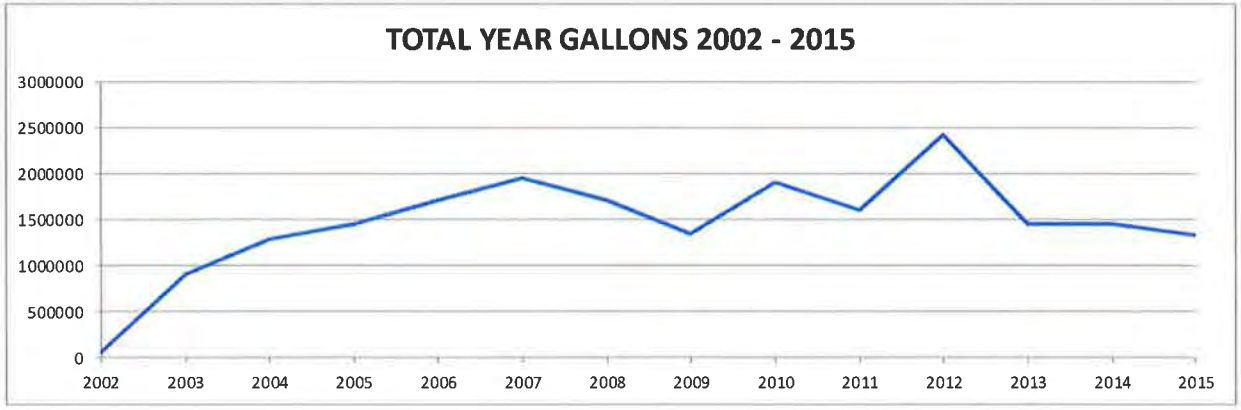
JAN A	JAN B	FEB A	FEB B	MAR A	MAR B	APR A	APR B	MAY A	MAY B	JUNE A	JUNE B	JULY A	JULY B	AUG A	AUG B	SEPT A	SEPT B	OCT A	OCT B	NOV A	NOV B	DEC A	DEC B	TOTAL YEAR GALLONS
0	0	0	2300	300	7000	2000	43500	0	500	1000	20500	2000	38500	1900	58000	0	500	0	500	0	0	0	0	178500
0	500	0	500	0	0	0	500	0	1500	0	1000	1300	28500	7900	165000	1900	13500	3400	71000	1700	35500	0	0	333700
0	0	0	500	0	0	800	114700	0	12800	16500	662500	21300	402000	19000	371500	15700	345000	7000	319500	7700	326000	0	27500	2670000
0	0	0	0	0	0	0	500	1800	121300	132000	291800	218500	198400	135000	144700	211400	93800	210000	58300	193400	0	217200	26600	2254700
194800	21400	49800	13400	40300	3800	291600	15000	433800	0	387400	64700	122600	65200	186900	32000	183500	35600	171500	20300	72000	700	72000	400	2478700
56800	0	58800	0	52100	0	89400	313600	199600	53400	233000	571600	202400	71700	250900	56800	223800	82000	258700	55900	53500	300	87000	300	2971600
80000	0	94900	0	71500	15000	71600	78100	92900	188200	121700	564900	42600	806800	0	406500	0	488000	0	170000	0	72800	0	0	3365500
0	200	0	200	61700	0	26700	23000	104400	423400	164300	516000	131300	457100	0	57900	359600	1069300	123700	235400	0	600	0	0	3754800
0	0	0	0	0	0	18700	198000	380700	155600	118400	196000	157500	286000	34200	800	287800	841900	72400	5400	5000	0	0	0	2758400
0	0	0	0	0	0	6126000	6062000	26300	99600	76200	268800	120300	412100	150500	649700	72300	180100	69300	168100	13100	24300	0	0	14518700
0	0	0	0	0	0	38800	41400	60100	94600	115300	382100	175400	749600	109200	953400	96200	732500	75600	557400	48100	278100	0	0	4507800
0	0	0	0	0	0	69200	74700	223400	1504900	74400	572200	106700	688700	58600	289600	92400	564500	45200	83300	15200	6100	0	0	4469100
0	0	0	0	0	0	66500	3700	74300	355200	108200	424900	105300	419500	53400	504100	46600	81400	6400	70700	48300	39200	27800	0	2435500
33200	0	24100	0	21300	0	21500	0	36600	25300	61300	166900	85500	258700	56100	161700	66600	211100	66600	180900	23700	0	22200	0	1523300



Irrigation line failure 2010/2011

	Account #	Meter #	Size	Service Address	
Gregory Lopez	360284	9932480	2"	31194	System DU report = 43.67%
1230 San Felipe Ave					

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	0	60300	0	0	0	0	60300
2003	0	0	0	0	231200	234700	2900	253600	51700	92600	37300	0	904000
2004	0	0	0	4600	244200	212400	271100	147800	235300	141500	24100	0	1281000
2005	0	0	0	44700	82400	396100	320900	304300	258400	43500	2100	0	1452400
2006	0	0	11400	0	0	815700	243200	259600	244100	141000	0	0	1715000
2007	0	0	0	80100	292000	135900	559800	270800	422400	0	190800	0	1951800
2008	0	0	0	200200	188600	269700	352300	262800	273100	165700	0	0	1712400
2009	0	0	5200	50700	186600	174600	227700	60000	518400	94900	23200	0	1341300
2010	0	0	0	17100	129900	319800	450400	195600	394000	312400	83800	0	1903000
2011	0	0	0	92700	197600	266200	344100	427400	133600	134800	0	0	1596400
2012	0	0	0	62300	240600	362400	490100	464800	388300	299900	116700	0	2425100
2013	0	0	0	32300	183000	267800	287200	189500	359000	87600	51800	0	1458200
2014	0	0	0	45500	271000	255400	273800	168300	241600	138200	60900	0	1454700
2015	0	0	0	26200	130700	180900	290700	164000	284000	261200	0	0	1337700



Project Name		**Gregory Lopez**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**1.00**				
See instructions below on clearing input area											
Test Area/Station				**1**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**30**	17	**50**	33		49		65		81	
2	**30**	18	**40**	34		50		66		82	
3	**25**	19	**40**	35		51		67		83	
4	**25**	20	**45**	36		52		68		84	
5	**25**	21	**30**	37		53		69		85	
6	**25**	22	**40**	38		54		70		86	
7	**25**	23	**45**	39		55		71		87	
8	**25**	24	**100**	40		56		72		88	
9	**35**	25		41		57		73		89	
10	**20**	26		42		58		74		90	
11	**20**	27		43		59		75		91	
12	**10**	28		44		60		76		92	
13	**45**	29		45		61		77		93	
14	**40**	30		46		62		78		94	
15	**40**	31		47		63		79		95	
16	**55**	32		48		64		80		96	
Number Catch Devices			**24**		1/4 Number Catch Devices			**6**			
Total Catch Volume			**865**		Total Low Quarter			**125**			
Average Volume (V_{avg})			**36.04**		Average Low Quarter (V_{lq})			**20.83**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	0.58						
	Average Volume (V_{avg})										

Project Name		**Gregory Lopez**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**3.00**				
See instructions below on clearing input area											
Test Area/Station				**3**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**10**	17	**20**	33		49		65		81	
2	**10**	18	**20**	34		50		66		82	
3	**10**	19	**15**	35		51		67		83	
4	**15**	20	**20**	36		52		68		84	
5	**15**	21	**25**	37		53		69		85	
6	**5**	22	**15**	38		54		70		86	
7	**15**	23	**15**	39		55		71		87	
8	**15**	24	**10**	40		56		72		88	
9	**20**	25		41		57		73		89	
10	**15**	26		42		58		74		90	
11	**20**	27		43		59		75		91	
12	**25**	28		44		60		76		92	
13	**25**	29		45		61		77		93	
14	**20**	30		46		62		78		94	
15	**15**	31		47		63		79		95	
16	**10**	32		48		64		80		96	
Number Catch Devices			**24**		1/4 Number Catch Devices			**6**			
Total Catch Volume			**385**		Total Low Quarter			**55**			
Average Volume (V_{avg})			**16.04**		Average Low Quarter (V_{lq})			**9.17**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	0.57						
	Average Volume (V_{avg})										

Project Name		**Gregory Lopez**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**5.00**				
See instructions below on clearing input area											
Test Area/Station				**5**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**60**	17	**5**	33		49		65		81	
2	**70**	18	**10**	34		50		66		82	
3	**30**	19	**30**	35		51		67		83	
4	**40**	20	**30**	36		52		68		84	
5	**30**	21		37		53		69		85	
6	**10**	22		38		54		70		86	
7	**10**	23		39		55		71		87	
8	**30**	24		40		56		72		88	
9	**20**	25		41		57		73		89	
10	**60**	26		42		58		74		90	
11	**50**	27		43		59		75		91	
12	**50**	28		44		60		76		92	
13	**30**	29		45		61		77		93	
14	**40**	30		46		62		78		94	
15	**20**	31		47		63		79		95	
16	**10**	32		48		64		80		96	
Number Catch Devices			**20**		1/4 Number Catch Devices			**5**			
Total Catch Volume			**635**		Total Low Quarter			**45**			
Average Volume (V_{avg})			**31.75**		Average Low Quarter (V_{lq})			**9.00**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	0.28						
	Average Volume (V_{avg})										

Project Name		**Gregory Lopez**			Date		**June 25, 2015**			
Address					Auditor		**Sam**			
City, State					Area/Zone/Station		**7.00**			
See instructions below on clearing input area										
Test Area/Station				**7**						
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min	
Catch Device Volumes										
1	**35**	17	**35**	33	**0**	49	65		81	
2	**50**	18	**30**	34	**3**	50	66		82	
3	**35**	19	**25**	35	**15**	51	67		83	
4	**10**	20	**35**	36	**30**	52	68		84	
5	**50**	21	**80**	37		53	69		85	
6	**30**	22	**100**	38		54	70		86	
7	**5**	23	**105**	39		55	71		87	
8	**2**	24	**100**	40		56	72		88	
9	**25**	25	**75**	41		57	73		89	
10	**50**	26	**50**	42		58	74		90	
11	**30**	27	**35**	43		59	75		91	
12	**40**	28	**50**	44		60	76		92	
13	**30**	29	**10**	45		61	77		93	
14	**25**	30	**35**	46		62	78		94	
15	**25**	31	**2**	47		63	79		95	
16	**20**	32	**0**	48		64	80		96	
Number Catch Devices			**36**		1/4 Number Catch Devices		**9**			
Total Catch Volume			**1277**		Total Low Quarter		**47**			
Average Volume (V_{avg})			**35.47**		Average Low Quarter (V_{lq})		**5.22**			
Calculate Distribution Uniformity										
DU_{LQ} =	Average Low Quarter (V_{lq})			=	0.15					
	Average Volume (V_{avg})									

Project Name		**Gregory Lopez**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**9.00**				
See instructions below on clearing input area											
Test Area/Station				**9**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**25**	17	**5**	33		49		65		81	
2	**20**	18	**1**	34		50		66		82	
3	**25**	19	**2**	35		51		67		83	
4	**15**	20	**8**	36		52		68		84	
5	**15**	21	**20**	37		53		69		85	
6	**4**	22	**30**	38		54		70		86	
7	**15**	23		39		55		71		87	
8	**10**	24		40		56		72		88	
9	**15**	25		41		57		73		89	
10	**20**	26		42		58		74		90	
11	**30**	27		43		59		75		91	
12	**39**	28		44		60		76		92	
13	**35**	29		45		61		77		93	
14	**20**	30		46		62		78		94	
15	**10**	31		47		63		79		95	
16	**10**	32		48		64		80		96	
Number Catch Devices			**22**		1/4 Number Catch Devices			**6**			
Total Catch Volume			**374**		Total Low Quarter			**30**			
Average Volume (V_{avg})			**17.00**		Average Low Quarter (V_{lq})			**5.00**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	0.29						
	Average Volume (V_{avg})										

Project Name		**Gregory Lopez**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**11.00**				
See instructions below on clearing input area											
Test Area/Station				**11**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**15**	17	**45**	33		49		65		81	
2	**25**	18	**65**	34		50		66		82	
3	**15**	19	**60**	35		51		67		83	
4	**3**	20	**55**	36		52		68		84	
5	**25**	21	**50**	37		53		69		85	
6	**40**	22	**75**	38		54		70		86	
7	**25**	23		39		55		71		87	
8	**25**	24		40		56		72		88	
9	**25**	25		41		57		73		89	
10	**35**	26		42		58		74		90	
11	**35**	27		43		59		75		91	
12	**50**	28		44		60		76		92	
13	**20**	29		45		61		77		93	
14	**40**	30		46		62		78		94	
15	**20**	31		47		63		79		95	
16	**25**	32		48		64		80		96	
Number Catch Devices			**22**		1/4 Number Catch Devices			**6**			
Total Catch Volume			**773**		Total Low Quarter			**98**			
Average Volume (V_{avg})			**35.14**		Average Low Quarter (V_{lq})			**16.33**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	0.46						
	Average Volume (V_{avg})										

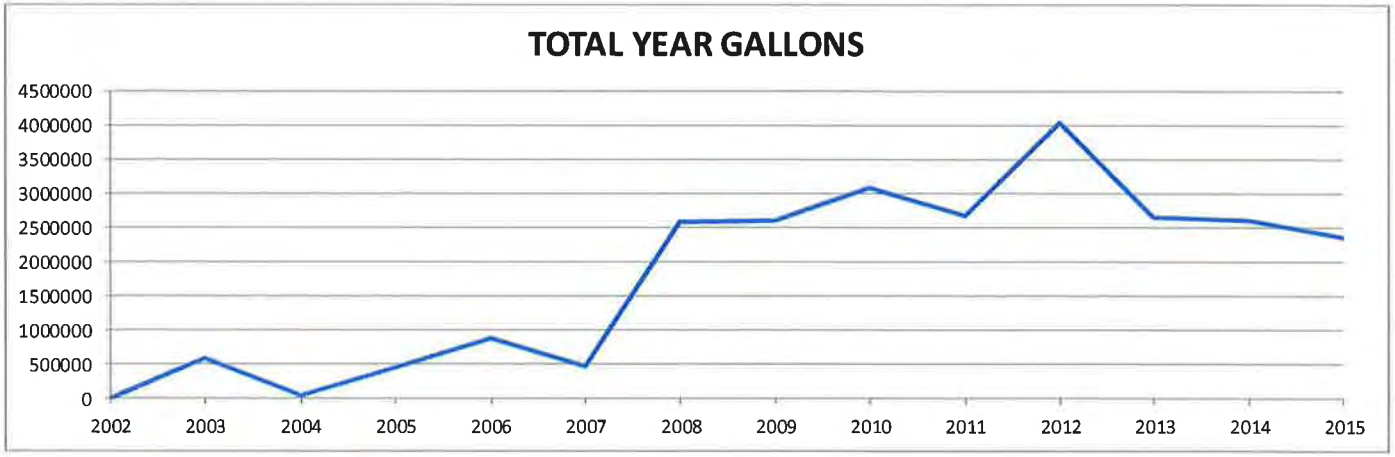
Distribution Uniformity of this system as audited: **43.7%**

Account #	Meter #	Size	Service Address
359638	9914907	3"	32034

Larragoite

Agua Fria & Avenida Cristobal

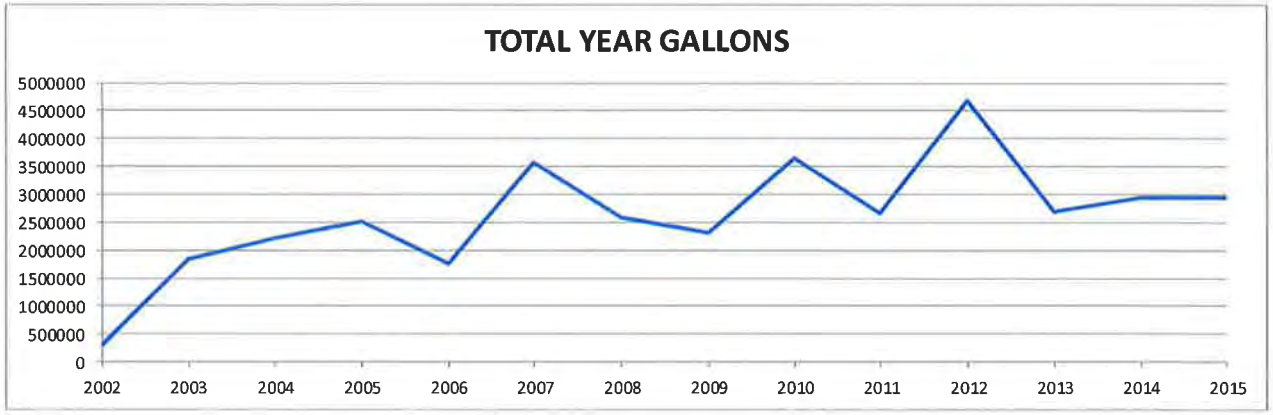
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	1600	0	0	6400	432100	60600	30200	43100	14100	0	588100
2004	0	0	0	300	200	0	0	41400	4600	1800	200	0	48500
2005	0	0	0	0	0	3800	373900	78800	0	100	200	0	456800
2006	0	0	100	33500	148400	375800	175800	62500	82300	0	200	0	878600
2007	0	0	0	15600	93500	35600	110800	54600	91000	58200	8000	2500	469800
2008	100	3600	6200	104100	668500	544800	592000	193700	112700	363600	0	0	2589300
2009	0	0	0	92400	504800	345300	0	1160200	274400	221600	100	0	2598800
2010	0	0	0	0	390700	549100	623600	0	987900	448300	86300	0	3085900
2011	0	0	0	166000	361000	469600	422700	811900	258100	189000	0	0	2678300
2012	0	0	0	138000	469700	616200	989400	532000	572000	560300	167400	0	4045000
2013	0	0	0	87200	500100	472200	384700	351800	595300	139700	126200	0	2657200
2014	0	0	0	59800	403500	496000	498500	287600	460300	275700	122500	200	2604100
2015	0	0	0	6900	297800	300900	438100	297100	514600	496100	0	0	2351500



Account #	Meter #	Size	Service Address	System DU report =
360532	9933810	2"	31378	40.50%

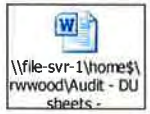
Las Acequias
1100 Calle Atajo

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	2900	162700	148200	400	400	0	200	2000	0	316800
2003	0	0	0	17700	199400	334100	422000	428500	174700	150300	116900	0	1843600
2004	0	0	0	0	175500	580100	358900	373700	450000	277800	6900	0	2222900
2005	0	0	0	0	192800	950800	513900	528900	293600	35200	2800	0	2518000
2006	0	0	171200	583700	411400	454000	26900	42900	55100	15000	3500	2800	1766500
2007	1314200	0	0	1400	71200	638500	355100	236400	569300	293200	110700	0	3590000
2008	0	0	0	63000	306000	439500	466200	473000	383600	405900	48700	0	2585900
2009	0	0	0	0	346700	401200	446700	494300	413500	211700	400	0	2314500
2010	0	0	0	0	387900	579800	781300	443900	592100	738500	141200	0	3664700
2011	0	0	0	0	394100	275300	555400	961100	207700	244600	46900	0	2685100
2012	0	0	0	195000	526400	771400	941700	793900	651300	593700	215300	0	4688700
2013	0	0	0	114100	383900	615200	567800	269400	540600	136100	75100	0	2702200
2014	0	0	0	138500	402300	483400	589200	346800	547300	338700	105500	0	2951700
2015	0	0	0	21800	238300	228800	546300	539700	721700	645200	0	0	2941800

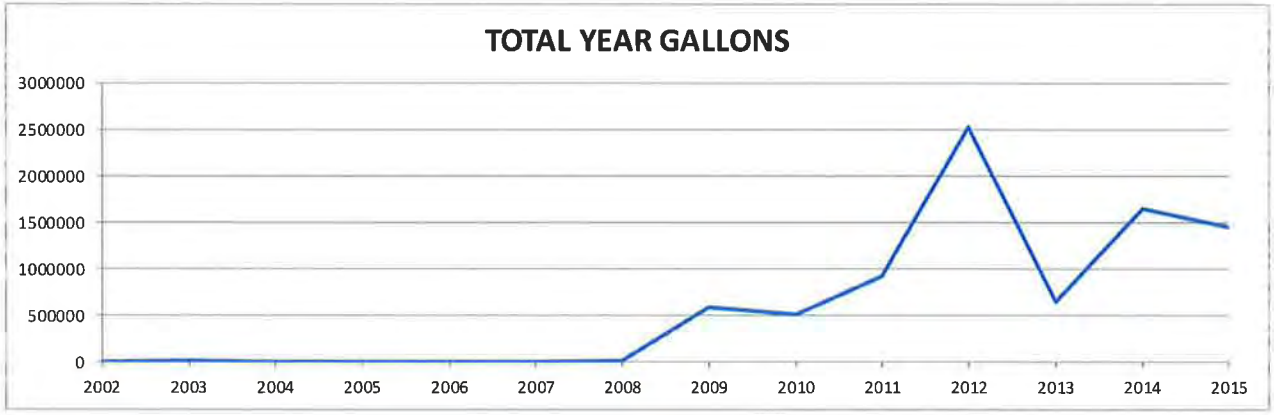


Project Name		**Las Acequias**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**1.00**				
See instructions below on clearing input area											
Test Area/Station				**1**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**23**	17	**20**	33	**7**	49		65		81	
2	**17**	18	**20**	34	**30**	50		66		82	
3	**50**	19	**1**	35	**25**	51		67		83	
4	**7**	20	**10**	36	**10**	52		68		84	
5	**0**	21	**6**	37		53		69		85	
6	**25**	22	**15**	38		54		70		86	
7	**25**	23	**45**	39		55		71		87	
8	**20**	24	**30**	40		56		72		88	
9	**20**	25	**17**	41		57		73		89	
10	**25**	26	**15**	42		58		74		90	
11	**12**	27	**20**	43		59		75		91	
12	**15**	28	**25**	44		60		76		92	
13	**16**	29	**10**	45		61		77		93	
14	**25**	30	**20**	46		62		78		94	
15	**26**	31	**17**	47		63		79		95	
16	**20**	32	**15**	48		64		80		96	
Number Catch Devices			**36**		1/4 Number Catch Devices			**9**			
Total Catch Volume			**684**		Total Low Quarter			**63**			
Average Volume (V_{avg})			**19.00**		Average Low Quarter (V_{lq})			**7.00**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.37**						
	Average Volume (V_{avg})										

	Account #	Meter #	Size	Service Address	System DU report =
Los Milagros 4056 Los Milagros	357721	9950317	2"	31080	38%



YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	100	0	0	0	0	0	0	0	100
2003	0	0	0	0	900	4500	5400	4800	3100	0	0	0	18700
2004	0	0	0	0	100	0	0	0	0	0	0	0	100
2005	0	0	0	0	0	0	0	0	0	0	0	0	0
2006	0	0	100	0	0	700	0	0	0	0	0	0	800
2007	700	0	0	0	0	0	0	0	0	0	0	0	700
2008	0	0	0	16300	300	100	0	0	0	0	500	2700	19900
2009	0	0	0	600	6800	3800	2800	385200	75400	103100	17600	0	595300
2010	0	0	0	0	53500	84400	125700	51300	17300	55400	129400	0	517000
2011	0	0	0	46600	78700	62100	111400	279100	126400	209000	15600	0	928900
2012	0	0	0	114900	186800	198800	681500	615900	178200	282700	268100	0	2526900
2013	0	14700	0	12800	61100	101200	139000	118000	103900	47300	47800	0	645800
2014	0	0	0	85400	110100	224700	259200	309200	277400	295700	92600	0	1654300
2015	0	0	0	200	152500	158900	228000	256100	240400	322200	89800	0	1448100

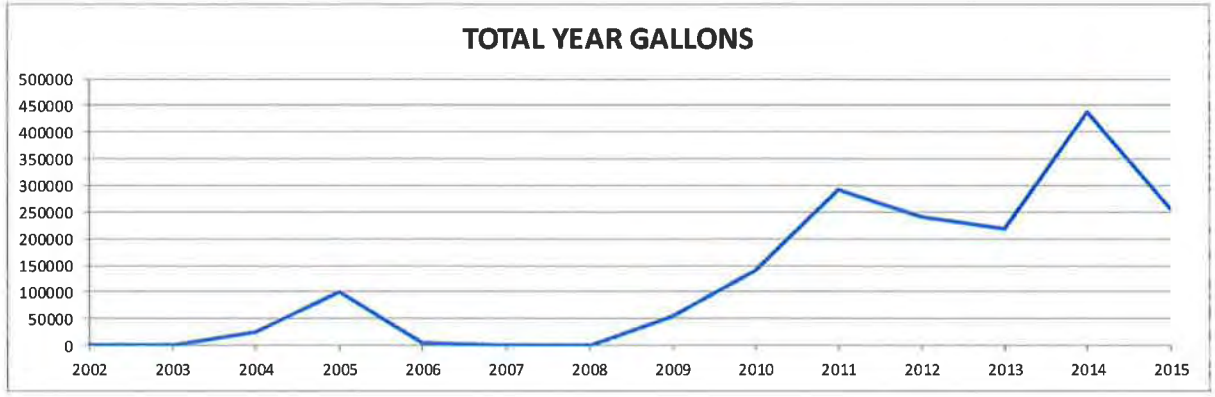


Project Name		**Milagros**			Date		**June 25, 2015**				
Address					Auditor		**Sam**				
City, State					Area/Zone/Station		**1.00**				
See instructions below on clearing input area											
Test Area/Station				**1**							
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min		
Catch Device Volumes											
1	**27**	17	**50**	33	**7**	49		65		81	
2	**48**	18	**10**	34	**12**	50		66		82	
3	**14**	19	**15**	35	**3**	51		67		83	
4	**20**	20	**40**	36		52		68		84	
5	**27**	21	**15**	37		53		69		85	
6	**18**	22	**20**	38		54		70		86	
7	**20**	23	**15**	39		55		71		87	
8	**10**	24	**13**	40		56		72		88	
9	**10**	25	**28**	41		57		73		89	
10	**14**	26	**30**	42		58		74		90	
11	**6**	27	**5**	43		59		75		91	
12	**30**	28	**16**	44		60		76		92	
13	**45**	29	**15**	45		61		77		93	
14	**15**	30	**10**	46		62		78		94	
15	**18**	31	**26**	47		63		79		95	
16	**40**	32	**8**	48		64		80		96	
Number Catch Devices			**35**		1/4 Number Catch Devices			**9**			
Total Catch Volume			**700**		Total Low Quarter			**69**			
Average Volume (V_{avg})			**20.00**		Average Low Quarter (V_{lq})			**7.67**			
Calculate Distribution Uniformity											
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.38**						
	Average Volume (V_{avg})										

	Account #	Meter #	Size	Service Address
Candelero	359671	9956531	1 1/2"	31957

2213 Brillante St

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	100	0	0	0	0	0	0	100
2004	0	0	0	0	4100	6100	10600	0	2100	2900	0	0	25800
2005	0	0	0	2100	1700	21300	19200	29100	14000	0	13100	0	100500
2006	0	0	0	0	1600	1100	900	800	700	500	100	0	5700
2007	0	0	0	0	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0	0	0	0	0
2009	0	0	28400	4700	4700	0	6600	1900	1400	5300	1900	0	54900
2010	0	0	0	0	100	900	17600	38200	37800	46100	0	0	140700
2011	0	0	0	40300	1002	53100	66700	77700	23600	28700	100	0	291202
2012	0	0	0	8400	44900	43500	51700	34600	25200	26000	8300	0	242600
2013	0	0	0	5100	21900	62900	68200	26600	32500	1200	0	0	218400
2014	0	0	0	5500	32200	66500	66800	123400	64200	69500	11100	0	439200
2015	0	0	0	3500	32200	24700	49000	50100	46100	51500	0	0	257100



Walk-Through Irrigation System Audit and Site Evaluation						
Site Name: Candelero						Contacts:
Site Address:						Phone #:
Surveyor:		Time: Start_____ Finish_____				Contacts:
Survey Date:		Catch Cup Date:				Phone #:
		Landscape (sq. ft):			Turf (sq. ft):	Shrubs (sq. ft):
Meter #'s	Begin Read	End Read	Backflow PSI		Comments:	
	1535172	1535272	static	dynamic	**Difference showing between Static and Dynamic pressures indicates improperly sized lateral lines / Friction loss / Long lateral runs.**	
	1535272	1535366	80	45	**Difference showing between Static and Dynamic pressures indicates improperly sized lateral lines / Friction loss / Long lateral runs.**	

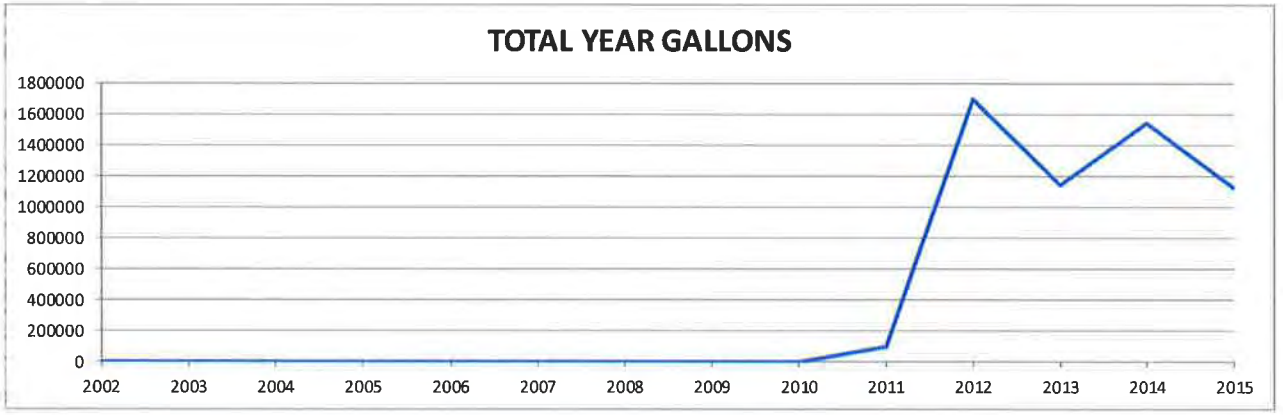
Catch Cup Count	Zone	Head or Sprinkler Type and Location if needed	Head #	Test Time (min)	Head PSI on Zone	T=Slanted, C=Clogged, Bl=Blocked Spray, BS=Broken Stem, BH=Broken Head, BN=Broken Nozzle, CO=Cap Off, WS=Wrong Spacing, WA=Wrong Arc, RD=Radius Screw Down Too Far, RF=Runoff, OV= Overspray, LH= Low Head, LPSI=Low Pressure at Head, UP=Stuck Up, RTF= Rotation Too Fast, MH= Missing Head, BV= Broken Valve, NC= Nozzle Color, CNF= Can Not Find, NST=No Start Time, MPR= MP Rotator Nozzles/Heads Recommended for this area, RX=Remove turf for Xeriscape or Shrub Bed, **(Count number of Trees, Shrubs per Zone), Additional Notes as needed**
	1	**Rain Bird .25 GPM bubbler**	**28**	**15**	n/a	Target = (7 GPM * 15 Min) = 105 Gallons 14 Trees
						Actual = (6.666 GPM * 15 Min) = 100 gallons 95% of Target
	2	**Rain Bird .25 GPM bubbler**	**28**	**15**	n/a	Target = (7 GPM * 15 Min) = 105 Gallons 14 Trees
						Actual = (6.266 GPM * 15 Min) = 94 gallons 90% of Target

GCCC

Account #	Meter #	Size	Service Address
554456	9940950	2"	47053

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002													0
2003													0
2004													0
2005													0
2006													0
2007													0
2008													0
2009													0
2010													0
2011										80400	23400	0	103800
2012	0	0	0	0	383900	195500	353100	253600	239800	204000	65000	0	1694900
2013	0	0	0	69300	200100	208300	221800	129200	223100	46900	45600	0	1144300
2014	0	0	0	17700	193600	275200	280500	266100	320200	140200	51300	0	1544800
2015	0	0	0	2400	137300	122600	217700	206300	228800	211600	0	0	1126700

DU = 31%

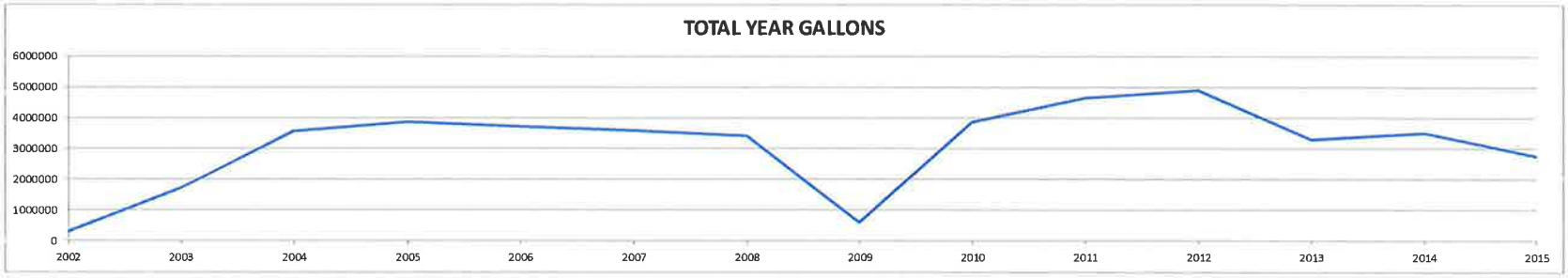


New Park 2010/2011

Project Name		**GCCC**			Date		**June 18, 2015**		
Address					Auditor		**Sam**		
City, State					Area/Zone/Station		**1.00**		
See instructions below on clearing input area									
Test Area/Station				**1**					
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min
Catch Device Volumes									
1	100	17	20	33	35	49	60	65	
2	50	18	25	34	25	50	50	66	
3	50	19	25	35	75	51	25	67	
4	80	20	0	36	70	52	25	68	
5	45	21	0	37	0	53	25	69	
6	50	22	0	38	40	54	0	70	
7	50	23	20	39	55	55	10	71	
8	40	24	35	40	50	56	20	72	
9	60	25	45	41	35	57	25	73	
10	35	26	40	42	30	58	15	74	
11	35	27	40	43	90	59	15	75	
12	35	28	25	44	80	60	10	76	
13	40	29	40	45	50	61		77	
14	25	30	30	46	80	62		78	
15	30	31	40	47	95	63		79	
16	35	32	40	48	110	64		80	
Number Catch Devices			**60**		1/4 Number Catch Devices			**15**	
Total Catch Volume			**2385**		Total Low Quarter			**185**	
Average Volume (V_{avg})			**39.75**		Average Low Quarter (V_{lq})			**12.33**	
Calculate Distribution Uniformity									
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.31**				
	Average Volume (V_{avg})								

	Account #	Meter #	Size	Service Address
Herb Martinez	360575	99583441/2	4"&4"	31396

YEAR	JAN A	JAN B	FEB A	FEB B	MAR A	MAR B	APR A	APR B	MAY A	MAY B	JUNE A	JUNE B	JULY A	JULY B	AUG A	AUG B	SEPT A	SEPT B	OCT A	OCT B	NOV A	NOV B	DEC A	DEC B	TOTAL YEAR GALLONS
2002	0	0	0	0	0	0	12600	27600	25700	102500	23000	98400	2500	9300	300	0	300	0	400	1300	100	0	0	0	304000
2003	0	0	0	0	0	0	1000	4100	31600	112100	76300	236000	97200	285300	100700	289700	55900	163200	42800	126800	28900	84500	0	0	1736100
2004	0	0	0	0	0	0	1300	0	91400	276400	201200	620500	180100	600500	114100	374000	147100	489500	96300	343800	11500	37100	0	0	3584800
2005	0	0	0	0	0	100	2900	13000	47900	163600	231000	854000	178900	690400	153500	516700	84800	513600	0	310600	0	118100	0	0	3879100
2006	0	0	0	0	168000	3400	0	419300	246500	441000	174400	510800	117500	357300	65900	250800	92300	241700	114200	319300	58900	132500	0	0	3713800
2007	0	0	0	0	1400	300	58300	101100	78100	257700	76300	247400	145500	717700	268000	175600	128200	949100	53800	336300	15100	0	4900	0	3614800
2008	14300	0	17700	0	15800	0	22900	142800	56400	324800	111900	584600	95300	609100	64400	382400	64000	343500	117300	366900	11400	63500	0	0	3409000
2009	1200	0	2900	0	0	0	17400	0	1400	0	55900	111800	109100	700	123800	200	85700	1100	71900	8500	11200	0	0	0	602800
2010	0	0	0	0	0	0	20700	400	78000	329300	148000	595400	751900	518400	27200	185000	149300	454300	113500	391700	24300	82100	0	0	3869500
2011	0	0	0	0	0	0	20400	94300	126500	382300	131900	0	251000	0	239800	0	97500	0	62300	0	13100	3233300	0	0	4652400
2012	0	0	0	0	0	0	33600	183900	113600	412200	70400	532900	103200	780500	101600	818500	84200	753800	77000	557200	50100	221600	0	0	4894300
2013	0	0	0	0	0	0	20900	153500	57600	426500	82100	624800	68300	530600	41700	307100	80700	570000	101500	132100	27100	80200	0	0	3304700
2014	0	0	0	0	0	0	0	219800	0	0	145500	1143800	82000	575200	49300	346100	64100	442700	44800	100500	17100	287700	0	0	3518600
2015	0	0	0	0	0	0	2300	17800	44200	272100	38000	241900	71100	450900	64500	407300	84400	555700	75300	436100	0	0	0	0	2761600

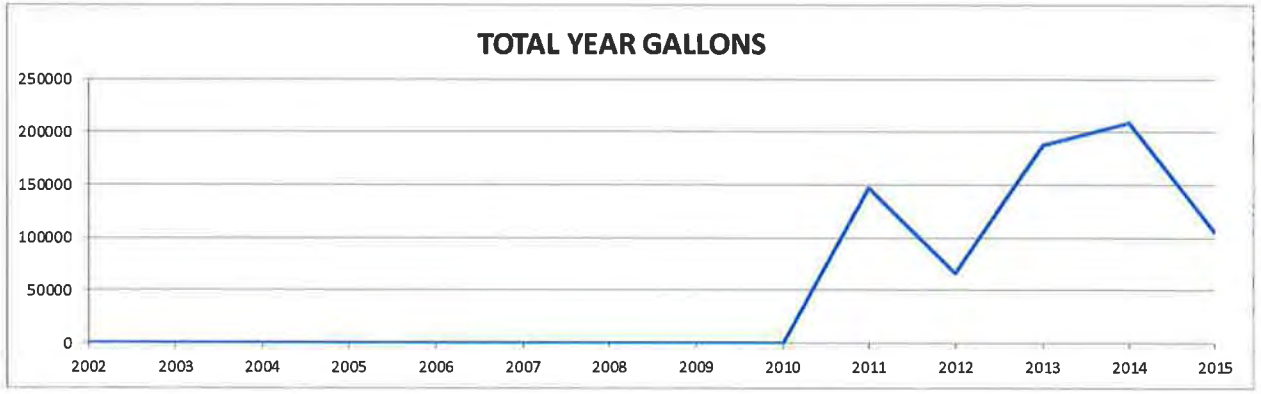


Irrigation upgrades 2009/2010 - new turf /trees/playground

	Account #	Meter #	Size	Service Address
1270 W ALAMEDA ST IRR.	549714	9956523	1"	46489

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002													0
2003													0
2004													0
2005													0
2006													0
2007													0
2008													0
2009													0
2010													0
2011	0	0	0	0	0	0	0	0	0	0	147400	0	147400
2012	0	0	0	3400	12300	0	0	0	0	47800	3400	0	66900
2013	0	0	0	3200	32700	41400	39400	22900	34300	7300	7000	0	188200
2014	0	0	0	94100	16100	22800	22800	13600	21300	13100	5600	0	209400
2015	0	0	0	0	13900	12500	22700	13100	22500	21000	0	0	105700

Document

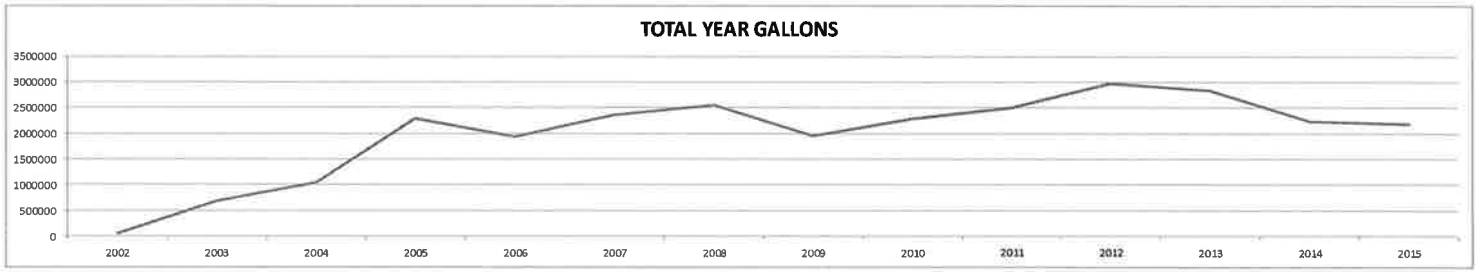


New open space area added - Trees

Walk-Through Irrigation System Audit and Site Evaluation							
Site Name: SF River - Camino Alire to Feedbin						Contacts:	
Site Address: 1270 W ALAMEDA ST IRRIGATION						Phone #:	
Surveyor: Sam		Time: Start__11:00 AM__ Finish_2:30 PM___				Contacts:	
Survey Date: 06/23/2015		Catch Cup Date:				Phone #:	
		Landscape (sq. ft):				Turf (sq. ft):	Shrubs (sq. ft):
Meter #'s	Begin Read	End Read	Backflow PSI			Comments:	
9956523	638519	640193	static	dynamic		Point of connection to point of distribution is restricted due to improper pipe size for this long of a run. Pipe friction loss resulting in low volume and pressure.	
			128	50			

Catch Cup Count	Zone	Head or Sprinkler Type and Location if needed	Head #	Test Time (min)	Head PSI on Zone	T=Slanted, C=Clogged, Bl=Blocked Spray, BS=Broken Stem, BH=Broken Head, BN=Broken Nozzle, CO=Cap Off, WS=Wrong Spacing, WA=Wrong Arc, RD=Radius Screw Down Too Far, RF=Runoff, OV= Overspray, LH= Low Head, LPSI=Low Pressure at Head, UP=Stuck Up, RTF= Rotation Too Fast, MH= Missing Head, BV= Broken Valve, NC= Nozzle Color, CNF= Can Not Find, NST=No Start Time, MPR= MP Rotator Nozzles/Heads Recommended for this area, RX=Remove turf for Xeriscape or Shrub Bed, **(Count number of Trees, Shrubs per Zone), Additional Notes as needed**
	1	**Rain Bird .50 GPM Bubbler**	**22**	**20**		Target; 440 GAL 11 Trees
						Actual: 230 GAL 52%
	2	**Rain Bird .50 GPM Bubbler**				Target; 360 GAL 12 Trees
						Actual: 259 GAL 72%
	3	**Rain Bird .50 GPM Bubbler**				Target; 330 GAL 11 Trees
						Actual: 325 GAL 98%
	4	**Rain Bird .50 GPM Bubbler**				Target; 360 GAL 12 Trees
						Actual: 349 GAL 87%
	5					

	Account #	Meter #	Size	Service Address																										
SF River - Feed Bin to St. Francis	360369	471391&2	4&4	31405																										
YEAR		JAN A	JAN B	FEB A	FEB B	MAR A	MAR B	APR A	APR B	MAY A	MAY B	JUNE A	JUNE B	JULY A	JULY B	AUG A	AUG B	SEPT A	SEPT B	OCT A	OCT B	NOV A	NOV B	DEC A	DEC B	TOTAL YEAR GALLONS				
2002		0	0	0	0	0	0	0	0	0	0	61800	0	0	0	0	0	0	0	0	0	0	0	0	0	61800				
2003		0	0	0	0	0	0	0	0	0	0	5000	0	121000	0	205000	0	128000	0	160000	0	73000	0	0	0	692000				
2004		0	0	0	0	0	0	0	0	0	0	15000	0	309000	0	400000	0	180000	0	134000	0	5000	0	0	0	1043000				
2005		0	0	0	0	0	0	8000	0	176000	0	976000	0	174000	0	453000	54700	217100	127500	23700	75200	0	6400	0	0	2291600				
2006		0	0	0	0	0	0	44700	230200	94400	289300	47600	336900	45900	123900	37500	200100	37900	254100	28300	170300	100	0	500	0	1941700				
2007		0	0	0	0	0	0	3600	15500	61200	173100	68300	180400	79200	450500	41000	277200	80200	521300	39300	345900	3600	28900	0	0	2369200				
2008		0	0	0	0	0	0	16200	130400	35700	307500	58600	488600	60600	486900	41200	315100	37400	259900	42900	225100	13400	34200	0	0	2553700				
2009		0	0	0	0	0	0	16100	112000	46400	338900	25700	179200	48100	337600	44500	338500	35400	282700	15000	126900	1700	2200	0	0	1950900				
2010		0	0	0	0	0	0	13000	45800	22700	232600	61500	434400	73400	549900	31900	255300	37200	296000	45700	185700	6700	400	0	0	2292200				
2011		0	0	0	0	0	0	25700	81100	34900	257700	54500	675000	60400	446700	52400	398500	24500	194400	16800	165700	1900	21700	0	0	2511900				
2012		0	0	0	0	0	0	12600	81300	41600	268700	58100	394800	76700	466800	89600	566200	51200	325000	62100	382800	14300	84700	0	0	2976500				
2013		0	0	0	0	0	0	87000	30600	220500	292600	416600	378100	97000	336000	46200	228400	77400	383700	19000	118600	17600	82700	0	0	2832000				
2014		0	0	0	0	0	0	600	2700	84400	405300	62800	305000	62200	339100	39100	179400	57700	304100	38500	214700	21200	117000	0	0	2233800				
2015		0	0	0	0	0	0	3700	11000	66300	140400	57200	141300	50700	366000	27100	204000	70200	470700	64100	524000	300	0	0	0	2197000				



Walk-Through Irrigation System Audit and Site Evaluation							
Site Name: SF River - #2						Contacts:	
Site Address:						Phone #:	
Surveyor: Sam		Time: Start____ Finish_ ___				Contacts:	
Survey Date:		Catch Cup Date:				Phone #:	
		Landscape (sq. ft):				Turf (sq. ft):	Shrubs (sq. ft):
Meter #'s	Begin Read	End Read	Backflow PSI			Comments:	
4713911	10912825	10913564	static	dynamic			
4713912		1021472	130	118			

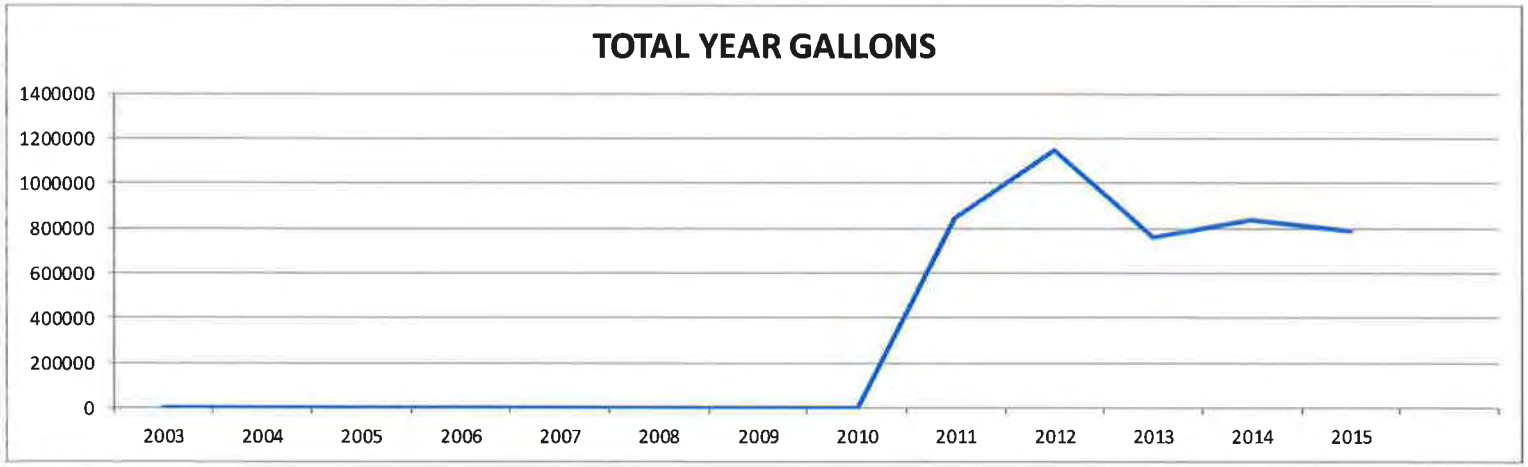
Catch Cup Count	Zone	Head or Sprinkler Type and Location if needed	Head #	Test Time (min)	Head PSI on Zone	T=Slanted, C=Clogged, Bl=Blocked Spray, BS=Broken Stem, BH=Broken Head, BN=Broken Nozzle, CO=Cap Off, WS=Wrong Spacing, WA=Wrong Arc, RD=Radius Screw Down Too Far, RF=Runoff, OV= Overspray, LH= Low Head, LPSI=Low Pressure at Head, UP=Stuck Up, RTF= Rotation Too Fast, MH= Missing Head, BV= Broken Valve, NC= Nozzle Color, CNF= Can Not Find, NST=No Start Time, MPR= MP Rotator Nozzles/Heads Recommended for this area, RX=Remove turf for Xeriscape or Shrub Bed, **(Count number of Trees, Shrubs per Zone), Additional Notes as needed**
	1	**RN .50 GPM**	**60**	**20**		Target: 600 Gal 20 Trees
						Actual: 1156 Gal **193%**
	2	**RB .50 GPM**	**24**	**20**		Target: 240 Gal 8 trees
						Actual: 739 Gal **308%**
	3					
	4					
	5					

	Account #	Meter #	Size	Service Address
Nava Ade				
4371 Laughing Crow Ln	552175	9957709	2"	46808

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL YEAR GALLONS
2002													0
2003													0
2004													0
2005													0
2006													0
2007													0
2008													0
2009													0
2010													0
2011					6500	25100	55500	737300	5856	6257	7900	0	844413
2012				48100	183200	126100	251100	199100	175700	133400	31100	0	1147800
2013				50400	162700	167500	141600	70200	125100	26700	21600	0	765800
2014				9600	82800	146500	160000	140200	168400	93300	41400	0	842200
2015				1400	91500	72600	147200	149100	159200	169900	0	0	790900

\\file-svr-1\home$\rwwood\2015 irrigation audits\

DU = 45%



New Park 2010/2011

Project Name		**Nava Ade**			Date			**June 18, 2015**		
Address					Auditor			**Sam**		
City, State					Area/Zone/Station			**1.00**		
See instructions below on clearing input area										
Test Area/Station				**1**						
Catch Device Area (A_{CD})					in^2	Test Run Time (t_R)			min	
Catch Device Volumes										
1	20	17	60	33	100	49		65		81
2	110	18	125	34	115	50		66		82
3	95	19	130	35	130	51		67		83
4	95	20	190	36	85	52		68		84
5	95	21	80	37	120	53		69		85
6	160	22	55	38	170	54		70		86
7	130	23	150	39	110	55		71		87
8	110	24	90	40	50	56		72		88
9	65	25	125	41		57		73		89
10	95	26	75	42		58		74		90
11	85	27	110	43		59		75		91
12	60	28	100	44		60		76		92
13	30	29	45	45		61		77		93
14	95	30	25	46		62		78		94
15	50	31	180	47		63		79		95
16	80	32	130	48		64		80		96
Number Catch Devices			**40**		1/4 Number Catch Devices			**10**		
Total Catch Volume			**3925**		Total Low Quarter			**460**		
Average Volume (V_{avg})			**98.13**		Average Low Quarter (V_{lq})			**46.00**		
Calculate Distribution Uniformity										
DU_{LQ} =	Average Low Quarter (V_{lq})			=	**0.47**					
	Average Volume (V_{avg})									

City of Santa Fe, New Mexico

memo

Date: May 4, 2016

To: Public Utilities Committee

Via: Nick Schiavo, Public Utilities Director
Rick Carpenter, Acting Water Division Director & Water Resources and Conservation Manager RC

From: Marquita Ortiz, Water Resources Analyst MO
Alan Hook, Water Resources Coordinator Assistant

Re: Presentation of the 2015 Annual Water Report as an informational item

---

Purpose:

The 2015 Annual Water Report compiles and summarizes useful information about the City of Santa Fe's Water Division (Water Division) including the water supply, water production, deliveries, conserved water, treated effluent, and utility customer use. The information presented in this report contains water data through December 2015 and projections through 2016.

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

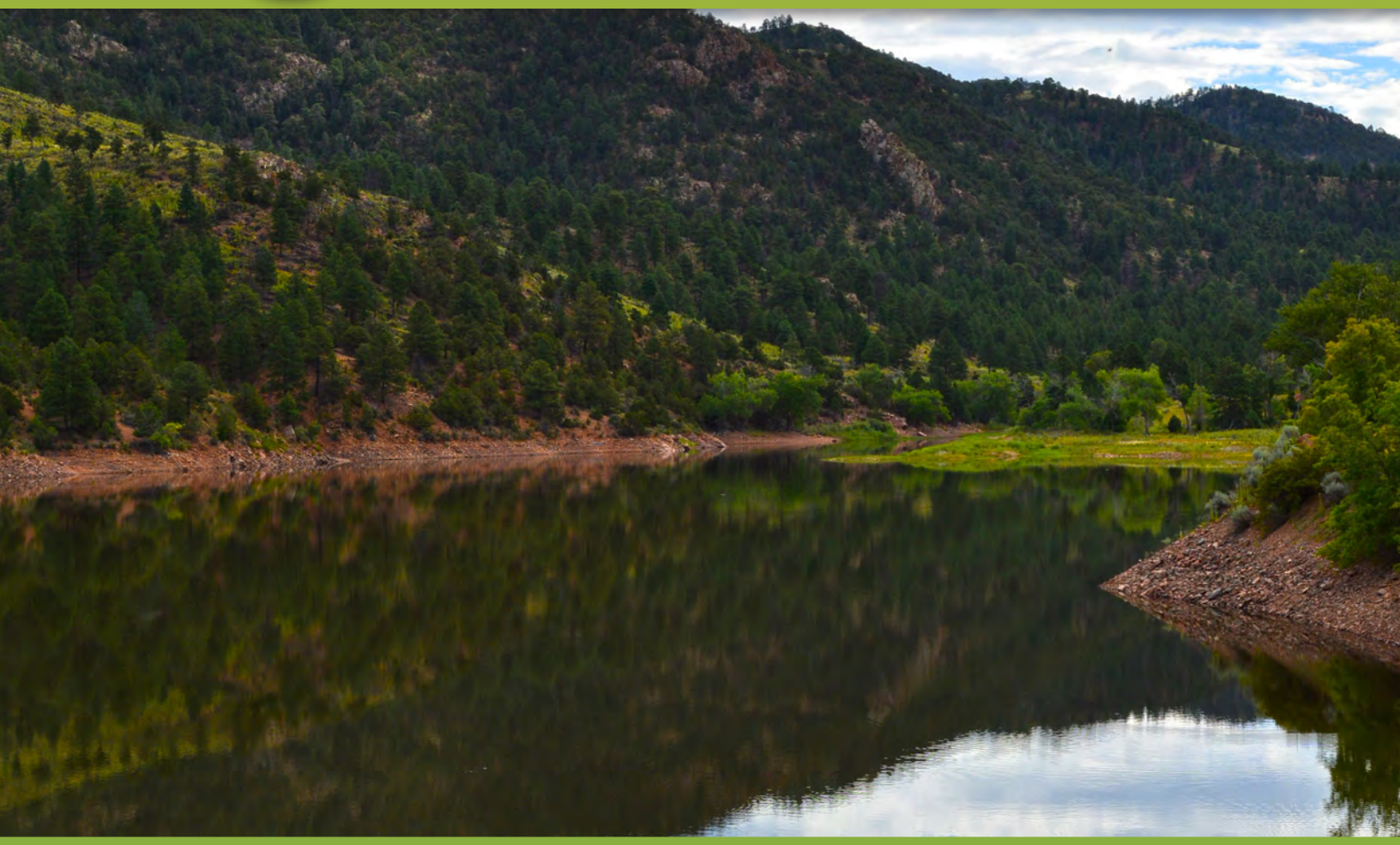
Highlights of this report include:

- Water Supply production of 8,167 acre-feet, including Buckman Regional Water Treatment Plant deliveries to the City of Santa Fe, including wholesale deliveries of 105 acre-feet to Santa Fe County Water Utility.
- Completion of construction at McClure Reservoir to install a new intake tower.
- Reduction in service-area gallons per capita per day (gpcd) demand of 90 (down from 95 gpcd in 2014).

Requested Action:

Staff requests that the Public Utilities Committee review the 2015 Annual Water Report and forward it to the full City Council for final review.

ANNUAL WATER REPORT



2015

City of Santa Fe • Water Division

CITY OF SANTA FE, NEW MEXICO

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Brian Snyder, City Manager

City Councilors

Peter N. Ives, Mayor Pro Tem, District 2

Renee Villarreal, District 1

Signe I. Lindell, District 1

Joseph M. Maestas, District 2

Carmichael A Dominguez, District 3

Cristopher M. Rivera, District 3

Ronald S. Trujillo, District 4

Mike Harris, District 4

Compiled, written and edited by the

Water Resources Staff

City of Santa Fe Water Division

801 W. San Mateo Road

Santa Fe, NM 87504

Contributing Departments, Divisions and Sections

City Attorney's Office

ITT Department

Land Use Department

Utility Billing & Customer Service Division

Wastewater Division

Water Budget Office

Water Conservation Office

Acknowledgements

Victor Archuleta
David Barsanti
Chuck Bear
Diana Catanach
Rick Carpenter
Christine Chavez
Brian Drypolcher
Andrew Erdmann
Kathleen Garcia
Caryn Grosse
Alan Hook
Lisa Larrañaga
Amy Lewis
Amanda Martinez
Marcos Martinez
Maya Martinez
Michael Moya
Quita Ortiz
Alex Puglisi
Bryan Romero
Nick Schiavo
Bill Schneider

For more information visit www.santafenm.gov/water_division

Cover Photo: Nichols Reservoir in the Upper Santa Fe Municipal Watershed

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EXECUTIVE SUMMARY

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

This report is submitted pursuant to City Code Section 25-9.6 SFCC 1987 and summarizes information about the City of Santa Fe's Water Division including water supply, water rights, water demand, types of water use, drought and precipitation, and water utility management information.

The City's surface water supply comes from the **Santa Fe River** and **Rio Grande**, both of which are treated through conventional and advanced treatment processes.

The **City Well Field** is mostly located in close proximity to the Santa Fe River and consists of 7 active wells located within the City limits of Santa Fe. The **Buckman Well Field** consists of 13 wells located near the Rio Grande, approximately 15 miles northwest of Santa Fe.

The Water Division supplied 8,062 acre-feet of water to its water utility customers and an additional 105 acre-feet to the Santa Fe County Water Utility, for a total production of 8,167 acre-feet for 2015. Also, the Water Division met its acequia irrigation deliveries and provided over 2,000 acre-feet of "Living River" flows to the Santa Fe River.

The City of Santa Fe continued its water conservation efforts which, in part, contributed to a service-area gallons per capita per day (GPCD) demand of 90.

This report contains water data through December 2015 and anticicipated 2016 data projections.

The overall goal of the Water Division is to ensure that our water resources are managed and protected in an efficient and responsible manner to provide the Santa Fe community with clean, reliable and safe drinking water.

WATER SUPPLY SOURCES

The City of Santa Fe has four sources of water supply (see Figure 1):

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

Also, the Water Division utilizes reclaimed wastewater and water conservation to reduce demand on the total supply of potable water.

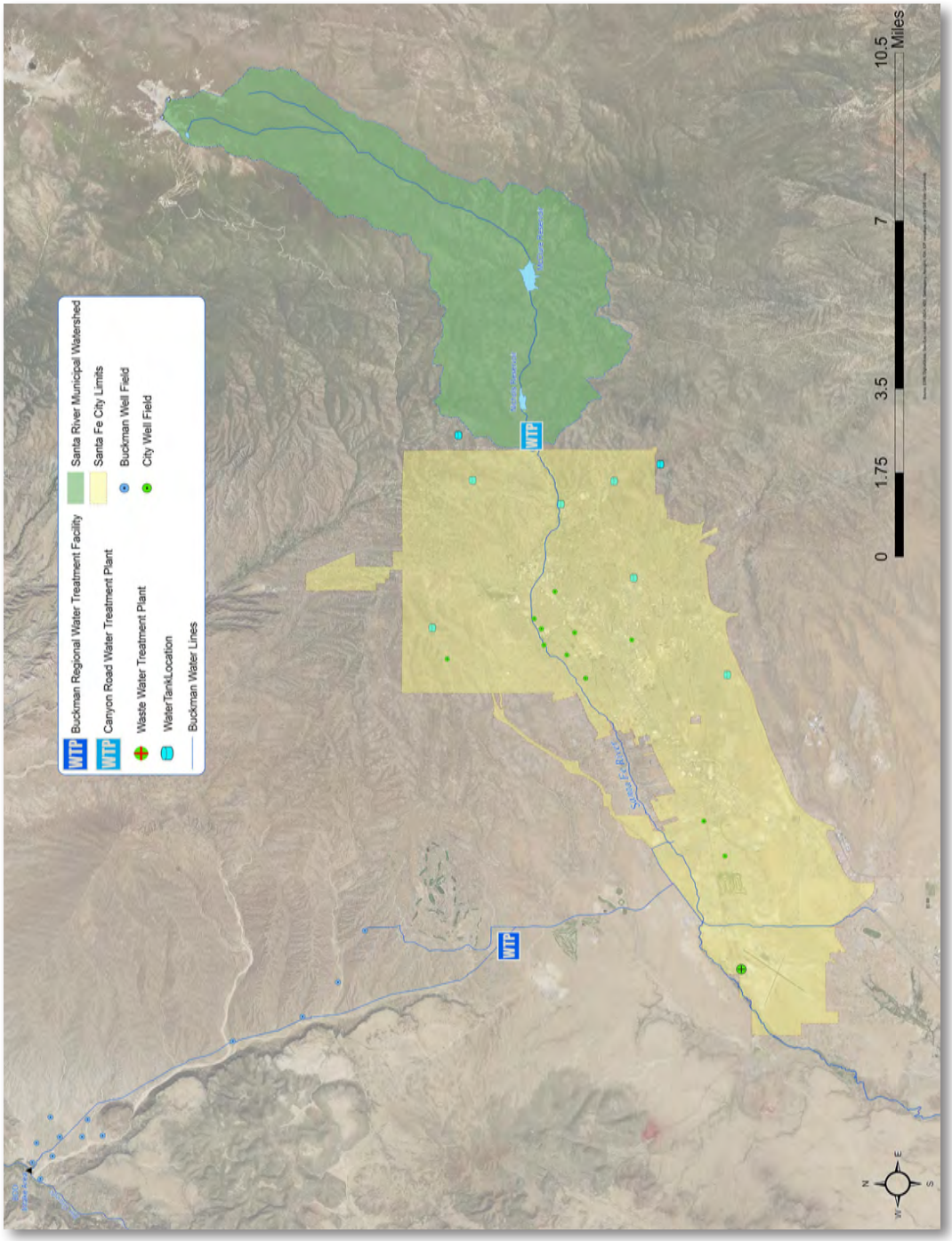


Figure 1. Map of the City of Santa Fe Water Supply Sources.

WATER RIGHTS

Surface Water

The City of Santa Fe has a license to store up to 3,985 acre-feet (combined) per year of Santa Fe River water in McClure and Nichols Reservoirs. Both municipal drinking water supply reservoirs are located east of the City within the closed upper Santa Fe River municipal watershed (see Figure 1). In 2015, reservoir improvements took place and were completed at McClure Reservoir (see Figure 2).

The Buckman Regional Water Treatment Plant provides drinking water from the federal Bureau of Reclamation's San Juan-Chama Project's surface water supply via the Rio Grande. As a contractor of the San Juan-Chama Project, the City of Santa Fe can provide up to 5,230 acre-feet per year of drinking water supply from the Buckman Regional Water Treatment Plant directly to the City's water utility customers. The Buckman Regional Water Treatment Plant and the Buckman Direct Diversion Project facilities are governed by a joint City of Santa Fe and Santa Fe County board.

Figure 2. A new intake tower was installed at McClure Reservoir in 2015. In November 2014, McClure Reservoir was drained to repair the dam and install a new intake tower, replacing the old vertical tower that was built in the 1920s. Construction was completed in December 2015, at which time the City closed valves outlets to allow for snow runoff to fill the reservoir.

Groundwater

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

The City also has thirteen groundwater wells in the Buckman well field, which is located near the Rio Grande, approximately 15 miles northwest of Santa Fe (Figure 1). The Buckman Wells are associated with several water rights, but are operated under one permit that allows the City of Santa Fe a maximum pumping rate of 10,000 acre-feet per year for drinking water supply. However, the City rarely pumps more than 1,000 acre-feet annually from these wells. The newest Buckman wells are about 2,000 feet deep and began producing water in 2003.

Water Rights Used for "Offsets"

In addition to water rights that the City of Santa Fe can directly divert for its water supply, Santa Fe maintains a portfolio of 'offset' surface water rights that are associated with the Buckman well field and the Northwest Well. The purpose of these acquired water rights is to keep the nearby stream systems 'whole' or unaffected by the impacts that pumping groundwater has on surface water.

The City of Santa Fe has acquired sufficient water rights to satisfy its current obligation on the Rio Grande, Rio Tesuque, and Rio Nambe/ Rio Pojoaque through a combination of acquired surface water rights and the City's San Juan-Chama surface water.

Source	Water Rights	Available Water
Santa Fe River	5,040	Up to 5,040 plus 1,000 to living river (when available)
City Wells	3,507/4,865	Sustainable use when needed
Buckman Wells	10,000	Sustainable use when needed
Buckman Direct Diversion	5,230*	Less water quality and/or NEPA permit restrictions

Table 1. Diversion Water Rights and Supply Portfolio (acre-feet)

*City of Santa Fe's San Juan-Chama Project water

Relinquishment Credits

New Mexico receives relinquishment credits when the quantity of Rio Grande water provided to Texas is above that required by the Rio Grande Compact. Relinquishment water allows the City to store relinquishment 'credit' water in the municipal reservoirs during times when the Rio Grande Compact would otherwise limit the City's right to store surface water.

The New Mexico State Engineer administers relinquishment credits to the City. As an alternative to using relinquishment credits, the City often releases its San Juan-Chama Project water into the Rio Grande in exchange for the permission to store Santa Fe River water, which would otherwise be prohibited by the Rio Grande Compact. The City has a current balance of 7,207 acre-feet in relinquishment credits.

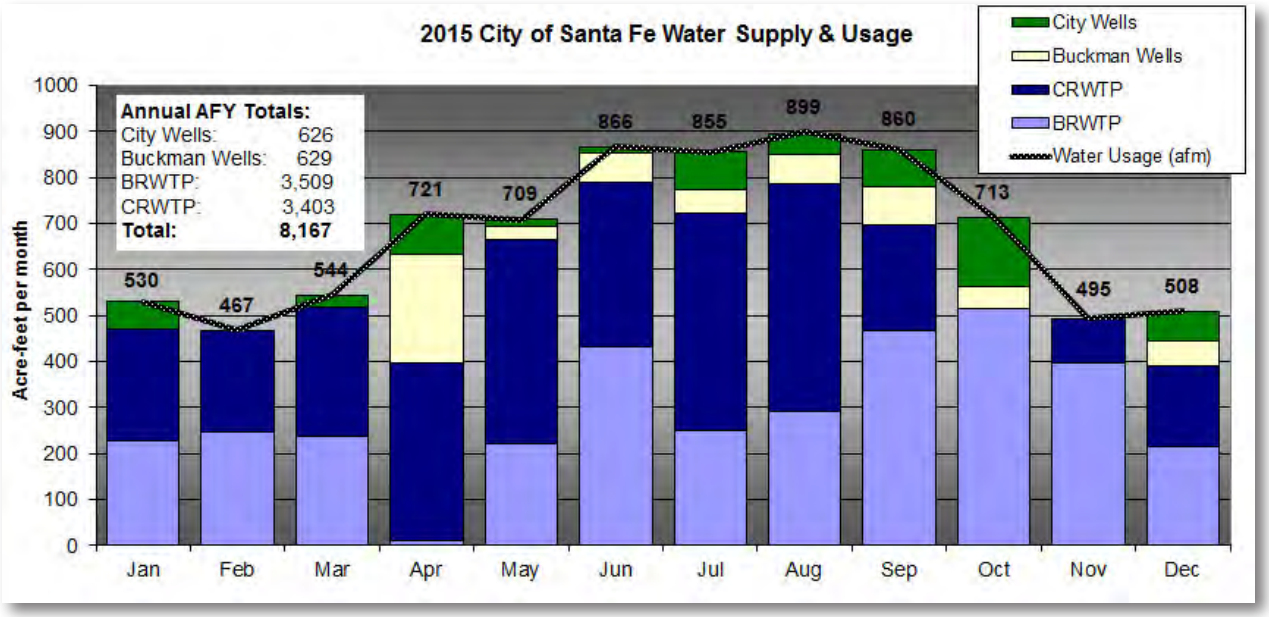


Figure 3. 2015 Actual vs. Project Monthly Production by Supply Source

WATER PRODUCTION

Production by Supply Source

As shown in the Production by Source graph above (Figure 3.), the City has continued to take advantage of increased availability of surface water from the Buckman Regional Water Treatment Plant to decrease use of the City and Buckman well fields, allowing the wells to rest for use in drier years when surface water is not as readily available. In 2015, production for the City of Santa Fe's utiltiy customers was 8,062 acre-feet, with an additional 105 acre-feet of water produced for Santa Fe County Water Utility.

Figure 4. City of Santa Fe Wastewater Treatment Plant

Treated Effluent Water Deliveries

The City of Santa Fe's reclaimed wastewater (treated effluent) has many uses including irrigation to recreational fields and local golf courses; dust control at the regional landfill and for other construction projects; watering for livestock and wildlife on the Caja del Rio mesa; contributing to the

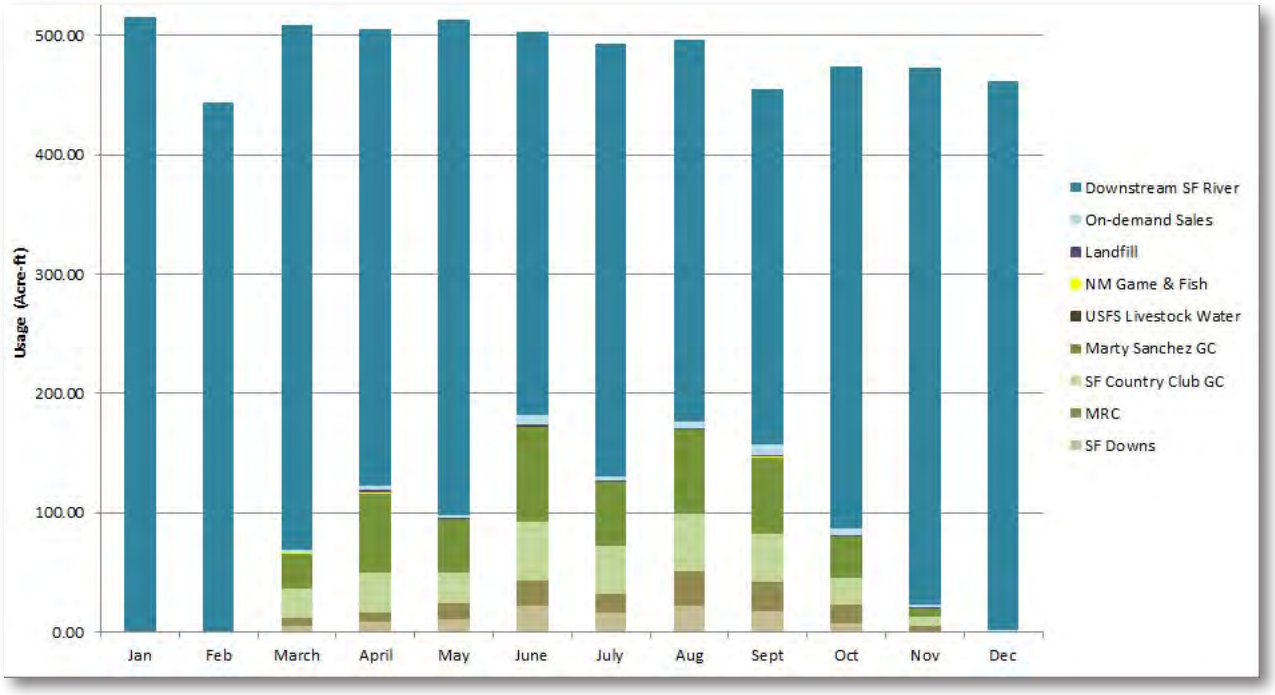


Figure 5. 2015 Treated Effluent Deliveries, by contractor

on-site, wildlife, educational pond at the NM Game & Fish facility; and enabling flow in the lower Santa Fe River downstream of the City's wastewater treatment plant which supports the riparian ecosystem and local agriculture in the La Cienega and La Bajada areas.

The reclaimed wastewater from the City's treatment plant is sold directly to contractors via an onsite stand pipe. The total production of reclaimed wastewater was 1,904 million gallons (5,844 acre-feet) in 2015, 18% of the treated wastewater was reused and the remaining 82% (1,562 million gallons) flowed into the lower Santa Fe River (see Figure 5 above).

DROUGHT & PRECIPITATION

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

Overall, Santa Fe received ample moisture in 2015. Among other factors (see Water Demand section), the precipitation likely contributed to a reduced need for outdoor watering, which accounts for approximately 40 percent of Santa Fe's total water use.

In 2015, precipitation in New Mexico was near to above normal and was ranked as the 5th wettest year on record, and the wettest since 1986. Spring 2015 snowmelt and subsequent runoff started early and was well below normal for the 5th year in a row. Well above normal

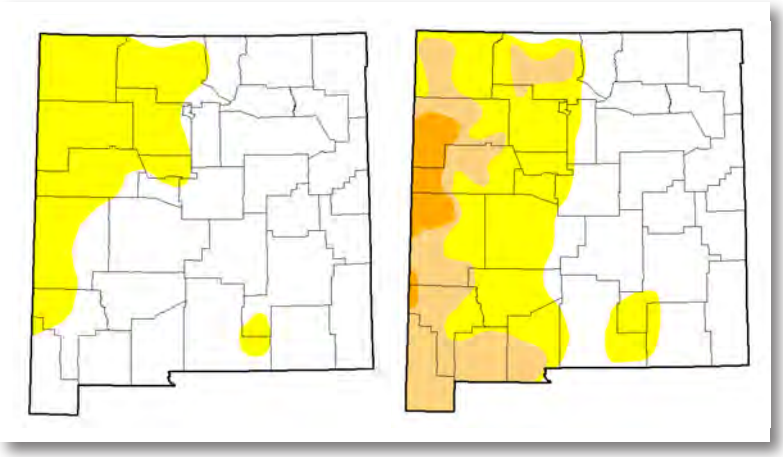


Figure 6. Drought comparisons for July 7, 2015 and December 29, 2015.

temperatures in early spring quickly receeded the snowpack. But the early summer months produced scattered to numerous showers and thunderstorms and July saw the development of a strong monsoon pattern, which dimished in August and September. Moisture picked up again in October, which was 244 percent of normal. November was above normal, coming in at 121 percent. The first half of December 2015 started out dry, but by the end of the month a very active weather pattern returned to the state and the year ended with a historic blizzard event that buried much of east central and southeast New Mexico in 10 to 30 inches of snow.

SNOTEL Station	Elevation (Feet)	Accumulated Precipitation
Santa Fe	11,445	46.7 inches
Elk Cabin	8,210	36.3 inches

Table 2. 2015 NRCS SNOTEL Data, Santa Fe Watershed as of June 2015.

According to the Western Regional Climate Center, Santa Fe receives on average 13.84 inches annually of precipitation. National Resource Conservation Service (NRCS) 'SNOTEL' weather stations measure accumulated precipitation. There are two SNOTEL weather stations in the upper Santa Fe River municipal watershed (see Table 2).

Precipitation data is also gathered in two additional locations in Santa Fe. 'Santa Fe Watershed' which is located approximately 3 miles east of the Santa Fe plaza, reported 22.82 inches for the year of 2015. This was 60 percent of the annual precipitation of 13.70 inches for this location. Seton Village (approximately 4.5 miles south of downtown Santa Fe) reported 17.22 inches for the year 2015. This was 85 percent of the annual precipitation of 14.65 inches for this location.

Figure 7. Upper Santa Fe Municipal Watershed. In 2015, precipitation in New Mexico was near to above normal and was ranked as the 5th wettest year on record, and the wettest since 1986.

WATER DEMAND

Per Capita Consumption

A common metric for comparing annual water use and water conservation effectiveness is gallons per capita per day (gpcd). It's derived by dividing the amount of water supplied to the City of Santa Fe by the population of utility customers served. The calculated gpcd *does* include deliveries to wholesale customers, such as Santa Fe County. In 2015, the City's water customers decreased average daily water use from 95 gpcd in 2014 to 90 gpcd in 2015.

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

Although water conservation outreach and education programs contribute to the overall decrease in water consumption, there are several other factors to take into account. The city experienced a net loss in water customers after annexation to the county in which the typically high water use communities of La Tierra and La Campanas were transferred to Santa Fe County. Additionally, outdoor watering accounts for about 40 percent of the City's total annual water use, and as a result of ample precipitation during the monsoon season in 2015, the need for outdoor watering was reduced (see Drought & Precipitation on page 5).

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

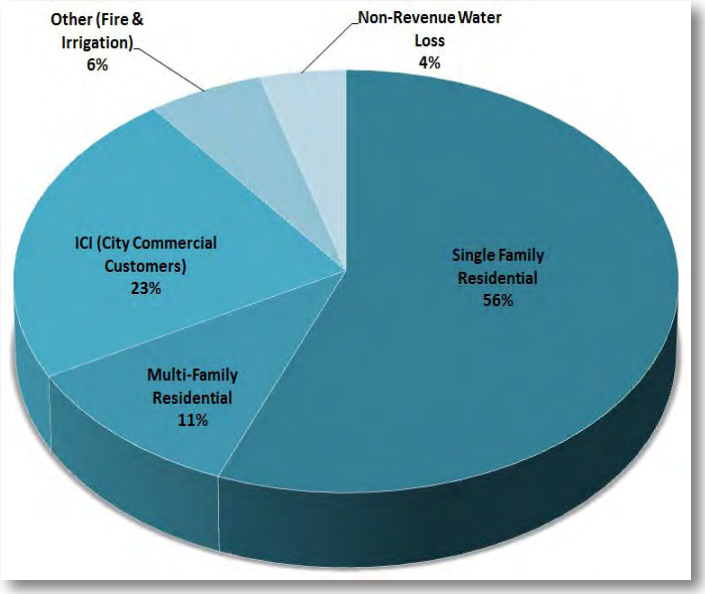


Figure 8. City of Santa Fe 2015 Gallons per Capita per Day. Demand by Sector

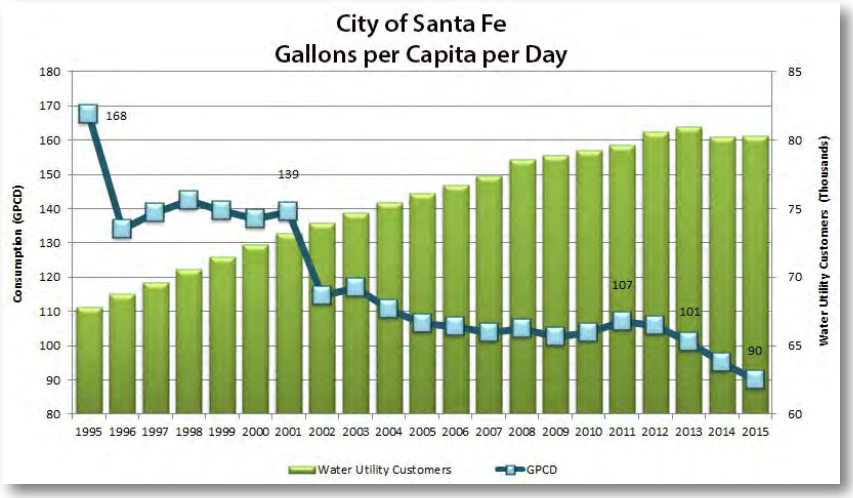


Figure 9. City of Santa Fe gpcd with population, 1995-2015

Contractual & Other Water Demands

Santa Fe River

As directed by ordinance, in mid-April of each year the annual target flow allocation is determined based upon projections for the year's anticipated watershed yield. The 2015 flow target was set at 600 acre-feet based upon moisture content in the upper Santa Fe watershed snowpack, with total flows to the Living River amounting to over 2,000 acre-feet in 2015 (see the 2015-16 Santa Fe River Target Flow Hydrograph in Figure 10 on following page).

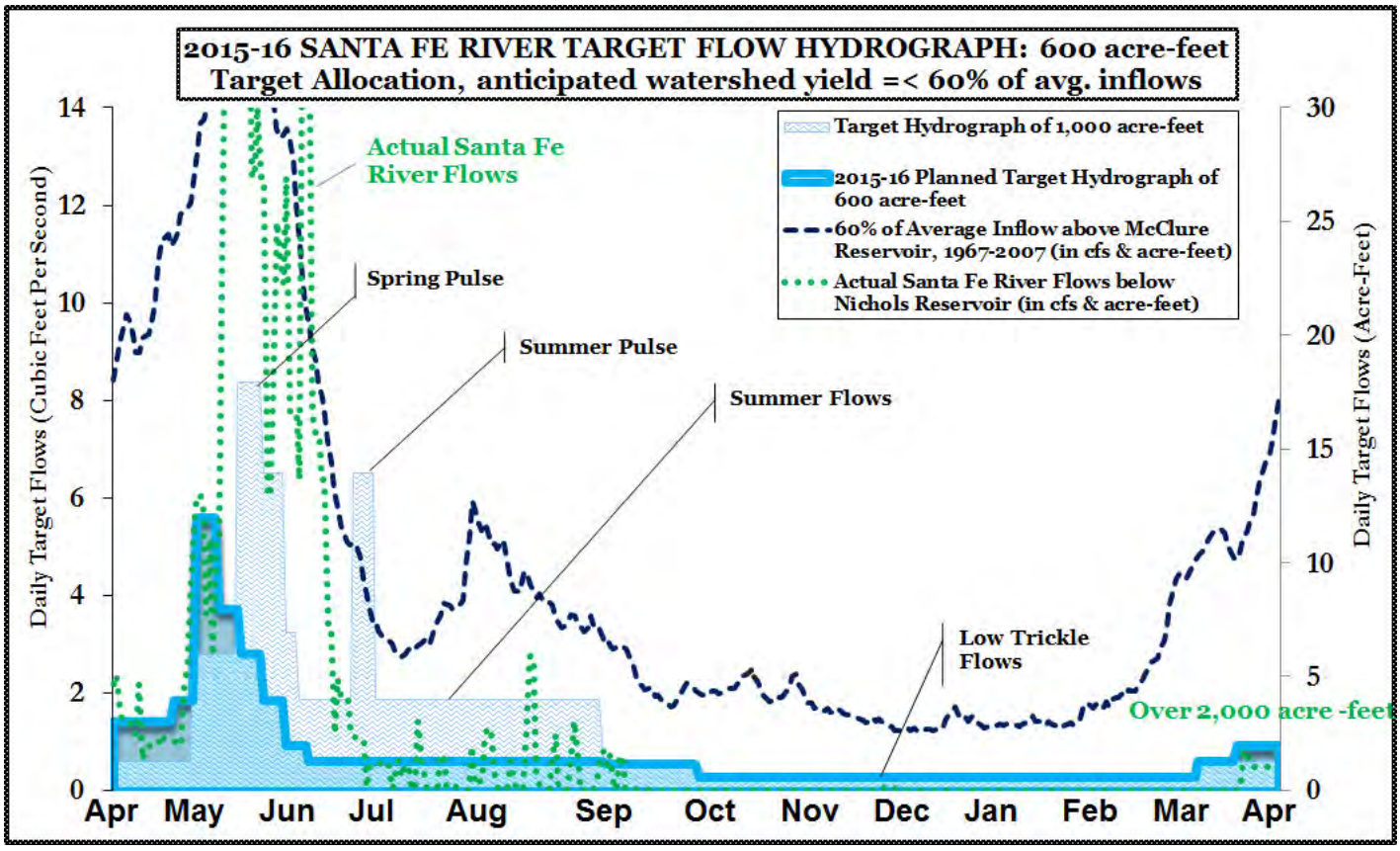


Figure 10. Santa Fe River Target Flow Hydrograph, 2015-16.

Wholesale Water Deliveries

The City has contracts to deliver wholesale water to the Santa Fe County Water Utility. Since 2011 the Buckman Direct Diversion (BDD) has become the primary source of water for Santa Fe County's water utility. Las Campanas' potable water needs are being met by Santa Fe County's Water Utility under the terms stipulated in a bulk water agreement between Santa Fe County and Las Campanas. The 2005 City/ County Water Resources Agreement provides Santa Fe County with up to 500 acre-feet per year of wholesale delivery water from the City of Santa Fe, with an additional 850 acre-feet available under drought and emergency conditions.

The Santa Fe County Water Utility typically is delivered potable water from the City of Santa Fe when the BDD facility is not producing drinking water due to poor water quality conditions in the Rio Grande. Under the water resources agreement with the City of Santa Fe, Santa Fe County Water Utility took delivery of 105 acre-feet of water in 2015.

Water Bank

New water demand on the City water system requires a water credit from the Water Bank in an equal amount, with the goal being no "net" increase in demand on the water system. The City has a series of ordinances* that require all new projects to offset their water demand to the City of Santa Fe Water Division supply, the options of which include water rights acquisition and water conservation in existing development. By the end of 2015, 214 acre-feet of water was available for allocation to the City's needs or City supported efforts (e.g. new parks, municipal buildings, convention centers, affordable housing dwelling units, and the Santa Fe River). An additional 77 acre-feet was available for sale to small developers. In 2015, 1.8 acre-feet was allocated to affordable housing units, leaving an ending balance of 21 acre-feet. The private developers held a total of 573 acre-feet of water rights and 185 acre-feet of toilet retrofit credits.

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

WATER RESOURCES PLANNING

The overall goal of water resources planning is to ensure that our water supplies are managed and protected in an efficient and responsible manner so that the City of Santa Fe's drinking water supply is safe, reliable, and sustainable. Ongoing planning necessitates the management of a suite of water rights purchasing, leasing, and permit compliance efforts.

The management role of water resources planning involves administration of the City's "water bank," which seeks to tie land use development with the availability of requisite water rights (see Water Bank section on page 8).

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

Fiscal Responsibility

The Water Division is committed to managing the water utility to maintain fiscal responsibility to its customers. This is achieved by an annual review of the finance plan and the capital improvement plan (CIP) with the goal of maintaining a high level of service while increasing effectiveness and efficiency. In early 2009, the City Governing Body approved a water rate increase in the amount of 8.2% for five consecutive years. The water utility rate increase was needed to pay for the Buckman Direct Diversion Project, a key component in providing the community with a safe and reliable supply of drinking water, and approximately $100 million of infrastructure improvements. The last rate increase went into effect July 1, 2013 and the City does not project another increase to take place until 2021.

2016 Water Demand and Supply Picture

In the chart below, the 2016 projected demand (black line) is approximately 9,547 acre-feet over the 12 month period. The BDD annual production is projected to be 4,576 acre-feet, Canyon Road Water Treatment Plant is projected to produce 3,200 acre-feet, the City Wells are projected to produce 1,133 acre-feet, and Buckman Wells are projected to produce 638 acre-feet over the 12 month period.

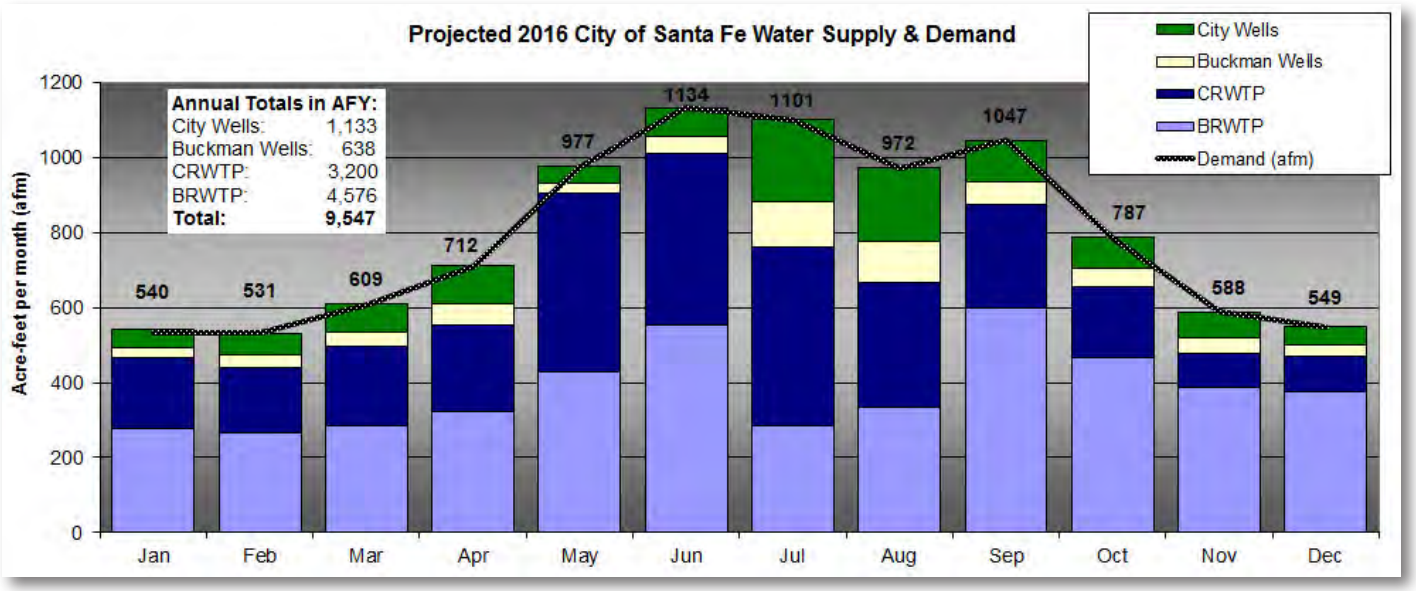


Figure 11. 2016 Projected Monthly Production by Supply Source

City of Santa Fe, Water Division
Water Production Update
Public Utilities Commission Meeting
May 4, 2016

Filter Plant Demolition

Asbestos abatement and building demolition of the old Canyon Road Filter Plant (near corner of Cerro Gordo and Upper Canyon Road) has been completed. A pressure reducing valve will be installed at the site of the old PNM substation. Work was due to be completed by the end of April but may extend into May because of delays caused early on by inclement weather. The site will be contoured and reseeded for possible future use by the City, as part of the Dale Ball Trails network.

Water Production for March (through 04/19/2016)

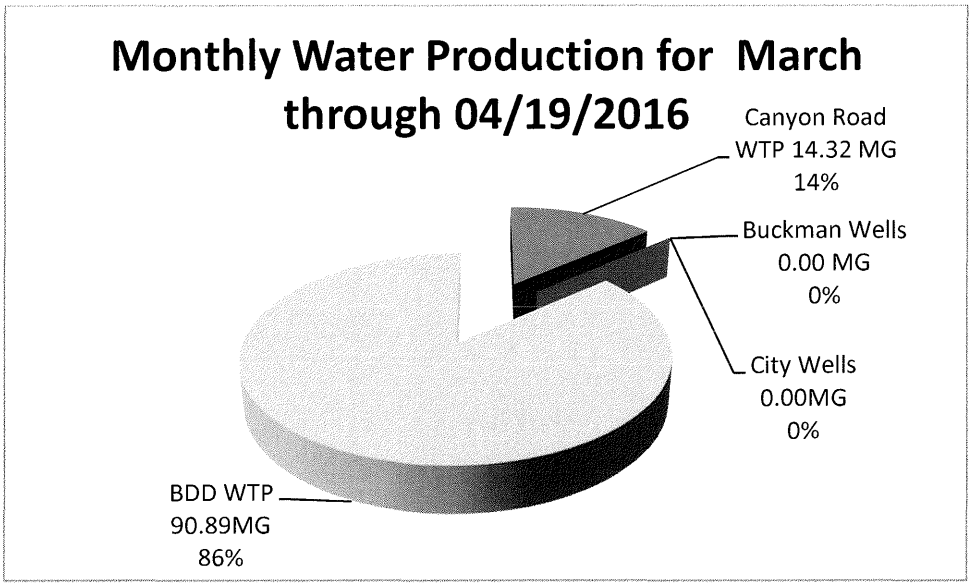
Water production at the Canyon Road Treatment Plant (CRWTP) decreased from February production levels, and totaled 14.32 million gallons (MG) for the first 14 days of April and completely shut down for maintenance on the morning of April 15th. This represents a daily average of 1.02 million gallons per day (MGD) for that facility. CRWTP production levels have been scaled back to further accommodate the filling of McClure and increased production by BDD. City Wells were not used during the month of March, except for .022 MG used to increase distribution line pressures on a few occasions when needed. The Buckman Wells were not utilized for production in April.

BDD's total production of 117.44 MG was split between Entry Point 04A at 90.9 MG, and Entry Point 05A at 26.55 MG. Total Production for the month of March from all City water sources, through April 19th was 131.75 MG. This represents an average of approximately 6.934 MGD and an increase of approximately 0.48 MGD over the daily demand (6.45 MGD) for the month of March.

Nichols Reservoir storage levels were at 128.07 (354 ac. ft.), or a 59.42% storage level on April 19th. Flows out of the reservoir were increased to accommodate a slight increase in Living River flows and early calls for irrigation water on April 3rd The storage level of McClure Reservoir was increased to 507.16 MG by April 19th, or approximately46.54% of capacity. The level of this reservoir has been increasing at approximately 1.0 % of capacity every 2-3 days in late April at current inflow levels of reaching 6.7 MGD on this date and ranging between 2.5 MGD and 6.7 MGD for the month.. Outflow from McClure was kept to approximately 1.0 MGD or 1.55 cubic feet per second (cfs). The City is still filling McClure in conformance with the Office of State Engineer (OSE) guideline of less than one foot in surface elevation per day.

(Note: On Friday- April 22nd the City of Santa Fe was notified by the Interstate Stream Commission you that using accounting method-2, Usable water in Rio Grande Project storage dropped below 400,000 acre-feet. As a result, the Rio Grande Compact native water storage restriction on reservoirs in the Rio Grande Basin constructed after 1929, including El Vado Reservoir, all Corps reservoirs, and a portion of the storage in Nichols and McClure reservoirs, went into effect as of April 22nd, 2016.The City had anticipated this return to Article 7 restriction(s) under the Rio Grande Compact based on information provided earlier by the ISC. The City will meet the Article 7 restrictions by only storing an additional pre-Compact pool volume of 1031 acre feet (345,728,364 MG) in Nichols and McClure while under Article 7. The City is also considering alternatives for additional storage above the 1061 pre-compact pool.)

Snow depth in the upper watershed had increased 11.0 inches from a late March level of 44.0 inches to 55.0 inches on April 20th. Snow-water equivalent (SWE) for the Santa Fe SNOTEL Station (elevation: 11,445 ft.) is currently 19.2 inches as compared to the 30 yr. median value of 18.5 inch (104% of median).This is also a 2.0 inch increase in SWE than the 17.2 inches reported to the PUC for March.
(Median for this station is calculated from values obtained during the 30-yr period of 1981-2010)*



Consumer Confidence Reports (Calendar Year 2015 results)

The Source of Supply Section has completed a draft for printing and dissemination to all City of Santa Fe Water System customers and Santa Fe citizens. A copy of that draft has been attached for the PUC's information. Final dissemination of CCRs to all City of Santa Fe Water System customers is required under the Safe Drinking Water Act by July 1, 2016. It is our goal to disseminate reports in customer bills starting with a billing cycle starting in early to mid-May.

Once again, the City of Santa Fe Water System is in full compliance with all SDWA drinking water standards, as well as all required monitoring, analytical and reporting requirements. The City of Santa Fe met all of the Action Levels prescribed by the federal Lead (0.015 mg/l) and Copper Rule for all samples taken in 2015 Although the LCR requires that only the 90th percentile of public water supply system's samples meet the action levels for lead (0.015 mg/l) and copper (1.3 mg/l), all of the City's 30 samples met the action level. Recent stories about facilities in Santa Fe with lead problems can most likely be attributed to the fact that these facilities have their own supply of water that is used exclusively, or mixed with City water. Following the adoption of the 1991 LCR, the City of Santa evaluated and strengthened its treatment of water supplies for corrosion control, and took action to replace lead and copper pipelines and distribution system components to the maximum extent possible.

Baca Street Well

The Source of Supply Section and Environmental Compliance Office received an update from the New Mexico Environment Department. A work plan for future investigation of the site was submitted by

PNM's contractor during the second week of April for investigation of contamination at the site and is currently under review by a project office in the NMED Petroleum Storage Tank Bureau (PSTB). The City's Source of Supply Section has requested a copy of this proposed investigation work plan and reminded the NMED-PSTB and PNM of the commitments made during negotiation of the current Memorandum of Understanding (MOU) covering the site to involve the City and solicit its comments and concerns with respect to all stages of site investigation and remediation.

Drought, Monsoon/El Nino, and ESA Update

Drought conditions have eased this past year due to the reappearance of a strong El Nino, although the February/March time period for this year was the driest on record. NOAA's latest update (04/25/16) indicates that El Nino conditions are present, but weakening **with increasing likelihood for La Nina conditions to develop by the fall (hot/dry) conditions**. Dry conditions in 2016 could present significant challenges to all water purveyors, water utilities, and irrigators going forward into the summer/fall if there is not significant filling and carry-over storage in regional reservoirs. Regional reservoir levels on the upper Santa Fe River, Rio Grande, and Chama Rivers are still low but rising slowly due to warmer temperatures and resultant snowmelt runoff. There are no water-related Endangered Species Act (ESA) updates. Updates on ESA issues will be made as needed. Rio Grande Compact Article VII storage restrictions went back into effect 4/22/16, which means the City will not be allowed to impound "native" runoff into Nichols and McClure Reservoirs above the pre-Compact pool of 1,061 AF. Updates to this condition will be made as needed.

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

Heron:

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

El Vado:

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

Abiquiu:

10,163 AF SJCP carry-over from previous years, no time limit to vacate due to storage agreement with ABCWUA

TOTAL:

15,359 AF

City of Santa Fe 2014 Water Quality Table

Regulated Compliance Monitoring

Contaminant	Units	MCL	MCLG	City Well Field[a]	Sample Date	Buckman Tank[b]	Sample Date	Canyon Road WTP	Sample Date	Buckman RWTP	Sample Date	Violation	Typical Source
Organic Contaminants													
1,1,1-Trichloroethane	ppb	200	200	0.1 (ND - 0.1)	2014	ND	2014	ND	2014	ND	2014	No	Discharge from metal degreasing sites and other factories
1,1-Dichloroethylene	ppb	7	7	0.21 (ND - 0.21)	2014	ND	2014	ND	2014	ND	2014	No	Discharge from industrial chemical factories
1,2-Dichloroethane	ppb	5	zero	0.20 (ND - 0.20)	2014	ND	2014	ND	2014	ND	2014	No	Discharge from industrial chemical factories
Tetrachloroethylene	ppb	5	zero	0.28 (ND - 0.28)	2014	ND	2014	ND	2014	ND	2014	No	Discharge from factories and dry cleaners
Synthetic Organic Contaminants													
Ethylene Dibromide	ppb	0.05	zero	0.007 (ND - 0.007)	2014	ND	2014	ND	2014	ND	2014	No	Discharge from petroleum refineries
Inorganic Contaminants													
Arsenic	ppb	10	0	4.0 (1.0 - 4.0)	2014	2	2014	ND	2014	ND	2015	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	ppm	2	2	0.8 (0.1 - 0.8)	2014	ND	2014	ND	2014	ND	2015	No	Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Bromate	ppb	10	zero	NA	NA	NA	NA	NA	NA	7.3 (ND -7.3)	2016	No	Byproduct of drinking water disinfection
Chromium	ppb	100	100	1 (ND - 1)	2014	ND	2014	ND	2015	ND	2015	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	ppm	4	4	0.16 (0.14 - 0.16)	2014	0.4	2014	0.11	2015	0.37	2015	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [as N]	ppm	10	10	6.65 (3.03 - 6.65)	2015	0.18	2015	0.12	2015	0.19	2015	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion from natural deposits
Radioactive Contaminants													
Gross Alpha Emitters	pCi/L	15	0	4.4 (1.9 - 4.4)	2014	4.2	2014	ND	2014	1.2	2014	No	Erosion of natural deposits
Gross Beta/Photon Emitters	pCi/L	50[e]	NA	1.5 (ND - 1.5)	2014	2.3	2014	1.4	2014	2.3	2014	No	Decay of natural and man-made deposits.
Radium 226/228	pCi/L	5	0	0.77 (0.10 - 0.77	2014	0.07	2014	0.18	2014	0.1	2014	No	Erosion of natural deposits
Uranium	ppb	30	0	2.0 (ND - 2.0)	2014	2.0	2014	ND	2014	1	2014	No	Erosion of natural deposits;
Surface Water Contaminants													
Turbidity[d] (highest single measurement)	NTU	TT = 1.0	0	NA	NA	NA	NA	0.33	2015	0.18	2015	No	Soil Runoff
Turbidity[d] (lowest monthly % meeting limits)	NTU	TT = % <0.3 NTU	0	NA	NA	NA	NA	100.0%	2015	100.0%	2015	No	Soil Runoff
Total Organic Carbon (TOC)	NA	TT (35%-45% Removal)	NA	NA	NA	NA	NA	53% to 64% removal	2015	NA	NA	No	Naturally present in the environment

Note:

a) EPA considers 50 pCi/L to be the level of concern for beta particles.

b) Alternative compliance criteria used to meet TOC removal requirements

c) Turbidity is a measure of the cloudiness of water. We monitor it because it **is a good indicator of the effectiveness of our filtration system.**

d) **City wellfield: Alto, Agua Fria, Ferguson, Osage, Santa Fe, St. Mikes &** Torreon.

e) Buckman Wells 1-13 and Northwest Well.

Key to Units, Terms and Abbreviations

NA: Not Applicable.

ND: Not Detected.

NTU: Nephelometric Turbidity Units.

ppm: parts per million, or milligrams per liter (mg/L).

ppb: parts per billion, or micrograms per liter (µg/L).

pCi/L: picocuries per liter (a measure of radioactivity).

µg/L: Number of micrograms of substance per liter of water.

mg/L: Number of milligrams of substance per liter of water.

µmhos/cm: Micromhos per centimeter or µS/cm (microsiemens per centimeter) – a measure of electrical conductivity in water due to the presence of dissolved inorganic ions (e.g., calcium, chloride, sodium, etc.).

Pt-Co units: Platinum–Cobalt color units – a measure of color also called the **"Hazen Scale" or "APHA color", as defined in ASTM International Standard D1209**

(Range): The range represents the highest and low values. Range values are not provided if only one sample was taken during the range period.

AL: Action level: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

LRAA: Locational running annual average - the average of analytical results for samples at a particular monitoring location during the previous four calendar quarters. LRAA at each sampling location must be below the MCL (0.060 mg/L for Total Haloacetic Acids and 0.080 mg/L for Total Trihalomethanes)

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to **health. MRDLGs do not reflect the benefits of the use of disinfectants to control** microbial contaminants.

Secondary MCL (SMCL): Non-mandatory water quality standards for certain contaminants established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color and odor. These contaminants are not considered to present a risk to human health at the SMCL.

TT: Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water.

2015 Water Quality Report

City of Santa Fe Water Division P.O. Box 909, Santa Fe, NM 87504 Customer Service (505) 955-4333 Administration (505) 955-4210

The City of Santa Fe's Water Division (the City) is pleased to provide the 2015 Water Quality Report. A safe and dependable water supply is vital to our community and is the primary mission of the City. This report is provided annually and contains information on the quality of water obtained throughout the calendar year. In 2015, the City's drinking water met all U.S. Environmental Protection Agency (EPA) and State drinking water quality limits. The report contains additional details about where your water comes from, what it contains, and how it compares to standards set by federal and state regulatory agencies. It also provides educational information on contaminants which may be a concern.

Sources of Supply

The City was served by four distinct sources of supply in 2015. The 17,000 acre Santa Fe Watershed provides surface runoff to the Santa Fe River where it is stored in the McClure and Nichols Reservoir prior to treatment. Surface water from the Santa Fe River and Rio Grande is treated through conventional and advanced treatment processes at the Canyon Road Water Treatment Plant and Buckman Regional Water Treatment Plant (BRWTP), respectively. The City Well Field is mostly located in close proximity to the Santa Fe River and consists of 8 active wells located within the City limits of Santa Fe. The Buckman Well Field consists of 13 wells located near the Rio Grande, approximately 15 miles northwest of Santa Fe. All four sources are treated with chlorine for protection of customers against disease-causing microorganisms (pathogens), including bacteria and **viruses. Fluoride is added to the water supply to benefit the** community as recommended by public health professionals.

In 2011, the Buckman Direct Diversion (BDD) Project surface water supply was successfully integrated into the municipal distribution system and operated in conjunction with the City's pre-existing sources of supply throughout 2015. The surface water treated at the BRWTP is taken directly from the Rio Grande. BDD not only improves sustainability for the area but also increases the City's resilience under drought conditions, replacing current groundwater pumping that cannot be sustained, and making the City's wells available as drought and emergency reserves rather than sources used to meet daily water demands.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These individuals should seek advice about the safety of their drinking water supply from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Map of Water Sources

Source Water Assessment and its Availability

The New Mexico Environment Department (NMED) completed a Source Water Assessment for the City of Santa Fe. This assessment includes a determination of source water protection areas and an inventory of pollution sources within the 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"**. A copy of the Assessment is available by contacting NMED at 505-476-8620.

City ordinances adopted in 2005 built upon the recommendations in the Source Water Assessment. The "Safe Drinking Water and Source Water Protection" and the "Stormwater Illicit Discharge Control" ordinances provide additional controls and protections for the City's ground and surface water supplies. In addition, the City established a Stormwater Program with the goal of reducing pollutant discharged to the Santa Fe River. Please contact 955-2134 to report illegal dumping in storm drains, streets and arroyos.

En Espanol

Este reporte contiene información importante sobre la calidad del agua en Santa Fe. Si tiene alguna pregunta o duda sobre este reporte puede hablarle a Victor Archuleta al teléfono 505-955-4370.

Why are there Contaminants in my Drinking Water?

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 resulting from the presence of animals or from human activity. Contaminants in drinking water may include:

Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals can be naturally-occurring or result from urban storm-water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, may come from a variety of sources, such as agriculture, urban storm-water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally occurring, man-made from nuclear facilities and atmospheric deposition from former above ground testing, or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Nitrates

City of Santa Fe drinking water meets the federal drinking water standard of 10 ppm for nitrates (10 mg/L as N). Nitrates have been detected in some of the City Wells up to 6.7 ppm. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Arsenic

The drinking water standard for arsenic is 10 µg/L. The City's drinking water continued to meet this standard throughout 2015. Arsenic occurs naturally in the earth's crust. When these arsenic-containing rocks, minerals, and soil erode, they release arsenic into ground water. While our drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. The EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

In cooperation with Los Alamos National Laboratory (LANL) and the New Mexico Environment Department, the City currently monitors Buckman Wells 1, 6 and 8 for LANL derived contamination on a quarterly basis. Samples are analyzed for radionuclides, general inorganic chemicals, metals, high explosives and organics. This repeat sampling has occurred during the years 2001 – 2015 and has indicated that Laboratory-derived radionuclides are not present in the Buckman Wells 1, 2, 6 and 8. The results do indicate detectable levels of radionuclides associated with natural sources. These wells are part of the 13 wells that make-up **the Buckman Wellfield. When these wells are used, water** from these wells is delivered to the Buckman Tank prior to distribution into the system.

Cryptosporidium

Cryptosporidium is a protozoan parasite that is common in surface waters. The oocyst is the transmission stage of the organism. Cryptosporidium is introduced into our source waters via wild animal populations. Although the organism is readily removed by the conventional treatment process utilized at the Canyon Road Water Treatment facility, the oocyst is resistant to chemical disinfectants like chlorine and the primary reason to determine if additional treatment is required. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection.

In April 2007 the City began a two-year study to determine the average Cryptosporidium concentration in source water entering the Canyon Road Water Treatment facility. The sampling portion of the study was completed in March of 2009. The study is part of the requirements contained in the 2006 USEPA Long-Term Enhanced Surface Water Treatment Rule. Cryptosporidium was detected in a single untreated sample in each of the following months: December of 2007, September 2008 and October 2008. The highest 12-month consecutive mean for this study was 0.018 oocysts/L. Since the concentration is <0.075 oocysts/L, no additional treatment at the Canyon Road Water Treatment Facility was necessary. The City began a second round of sampling, one sample a month, starting in October 2015 and scheduled to end in September 2017. No Cryptosporidium oocysts were detected in three samples collected in calendar year 2015 (October, November, and December). As with Cryptosporidium oocysts, no Giardia Lamblia cysts were detected in the three samples collected during the last three months of 2015.

Any new water system treating surface water such as BDD is required to monitor Cryptosporidium for 24 consecutive months. At the BDD the untreated raw Rio Grande water Cryptosporidium test results range from 0 to 0.4 oocysts/L.

Voluntary Monitoring

The attached "Voluntary Monitoring" Table lists results from voluntary monitoring at entry points into the distribution system associated with BRWTP, City Wells, and the Canyon Road WTP. Since these samples are collected at the point of entry of water into the City's distribution system, the reported concentrations of contaminants may be further diluted in the distribution system through mixing with water from other City sources.

EPA has established secondary maximum contaminant levels (SMCL) for certain contaminants. Secondary Standards are non-enforceable standards that serve as guidelines to assist public water systems in managing their drinking water. The presence of these contaminants typically results from the erosion of natural deposits. Aluminum and manganese containing materials are used as treatment aids in the water treatment process. Other constituents without SMCLs were monitored in 2015 and are reported in the "Voluntary Monitoring" Table (these have an "NA" in SMCL column).

VOLUNTARY MONITORING

Contaminant	Units	SMCL	Result	Sample Date
Buckman RWTP				
Chloride	ppm	250	20	2015
pH		6.5 - 8.5	8.33	2015
Sulfate	ppm	250	48	2015
Total Dissolved Solids	ppm	500	223	2015
Strontium-90	pCi/L		0.01	2015
Nickel	ppm	10	ND	2015
Tritium	pCi/L		ND	2015
Uranium-234	pCi/L		0.949	2015
Uranium-235/236	pCi/L		0.447	2015
Uranium-238	pCi/L		0.676	2015
Conductivity	µmhos/cm		340	2015
Total Haloacetic acids	ppm		0.0094	2015
Total Trihalomethanes	ppm		0.0209	2015
Chlorine (as Cl2)	ppm		0.75	2015
Sodium	ppm		24	2015
Canyon Road WTP				
Sodium	ppm		18	2015

Contacts for Additional Information:

If you have any questions, comments, or suggestions regarding this report please contact Alex Puglisi at 505-955-4232 or write to:

City of Santa Fe Water Division
P.O. Box 909, Santa Fe, NM 87504

Microbial and Disinfection Byproducts Rule

The Microbial and Disinfection Byproducts (M/DBP) Rules are a set of interrelated regulations that address risks from microbial pathogens and disinfectants/ disinfection byproducts (DBPs). The Stage 2 Disinfectants and Disinfection By-Products Rule (DBPR) focuses on public health protection by limiting exposure **to DBPs (known carcinogens), specifically total trihalomethanes (TTHM) and five haloacetic acids (HAA5), which can form in** water through disinfectants used to control microbial pathogens.

The City of Santa Fe system has eight compliance sampling locations for TTHM and HAA5. Each location is sampled once per quarter. The average of analytical results for DBPs at a given location during the previous four quarterly samples is called the locational running annual average (LRAA). The LRAA at each location must be below the MCL (0.060 mg/L for HAA5 and 0.080 mg/L for TTHM). Results shown in the Table below indicate that the individual quarterly values during 2015 ranged from 0.001 to 0.027 mg/L for HAA5 and 0.029 to 0.069 mg/L for TTHM. The highest LRAA was 0.0101 mg/L for HAA5 and 0.0245 mg/L for TTHM, indicating that the system is in compliance.

	MCL†	MCLG†	Sample Year	Highest LRAA†	Range 2015 † Low †	Range 2015 † High †	Typical Source
Haloacetic Acids (HAA5s)	.060	NA	2015	.0101	0.0013	0.0270	By-product of drinking water chlorination
Total Trihalo-methane (TTHMs)	.080	NA	2015	.0245	0.0289	0.0690	By-product of drinking water chlorination

† = units are ppm (mg/L) ‡ = individual samples at all locations

The Stage 2 DBPR also regulates the maximum residual for disinfectants: chlorine dioxide, free chlorine, and chloramines. The disinfectants are water additives used to control microorganisms, particularly as a residual disinfectant in distribution system pipes.

The City of Santa Fe water system uses free chlorine as a disinfectant. For the year 2015, sampling was performed at 80 monitoring locations each month. The results are summarized in the table below:

	MRDL†	MRDLG†	Sample Year	Highest Level Detected†	Range 2015 Low†	Range 2015 High†	Violation	Typical Source
Chlorine Residual	4.0	4	2015	1.19	0.00	1.19	No	Water additives used to control microbes

† = units are ppm (mg/L)

Asbestos

The most recent sample for asbestos in the distribution system **was collected on December 16, 2013. No asbestos fibers were** detected in the sample collected (detection limit 0.2 million **fibers per liter or MFL). Some people who drink water containing** asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.

Contaminants	MCLG *	MCL *	Result *	Sample Year *	Violation	Typical Source
Asbestos	7	7	ND (<0.2)	2013	No	Decay of asbestos cement in water mains; erosion of natural deposits

* units are MFL (million fibers per liter) for fibers >10mm

Lead and Copper Rule

Tests for lead and copper are taken from customer taps located throughout the City once every three years. The most recent round of lead and copper testing took place in August 2015. The next survey will be performed in 2018. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

Inorganic Contaminants	MCLG	AL**	City Water Levels (90th percentile)*	# of Samples <AL	Sample Date	Exceeds AL	Typical Source
Copper (ppm)	1.3	1.3	0.60	39 of 39	August 2015	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead (ppb)	0	.015	0.0022	39 of 39	August 2015	No	Corrosion of household plumbing systems; Erosion of natural deposits

* Results of monitoring are used to determine the concentration at the 90th percentile (e.g., if 100 samples analyzed, the concentration at the 90th highest sample). Based on the number of samples analyzed in 2015 the 90th percentile is the 27th sample for copper and lead.

** AL = Action Level

Unregulated Contaminant Monitoring Rule (UCMR)

EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA). Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future. UCMR sampling for the EPA required four quarterly periods was completed in the Santa Fe water system between March and December 2015.

UNREGULATED CONTAMINANT MONITORING

NAME	UNIT	REPORTED LEVELS	RANGE LOW	RANGE HIGH
1,4-Dioxane	ppb	0.080	0.078	0.082
Chlorate	ppb	127	23	380
Chromium	ppb	0.75	0.22	2.0
Hexavalent Chromium (Dissolved)	ppb	0.46	0.03	1.9
Molybdenum	ppb	3.7	2.1	5.3
Strontium	ppb	166	35	430
Vanadium	ppb	2.9	0.2	9.2

* Average of all of 2015 UCMR results

The average of all of the monitoring results and the range of detections for any detected unregulated contaminants for which state or federal rules require monitoring are presented in the table. Other contaminants were collected and analyzed, as required by EPA, but they were not found above detection limits in any City of Santa Fe samples, and therefore are not included in the above table.

Conserve Water...
every drop counts

2015 City of Santa Fe Water Quality Table

The table on the following page lists contaminants which:

1. have associated primary Maximum Contaminant Levels (MCLs) that are regulated and
2. were detected in testing conducted by the City and New Mexico Environment Department.

The table includes only those constituents found above detection limits during 2015 sampling, or during sampling in previous years if not analyzed during 2015. The EPA requires monitoring for certain contaminants less than once per year because the **concentrations are not expected to vary significantly from year to year. The City is required to test for over 80 contaminants, and the** vast majority of these contaminants were not found above detection limits Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800) 426-4791, or visiting www.epa.gov/safewater.

Please view separate 2015 Water Quality Table