City of Santa Fe



Agenda

CITY CLERK'S OFFICE

#### SANTA FE WATER CONSERVATION COMMITTEE MEETING CITY HALL - 200 LINCOLN AVE. CITY COUNCILORS' CONFERENCE ROOM TUESDAY, FEBRUARY 10, 2015

4:00 PM TO 6:00 PM

- 1. CALL TO ORDER
- 2. ROLL CALL
- 3. APPROVAL OF AGENDA
- 4. APPROVAL OF CONSENT AGENDA
- 5. APPROVAL OF MINUTES JANUARY 20, 2015 WATER CONSERVATION COMMITTEE MEETING
- 6. CONSENT ITEMS

### **DISCUSSION ITEMS:**

- 7. DROUGHT, MONSOON AND WATER RESOURCE UPDATE (Rick Carpenter, 10 minutes)
- 8. CLIMATE ACTION TASKFORCE (Councilor Ives, 10 minutes)
- 9. HISTORICAL CHANGES IN WATER USE RATE (GPCD) BY SECTOR (SINGLE-FAMILY, MULTI-FAMILY, AND ICI) (Tim Michael, 5 minutes)
- 10. THE VALUE OF INCLUDING A GPCD SUMMARY SPREADSHEET IN THE ANNUAL REPORT (Tim Michael, 5 minutes)
- 11. AGREE TO DRAFT A RESOLUTION IN SUPPORT OF SENTATOR WIRTH'S ENERGY AND WATER NEW HOME TAX CREDIT BILL (Doug Pushard, 5 minutes)

#### **INFORMATIONAL ITEMS:**

- 12. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITATIVES: (Councilor Ives, 40 minutes)
  - A. GROUP #4- REESTABLISH TREND OF NET ANNUAL REDUCTIONS IN PER CAPITA WATER USAGE AND IDENTIFYING LARGE WATER USERS (10 minutes)
  - B. NEW! GROUP #5-WATER SYSTEM MAP (10 minutes)
  - C. GROUP #2- WATER CONSERVATION EDUCATION/OUTREACH (10 minutes)
  - D. GROUP #3- WATER CONSERVATION CODES, ORDINANCES & REGULATIONS (10 minutes)

# **MATTERS FROM STAFF:**

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

#### **MATTERS FROM PUBLIC:**

#### NEXT MEETING - TUESDAY, MARCH 10, 2015:

CAPTIONS: FEBRUARY 23, 2015 @ 3 pm ITEMS FOR NEXT AGENDA: PACKET MATERIAL: FEBRUARY 25, 2015 @ 3 pm

• New Working Groups/Priorities

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 INDEX JANUARY 20, 2015

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Mr. Pushard nominated Lisa Randall as temporary Chair, seconded by Mr. Roth, motion carried by unanimous voice vote.	The Water Conservation Committee Meeting was called to order by the Interim Chair, Lisa Randall at 4:00 pm in the City Councilor's Conference Room. Councilor Ives, Chair, resumed leadership at 4:30 pm Mr. Pushard nominated Lisa Randall as temporary Chair, seconded by Mr. Roth, motion carried by unanimous voice vote.	Page 2
Approval of Agenda Amend Agenda: Accommodate Mr. Shandler's presentation when he arrives.	Mr. Roth moved to approve the Agenda as amended, second by Mr. Michael, motion carried by unanimous voice vote.	Page 2
Approval of Consent Agenda	No Action needed	Page 2
Approval of Minutes, December 9, 2014 <u>Corrections:</u> Mr. Michael clarified that his reason and desire not to vote on approval of the Water Conservation Drought Management Plan was not due to text of plan but the fact that it was listed as a consent agenda approval item. In fact it did not belong there in conformance with the spirit of the Open Meetings Law. No change to the minutes noting reasons for abstaining from vote.	<i>Mr. Roth moved to approve the</i> <i>minutes of December 9, 2014 as</i> <i>amended, second by Mr. Michael,</i> <i>motion carried by unanimous voice</i> <i>vote.</i>	Page 3
CONSENT AGENDA	None	Page 3
<ul> <li>Discussion Items</li> <li>7. Open Government and Board</li> <li>Procedures in the "Modern</li> <li>World"</li> <li>8. Santa Fe 2014 OSE GPCD</li> <li>Calculator</li> <li>9. Drought, Monsoon and Water</li> </ul>	Informational	Page 3-10

Resource Update 10. Climate Action Taskforce 11. Domestic Wells Within City Limits 12. Discussion of Agenda Template 13. Review of Meeting Parliamentary Procedure 14. Proposed New Working		
Group: Water System Map Informational Items	No formal action, reports	Page 10-11
Group #2	provided verbally.	
Group #3		
Group #4	Informational	Page 11
Matters from Staff		
Matters from Committee	Informational	Page 11
Next Meeting	Tuesday, February 10, 2015	Page 11
Adjournment and signature	Meeting was adjourned at 6:00 pm	Page 11

#### SANTA FE WATER CONSERVATION COMMITTEE MEETING CITY HALL - 200 LINCOLN AVE. CITY COUNCILORS' CONFERENCE ROOM TUESDAY, JANUARY 20, 2015 4:00 PM TO 6:00 PM

#### **MINUTES**

#### 1. CALL TO ORDER

In the absence of the Chair and Vice Chair, the committee members present elected Lisa Randall, member to Chair the meeting. Councilor Ives, Chair resumed chairmanship at 4:30 pm.

Mr. Pushard nominated Lisa Randall as temporary Chair, seconded by Mr. Roth, motion carried by unanimous voice vote.

#### 2. ROLL CALL

#### **Present:**

Councilor Peter Ives, Chair Doug Pushard Bill Roth Stephen Wiman Nancy Avedisian Tim Michael Lisa Randall

#### Not Present/Excused

Melessia McDonald Grace Perez Karen Schmitt Member Absent Giselle Piburn

#### **Others Present:**

Caryn Grosse, Water Conservation Specialist Robert Wood, Water Conservation Andrew Erdman, Water Resources Coordinator Alan Hook Zack Chandler, Assistant City Attorney Andy Otto, Santa Fe Watershed Association Elizabeth Martin for Fran Lucero, Stenographer

# 3. APPROVAL OF AGENDA

Amend agenda: Accommodate Mr. Shandler's presentation when he arrives.

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

#### 4. APPROVAL OF CONSENT AGENDA

None

#### 5. APPROVAL OF MINUTES DECEMBER 9, 2014

#### **Corrections:**

Mr. Michael clarified that his reason and desire not to vote on approval of the Water Conservation Drought Management Plan was not due to text of plan but the fact that it was listed as a consent agenda approval item. In fact it did not belong there in conformance with the spirit of the Open Meetings Law. No change to the minutes noting reasons for abstaining from vote.

*Mr.* Roth moved to approve the minutes of December 9, 2014 as amended, second by *Mr.* Michael, motion carried by unanimous voice vote.

#### 6. CONSENT AGENDA

#### **DISCUSSION ITEMS:**

- 7. Open Government & Board Procedures in the "Modern World" (Zachary Shandler) City Attorney Shandler spoke to the WCC regarding the Open Meetings Law and stated that this committee sits at an intersection of two dynamic forces; water and technology. Many of you have served on this committee and other boards and have worked with the State Open Meetings Act and the State Inspection of Public Records Act. During the last 12 months with the explosion of social media there have been some changes to this area of the law. Technology is moving faster than we can keep up with. Mr. Shandler focused on three main areas:
  - 1) State Open Meetings Act which applies to the City

Mr. Shandler that a quorum cannot be existent at a luncheon meeting or if you are discussing WCC business. A quorum is a quorum if you have more than  $\frac{1}{2}$  of the members, no matter where they are at. It was also noted that if you respond "reply all" in an e-mail that is known as an electronic rolling quorum which means you are talking and listening to each other not in the view of the public. That is a modern violation of the act.

Debate over Gila River. Everyone wants to know everything about what is said or thought about who are working on water issues. The one unofficial exception to this rule in an electronic quorum is that if a city staff sends out an e-mail about a meeting or meeting availability, you can reply to that. You can respond if our are or not available but if you go in to more detail and reply all then it starts talking about the topic of the electronic lunch. You may ask how anyone would even know about any of this stuff and this leads in to the Inspection of Public Records Act which also applies to the City. As 2015 committee members you have to accept that your life on e-mail has changed.

2) Inspection of Public Records and

According to the Attorney General, if you conduct business over e-mail this is constituted as public record even if you are using your private e-mail account or phone.

 Open Meetings Act and Inspection of Public Records Act Impact. Mr. Shandler informed the committee that when making public presentations on behalf of the WCC they could be recorded by a public attendee. They sometimes result in attendees sending a tweet on content. If in fact you are making a statement that is your own personal comment, it should be delivered in that manner noting to the public that it is a "private opinion" not a statement from the WCC.

Q: What if I want to provide electronic material to group?

A: If you are providing material to your other committee members it will become a public document. If you have a handout you should provide it to staff before a meeting so it gets in the packet for the public to read.

Mr. Michael asked about documents for the WCC packet. If they are available on the City website does WCC need to have hard copy available at meetings?

Mr. Shandler said that it should be on the website so the public can see exactly what is being reviewed. If you are providing material that you have isolated from one meeting and you want to make sure that it is discussed in the next meeting, you need to make sure that staff gets that in advance so everyone comes to the room with this basic knowledge of what is going to be discussed.

Councilor Ives stated that on that note that on the agenda it lists when material is due for the packet so we are trying to be decent on the formalities.

Mr. Michael stated that was not his question. He stated if he did not have the documents with him could he direct the WCC to the website during meeting.

Mr. Pushard. As an example, I am going to talk tonight about a link to the spreadsheet, how do we do that.

Mr. Shandler stated that it might need to be printed out in advance. Mr. Shandler received a call from a reporter asking for the material for a specific meeting, they follow the agendas and it is their expectation if it says something it has to be in the packet.

Ms. Grosse stated that everything that is given to staff is included in the packet and anything that is handed out during a meeting is attached to the minutes and filed with the City Clerk's office.

Mr. Roth asked about quorum for working groups.

Mr. Shandler stated that as soon as you have a quorum you have to notice it as a public meeting.

Mr. Pushard stated that the process they have been following is that the work group reports are brought to the recorder and referred to in the minutes. Recorder includes it in next packet.

Mr. Shandler stated that he was trying to encourage WCC members to provide material in advance. The expectation that the media has is they want the report in advance and I am sure that is the public expectation.

Councilor Ives stated that he has proposed that we provide uplink for all city meetings as there is no unified system in place. Councilor Ives will speak to Melissa Byers regarding this procedure request.

Mr. Michael asked how documents are received for City Council Meetings. Councilor Ives stated that they are received as PDF files, no live links.

Ms. Grosse clarified that the PDFs in WCC packets do have live links.

Mr. Wood asked how long the live links need to be maintained.

Mr. Shandler will speak to the City Clerk's office and get word back to WCC.

Mr. Shandler stated that the inter-stream experience has really made him aware of what is expected.

Councilor Ives added the recent circumstances regarding the PRC hearing dealings with PNMs proposed shut down of plant. Councilor Ives Commented that much is happening as we speak.

Mr. Shandler offered his assistance to the WCC members should they have any questions. Thank you.

8. Santa Fe 2013 OSE GPCD Calculator (Tim Michael) (Exhibit A)

The purpose of this paper is to describe the OSE GPCD Calculator. It is based on the City of Santa Fe's 2013 submittal to the OSE. A PDF of the city submittal is attached. Although the full calculator is based on monthly data, 2013 annual results can be obtained as indicated in the summary table below.

Mr. Michael explained the summary of the table.

Mr. Roth asked about the 20% difference.

Mr. Michael noted that the denominator is different and it should line up a bit more in 2014.

Mr. Roth: In which way?

Mr. Michael stated that some served are not in the city but they will come in to the city.

Mr. Roth: So 119 will go down?

Mr. Michael: Yes

Mr. Roth: Does that mean that people not living in the city use less water overall than city residents? Mr. Roth commented that a total of \$1,000 people are being served, some live in the city some don't; all you are doing is taking from that \$1,000 and putting them in to the city of 68,000; the \$1,000 probably is not going to change. Mr. Roth said that he is more concerned if there are \$1,000 people using the water what is the average amount

they are using whether they live in the city or the county. Are you taking the same gallons and dividing it by 59,000 people; why would you do that?

Mr. Roth said if someone asked him what the GPCD is in Santa Fe it would be more that number.

Mr. Michael made reference to page 2, annual GPCD calculation is based on the following formula: GPCD = gallons annual water demand/(*the number of persons served x 365 days per year*). Annual water demand is the annual volume of water supplied to the utility minus water exported to customers not directly served by the utility. It includes non-revenue water and delivery system losses. In 2013, the water demand was 2,989,288,000 gallons (9,174 acre-feet).

Mr. Roth asked what the average number around the country is on water systems.

Mr. Pushard said that it is 9-10 average and asked why did they do this?

Mr. Pushard asked Mr. Michael; why did you do this?

Mr. Michael: Because I wanted to know and I found the other format confusing. I thought it to be useful for an annual report; which shows the comparison. In some way this is a suggestion.

Mr. Pushard: I concur that I like this format because it summarizes the year so I definitely would support to get this into written reports. Would it be possible for you to bring at next meeting, the value column for over the range of time. We could see the family, multi-family over time; to see which numbers are changing and which numbers aren't changing to help us focus where we are not getting much change.

Mr. Michael: I can do that, can estimate from 2002-2013.

Mr. Roth: Looking at the difference from multi-family and single family; is this because of landscaping? If it is a 28 gallon difference if you have a family of 4 living in an apartment vs. a family of 4 living in a house in Tierra Contenta, why is one using 1/3 more than the other. Is that outdoor water heaters, would that be a safe assumption that the number is going in to gardens and lawns.

Ms. Randall: It is a safe assumption on Santa Fe Public school property. They use triples or quadruples in the irrigation months.

Mr. Pushard said it is going to be assumed that our irrigation numbers are going to be about 40% of our total.

Councilor Ives said that it reflects that single-family use is 55% outdoor use.

Ms. Randall said for the next meeting agenda it would by Mr. Michael bringing back a change to column to those particular groupings.

Thank you to Mr. Michael.

Councilor Ives resumed Chairmanship.

9. Drought, Monsoon and Water Resource Update (Rick Carpenter) Andrew Erdman reported on behalf of Rick Carpenter. (Exhibit B)

Predictions for El Nino are 65% above normal precipitation, which is, up fro the September prediction and down from the summer prediction. It appears to have been the hottest summer on record, June through August record. Rio Grande flows look good, storage bad. Snow bank is at 70% of normal for this time of year. The settlement for Wild Earth Guardians excludes San Juan Chama Water from being encumbered for endangered species to the silvery minnow.

Ms. Randall asked what the benchmark for normal snow pack this time of year.

Mr. Hook responded that a 30-year average of the snow pack was determined 1980 - 2010.

Mr. Wiman asked, the number for San Juan Chama was 89% of allotments for 2014, is that correct? Mr. Erdman said that is correct. Mr. Wiman asked if there is a projection for 2015? Mr. Erdman said the projection is 100%, it is still with preliminary data. Mr. Wiman asked if they are still saying 100%. Mr. Erdman said, yes.

Mr. Pushard asked staff if they have gauges coming out of tunnels or reservoirs and if they monitor the depth of those reservoirs.

Mr. Erdman said that through the Bureau of Reclamation they are all monitored. Mr. Pushard said he has never seen in Mr. Carpenter's memo mentioning the depth of those because those reflect a good leading indicator if we are going to get our full allocation or not.

Mr. Erdman said that they will try to include that. It is fairly complicated because of the way some of the contracts are written for the individual reservoirs, staff will try to get a fact sheet put together. Mr. Pushard said that would be very helpful.

#### 10. Climate Action Taskforce

Councilor Ives announced that Commissioner Holian is the Chair. The effort currently is to come forward by the end of the month for recommendations in the energy sphere. They will relatively be known as issues related to land, water and food security. As that working group makes recommendations up to the Climate Action Taskforce, Councilor Ives will bring to the WCC. It may be a little challenging in terms of timing since the meetings don't all align in such a way that insure that issues will be seen in a timely fashion. Climate Acton Taskforce is fundamentally grateful for the work that this committee has done over time at looking at water conservation measures. Councilor Ives has tried to assure that the reports put out by the WCC get to the Climate Action Taskforce members.

Ms. Randall asked if Councilor Ives is in attendance with these working groups. Councilor Ives reported that he is not consistently there as the working groups meet at different times.

Ms. Randall said that she sits son the Energy Efficiency and Renewable Energy and Financing, and she heard that the working group was focusing mostly on food.

Councilor Ives said that with the food plan put together by non-profit organizations in the city and county that has been an initial focus on food.

Mr. Andy Otto: A member of the sub-working group on water said that initially food was targeted but they actually have a sub working group of water and a sub working group on land.

WCC members were happy with the update.

11. Domestic Wells Within City Limits (Stephan Wiman)

Mr. Wiman asked about the status of the letter submitted last May.

Mr. Erdman answered that the letter is considered by the legal department to be sufficiently flawed and un-editable. The City Attorney feels that there are numerous problems with the letter and does not think that this letter is something that we are able to send out because there are a lot of questions about the jurisdictional issues about what rights the city has in relationship to these peoples wells.

Councilor Ives asked if the City Attorney could draft a letter that would provide notice to city water users including well users with regards to the cities rules and regulations and the necessity of anyone to comply with those.

Mr. Erdman added that he can talk to the City Attorney about the language for the letter and shared with the WCC that there is a concern about the mail list as well. We generated the mailing list through the State Engineers office. He will inquire as to what the concern is from the City Attorney.

Mr. Pushard said his recollection was that they had agreed it would be for all residents. That was the intent and that is why the letter was written in the way it was, a friendly reminder of water conservation and if you happen to have a well; just a reminder that you are covered by the water. Mr. Pushard said that if the City Attorney's issue is with mailing list they had already discussed and come to an agreement that it should go to all.

Mr. Erdman said that the concerns were more detailed and not related only to the mailing list.

Councilor Ives offered to meet with Mr. Erdman and Marcos in the City Attorney's office if an appointment could be coordinated. Ms. Randall asked if it was prudent for the working group to be included in this meeting. Councilor Ives stated that this might be possible, he would prefer to meet with the City Attorney first.

Mr. Michael reiterated that it is important to assure that Marcos was looking at the second version, not the first. Mr. Erdman will make sure that the correct version is being reviewed.

Mr. Pushard suggested wording for city code violations that WCC have submitted. He also expressed thanks to Mr. Michael for putting this together. They would like to get the city to approve as an amendment to the ordinance. This language we believe represents what is stated in the Ordinance. How do we move this forward?

Councilor Ives stated that in his mind the path forward is for him to sit down with our legislative liaison, Melessia Byers and bring back a draft of possible wording to the WCC.

Mr. Pushard said this is acceptable.

#### **12.** Discussion of Agenda Template (Tim Michael)

Mr. Michael (noted in packet) that he had expressed he did not want to vote on consent without the drought plan and therefore he abstained. He stated, "My primary reason was that I thought if we are voting on approval for something, it should be listed as voting item, not consent."

Councilor Ives stated that the agendas for the city are set by the chairman of the committee. When it comes to consent agendas they are frequently used and no violations of open meeting act. Consent agendas usually are brought into play when there are items that will not involve significant discussion or controversy.

Mr. Pushard directed the question to Mr. Michael, "If I understand there are 2 things that you want to change? One is an addition of a new item which is voting items."

Mr. Michael said; "yes, and I think I have a vision of the press going to meetings. I want to assure we are clear."

Mr. Pushard said he supports that. Second question is on grouping of the consent agenda and consent items. "I did not follow your logic on that."

Mr. Michael responded that he wasn't sure that his logic is good. He stated that when they approve the agenda he would like to see the consent agenda.

Councilor Ives said that he is following a format that he has used for all his time on the city council and will continue within that order. The Chair said he is happy to look at blocking off action items.

**13.** Review of Meeting Parliamentary Procedure (Tim Michael)

Mr. Michael stated that as a reminder he found himself failing to address the chairman and the recorder. There was a member of the public here and they should participate in the discussion. They should be reminded that there is a place on the agenda for extended comments.

Councilor Ives agreed.

**14.** Proposed New Working Group: Water System Map (Stephen Wiman) (Exhibit C)

Mr. Wiman has a vision for another project and Mr. Michael has signed up to assist. Proposed working group consolidated in to one location. Map view. GIS. I have done various components of this. (In packet)

Mr. Roth said that he knows the GIS person and WCC should make time to talk to him. He will provide staff with the contact information.

9

Councilor Ives said that he did not think that GIS technology is either new or extraordinary. From his perspective it is a storied map and does not think it would be terribly difficult for staff to create.

Ms. Gross stated that there is a number of city staff that could do it. There are not enough GIS licenses to go around.

Councilor Ives is someone who does have a GIS license. It was recommended that Claudia Borchert be contacted at Santa Fe County and see what is available.

Mr. Wiman asked if there is a contact for the city.

Ms. Grosse said the contact is Rick Carpenter. Ms. Grosse said that they would need to prioritize with other project and task items.

Councilor Ives will contact GIS staff.

Mr. Wiman stated that he knows pieces of the map out there.

Mr. Pushard asked if they are all in agreement to form another working group, water system map.

Councilor Ives by consensus to replace domestic wells. Councilor Ives asked who would like to be a part of this working group. Tim Michael and Stephen Wiman.

#### **INFORMATIONAL ITEMS:**

15. Group Reports From Water Conservation Committee Initiatives

- A. Group #2 Water Conservation Education/Outreach No report, have not met.
- B. Group #3 Water Conservation Codes, Ordinances & Regulations Mr. Pushard asked for time on the next agenda for an action item on WERS. He will provide a verbal report.

Mr. Pushard reported that version one is complete. He will send out an active link ahead of the meeting. It has spread sheets and best practices. It is a similar version to Senator Wirth's bill.

Mr. Roth offered information on an overarching organization called RESNET who works with HERS. They proposed drafting. WERS. One of the people driving it runs KD homes. Mr. Pushard would like the support of the WCC and expressed at next meeting. He would like the city to take credit for this.

Councilor Ives said that there are two aspects to this; one is the Ordinance and the other is a Resolution in support of measures to be introduced by Senator Wirth.

Ms. Grosse said that it would be useful to committee if they would write a short memo to committee for packet. Mr. Pushard will take on this task.

Mr. Pushard said that he will try to break out into 2 votes. We are going to sustainable Santa Fe. They voted to endorse and put together a group to get it into the building code.

Councilor Ives – 2 resolutions.

Mr. Roth: Plumbing code.

C. Group #4 – Reestablish Trend Of Net Annual Reductions in Per Capital Water Users Nothing to report.

#### **MATTERS FROM STAFF:**

Ms. Grosse informed the members that she has hard copies of the drought plan if anyone would like to have one.

Ms. Grosse provided the WCC members with the 2015 meeting calendar. (Exhibit D)

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

Mr. Pushard asked in the 2013 water report has been published.

Ms. Grosse said no, she will ask Mr. Hook for a timeline.

#### MATTERS FROM PUBLIC

None

#### Staff Follow Up for Future Meetings:

NEW WORKING GROUP PRIORITIES

#### NEXT MEETING - TUESDAY, FEBRUARY 10, 2015

Reminder: CAPTIONS: JANUARY 26, 2015 @ 3 pm PACKET MATERIAL: JANUARY 28, 2015 @ 3 pm

#### ADJOURN.

There being no further business to come before the Water Conservation Committee, the meeting was adjourned at 6:00 pm.

**Signature Sheet:** 

Lisa Randall, Interim Chair

**Councilor Peter Ives, Chair** 

Fran Lucero, Stenographer

# **MEMORANDUM**

11

TO:	City of Santa Fe Public Utilities Committee
	City of Santa Fe Water Conservation Committee
	Buckman Direct Diversion Board
FROM:	Rick Carpenter, Water Resources and Conservation Manager $m{\psi}$
VIA:	Nick Schiavo, Public Utilities Department and Water Division Director
DATE:	January 23, 2015
SUBJEC	<b>F:</b> 41 <sup>st</sup> Monthly Update on Drought and Water Resource Management

#### CURRENT UPDATE - GENERAL WATER RESOURCE MANGEMENT

As the Committee/Board is aware, our region is still suffering through a drought. Our region has gone through four consecutive years of record drought and heat. In fact, recent data suggests that this past summer was the hottest on record (June-August). This fourth consecutive year of drought has eased somewhat, but will still likely present significant challenges to all water purveyors, utilities, and irrigators going forward into the next year.

July/August/September, 2014 yielded good summer rains due to a series of moist northeast cold fronts and monsoonal flow, but the monsoons generally exited by early October. Many models are predicting the likelihood of a return of an El Nino weather pattern, 50%-60% chance of normal to above normal precipitation (but down from 75% in spring/summer projections) over the next two months. This could mean good precipitation for the remaining winter months (snow pack) (see attached figure). Therefore, while El Nino seems to be weakening relative to early predictions, normal to above normal snow pack is still likely this coming winter. The most recent January NOAA ENSO update states that:

#### "ENSO-neutral (El Nino) conditions continue. Positive equatorial sea surface temperature (SST) anomalies continue across the Pacific Ocean. There is an approximate 50%-60% chance of El Nino conditions during the next two months."

It is worth noting that City of Santa Fe has invested in a robust and diverse portfolio of four distinct water supply sources that allows for flexibility in meeting demand: Buckman well field, City well field, Canyon Road Water Treatment Plant on the Upper Santa Fe River, and the Buckman Direct Diversion on the Rio Grande. Supply from these groundwater and surface water sources are expected to be adequate in meeting local demands. The City also has a considerable amount of SJCP water stored ("banked from previous years") in reservoirs upstream from the BDD diversion, and that water could be called for if needed over the coming 2 or 3 years.

# LOCAL CONDITIONS

#### Source of Supply Utilization Summary

December 2014

City Wells	9.68mg/m	29.69af/m
Buckman Wells	7.42mg/m	22.78af/m
CRWTP	25.39mg/m	77.92af/m
BRWTP	141.46mg/m	434.14af/m
Other Wells(Osage, MRC, etc)	0.00mg/m	0.00af/m

#### **Upper Santa Fe River/CRWTP**

	Total Combined Reservoir Level	Santa Fe Snow Gage	Reservoir Inflow
January 23, 2015	9.0%	33.00 inches	0.97 MGD
5-Year Average for This Date (2010 - 2014)	44.48 %	22.00 inches	1.04 MGD

As of January 23, 2015 total combined storage in Nichols and McClure reservoirs is 9.0% of total (or about 360 acre-feet of storage out of 4,000 acre-feet of capacity). Some flows have been bypassed due to construction on the new intake facilities. Minor inflows are expected to continue for the near future and so the reservoirs have been managed to allow for water treatment plant production, active construction, and draining/drying.

#### Buckman Regional Water Treatment Plant (BDD)

Flows in the Rio Grande are relatively good for this time of year, and turbidity has been generally good. The BDD has been able to divert and treat in line with demand.

#### **REGIONAL CONDITIONS**

#### **Rio Grande Basin**

Surface flows in the Rio Grande and its tributaries through mid-January have been relatively good. However, storage levels in regional reservoirs is still very low (see attached figure). There was very little carry-over storage from 2014 into 2015. A good snow pack this winter is essential if there is to be significant runoff into regional reservoirs for next high demand season.

<u>UPDATE:</u> Wild Earth Guardians (WEG) has either filed law suits or Notices of Intent (NOI's) against the US Army Corps of Engineers, Bureau of Reclamation, State of Colorado, State of NM, and MRGCD, citing endangered species act (ESA) compliance concerns (SW willow fly catcher and silvery minnow). A recent settlement reached with WEG indicates that SJCP water will NOT be the subject of this, or any future, ESA legal action sought by WEG in the MRG.

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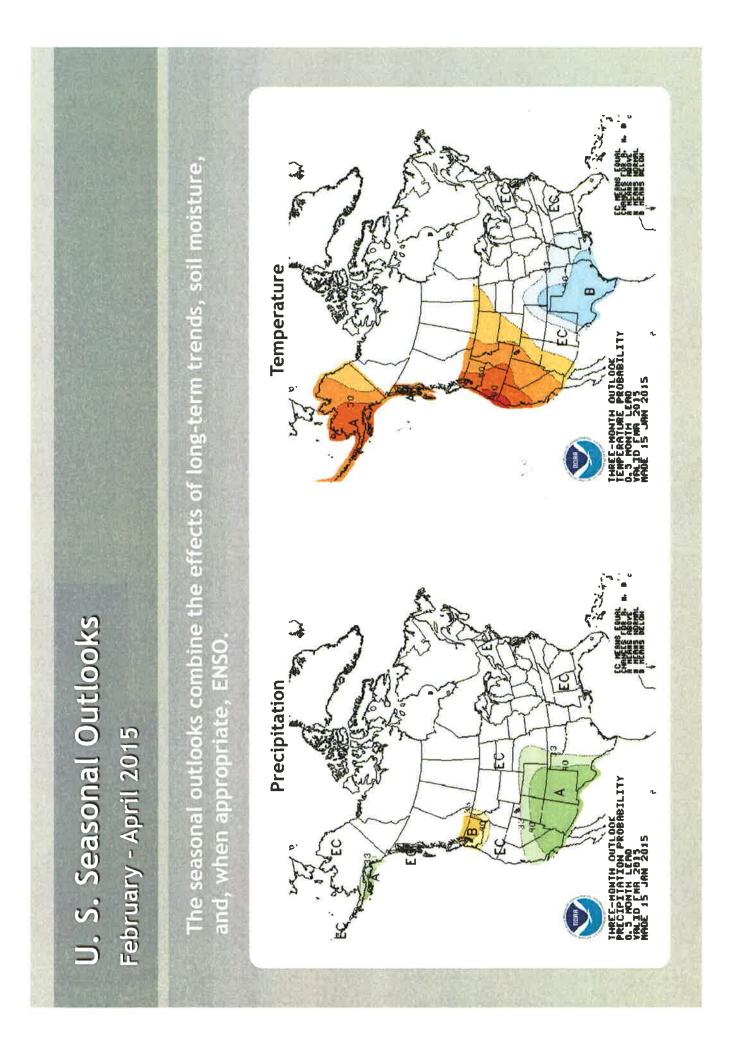
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Additionally, in October the federal government listed the yellow billed cuckoo as an endangered species in portions of the middle and upper Rio Grande basins. The cuckoo's habitat generally includes, but extends, the habitat already occupied by the flycatcher and minnow. The implications of this new listing by the federal government are currently be analyzed by staff and consultants. The Rio Grande meadow jumping mouse may also become listed by the federal government in the coming months. Jumping mouse habitat generally includes that of the cuckoo but also may include adjacent riparian meadows and wetlands further away from the wetted river flood plain. Updates will be provided by staff as necessary.

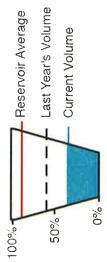
#### San Juan Basin

It should be stressed that, conditions could significantly worsen for San Juan Chama Project deliveries this coming year, if the drought persists, due to a lack of carry-over storage in Heron from last year to this year. Heron Reservoir is currently at a very low level. However, the San Juan Basin as well as the local Sangre de Cristo Mountains have experienced several snow storms recently. Recent estimates by the BoR suggest that the snow pack is about 70% of normal for this time of year (through December 2014).

The Bureau of Reclamation has recently indicated that SJCP deliveries 2014 were about 89% of total annual firm yield, which marks the first time since the inception of the SJCP Project that total firm yield deliveries were not completely met by the Project.



Legend



size of cups is representational of reservoir size, but not to scale

%0	<u>Av</u>			One-Month
Reservoir	Capacity	Current Storage*	Max Storage*	Change in Storage*
1. Navajo	65%	1095.9	1,696.0	-0.5
2. Heron	17%	67.9	400.0	-2.5
3. El Vado	%6	17.7	190.3	-2.5
4. Abiquiu	11%	127.7	1,192.8	0.2
5. Cochiti	9%6	45.9	491.0	-1.0
6. Bluewater	6%	2.4	38.5	-0.2
7. Elephant Butte	10%	212.5	2,195.0	28.9
8. Caballo	10%	31.6	332.0	0.4
9. Lake Avalon	20%	2.0	4.0	0.9
10. Brantley	8%	79.5	1,008.2	1.4
11. Sumner	37%	38.2	102.0	2.9
12. Santa Rosa	16%	69.8	438.3	-0.8
13. Costilla	18%	2.9	16.0	0.4
14. Conchas	33%	84.6	254.2	-2.8
15. Eagle Nest	22%	17.0	79.0	-0.1
		' in KAF	' in KAF = thousands of acre-feet	ieet

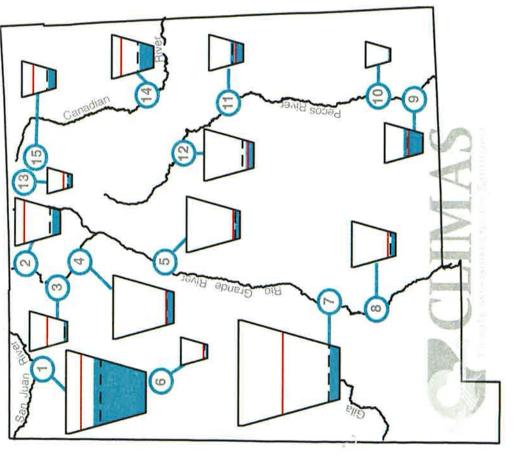
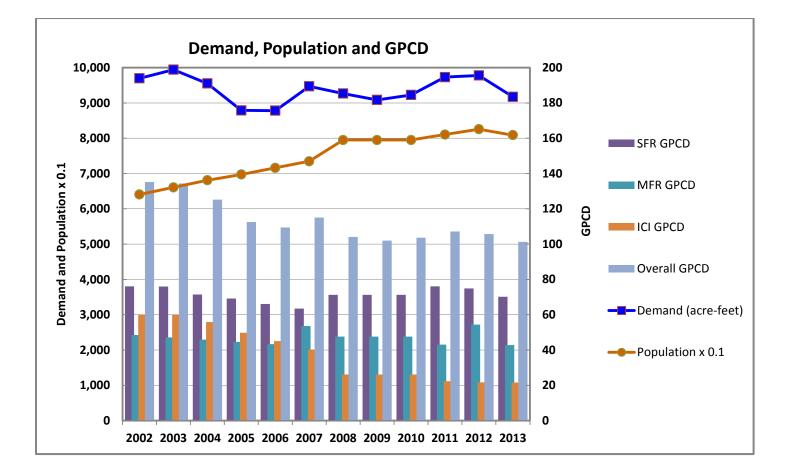


Figure 2. New Mexico reservoir volumes for end of Nov as a percent of capacity. The map depicts the average volume and last year's storage for each reservoir. The table also lists current and maximum storage, and change in storage since last month.

#### **Historical GPCD Data**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Demand (acre-feet)	9,697	9,943	9,552	8,788	8,783	9,471	9,266	9,086	9,226	9,731	9,778	9,174
Population	64,060	66,080	68,110	69,740	71,620	73,460	79,510	79,510	79,510	81,050	82,550	80,890
SFR GPCD	76.06	75.96	71.42	69.15	66.08	63.48	71.32	71.32	71.32	76.05	74.93	70.22
MFR GPCD	48.53	47.18	45.88	44.61	43.38	53.56	47.58	47.58	47.58	43.11	54.39	42.85
ICI GPCD	60.07	60.11	55.86	49.79	45.09	40.28	26.10	26.10	26.10	22.31	21.66	21.56
Overall GPCD	135.16	134.33	125.20	112.50	109.48	115.09	104.04	102.02	103.59	107.18	105.74	101.24



Overall demand has been somewhat constant, in spite of the challenge of moderately increasing service population.
 The GPCD calculation basis has changed through time, so comparisons to previous years may not be entirely valid.
 In recent years the GPCD has been relatively unchanged, although 2013 has a positively low GPCD (and demand),
 The largest relative decease in GPCD has been on the ICI sector.

#### **OSE GPCD Calculator**

The purpose of this paper is to describe the OSE GPGD Calculator. It is based on the City of Santa Fe's 2013 submittal to the OSE. A pdf copy of the city submittal is attached. Although the full calculator is based on monthly data, 2013 annual results can be obtained as indicated in the summary table below.

Input data is shown in non-shaded cells. Calculated results are shown in grey-shaded cells.

#### **Summary Table**

Variable Title	Year 2013 Valu	е	Description
Household Size (Persons)	2.12409		Persons per housing unit (household)
Occupancy Status (Residential Units)	37,134		Number of housing units
Occupied (Residential Units)	31,570		Number of occupied housing units
Vacancy Rate (Percent)	15.0		1 – (Occupied / Occupancy Status) (%)
Group Quarters Population (Persons)	1,624		Group quarters population
	Gallons	AF	
Volume Diverted	1,665,588,000	5,112	Water diverted from local sources
Volume Imported	1,401,900,000	4,302	Water imported via Buckman Direct Diversion
Volume Total Supply	3,067,488,000	9,414	Sum Volume Diverted and Volume Imported
Volume Exported	78,200,000	240	Water exported to customers outside the city
Volume Avail to Customers (Demand)	2,989,288,000	9,174	Volume Total Supply minus Volume Exported
Volume SFR Billed	1,548,384,400	4,752	Single-family residential customers
Volume MFR Billed	294,927,400	905	Multi-family residential customers
Volume ICI Billed	636,430,700	1,953	Industrial, commercial and institutional customers
Volume Other Metered	162,445,700	499	Other metered customers
Volume Provided to Customers	2,642,188,200	8,109	Sum Volume SFR, MFR, ICI Billed and Other Metered Volume Avail to Customers (Demand) minus Volume
Volume Non-revenue (Demand-Provided)	347,099,800	1,065	Provided
Volume Reuse	355,930,000	1,092	Reclaimed wastewater
	00.405		Average number of single-family residential accounts
Number SFR Accounts	28,495		or households Average number of inactive single-family residential
Number SFR Inactive Accounts	0		accounts or households
Number Active SFR Accounts	28,495		Active minus inactive SFR accounts
	20,100		Average number of multi-family residential units or
Number MFR Units	10,414		households
Number Occupied MFR Units	8,854		Average MFR units times occupancy ratio
SFR Population	60,526		Number SFR accounts times Household Size
MFR Population	18,806		Number MFR accounts times Household Size
Group Quarters Population	1,624		
Total Population	80,956		Sum SFR, MFR and Group Quarters Population
			Values (vellage) CED Dilled divided by (CED
GPCD SFR	70.09		Volume (gallons) SFR Billed divided by (SFR Population times 365 days)
	10.03		Volume (gallons) MFR Billed divided by (MFR
GPCD MFR	42.97		Population times 365 days)
			Volume (gallons) ICI Billed divided by (Total
GPCD ICI	21.54		Population times 365 days)
			Volume (gallons) Other Metered divided by (Total
GPCD Other Metered	5.50		Population times 365 days)
GPCD Overall	101.16		Volume (gallons) Available to Customer (Demand) divided by (Total Population times 365 days)
City Population	68,677		2010-2012 3-Year Estimate
	,		Volume (gallons) Available to Customer (Demand)

#### Discussion

The annual GPCD calculation is based on the following formula:

$$GPCD = \frac{gallons annual water demand}{(the number of persons served \times 365 days per year)}$$

Annual water demand is the annual volume of water supplied to the utility minus water exported to customers not directly served by the utility. It includes non-revenue water and delivery system losses. In 2013, the water demand was 2,989,288,000 gallons (9,174 acre-feet).

The number of persons served by the utility includes persons living in single-family residences, multifamily residences, and group quarters. The population living in single-family residences is obtained by multiplying the average number (28,495) of active single-family residential accounts (taken to be households) by the household size of 2.12409 persons per household, for a single-family residential population of 60,526 persons.

The population living in multi-family residences is obtained by multiplying the number (8,854) of occupied multi-family units (households) by the household size of 2.12409 persons per household, for a multi-family residential population of 18,806 persons.

The group quarters population is from American Community Service data. It is 1,624 persons.

Adding these classifications together results in a total population served by the water utility of 80,956 persons. This value is different than the population of Santa Fe city (69,969) from American Community Survey. The difference is 10,987 persons. Dividing this difference by the household size of 2.12409 indicates that the water utility services 5,172 accounts that are not in the city. The water utility should have data to verify this.

The water use rate in gallons per capita-day (GPCD) for the three classifications is:

For single-family residents, by dividing the volume of water billed to single-family accounts by the single-family population times 365 days.

Single – family Residential GPCD = 
$$\frac{1,548,384,000}{(60,526 \times 365)} = 70.09$$

For multi-family residents, by dividing the volume of water billed to multi-family accounts by the multi-family population times 365 days.

Multi – family Residential GPCD = 
$$\frac{294,927,400}{(18,806 \times 365)} = 42.97$$

Overall, by dividing overall demand to single-family accounts by the total population times 365 days.

$$Overall \ GPCD = \frac{2,989,288,000}{(80,956 \times 365)} = 70.09$$

#### Input Data

#### A. Demographic Data

#### Data is based on ACS 2012 3-year Estimate (2010-2012)

• <u>Household Size</u> (persons per household).

To find Household Size American Fact Finder <u>http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml</u> Choose Advanced Search, Show Me All Choose Geographies Choose Place – 160, State – New Mexico, Santa Fe city, New Mexico, Add to Your Selections, Close Choose Topics, Housing, Occupancy Characteristic, Household Size, Close Search by Average Household Size, Use Table B25010 2.12 owner occupied, 2.13 renter occupied

- <u>Occupancy Status</u> (total number of housing units).
- Occupied (number of occupied housing units).

To find Housing Occupancy Housing Type, DP04, Selected Housing Characteristics 37,134 Total Housing Units. 31,529 Occupied Housing Units

• <u>Group Quarters Population</u> (persons). Group quarters include such places as college residence halls, residential treatment centers, skilled nursing facilities, group homes, military barracks, correctional facilities, and workers' dormitories.

To find Group Quarters Population, Table B26001 People, Basic Count/Estimate, Group Quarters Population

B. Water Supply Data

- <u>Volume Diverted</u> (gallons of water diverted from local sources: Santa Fe River watershed, city wells and Buckman wells). The value is converted to acre-feet in the column to the right.
- <u>Volume Imported</u> (gallons of water imported from the San-Juan Chama via the Buckman Direct Diversion).
- <u>Volume Exported</u> (gallons of water exported to customers outside the city such as the county or Las Campanas).

#### C. Billing Data

- <u>Volume SFR Billed</u> (gallons of water billed to single-family residential customers).
- <u>Volume MFR Billed</u> (gallons of water billed to multi-family residential customers).
- Volume ICI Billed (gallons of water billed to industrial, commercial and institutional customers).
- <u>Volume Other Metered</u> (gallons of water billed to other metered customers).
- <u>Volume Reuse</u> (gallons of reclaimed wastewater applied to other uses).

#### D. Account Data

- <u>Number SFR Accounts</u> (average number of single-family residential accounts or households).
- <u>Number SFR Inactive Accounts</u> (average number of inactive single-family residential accounts or households).
- <u>Number of MFR Units</u> (average number of multi-family residential units or households).

Using the above 4 values of demographic data and 11 values of city-supplied water supply, billing and account data, the summary results can be calculated.

#### **Calculated Results**

- <u>Vacancy Rate</u> (percent; one minus the ratio of occupied single-family residents units to occupied single-family residential unit). The value is not used in the calculator, however, the occupancy ratio, or the ratio of occupied units to total units is used to calculate the number of occupied multi-family units.
- <u>Volume Total Supply</u> (gallons of water, the sum of the volume of water diverted and imported)
- <u>Volume Available to Customer (Demand)</u> (gallons of water, Volume Total Supply minus Volume Exported). This City Customer Demand is referred to in city documents as Demand and is the basis for the GPCD calculations.
- <u>Volume Provided to Customers</u> (gallons of water, the sum of SFR, MFR and ICI billed and Other Metered).
- <u>Volume Non-revenue (Demand-Provided)</u> (gallons of water). This value is not calculated by the calculator, but is readily available from the data.
- <u>Number Active SFR Accounts</u> (accounts, active minus inactive single-family residential accounts). An average based on monthly data.
- <u>Number Occupied MFR Units</u> (housing units, number multi-family residential units times the occupancy ratio, the ratio of occupied units to total units). An average based on monthly data.
- <u>SFR Population</u> (persons, the number of single-family residential accounts times the household size).
- <u>MFR Population</u> (persons, the number of multi-family residential accounts times the household size).
- Total Population (persons, the sum of single and multi-family and group quarters population).
- <u>GPCD SFR</u> (gallons per capita day; volume (gallons) SFR Billed divided by (SFR Population times 365 days).
- <u>GPCD MFR</u> (gallons per capita day; volume (gallons) MFR Billed divided by (MFR Population times 365 days).
- <u>GPCD ICI</u> (gallons per capita day; volume (gallons) ICI Billed divided by (Total Population times 365 days).
- <u>GPCD Other Metered</u> (gallons per capita day; volume (gallons) Other Metered divided by (Total Population times 365 days).
- <u>GPCD Overall</u> (gallons per capita day; volume (gallons) Available to Customers (Demand) divided by (Total Population times 365 days).

#### Auxiliary Data and Calculated Results

• <u>City Population</u> (persons).

To find City Population ACS 2012 3-Year Estimates Persons, Basic Count, Table DP05

 GPCD based on City Population (gallons per capita day; volume (gallons) Available to Customers (Demand) divided by (City Population times 365 days). AGREE TO DRAFT A RESOLUTION IN SUPPORT OF SENTATOR WIRTH'S ENERGY AND WATER NEW HOME TAX CREDIT BILL

Motion to draft a resolution in support of the 3 water conservation measures introduced into this legislative session

- 1. <u>http://www.nmlegis.gov/lcs/legislation.aspx?chamber=H&legtype=B&legno=64&year=15</u>
- 2. <u>http://www.nmlegis.gov/lcs/legislation.aspx?chamber=S&legtype=B&legno=279&year=15</u>
- 3. <u>http://www.nmlegis.gov/lcs/legislation.aspx?chamber=S&legtype=B&legno=280&year=15</u>

These bills if passed would all provide an incentive to reduce water consumption in both new homes and existing homes. The resolution by the City of Santa Fe would support the passage of these measures.

#### Working Group 4 Issue: Promoting Conservation Strategies of Large Water Users

Strategic Goal	Contribute to reducing water use by optimizing water use by large water users
Objectives	Optimize water use by large users
Tasks	Identify large water users
	<ul> <li>Promote the installation of electronic transmitting water meters</li> </ul>
	Estimate contribution to total demand
	Engage large water users in the discussion of how to optimize water use
	<ul> <li>Identify ways to optimize the water consumption of large users, and encourage water conservation by large users</li> </ul>
	• Engage in discussion Research on Smart Controllers for rebates/park installations
	• Explore and suggest potential rebate programs and potential savings for large users
	<ul> <li>Explore behavioral modification models as a means to reduction of use</li> </ul>
	<ul> <li>Research commercial water budgets</li> </ul>
	Training & Code Modifications
	<ul> <li>Expand relationships with the Santa Fe community by creating liaison to better understand issues and solutions</li> </ul>
Members	Karyn Schmitt, Melissa McDonald, Giselle Piburn, Tim Michael, Athena Busher
	Consulting : Lisa Randall (school reductions methods) and Nate Downey (Legislative)
Notes	• Exploring with WCC on ways to localizing —adding passive water harvesting info to the WERS & QWEL program
	<ul> <li>Liaison with Parks and Open Space (POSACMelissa McDonald)</li> </ul>
	<ul> <li>Support AMI efforts for better meter reading and better software packages that help consumers track individual daily water use as a tool for increased efficiency and</li> </ul>
	conservation
	Review Green Building Code amendments chapter 8
	Review WERS Documents
	<ul> <li>Support recognition of successful partners and program</li> </ul>
Reference	Water Use in Santa Fe, Borchert et al., July 2009
Material	QWEL Guide and website/WaterSense
	<ul> <li>City of Santa Fe Green Building Code &amp; administrative guidelines</li> </ul>
	EPA WaterSense Documents
	<ul> <li>SF Watershed Forest &amp; Water Climate Adaptation Plan by Esha Chiocchio</li> </ul>
	Sustainable Water Future for CA
	GREENCO Water Conservation tips for HOAs and Large Commercial Properties
	POSAC Community Garden Assessment Summary
Fiscal Impact	To be determined

# Update:

- 1) **Parks:** Worked on POSAC Community Garden Assessment, Application Form, and Community Garden Rules and Regulations.
- 2) Legislative Update: Participated in sustainable building tax credit in 2015 meetings (Nate Downey)
- 3) Mayor's Taskforce on Climate Change discussed update of long-range Master Plan for Parks & Recreation. Next meeting will be in February.

# **Summary**

# Parks Community Garden Program Assessment and Lessons Learned

The Parks Community Garden Program was originally proposed in Resolution 2009-53 (Annex A, page 13) to be a pilot project in two gardens; the program has just completed its fourth year and has been expanded to five gardens with two more ready to open in 2015. With the approval of the Mayor and in coordination with Sustainable Santa Fe and the Water Conservation Committee (Working Group 4), the Parks and Open Spaces Advisory Commission (POSAC) conducted an assessment of the current program with the intention of improving the Community Garden Program in parks and feeding the lesson learned into the evolving Urban Agriculture Policy and Mayor's Climate Task Force recommendations and actions.

The assessment had two goals:

- Inventory and analyze, in coordination with mayordomos and parciantes, current community gardens in parks in relation to "Resolution 2009-53, A Resolution E stab lishing A Comm Program for City Parks and Adopting Related Policies" and the "City of Santa Fe Community Garden Policies and Procedures".
- Based on these findings, make recommendations to improve the community garden program and the role parks and open spaces should have in our urban agriculture policy.

At the recommendation of the garden mayordomos, an on-line survey was sent to the list of the 2014 parciantes via Monkey Survey. In the case of Maclovia where two parciantes don't use email, the mayordomo printed the survey and one parciante agreed to fill it out by hand.

Almost seventy percent of the parciantes completed the survey; at least 50% of the parciantes from each garden. The following table summarizes the information about the gardens and the respondents.

Name of Garden	Size of Garden	Total # of Plots	# of Parciantes 2014	% of parciantes in relation to the total # of available plots	Number of Respondents to the Survey	% of parciantes who filled out the survey
Alto	App. 100' X 20' (There is no fence) 2,000 sq. ft. 1 spigot	15	9	60%	5	55%
Cielo Vista	50' x 40' 2,000 sq. ft. 3 spigots	5	4	80%	2	50%
Frenchy's	App. 95' x 50' 4,750 sq. ft. 1 spigot	16	7	44%	5	71%
Maclovia	43 x 31 1,333 sq. ft. 1 spigot	5	3	60%	2	67%
Sunnyslope	54' x 68' 3,672 sq. ft. 1 spigot	17	11	64%	9	82%
Total	13,755 sq. ft.	60	34	57%	23	67%

The following report is organized around the sub-objectives for each of the assessment goals.<sup>1</sup>

**Objective 1: Whom are we serving?** None of the gardens are full. The percentage of number of parciantes in comparison to the total number of plots available in the garden averages only 57%. Although Resolution 2009-53 says that only one garden plot may be assigned for each family, when the garden isn't full, parciantes have taken on additional plots. One third of the parciantes have two plots. One person has five or more.

Current parciantes are: Anglo (96%), female (70%), older (78% over 50. No one is under thirty.) and affluent (Fifty percent have a household income of more than \$60,000. 64% have a household income of more than 40,000.00.) However, a quarter make under \$30,000.00 and 17% make less than \$20,000.00. Two plots at Alto are gardened by the La Familia staff as part of their REACH /CENA projects. Clinic staff identifies overweight children and offer the family a range of healthy-eating services including monthly meetings at the garden to work and sample the produce.

The majority (65%) lives within <sup>1</sup>/<sub>4</sub> miles of their garden. Most (70%) walk or ride their bikes to get there; however one third drive to the garden.

*Objective 2: What kind and how much food are we growing?* Half of the respondents grow vegetables and flowers in their plots and half grow only vegetables. Of those who grow vegetables and flowers, the reported average is 80% vegetables and 20% flowers.

How much food are you growing was difficult for the parciantes to estimate and 10 respondents said, "I don't know". Of the 13 who answered, the range was from 1 to 200 pounds with median of 25 pounds. The second question aimed at determining how much food we are growing (*"Approximately what percentage of your family's fresh produce did you grow in your community garden plot(s) this season?*) seemed easier for parciantes to answer as only two people responded, "I don't know". Two people responded "negligible" and "very little". One respondent replied "Served 25 families an unknown percentage of their food (for sure each month we had a garden event and produced a meal with the produce but patients and their families were permitted to harvest what they wanted, when they wanted." For the other 17 respondents, the range was from 1% to 90% with an average of 28%. These respondents were divided into two distinct groups – about half said 20% or less and half said 50% or more, perhaps indicating the gardeners' experience and skills.

# Objective 3: How much water are we using? How could we reduce the amount of water that the garden is using or use it more efficiently?

Perceived Water Use: One half of the respondents perceive that parciantes are being very efficient with their water use - "We use very little water compared to how much food we grow." One third perceive that they are being moderately efficient - "There is some waste, but little compared to the amount of food we grow".

The two most common suggestions to make the garden more water efficient were installing a drip system and having the City provide mulch and educate parciantes to mulch their gardens.

Actual Water Use: The following table summarizes the Parks staff meter readings, amount of water reportedly used, amount that should have been charged for this water and amount actually invoiced to the mayordomo.

<sup>&</sup>lt;sup>1</sup>This report is a summary of the full findings. For the complete report with graphs and all recorded answers, please contact Bette Booth at ebooth13@comcast.net.

2014	4 Community C	Gardens Wate	er Meter Rea	ds		_		
Alto St/La Familia: 10 paid plots/amount originally collected by the City \$150.00	Start Read	July	Aug	Sept	Oct	2014 Total	Summary	Comments
Meter Reading	8148	8465	8959	9477	9777			
Gallons used	0	317	494	518	300	1629	162.9 gallons per paid plot	This seems reasonable considering a 150 day growing season (May 15 – October 15)
Cost to the Garden Organization \ including 8.8175% tax	0	\$20.90	\$32.54	\$34.15	\$19.78	\$107.37	\$10.74 per plot	
Final Invoice Parks sent to the Mayordomo October 31, 2014 (includes 8.815% tax)		\$16.94	\$26.40	\$27.68	\$16.00	\$87.02		
Cielo Vista: 5 paid plots/amount collected by the City \$75.00	Start Read	July	Aug	Sept	Oct	2014 Total	Summary	Comments
Meter Reading	2218	2369	2833	3386	3439			
Gallons used	0	151	464	553	53	1221	244 gallons per paid plot	The mayordomo reported that City staff was using the garden water for other purposes besides the garden - watering trees, shrubs, etc. This makes it impossible to assess exactly how much water parciantes actually used.
Cost to the Garden Organization including 8.8175% tax	0	\$9.95	\$30.58	\$36.46	\$3.49	\$80.51	\$16.10 per paid plot	
Final Invoice Parks sent to the Mayordomo October 31, 2014		\$8.07	\$24.79	\$29.55	\$28.00	See comments		Amount on the invoice was \$87.00. However, the invoiced amounts actually total \$90.41. See Annex B.
Frenchy's: 7 paid plots/Amount collected by the City \$105.00	Start Read	July	Aug	Sept	Oct	2014 Total	Summary	Comments
Meter Reading	8490	8520	8757	8943	9010			
Gallons used	0	30	237	186	67	520	74 gallons per paid plot	Due to problems with the irrigation system, the water was off at this garden most of the growing season making it impossible to assess how much water parciantes actually

								would need for this garden.
Cost to the Garden Organization including 8.8175% tax	0	\$1.98	\$15.63	\$12.26	\$4.41	\$34.18	\$4.90 per paid plot	
Final Invoice Parks sent to the Mayordomo October 31, 2014 (includes tax)		\$16.03	\$12.66	\$9.94	\$36.00	\$68.63/correct total is \$74.63		
Maclovia: 5 paid plots/amount collected by the City \$75.00	Start Read	July	Aug	Sept	Oct	2014 Total	Summary	Comments
Meter Reading	2234	2453	2949	3592	4543			
Gallons used	0	219	496	643	951		461.80 gallons per paid plot	The mayordomo explained that there was a reported leak in the water system starting in early September which was not fixed. Due to this leak, it is impossible to determine how much water was really used by parciantes.
Cost to the Garden Organization including 8.8175% tax		\$14.44	\$32.71	\$42.41	\$62.71	\$152.27	\$30.45 per paid plot	
Final Invoice Parks sent to the Mayordomo October 31, 2014 (includes tax)		\$11.70	\$26.50	\$34.56	\$51.00	\$123.76		
Sunnyslope: 17 paid plots/Amount collected by the City \$225.00	Start Read	July	Aug	Sept	Oct	2014 Total	Summary	Comments
Meter Reading	16029	16584	16828	17279	17678			Due to errors in reading this meter, this is an estimated amount using a simple trend formula. Due to this error, it is impossible to assess how much water parciantes actually used at this garden.
Gallons used	0	555	244	451	399	1649.83	97 gallons per paid plot	
Cost to the Garden Organization including 8.8175% tax	0	\$36.60	\$16.09	\$29.76	\$26.34	\$108.79	\$6.39 per paid plot	
Final Invoice Parks sent to the Mayordomo October 31, 2014		\$21.16	\$35.11	\$29.66	\$13.00	\$98.93		

Unfortunately it isn't possible to assess how much water parciantes actually used in 2014 due to:

- Sunnyslope: Administrative errors in reading the meters. The July and August reported readings were actually considerably lower than the previous month. The water use was estimated using a simple trend formula, but it appears low at only 97 gallons per paid plot.
- Cielo Vista: The mayordomo reported that Parks staff used garden water for other purposes without measuring the amount they used or consulting with the mayordomo or parciantes.
- Frenchy's Field: Due to irrigation problems, there was no water provided to this garden for much of the growing season. Parks staff also allowed significant use of the garden water by another volunteer group without measuring the amount they used or consulting with the mayordomo or parciantes.
- Maclovia: The mayordomo explained that there was a reported leak in this system that was discovered in early September and that, as far as she could tell, was never fixed, making it impossible to assess how much water the parciantes actually used.
- Only Alto garden appears to have a reasonable amount of water use per parciante.

There were also multiple administrative errors in billing the gardens. As can be seen in the spreadsheet, in every case, the amount billed to the gardens is different than amount indicated by the meter readings. The water rate appears to have been miscalculated. In two cases, Cielo Vista and Frenchy's Field, the final invoices were totaled incorrectly.

Annex B, page 18, are two examples of the final invoice mayordomo's received. According to the Frenchy's Field invoice, this garden used 67 gallons of water in October and was charged 36.00 including tax. The invoiced remaining credit balance was 36.37; the correct totals of the June-October invoiced amounts would leave a credit \$30.37. Cielo Vista reportedly used 53 gallons and was charged \$28.00 including tax. The invoiced remaining credit balance was \$1.55; the correct totals of the June-October amounts would leave a debit of (\$15.41).

*Objective 4: Assess the new process for paying for water. How is it working? Are there ways that the process could be improved?* Since the inception of the community garden program, parciantes were required to pay \$15.00 up front to lease their plot to cover the cost of waters. Resolution 2009-53 states that the "The Garden Organization is responsible for paying for all water used for the garden." (Per the resolution, the *Garden Organization* means the collective gardeners in anyone City garden organized to deal collectively with that garden's operations.) From 2009-2012 there was no formal measurement of how much water each garden was using and no process for paying for it. After the 2013 growing season, there was an attempt to record how much water each garden was using. However, the data was confusing and mayordomos felt it wasn't accurate. In July 2014, the City initiated a new payment system where City staff read the meter monthly and would charge the garden if they had used more than the funds collected. The mayordomo was to be responsible for collecting the additional money from the parciantes.

Sixty-five percent of the respondents perceive that the system is working well or excellently. Thirty-five percent perceive that it is working very poorly. However, the responses to Question 24, "What suggestions do you have to improve the process for paying for water?" indicate that most of the respondents who reported that the system is working well are unaware that there is a new system. Those

that do know about the system believe that it is not working well and want a return to a one-time flat fee at the beginning of the season with an increase in the fee to pay for water upfront.

# Objective 5: What role do the Community Gardens have in terms of creating community, shared learning and park safety as proposed in Resolution 2009-53?

- How much 'community' /relationships among parciantes has the garden created? Half of the respondents reported that some community and one quarter said that <u>a lot</u> of community was being created amongst the parciantes in their garden. However one quarter reported little or no community.
- How much 'community' /relationships within the neighborhood has the garden created? About 40% reported that some community and one-third reported that <u>a lot</u> of community was being created with the neighborhood. However, one third reported little or no community.
- How much shared learning about urban agriculture is being generated within the community gardens? The majority (77%) reported some share learning is being generated within each garden.
- How much do you think your community garden contributes to food security for lower income families? Half of the respondents perceive that their garden contributes "some" to lower income families' food security. However, 40% reported that it does not contribute at all.
- Increased safety in the park: Half the respondents perceive that the garden increases safety in their park "some" with the other half divided between 'not at all' and 'a lot'. A higher percentage of parciantes from Sunnyslope Garden answered 'a lot' than other gardens.

*Objective 6: What has been the role of Parks staff in the community gardens? How responsive have they been to requests?* More than one third (36%) of the respondents feel that staff have not been responsive to either requests for information or to other types of support. One quarter feel that staff has been fairly responsive. About one quarter have had no interaction with parks staff at all.

Suggestions to improve staff support to community gardens include: 1) More information about how the garden functions. 2) Frenchy's Field Garden – issues with lack of water during much of the growing season, prairie dogs in the garden, staff dumping trash at the garden and in their compost and not responding to parciantes requests for help. 3) Mayordomo's sometimes need help enforcing the garden rules. 4) Staff should not use the garden water for other uses since the parciantes are now paying for it. 5) Provide materials for the garden in bulk such as mulch/woodchips for the garden and pathways. Better soil to start the garden (not industrial fill). 6) Publicize/promote the gardens especially since most of them are not full. 7) Keep the area around the garden maintained. 8.) The staff liaison should have more background in gardening.

# *Objective 7: How well is the Garden Organization functioning? What is working and what needs to be improved?*

Communication within the Garden Organization: The majority (60%) of the respondents don't know how their mayordomo is selected. Almost half of the respondents said that they did not know how decisions about their garden are made. In general, there is no process or a very informal process. In some cases, the mayordomo is making the decisions without consulting the parciantes. Frenchy's Field respondents reported decisions were made via email. Most (70%) parciantes responded that the garden did have one communal workday each year, but less than half responded that they had a formal meeting.

- Application Process: What could be done to improve it? Three quarters of the respondents reported that the application procedure is functioning well. Suggestions to improve the process focused on the need to update the paperwork to reflect the new rules and regulations, garden organization process and contact information. One suggestion was to make it available on-line which would save the mayordomo and staff time.
- Garden Rules and Regulations: Are there rules that should be eliminated? Others that should be added? Parciantes sign a form agreeing to abide by a series of rules and regulations that have evolved over the last four years without any real analysis or review by the Garden Council. Respondents said that that all of the community garden rules should be kept with some modifications:
  - 1. *I will pay an initial fee of \$ 15.00 towards the water expenses:* Increase the fee/pay the full price for water up front.
  - 2. *I will have something planted in the garden by May 9 and keep it planted all* Make the date later at least to coincide with the last frost date or later.

sum m er long:

- 3. *I will not give out the water spigot lock combination:* A family member/friend should be able to be given the key in case the participant is out of town.
- 4. *If I must abandon my plot for any reason, I will notify the garden council:* It should be the Mayordomo, not the Garden Council. (According to Resolution 2007-53 the "*Garden Council* means a group of volunteers.... organized to oversee the City's Community Garden Program and provide advice and resources to the City and the Garden Organizations." This group does not manage individual gardens.
- 5. *I will keep weeds at a minimum and maintain the areas surrounding my plot if any.* Other comments in the survey indicate that weeds in the 'common areas' and paths are a problem in all of the gardens and that they spread into the plots.
- 6. *If my plot becomes unkempt, I understand I will be given a week's notice to clean it up. At that time, it will be re-assigned or tilled in:* Most respondents who thought this rule should be modified suggested that it be at least two weeks. Several questioned who would be responsible for assessing this what does unkempt mean. Several people questioned who would actually do the tilling? And once it was assessed unkempt, who would till it in or reassign it.
- 7. *I will participate in the fall cleanup of the garden:* One suggestion is to change it to at least one workday a year since some gardens also do a spring clean up. Another comment was that parciantes should be given 2-3 weeks notice about the date of the workday.
- 8. *I will pick only my own crops unless given permission by another plot user:* One person commented that this is "wasting" harvest. Not picked crops should be reassigned promptly".
- 9. *I will not use insecticides or weed repellents:* Several respondents commented that this should be changed to allow organic insecticides.
- 10. *I will not bring pets to the garden*: This rule caused the most controversy. Half commented that dogs on a leash or supervised would be ok, while half commented that it should be clarified that there should be no pets inside the garden.

There were some suggestions for new rules: Several people commented that there should be a rule about having at least an annual meeting (some suggested more) and that the process for electing the mayordomo should be codified. Others requested that a rule be added about how to manage the compost – what parciantes should and shouldn't put in it.

*Objective 8: In general, what is working well at our community gardens?* The majority of respondents mentioned "community and working together" and "growing food/gardening".

### **Objective 9:** In general, what needs to be improved?

- The major recommendation was the need for *more communication with the garden community* and *among the gardens*. This included: 1) More communication from and with City staff about the garden process, the roles and responsibilities of the City, the Mayordomo and the parciantes, the process for selecting the mayordomo, contact information, etc. 2) More communication from the Mayordomo to the parciantes including having a process to select the mayordomo, 3) More communication among the garden parciantes including having "more formalized interactions" an annual meeting, harvest potlucks, monthly garden days, etc. 4) More communication between the gardens more events, discounts, etc. for all gardeners to build interest and share ideas.
- Frenchy's Field Garden needs intensive work with staff to find ways to keep the prairie dogs out of the garden, to have a regular supply of water, to remove the trash that staff has placed at the garden and to have more access to and better communication with staff or the garden or most parciantes will not return next year.
- More information/advertising to the public to increase the number of parciantes. None of the community gardens are completely full; in all of the gardens parciantes have taken two plots in order to completely fill the garden. Others commented that we needed outreach so lower income people are brought into the garden to participate.
- Other topics that were mentioned that are not mentioned earlier in this report include: 1) Parciantes need to maintain the garden better, 2) Ways to deal with vandalism and theft, including locks that work. 3) Make it permissible to put in fall crops. 4) Provide food for others. For example have at least one plot that is planted for the food to be given to those in need. Let people know where to give away their excess produce. 5) Enforce policies. 6) Grow more flowers to provide color.

The assessment indicated that we are also losing parciantes. Besides the Frenchy's Field garden which runs the risk of losing all of its parciantes, the following illustrates comments by parciantes from other gardens:

"I've had a community garden plot for 4 years, 2 years at Frenchy's and 2 years at Cielo Vista. I will not have a plot next year because I can't afford the expense, and I don't have the time again this year to donate several hours every week to weeding the city park property (outside of the community gardens), and also because of the inconvenience of having to deal with monthly billing. It was a great idea, but it's more trouble than it's worth."

**Objective 10:** Should the community garden program be expanded? 82% said yes, in general because it give people a space to grow food. The 20% who said don't expand the program commented: H have a lot of questions about how much water we are using in comparison to the amount of food we are growing. In the face of climate change, I think we need to explore ways to grow food that are on a scale large enough to be more efficient with our limited resources. Not enough participants as it is.

# Objective 10: What other roles should our parks and open spaces have for urban agriculture besides community gardens?

- Make it easier to have public or private urban farms.
- I would like to see a permanent home for a farmer's market with an educational plot that can be used for trainings on high desert farming and urban gardening
- Lease large parcels to individuals and groups who can then grow food on a scale that uses water and other resources efficiently.
- Green space for people to own outdoors
- Perhaps larger urban farms or co-op farms
- Fruit trees, native grasses, brought tolerant plants for animal habitat.
- There is a push to put community gardens in low-income areas to increase food security. After being a parciante, I question whether that is the answer. Gardening in a park takes: 1) a lot more time to get there, water, participate in work days, etc. and 2) quite a bit of money to prepare the soil, hoop etc. I think access to the food is more important than personally growing it, especially considering that we live in a desert where growing food is not easy. Perhaps food trucks with locally grown produce could rotate neighborhoods.

# **LESSONS LEARNED**

The original model behind the resolution that created the community garden program was that once the City had created the garden, the Garden Organization would be responsible for managing it, with limited input from the City. This assessment indicates that this model is not working and that the City (or a sub-contracted NGO) needs to be more involved in communicating with the parciantes, enforcing the rules and procedures, helping with infrastructure (locks that work, mulch in bulk, manure, prairie dog removal, a steady source of water, etc.) and supporting educational activities and other events that will help people grow more food. This will be even more important if the City decides to expand the program specifically targeting low-income families.

#### In summary, the lessons learned from the Community Garden program indicate the need to:

- 1. Before opening any new community garden in parks, strengthen the existing community garden program and refine the policy and procedures for greater success. Conduct an annual review of the program to continue to refine it and respond to changing needs.
- 2. Create an Urban Agriculture Policy that is a *combination of programs* larger urban agriculture sites in parks or on public land, demonstration plots, youth programs through the schools and backyard gardening programs that help working families by keeping the production close to home before expanding the community garden program.
- 3. Consult with constituents/stakeholders about what type of programs they want *before* starting the program.

#### Specific recommendations for *strengthening the existing community garden program* include:

- Improve/increase communication about the garden process, roles and responsibilities, gardening activities, etc. between City staff (or sub-contracted NGO) and the parciantes: The current policy whereby staff communicates only with the Mayordomo who is then to communicate that information to the parciantes is not working. Parciantes need to receive information directly from the City about:
  - Resolution 2007-53 and other City policies that affect the garden,

- The process for signing up,
- Contact information for City staff,
- Contact information of the Mayordomos and other parciantes,
- The process for selecting the Mayordomo,
- Roles and responsibilities of the City, the Mayordomo and the parciantes, and
- An annual financial report that could be shared and discussed at the annual meeting.
- Water efficiency methods and billing

This information, except parciantes contact information, should also be available on the City web site. We should consider making registration on-line.

Staff should not use community garden water for other purposes unless there is an agreement with the Garden Organization, the meter is read and the appropriate person/organization is charged for the water. Staff should maintain the area around the outside of the garden.

Mayordomos also need support from the City to enforce rules and procedures. Staff should visit the gardens monthly to ensure that the basic rules are being enforced, particularly that the garden is free of weeds and trash. Citations should be sent to parciantes who don't comply with these regulations. These are public spaces that need to be maintained both for their aesthetic and for public safety.

Staff needs to be trained in how to read water meters correctly, calculate accurately the water rates and submit a correct invoice to the gardens.

- Strengthen/formalize/codify the Mayordomo Selection Process, Role and Responsibilities: The City, in coordination with the Garden Council, should develop a policy on the role and responsibilities of the Mayordomo. This could include:
  - The City signs a contract with the Mayordomo that outlines his/her responsibilities.
  - The Mayordomo will organize an annual meeting to elect officers and make decisions about how the garden will function.
  - The Mayordomo will provide contact information (email and phone) of all parciantes to the City and to other parciantes.
  - The Mayordomo will organize the annual workday and at least two other events that bring parciantes together at the garden.
  - For taking on this responsibility, the parciantes fees will be calculated to pay for the Mayordomo's plot and water.
- Reinstate a one-time fee that covers the cost of water up-front: Calculate the fee based on the previous year average water per plot plus a contingency and charge that up-front. The fee could also include enough funds for new locks each year, bales of straw for mulch and manure that the City would provide.
- Meet with the Gardens: There is so much confusion and lack of information about the Community Garden program and roles and responsibilities, it would be best to hold a meeting with each garden (or a combination of the gardens) to discuss the new recommendations and procedures and to develop better relationships between staff and the garden parciantes. This would be a good time to also distribute and discuss water conservation, soil preparation, mulching, etc. materials.
- **Consider closing Frenchy's Field Garden** if significant changes aren't going to be made in 2015.
- \* Modify the Rules and Procedures as follows:

- *I will pay an initial fee of \_\_\_\_\_\_ towards the water expenses: Increase the fee/pay the full price for water up front calculated on the previous year's use plus a contingency and incorporating the cost of the Mayordomo's plot and water.*
- *I will not give out the water spigot lock combination except to someone who is taking care of my plot for me.*
- If I must abandon my plot for any reason, I will notify the Mayordomo.
- *I will keep weeds at a minimum and maintain the areas surrounding my plot.*
- If my plot becomes full of weeds and/or trash. I understand that I can be fined \$25.00 if my plot is not kept clean.
- *I will participate in at least two organized events of the garden.*
- *I will pick only my own crops unless given permission by another plot user:*
- *I will use only organic insecticides.*
- *I will not bring pets into the garden.*
- *I will return the garden plot in as good or better condition than when it was assigned.* This might need to be defined more clearly, for example, it should be cleaned of plants and debris and mulched for over-wintering.
- *I will not sell or put to any commercial use the produce I grow in the garden.* (*Note: This is in Resolution 2007-53 and should be changed.*)
- *How to manage the compost to be developed.*
- I understand that the City may require return of the garden plot, by giving 30 days notice, if the garden
   area is required for another use.
- ★ Advertise/promote the gardens: We need to fill the gardens we currently have. City staff should actively advertise and promote signing up for the community gardens in March-May via the City PR department and signs that are posted at the gardens. This could include having a table at the Farmer's Market.
- Create Appropriate Signage: The community gardens need appropriate signage that explains the program, specifically that the plots are leased and the produce belongs to the gardeners with contact information on how to lease a plot.
- *Revive the Garden Council:* Define and codify how the Garden Council should function. Per Resolution 2007-53, the Garden Council is "a group of volunteers (including one member of the Parks and interested organizations) organized to oversee the City's Community Garden Program and provide advice and resources to the City and the Garden Organizations." Per the resolution, the Garden Council is to oversee the Division and the Garden Organizations".

When the Garden Program started, the Parks Director asked the POSAC Chair to also chair the Council and organize annual meetings. From 2007 – 2013, these annual and sometimes semi-annual meetings allowed gardeners from both the community garden program and other urban gardens (Gaia, San Isidro, Milagro) to exchange information and brainstorm solutions to common problems. However, in 2014 Parks staff did not support the Garden Council Meeting and instead held their own meeting with the Mayordomos. Similarly, the Garden Council was not consulted about the change of the policy for paying for water. Per the Resolution, this type of policy should have been discussed with the Garden Council before the City unilaterally implemented it.

- ✤ If new gardens are opened:
  - Ensure that there really is sufficient demand for a new garden *before* investing in the infrastructure, staff time, etc.
  - If community gardens are being created to encourage low-income families to grow more of their own food, 1) Consult first with these families to understand their interests in growing food and the type of program they would like to see. 2) Consider options that don't require so much time and funding such as raised bed / hoop gardens / container / straw bale gardens in their own apartments/homes. 3) Support models like La Familia's CENA project where families are provided support services related to gardening. The resolution may need to be amended to create a sliding scale for paying for water.
  - Analyze the size of the garden and the plots to optimize production. There are only 6 plots in the 2000 square foot Cielo Vista Garden in spite of having 3 water spigots. The plots in Maclovia are only 5' x 4' rising questions how much food can be produced in relation to the cost of installing and maintaining this garden.
  - Consider installing drip irrigation or Netfin type products as part of the basic garden infrastructure. All drip systems will require some basic maintenance. Therefore, consider offering CEU hours to any QWEL Certified participants for assistance and training of participants through the water conservation program.
  - Consider installing chain link fencing that will deter theft and vandalism in the gardens.

1	CITY OF SANTA FE, NEW MEXICO
2	RESOLUTION NO. 2009-53
3	INTRODUCED BY:
4	
5	Councilor Dominguez
6	Councilor Chavez
7	Councilor Bushee
8	
9	
10	A RESOLUTION
11	ESTABLISHING A COMMUNITY GARDEN PROGRAM FOR CITY PARKS AND
12	ADOPTING RELATED POLICIES.
13	
14	WHEREAS, a garden tended by a community's residents brings out the best in that
15	community, becoming a source of physical activity, recreation and civic pride for all who
16	participate; and
17	WHEREAS, community gardens tend to foster relationships among residents creating
18	strong neighborhoods; and
19	WHEREAS, used as outdoor classrooms, these gardens teach children about healthy
20	foods and how plants grow, creating young stewards who will care and develop a respect for our
21	future environment; and
22	WHEREAS, fresh, locally grown fruits and vegetables are a nutritious and healthful
23	addition to residents' diets and surplus produce harvested from community gardens can be a
24	welcome boon for food pantries and soup kitchens; and
25	WHEREAS, support for community gardens might include donations of gardening tools
	1
25	

1	by a local hardware or home improvement store, or the contribution of seeds or plants from a
2	local nursery; and
3	WHEREAS, community gardeners need available green space that isn't already set aside
4	for building or development; and
5	WHEREAS, the management of a community garden program relies on community
6	volunteers and must meet the needs of the community gardeners; and
7	WHEREAS, community gardens located in City parks may reduce criminal activities
8	and vandalism; and
9	WHEREAS, establishing policies for the development and maintenance of community
10	gardens as well as the role of the community garden organizations and the city are necessary to
11	create successful community gardens; and
12	WHEREAS, with public interest and awareness of green living at an all-time high,
13	there's never been a better time for partnerships among public parks and community gardening
14	advocates; and
15	WHEREAS, the Governing Body desires to establish a community garden program in
16	City parks.
17	NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE
18	CITY OF SANTA FE that the City of Santa Fe community garden program be established and
19	the policies shown on the attached Exhibit A be adopted.
20	AND BE IT FURTHER RESOLVED that the community garden program be first
21	established in Frenchy's Park and Maclovia Park as a pilot program and if determined successful
22	by the Parks, Trails and Watershed Division, the program may expanded to other city parks.
23	PASSED, APPROVED, and ADOPTED this 13 <sup>th</sup> day of May, 2009.
24	
25	
	2

# CITY OF SANTA FE COMMUNITY GARDEN PROGRAM POLICIES AND PROCEDURES

# PART I. GENERAL PROVISIONS

#### 1.1 Applicability and Intent

- a. These policies apply to the operation and management of the Community Garden
   Program under the Public Works Department Parks, Trails and Watershed Division.
- b. These policies are intended to benefit the residents and volunteers of the City of Santa Fe who participate in the Community Garden Program while protecting the general welfare of the public.
- c. The Community Garden Program set forth in these policies refers to gardens dedicated primarily to the production of food products.

### 1.2 Definitions

- a. *City* means the City of Santa Fe.
- b. *Division* means the Parks, Trails and Watershed Division of the Public Works Department.
- c. *Garden Council* means a group of volunteers (including one member of the Parks and Open Space Advisory Commission and other interested individuals or representatives of interested organizations) organized to oversee the City's Community Garden Program and provide advice and resources to the City and the Garden Organizations.
- d. *Garden Plot* means land assigned to an individual or group to be used for gardening purposes.
- e. *Garden Organization* means the collective gardeners in any one City garden organized to deal collectively with that garden's operations.
- f. *Parks And Open Space Advisory Commission* (Resolution No. 2007-22) means the city advisory committee charged with advising the Governing Body with park related issues.
- 1.3 Responsibility of the City
  - a. The City will provide the land for the garden.
  - b. The City will conduct at least one public input meeting with the neighborhood and interested participants prior to initiating the garden program.

### Exhibit A

1

- c. The Division will determine the appropriate location for the garden based upon interest of potential participants, water source availability, nature of the park, accessibility and other factors.
- d. The City will provide water service to the garden. The City reserves the right to cease water service if the City Manager determines that a water emergency exists necessitating such action.

# 1.4 Responsibility of the Garden Council

- a. The Garden Council will oversee the City's Community Garden Program and provide advice and resources to the Division and the Garden Organizations.
- 1.5 Responsibility of the Garden Organization
  - a. The Garden Organization shall enter into a license with the City for use of the Park land upon approval of the Public Works Director.
  - b. The Garden Organization is responsible for paying for all water used for the garden.

# 1.6 General Rules

- a. One garden plot may be assigned per family or household.
- b. All improvements and services to the garden will be provided by the gardeners.
- c. Each applicant must be 18 years or older.
- d. The plot must be worked by the person(s) or family whose name is on the application.
- e. All gardeners become members of the garden organization upon assignment of their garden plot.
- f. Produce may not be sold or put to any commercial use.
- g. Walkways, surrounding areas, and the garden plot must be kept clean and neat; trash and debris must be put in appropriate containers if available. If no containers are provided, each gardener must remove the trash.
- h. No pesticides which are poisonous to humans or are in poisonous concentrations, before or after application, may be brought to or used in the garden area.
- Pesticide applications, if requested, shall comply with the City's Integrated Pest Management Ordinance (IPMO) set forth in Article 10-7 SFCC 1987.
- j. No herbicides may be used in the garden area.
- The garden plot must be returned in as good or better condition than when it was assigned.

Exhibit A

<ol> <li>No illegal drug plants shall</li> </ol>	l be grown.
--	-------------

- m. The City may require return of the garden plot, by giving 30 days notice, if the garden area is required for another use.
- n. The gardener is subject to all applicable rules of the City.

#### PART 2. APPLICATION PROCEDURES

#### 2.1. Application Procedure

- a. Applicants wishing to participate in the Community Garden Program as a gardener may make application to the Division.
- Garden plots will be assigned by the Garden Organization's plot application officer on a first come, first served basis. Assignment will be issued by the Garden Organization subject to final approval of the Division.
- c. The application number will indicate the order of plot assignment. Each applicant is allowed to choose from available plots.
- d. The application officer will provide a plot map showing the location and identifying symbol for each plot. As applicants choose their plot, their names will be entered on their application.
- e. The "assignment begins" date shall be the assignment date. The "assignment ends" date shall be left open. A gardener may keep the plot indefinitely if the gardener follows the policies and makes intensive gardening use of the plot.

# PART 3. INFORMATION

3.1 Information regarding the City of Santa Fe Community Garden Program is available from the Public Works Department - Parks, Trails and Watershed Division located at 1142 Siler Rd. Bldg C., Santa Fe, NM 87504 (955-2106) during business hours or from the City's website at www.santafenm.gov. Copies of these policies and other related information will be provided by the Division at a price determined by the City.

Exhibit A

3

**ANNEX B** GARDEN FINAL INVOICE EXAMPLES



# City of Santa Fe, New Mexico 200 Lincoln Avenue, P.O. Box 909, Santa Fe, N.M. 87504-0909

www.santafenm.gov

Javier M. Gonzales, Mayor

Councilors: Peter N. Ives. Mayor Pro Tem. Dist. 2 Patti J. Bushee, Dist. 1 Signe I. Lindell, Dist. 1 Joseph M. Maestas, Dist. 2 Carmichael A. Dominguez, Dist. 3 Christopher M. Rivera, Dist. 3 Ronald S. Trujillo, Dist. 4 Bill Dimas, Dist. 4

Attn: Joe Treat, Majordomo

October 31, 2014

RE: Water Usage fees for Frenchy's Community Garden

Dear Mr. Treat and Plot Users of the Frenchy's Community Garden,

As per Resolution 2009-53, under "Community Garden Policy and Procedures", Section 5.1, Letter B. states: "The Garden Organization is responsible for paying for all water used for the garden."

Parks Division staff is responsible for tracking your respective water meter usage monthly. After review of the resolution and fee structure by the City of Santa Fe's City Attorney's Office, for the month of July, tracking went into effect on July 15, 2014. All future tracking will be conducted on the first or last day of each month (unless City Offices are on holiday closures). You are welcome to meet with Parks Staff at your location to verify the meter reading:

Future Meter Read Dates:

October 31, 2014

Frenchy's: Month	Meter Read	Verified By:	Price per Gallon
September 29, 2014	Start Date: 8943	Chris Ortiz	\$6.06
October 31, 2014	End Date: 9010	Jessie Esparza	

Meter Read End: 9010 Meter Read Start: 8943 Total Usage: 67.00 Price per Gallon: х \$6.06 Tax: 8.8175% Total Due: \$36.00

Please note, in April, your community garden paid a \$15.00 fee per plot, totaling: \$105.00. This fee will no longer be assessed. In addition, the fee will be applied to the July billing and all future billings for the year.

Initial \$15.00 Water Fee Applied x 7 plots:	\$105.00
Less July's billing:	(\$16.03)
Less August's billing:	(\$12.66)
Less September's billing:	(\$9.94)
Less October's billing:	(\$36.00)
Remaining Credit Balance:	\$36.37

If you have any questions, please contact Jessie Esparza at 505-955-2106.

Sincerely,

Richard C. Thompson, Parks Division Director

Cc: Isaac J. Pino, P.E., Public Works Department Director Marcos D. Martinez, Assistant City Attorney

18



# City of Santa Fe, New Mexico

200 Lincoln Avenue, P.O. Box 909, Santa Fe, N.M. 87504-0909 www.santafenm.gov

Javier M. Gonzales, Mayor

Councilors: Peter N. Ives, Mayor Pro Tem, Dist. 2 Fatti J. Bushee, Dist. 1 Signe I. Lindell, Dist. 1 Joseph M. Maestas, Dist. 2 Carmichael A. Dominguez, Dist. 3 Christopher M. Rivera, Dist. 5 Ronald S. Trujilio, Dist. 4 Bill Dimas, Dist. 4

October 31, 2014

Altr: Lisa Wooldridge, Majordomo

RE: Water Usage fees for Cielo Vista Community Garden

Dear Ms. Wooldridge and Plot Users of the Cielo Vista Community Garden,

As per Resolution 2009-53, under 'Community Garden Policy and Proceduras', Section 5.1, Lotter B, states: "The Garden Organization is responsible for paying for all water used for the garden."

Parks Division staff is responsible for tracking your respective water meter usage monthly. After review of the resolution and foe structure by the City of Santa Fe's City Attorney's Office, for the month of July, tracking went into effect on July 15, 2014. All future tracking will be conducted on the first or last day of each month (unless City Offices are on holiday closures). You are velcome to meet with Parks Staff at your location to verify the meter reading:

Future Meter Read Dates;

October 31, 2014

Gielo Vista: Month		Meter Read	Verified By:	Price per Gallon
Septembe Octuber	r 29, 2014 31, 2014	Start Date: 3386 End_Date: _3439	Chris Oʻtiz Jeşsie Fenarza	\$6.06
Meter Road End:	3439			
Meter Read Start:	3386			
Total Usage:	53.00			
Price per Gallon: >	< \$E.06			
Tax: )	× 8.8175%	2		

Please note, in April, your community garden paid a \$15.00 fee per plot, totaling; \$75.00. This fee will no longer be assessed. In addition, the fee will be applied to the July billing and all future billings for the year.

Initial \$15.00 Water Fee Applied x 5 plots:	\$75.00
Less July's billing:	(\$8.07)
Less August's billing:	(\$24.79)
Less September Billing	(\$29.55)
Less October Billing	(\$28.00)
Remaining Credit Balance:	\$1.55

8.8175%

\$28.00

If you have any questions, please contact Jassia Esparza at 505-955-2106.

Sincerely.

Total Due:

Richard C. Thompson, Parks Division Director

Issae J. Fino, P.E., Public Works Department Director Marcos D. Martinez, Assistant City Alterney Ċa.

# Water Efficiency Rating Score Project Information

Dlagas	complete	460	informa a	Alam In	460		hauran
PIPASP	rombiele	INP	morm	111011 11	INP	While	DAXAS
i icusc	compicie	unc	nnonna		unc	winte	DUNUS,

Orange boxes are pulldowns that require a response.

This report is for:

Report Date:

1/27/2015
PILOT

Purple boxes and grey boxes need no action.

Cells with a small red triangle have additional guidance provided in a "fly-out" box.

Project Location					
Project Name	Pilot Case				
Project Address(es)	238 E. Bailey Rd.		Building Program	Santa Fe	
City	Las Cruces		Building Code	Santa Fe	
State	NM		Annual Rainfall (automatic)	9.75	
Zip	88001		Water \$/1K	\$3.30	
Rainfall Region (Closest)	NM: Las Cruces		Sewer \$/1K	\$0.00	
Verification Team		E	Builder / Developer		
Company	Inspection Company		Company	Desert Home Builders	
Contact	J. Clouseau		Contact	John Smith	
Phone	555-555-5555		Phone	555-867-5309	
Email			Email		
Building Information					
Building Information Type	<select building="" type=""></select>		# of bedrooms	3	
C	<select building="" type=""></select>			3 edrooms if a sample set)	
Туре	<select building="" type=""> 1 1</select>				
Type # of units total Sample set size	<select building="" type=""> 1 1</select>		(or average # of be	edrooms if a sample set)	
Type # of units total	<select building="" type=""> 1 1 8000.00</select>		(or average # of be	edrooms if a sample set)	
Type # of units total Sample set size Site Information	1		<i>(or average # of be</i> Roof Overall Size (sf)	edrooms if a sample set)	
Type # of units total Sample set size Site Information Lot Size (sf)	1 1 8000.00		<i>(or average # of be</i> Roof Overall Size (sf) Under Roof (sf)	edrooms if a sample set) 2,000.00 2000.00	
Type # of units total Sample set size Site Information Lot Size (sf) Encroachments	1 1 8000.00	66.67%	<i>(or average # of be</i> Roof Overall Size (sf) Under Roof (sf)	edrooms if a sample set) 2,000.00 2000.00	8.33%
Type # of units total Sample set size Site Information Lot Size (sf) Encroachments Collection / Infiltration	1 1 8000.00 0.00	66.67% 0.00%	<i>(or average # of be</i> Roof Overall Size (sf) Under Roof (sf) Remaining Lot (sf)	edrooms if a sample set) 2,000.00 2000.00 6000.00	
Type # of units total Sample set size Site Information Lot Size (sf) Encroachments Collection / Infiltration New Softscape (sf)	1 1 8000.00 0.00 4,000.00		(or average # of bo Roof Overall Size (sf) Under Roof (sf) Remaining Lot (sf) Remaining Impervious (sf)	edrooms if a sample set) 2,000.00 2000.00 6000.00 500.00	8.33% 0.00% 16.67%

#### Water Efficiency Rating Score Indoor Water Use Calculations

Builder								
John	Smith of Desert Hor	ne Builders				Report Date:	1/27/2015	
Verification	1					-		
J. Clo	ouseau of Inspection	i Company				This report is for:	PILOT	
Project						-		
238 E	E. Bailey Rd. Las Cru	uces NM 8	8001		+Pease complete the information +Orange boxes are publicants that +Orange boxes and grey boxes nee +Cells with a small red triangle hav	require a response.		
Inspe	ection Information							
date	1/28/2015	time	12:00am	Code	Santa Fe	Building Program	Santa Fe	1

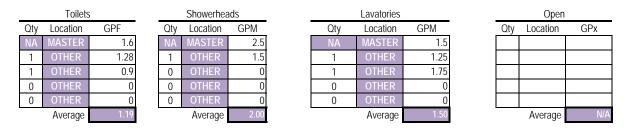
#### Indoor Fixtures and Appliances

	Fixture or Appliance	Industry Baseline	Program Minimum Prescriptive Path Units	Proposed or Actual Units	Applicable to Project?	Proposed or Actual Daily Use in Gallons	Gallons saved	Percent Saved Per Fixture	Installation or Testing Confirmed?		Notes
А	Toilet (GPF)	1.60	1.28	1.19	Y	23.80	8.20	25.63%	Y		
В	Showerhead (GPM)	2.50	2.00	2.00	Y	40.00	10.00	20.00%	Y		
С	Lavatory (GPM)	2.20	1.50	1.50	Y	7.50	3.50	31.82%	Y		
D	Kitchen Faucet (GPM)	2.20	2.20	1.50	Y	24.00	11.20	31.82%	Y		
Е	Dishwasher (GPC)	6.50	4.25	4.00	Y	4.00	2.50	38.46%	Y		
F1	Washing Machine Size in CF			4.10					Y		
F2	Washing Machine WF	9.50	9.50	6.00	Y	24.60	14.35	36.84%	Y		
G	Water used to reach 100 degrees (GPU)	2.00	1.50	1.00		15.00	15.00	50.00%	N		
AVERAGE Rainwater reuse gal/day credit:						138.90 4.06 0.00 134.84	64.75	Total			
	85.4						66	5.2	NOT FINAL		
	The WERS (Water Efficiency Rating Score) is based on 0 to 100 with 0 being the best performing home. GALLONS SAVED: day 64.75 month 1942.50								year	23,633.75	

	,				,	
SAVINGS PER:	day	\$0.21	month	\$6.41	year	\$77.99

#### Average Unit Worksheet for Indoor Fixtures and Appliances

Please only use this worksheet if you have multiple indoor fixtures and/or appliances with different flow rate units. Results must be entered above under "Proposed or Actual Units".



Signature Section

# Water Efficiency Rating Score Capture & Usage

Builder John	Smith	of Desert	Home B	uilders		T	<b>J</b>		R	eport Date:		1/27/2015
Verification	ı					1 T				•		PILOT
J. CR Project	useau	l of Inspec		прапу		l • •				eport is for:		PILUT
238 E	E. Baile	ey Rd. Las	s Cruces	NM 88	8001		+Orange boxes a +Purple boxes al	e the information in th are pulldowns that req and grey boxes need r all red triangle have a	quire a response. no action.	e provided in a "fly-out"	box.	
Inspe	ection	Informatio	on									
Date	12	10/2014	Time	12:	00 PM	Code		Santa Fe	Buildi	ng Program		Santa Fe
CU1	Rain \	Nater Cap	oture									
	1.1	Potentia	al Rainwa	ater Cai	oture Calc	ulations						
		Rainwater	-		Yes	]		Ro	oof Run-of	f Coefficient		0.90
		Rainwater	r Source?	site	& roof	]			Roof	Captured %		100.00%
	Sit	e Water (ave	e gal/mth)		253.10	]		Roof Ra	ainwater (a	ave gal/mth)		911.14
	1.2	Potenti	al Avera	ne Rainv	water Cap	ture hv N	/onth in	Gallons	(Only for	informational	l nurnasas)	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	902.73	874.07	630.48	444.20	429.87	802.42	2536.23	2794.16	2034.72	1289.61	515.84	716.45
CU2	Grey	Water Cap	oture									
	2.1	Potentia	al Greyw	ater Ca	pture							
		Greywater	Capture?		Yes	]	I	Potential Gr	eywater (a	ave gal/mth)		2193.04
		Sources? (i	in gallons)	ALL	No	Lavatory	Yes	Showe	r and Tub	Yes	Washer	Yes
CU3	Water	Re-Use										
	0.4											
	3.1	Water D				<b></b>						
		3.1.1			or Water [ ge Gallon(s)		( <i>Linked to I</i> 138.90	-		ge Gallon(s)		4224.88
			Da	ally Avera	ye Galion(s)		130.90	WOTI	niy Avera	ye Galion(S)		4224.00
	3.2	Potentia	al Rainwa	ater Ca	oture Usaç	je		Captu	ire suffici	ent for selec	ted uses	
		Reus	sing RW?		Yes	Ave Mo	nthly Gal /	Total Selec	cted Use	121.67	Ave Gal Unused	1042.57
			Uses?	ALL	No	DW	Yes	Kito	chen Sink	No	Lavatory	No
				Toilet	No	Washer	No	Showe	r and Tub	No	]	

	3.3	Potential Greywater Cap	ture Usage	No greywater capture U	ISE selected (section 3.3)
		Reusing greywater?	No Ave Me	onthly Gal / Total Selected Use	0.00 Ave Gal 2193.04 Unused
		Uses? Outdoor Toilet	DW		Lavatory
CU4	Stora	ge Requirements			
	4.1	Rainwater Tank Size		Tank can handl	e anticpated load
		(RETAINED) gal	962	Filtration / purification system ins	talled for rainwater?
				Verified Rainwater Tank Size i	in Gallons 2000.00
	4.2	Greywater Tank Size		Greywater capture not at	tempted - tank not needed
		(RETAINED) gal	0	Filtration / purification system inst	alled for greywater? N
				Verified Greywater Tank Size i	in Gallons 8.00
	4.3	Combined Gallons		5	
		(RETAINED) gal	962		
CU5	Wate	r Available for Outdoor Use	e (After rainwater o	or greywater capture reuse)	
	5.1	Rainwater Available	ave gal/ day 34.75	ave gal/ month 1042.57	ave gal/ year 12510.88
	5.2	Greywater Available	ave gal/ day 73.10	ave gal/ month 2193.04	ave gal/ year 26316.50
	5.3	Combined Available	ave gal/ day 107.85	ave gal/ month 3235.62	ave gal/ year 38827.38
Sign	aturo (	Section			

Signature Section

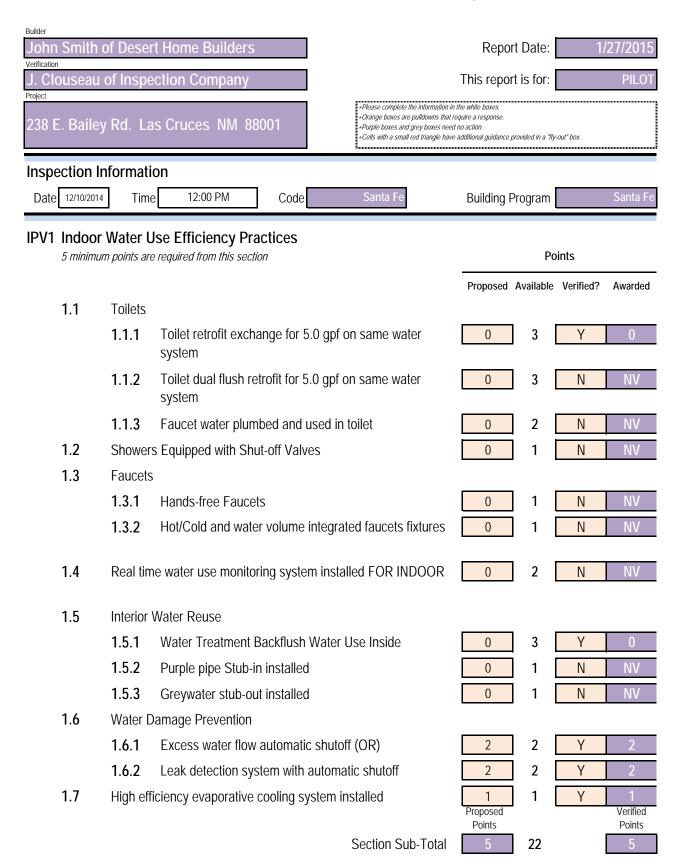
# Water Efficiency Rating Score Exterior Water Use Documentation

Builder John Smith of Desert Home Builders		Report Date:	1/27/2015
Verification J. Clouseau of Inspection Company		This report is for:	PILOT
Project		the information in the white boxes. re pulldowns that require a response.	
238 E. Bailey Rd. Las Cruces NM 88001	+Purple boxes an +Cells with a sma	e pallouwns inar require a response. d grey boxes need no action. Il red triangle have additional guidance provideo	
Inspection Information			
Date 6/4/2014 Time 12:00 PM Code	Santa Fe	Building Program	Santa Fe
PLEASE NOTE THAT THIS SECTION IS OPTIONA INCLUDED	al and the In the wer		SECTION ARE NOT
OUTDOOR WATER USE CALCULATION PROGRAM	/	real of t	appwork
Are calculations being done for this home? If so, which third-party program is being used?		<select a<="" td=""><td></td></select>	
If other, please provide the name & URL of the program.	Ē		
OUTDOOR WATER USE DESIGN PROFESSIONAL Design Professional of Record	Name Phone Email		
Program under which the design professional is certified?		EPA WaterSe	ense Certified
If other, please provide the name & URL of the program.			
OUTDOOR WATER USE % REDUCTION			
Please enter the percent reduction of outdoor water use reuse.	esults from the	third-party program used to	o calculate outdoor water
0.00% Average Re	eduction		
XERISCAPE AFFIRMATION Use this section only if there is landscaping but no irrigation for the project Xeriscaping? <select answer=""> Per I CERTIFY AS THE DESIGN PROFESSIONAL OF RECOR REQUIRE WATER BEYOND THAT WHICH IS NEEDED FOR</select>	cent of softsca RD THAT THE	LANDSCAPE AS DESI	
SIGNED:			ANTINGS.

The professional responsible for the calculations must provide backup from the third-party program along with evidence that they are certified to use the third-party program utilized for calculations. Additionally, drawings with plant lists should also be provided along with any irrigation design drawings if available.

# PLEASE NOTE THAT RESULTS OF THIS SECTION ARE NOT INCLUDED IN THE WERS

# Water Efficiency Rating Score Innovative Practices & Verification Summary



		r Use Efficiency Practices re required from this section	5 POIN		I HAS NOT BEEN V Points	ERIFIED
0	iani ponito di		Proposed		le Verified?	Awarded
2.1	Lands	caping	Toposcu	Availab	ic vermeu:	Awarucu
	2.1.1	Property is landscaped with 80% low water use plant materials*	0	2	Y	0
	2.1.2	No turf is used or if used is not irrigated	0	2	N	NV
	2.1.3	Site-appropriate native landscape as defined by local municipality and requires no irrigation after established	5	5	N	NV
	2.1.4	Low Impact Development principles applied	0	1	N	NV
	2.1.5	Mulch (2-4") is installed in planting beds	0	1	N	NV
2.2	Irrigati	on				-
	2.2.1	Irrigation supply is stubbed out and accessible to all landscape	0	1	Y	0
	2.2.2	Automatic sprinkler and drip irrigation controls are installed and cover 80% or more of new plants and turf	0	2	N	NV
	2.2.3	Rain sensor or soil moisture sensor is part of irrigation controls	0	2	N	NV
	2.2.4	Smart controller installed and programmed properly as defined by local ordinances or irrigation best practices (i.e. IA or EPA)	0	3	N	NV
	2.2.5	Onsite water treatment backflush water or AC condensate water use outside in irrigation system or in actively planted areas, displacing irrigation system requirements	0	2	N	NV
	2.2.6	An active rainwater harvesting system for irrigation designed and installed by a certified/licensed rainwater professional. <i>Outside is landscaped and the system is</i> <i>sized to irrigate greater than 50% (3pts) OR 75%</i> <i>(4pts) of all landscape. No backup water required</i> <i>(5pts).</i>	3	5	N	NV
	2.2.7	A greywater system is used for irrigation purposes designed and installed by a certified/licensed greywater professional. <i>Outside is landesaned and the system is</i>	3	5	N	NV

professional. Outside is landscaped and the system is sized to irrigate greater than 50% (3pts) OR 75% (4pts) of all landscape. No backup water system

connection (5pts).

2.2.8 Exterior water shutoff valve is installed inside the house

# 2.3 Storm Water Management

- 2.3.1 Installed passive irrigation system to prevent lot run off
- 2.3.2 Installed landscape whereby no runoff occurs in a 100year event
- **2.3.3** Curb cuts, allowing water to run into the property and used as irrigation water
- 2.3.4 Permeable paving installed
- 2.3.5 A rain garden used for landscape irrigation that is design and installed by a certified/licensed professional. *Outside is landscaped and the system is sized to irrigate greater than 50% (3pts) OR 75% (4pts) of all landscape. No backup water system connection (5pts).*
- 2.3.6 Permanent retention ponds designed and installed by a certified/licensed professional. Outside is landscaped and the system is sized to irrigate greater than 50% (3pts) OR 75% (4pts) of all landscape. No backup water system connection (5pts).
- 2.3.7 Pumice wicks designed and installed by a certified/licensed professional. *Outside is landscaped and the system is sized to irrigate greater than 50% (3pts) OR 75% (4pts) of all landscape.*
- 2.3.8 Canale channels, pumice wick or river rock beds to keep water on the property
- 2.4 Real time water use monitoring system installed FOR OUTDOOR

# 2.5 Storm Water Treatment

- 2.5.1 Permanent SWPPP BMPs
- 2.6 Outdoor Water Use Verification
  - **2.6.1** Third-party water audit performed by a certified design professional and installed system meets the third-party program's water saving criteria.
  - 2.6.2 Outdoor water use reduction Points awarded are based on the % reduction: 25%

(2pts), 50% (3pts), and 75% (4pts)

Section Sub-Total

#### 0 4 Ν 0 5 Ν NV 0 2 Ν N۷ 0 2 Ν 5 3 Ν

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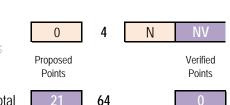


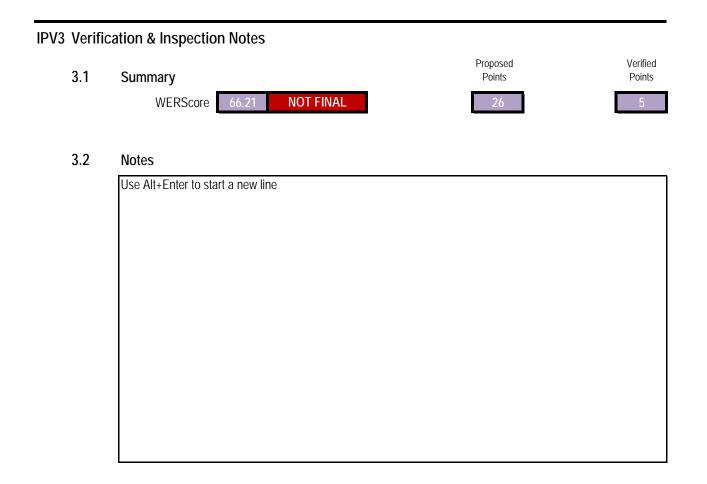
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Signature Section