City of Santa Fe

Agenda

CITY CLERK'S OFFICE
DATE 9/26/13 TIME 3:44pm
SERVED BY Caryn Grosse
RECEIVED BY

SANTA FE WATER CONSERVATION COMMITTEE MEETING
CITY HALL - 200 LINCOLN AVE.
CITY COUNCILORS' CONFERENCE ROOM
TUESDAY, OCTOBER 8, 2013
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 SEPTEMBER 10, 2013 WATER CONSERVATION COMMITTEE MEETING
6. CONSENT AGENDA
   A. DROUGHT, MONSOON AND WATER RESOURCE MANAGEMENT UPDATE (Rick Carpenter)
   B. WATER CONSERVATION EDUCATION AND OUTREACH: UPCOMING EVENTS (Laurie Trevizo)

DISCUSSION ITEMS:

7. OPEN MEETINGS ACT PRESENTATION (Gene Zamora, Legal, 20 minutes)

INFORMATIONAL ITEMS:

8. REBATE ANALYSIS (Councilor Ives, 20 minutes)

9. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITATIVES: (Councilor Ives, 60 minutes)
   A. GROUP #2- WATER CONSERVATION EDUCATION/OUTREACH (12 minutes)
   B. GROUP #3- PROMOTE OUTDOOR WATER CONSERVATION (12 minutes)
   C. GROUP #4- REESTABLISH TREND OF NET ANNUAL REDUCTIONS IN PER CAPITA WATER USAGE AND IDENTIFYING LARGE WATER USERS (12 minutes)
   D. GROUP #5- DOMESTIC WELLS WITHIN THE CITY LIMITS (12 minutes)
   E. GROUP #1 – WATER CONSERVATION & DROUGHT MANAGEMENT PLAN UPDATE (12 minutes)

MATTERS FROM STAFF:

10. WATER CONSERVATION COMMITTEE PROPOSED 2014 SCHEDULE (Laurie Trevizo. 5 minutes)

MATTERS FROM COMMITTEE:

11. 2014 LEGISLATIVE RECOMMENDATIONS (Councilor Ives, 10 minutes)

ITEMS FOR NEXT AGENDA – TUESDAY, NOVEMBER 5, 2013:

Invitation to State Legislators

Demand Elasticity, if available

CAPTIONS: October 18, 2013 @3 pm PACKET MATERIAL: October 23, 2013 @3 pm

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.

MINUTES OF THE

CITY OF SANTA FE

WATER CONSERVATION COMMITTEE MEETING
Santa Fe, New Mexico

October 8, 2013

1. **CALL TO ORDER**
   A meeting of the City of Santa Fe Water Conservation Committee was called to order by Councilor Peter N. Ives, Chair on this date at 4:00 p.m. in the City Councilors' Conference Room, City Hall, Santa Fe, New Mexico.

2. **ROLL CALL**
   Roll Call indicated the presence of a quorum as follows:

   Members Present:
   Councilor Peter N. Ives, Chair
   Melissa McDonald, Vice Chair
   Tim Michael
   Doug Pushard
   Karyn Schmitt
   Stephen K. Wiman
   Grace Perez

   Member(s) Absent:
   Giselle Piburn, excused
   Lisa Randall, excused
   Bill Roth, excused
   1 vacancy

   Others Present:
   Laurie Trevizo, Water Conservation Manager
   Caryn Grosse, Water Conservation Specialist
   Nancy Avidisian
   Geno Zamora, City Attorney's office
   Jo Ann G. Valdez, Stenographer

3. **APPROVAL OF AGENDA**

Mr. Michael moved to approve the Agenda. Ms. McDonald seconded the motion. The motion passed unanimously by voice vote.

INDEX OF

CITY OF SANTA FE

WATER CONSERVATION COMMITTEE
October 8, 2013

DRAFT: SUBJECT TO APPROVAL

4. APPROVAL OF CONSENT AGENDA

Mr. Michael moved to approve the Consent Agenda. Ms. McDonald seconded the motion. The motion passed unanimously by voice vote.

5. APPROVAL OF MINUTES : SEPTEMBER 10, 2013 WATER CONSERVATION COMMITTEE MEETING

The following changes were made to the Minutes of the September 10, 2013 meeting:

Stephen Wimen was changed to read: Stephen Wiman throughout the entire document.

Page 1, Bill Roth was **not present.**

Page 9, last paragraph, last sentence, Karyn Schmitt was changed to read: Karyn **Grosse**

Mr. Wiman moved to approve the Minutes of the September 10, 2013 meeting as amended. Mr. Michael seconded the motion. The motion passed with 1 abstention (*Ms. Schmitt was not present at the September 10, 2013 meeting*).

6. CONSENT AGENDA

a. Drought, Monsoon and Water Resource Management Update

b. Water Conservation Education and Outreach: Upcoming Events

DISCUSSION ITEMS:

7. OPEN MEETINGS ACT PRESENTATION

Mr. Geno Zamora presented a PowerPoint presentation on Ethics and Open Government. [A copy of the presentation was included in the Committee Members' packets. Please see Exhibit "7a" for the specifics of this presentation].

Mr. Zamora said one of the things he is trying to do, through the City Attorney's office, is to formulize and make presentations to the boards and committees regarding Ethics and Open Government.

Mr. Zamora reviewed four laws that are applicable to municipalities. They are:

- City of Santa Fe Ethics Ordinance, SFCC §1.7, et seq.
- New Mexico Government Conduct Act § 10.16-1, et seq.
- New Mexico Open Meetings Act (OMA), § 10.15-1, et seq.
- New Mexico Inspection of Public Records Act (IPRA), § 14-2-1, et seq.

The Committee Members had the following questions/comments:

- Mr. Michael said the presentation is specific for employees of the City of Santa

Fe and does not specifically talk about committees of the City of Santa Fe. He asked for clarification on this.

Mr. Zamora said he uses this presentation for boards and employees. He said because committee members interact with employees, it's important to know the limitations on employees. Committee members are also considered "public officials".

- Mr. Michael said the committee members do vote on rebate programs that affect himself and other people in the group because of what they do for a profession. He asked in this case, should the committee members abstain from voting when those types of matters come before the committee.

Mr. Zamora said one of the things that he highlights in his presentations is the things you are likely to see, and conflicts of interests, is certainly one of those issues and he will get to that later in the presentation. The short answer is, if there is a defined conflict of interest exists: then there is a requirement of disclosure and abstention that he will get to.

Mr. Zamora said the definition for a "Conflict of Interest" is:

"a specific and identifiable prospect of pecuniary gain or loss (not shared with the public) from an official act of any public official or employee to:

- *Self or Family member: family defined as household members, children, step-children, brothers, sisters, parent, step-parents, domestic partner and all persons claimed on dependents on latest tax return.*
- *Business owned by self or household member*
- *Employer, client or customer*
- *Non-profit where public official employee or household member is an officer or director*
- *Contributor to council or mayoral race in last 2 years (if over $1,000 for council, or if over $2,500 for Mayor)*

Disclosure

Method

- *For member of governmental body at a public meeting of that body*
- *For the City Manager, City Attorney or City Clerk to the Governing Body at a public meeting*
- *For a City employee, to the City Manager*

When there is a conflict, public official or employee shall not perform an official act of attempt to influence another person to perform an official act in a conflicted matter.

Mr. Zamora reviewed the rules about accepting gifts noting that the general rule is that committee members should not receive gifts from people who come before this Committee, however, there are some exceptions, such as gifts that are less than $50, for example, a water bottle.

Mr. Zamora noted there are specific codes of ethics with regard to political activity. Improper political campaigning includes:

- *Public Official or employee shall not knowingly request or authorize another to request a subordinate to make a campaign contribution or provide services to a campaign*
- *All public employees are subordinates of the Governing Body*
- *Public officials or employees shall not engage in political campaigning while on duty*
- *No use of City resources for campaigns (funds, equipment, vehicles, etc.)*
- *No promise of an appointment to any City position as a reward for political activity or contribution.*

Mr. Zamora reviewed the Code of Ethics for Honoraria noting that public officials shall not request or receive an honorarium for a speech or service rendered in the performance of his or official duties. Reasonable reimbursement for meals, lodging or travel expenses is permissible. Reimbursements shall be reported within 10 days. He said this form is available through the City Clerks because the public has the right to know where the governing bodies are and what conference they are attending, for example.

- Ms. Perez said a couple of the Water Conservation Committee Members attended a conference but this did not happen.

- Mr. Zamora said if you paid the costs for everything, you do not have to report this; however, if the conference paid your costs, the disclosure form should be submitted to the City Clerk's office, because again the public has the right to know.

- Ms. McDonald said the conference paid for their hotel fees. She asked if it would be best to go back and report this.

- Mr. Zamora said it would be best for them to submit a disclosure form.

- Ms. Trevizo mentioned that she just returned from a conference on Friday where she received a scholarship for the registration fee. She noted that the City paid for the hotel and travel expenses.

  Mr. Zamora said it would be best for her to report this also.

Mr. Zamora reviewed the Annual Disclosure requirement noting that upon election or appointment, public officials and department heads should disclose their name, address, phone number, employer (if other than the City), professional, occupational or business licenses; for-profit and non-profit Board memberships and businesses owned. This is maintained for public record for the public to see whether or not the members have any conflict of interests.

Mr. Zamora reviewed the Open Meetings Act noting that meeting notices have to be published 74 hours in advance and no amendments to agendas should be done within 72 hours.

- Ms. Perez asked what should be done if a Committee Member has some new information that they want to share with the Committee and it's not on the agenda.

  Mr. Zamora said now we're getting into the "artificial" aspect and, keep in mind, transparency. He said if you have a quorum of the governing body, you are holding a meeting and would be violating the Open Meetings Act by not advertising it, or not giving the public the opportunity to participate. He said this could include e-mails.

  Staff is the one who needs to communicate information to the Committee, such as meeting dates, agendas, etc. He said the best thing to do is to communicate with staff or the Chair on items for the agenda also. Staff will distribute the information.

- Mr. Michael said there could be water events around the City that the Committee Members or a quorum of the Committee is likely to attend. He asked if this is ok.

  Mr. Zamora said the safest way is to advertise the event and be sure not to conduct business.

  Ms. Schmitt asked if this is the something that working groups should avoid as well.

  Mr. Zamora said the subcommittee process is OK under certain guidelines: 1) there can't be a quorum of the Committee and 2) if there is a full quorum present, advertise the meeting.

  Executive Sessions are not recommended; and if the committees feel that there is a need for an executive session, they need to be approved by the City Manager.

Mr. Zamora concluded his presentation noting that his office is always open to anybody who may have a question. He asked that committee members go through staff to contact him.

INFORMATIONAL ITEMS:
8. REBATE ANALYSIS

Tim Michael and Doug Pushard prepared a handout that was distributed in the Committee Members' packets entitled "*A Review of City of Santa Fe Water Conservation Rebate Programs*. Please see Exhibit "8" for the specifics of this presentation.

Chair Ives said the information on how our programs work is very valuable in assessing their effectiveness and to determine logically where we want to go in the future. He asked what the intent or objective was in undertaking this particular issue.

Mr. Pushard said the objective is to get Committee Members involved in the process; to see if we are on the right track and give the Committee Members information that may be missing. Their original thought, was to look at how the City is promoting the various rebates.

Mr. Pushard said it turns out that there is not a lot of data to answer this question, and then he started to realize that there are other questions like how effective has the Rebate Program been to the city and the users (has it reduced their water rates). The purpose of the review is to understand the effectiveness of the City's rebate programs in order to identify the programs that have been most effective and those that have the potential to provide the largest water savings.

Mr. Pushard said a question that he asked in a meeting in the past was whether a rebate analysis was done before and the answer is no. He said this got him thinking- has any city done a rebate analysis and in just doing a superficial search, he couldn't find any city that has done one. He said we are fortunate in that the City has published a ton of data and they could come up with some best practices that the Committee, the working group and the City could use in going forward.

Chair Ives suggested the working group try to engage the Water Company a little more directly by talking to senior staff and letting them know about the analysis that is being done to give them feedback.

Mr. Pushard said he appreciated the suggestion because they did not think of that. He said the next step is to get with staff in about two weeks to review the information, and they should have a final conclusion done for the next meeting.

Ms. Perez referred to page 1 of the Rebate Analysis, one of the foot notes states "*Connections estimate at 0.79 times population*". She asked where this came from.

Mr. Pushard said this was based on 2012 data.

Ms. Perez said she thinks is fantastic and she thanked Mr. Pushard and Mr. Michael for doing this. She said she was really surprised that there have been no rebates; no moisture sensors, ET controllers; pressure-reducing valves and other outdoor devices at all. She asked if these are the programs that Laurie's office is re-evaluating.

Ms. Trevizo said yes.

Ms. Perez asked if it would be appropriate for her to ask why the numbers are zeroed.

Ms. Trevizo said you have to have a staff evaluation prior to the application, and they conducted some audits in the past and found that the bottom line was that the landscape professionals were uncomfortable with ET controllers, moisture sensors, rain sensors, any of these new technologies. Therefore, she pulled everything back because the landscape professionals need to be trained on these technologies.

Mr. Pushard said they found out that the programs were not well communicated.

Ms. McDonald said from a documentation standpoint and the City's standpoint, this makes sense but from the homeowner and the landscaper's perspective, it doesn't make sense in the workflow of the individual. She said while she thinks that the intention is very good, she thinks we should look at how it's being implemented and does it make sense in the workflow of the individual.

Ms. Perez referred to page 9, Table 10 – *Residential Rebate Calculated Water Savings*. She said out of all the toilets that were retrofitted in the City since the Retrofit Program came to being only 0.0053 acre feet of water was saved. She asked if this is correct.

Mr. Pushard said from the Rebate Program, not the Retrofit Program. He said another thing to be done is to look at the Retrofit Program because these numbers are only for the Rebate Program.

Ms. Grosse said that these look like the water factors that they use.

Mr. Pushard said they have not done all of the calculations, year-to-date.

Ms. Perez referred to Table 8, page 10, and said it would be helpful to have the total dollars per acre-foot that is saved. It would also be interesting to know how much money is spent on a project.

Ms. Trevizo mentioned that the Rebates are totally funded by the Levy Fund that goes on the water bills around April.

Chair Ives requested that the working group look at the leveraging effect with having the state in parallel.

Mr. Michael said this is only a draft report and they would like to have a final review for the Committee to review at the next meeting.

9. GROUP REPORTS FROM WATER CONSERVATION COMMITTEE INITIATIVES:

A. GROUP #2 – Water Conservation Education/Outreach

Ms. Perez said Group #2 updated the date in the presentation and copies of the

updated presentation are included in the Committee Members' packets. Please see Exhibit "9a" for the specifics of this presentation.

Ms. Perez said they are still welcoming comments and Tim Michael has done a great job in making it more readable. She noted that they added a slide on how the water is used and how we stack up when compared to other cities. They also added a slide, in response to Ms. McDonald's comments at the last meeting on getting feedback.

Ms. McDonald said she appreciated the inclusion of parks.

Mr. Pushard referred to page 14 and noted that the City no longer offers irrigation audits. Also on page 15, rebates for irrigation efficiency has to be taken off.

Chair Ives referred to page 19 under Community Involvement and questions. He said it would be helpful to include the website addresses where follow up questions could be made. He suggested that they change the question to "What would like to see done?" Chair Ives would like to have a website that is specifically used to aggregate the feedback, etc.

The presentation will be an action item for the next meeting for approval by the Committee.

Ms. Trevizo requested that an outline on the fiscal impacts be done, as far as what they are expecting for budget items, as well as anything in advance; any expectations from other committee members who will be presenting, etc. for planning purposes. She would also like to see a calendar on where the presentations are going to be at because much of the print media requires month's notice.

B. **GROUP #3 – Promote Outdoor Water Conservation**

Mr. Pushard said one of the questions that Chair Ives asked at the last meeting, and one of the things that the Group worked on, was the creation of an equivalent of the HERS rating – creating a WERS rating (Water Efficiency Rating System). He said as an industry, as a whole, there is no WERS rating system.

Mr. Pushard distributed a handout on what the HERS Index is. The Home Energy Rating System (HERS) index is the industry standard by which a home's energy efficiency is measured. It's also the nationally recognized system for inspecting and calculating a home's energy performance.

Mr. Pushard said they met with Stephen Hayes who is the President of the Homebuilders Association for the State of New Mexico and he was independently thinking about the same idea and has provided some input. He said the next step would be to try and have a combined document and come up with the components that would be within a rating system. He asked people who may have some ideas to send it to him or Laurie Trevizo. He offered to have a draft by the next meeting.

Ms. Trevizo mentioned that she attended the annual meeting of the Alliance for

Water Research and their research committee is actually looking at something very similar to this, on a federal level. She said this could be something that the working group might want to consider rolling in.

Mr. Pushard noted that they have two presentations scheduled with the Architects and the Association of Realtors. This will be brain-storm sessions to get their feedback and ideas. The Association of Realtors is scheduled for November 6, 2013 and the Architects is scheduled for January 9, 2014. He will send out the location information to Laurie Trevizo if anyone is interested in attending the sessions.

C. GROUP #4 – Re-establish Trend of Net Annual Reductions in per capita water usage and identifying large water users

Ms. Schmitt said Group #4 is looking at three to four potentially large water users. She explained that they are interested at looking at handheld devices to identify large water users.

She said the next thing is lodging. She noted that she was recently at the Inn of Anasazi Hotel and when you check in, they have you sign a document about whether or not you want to choose the option to conserve water because water is a limited precious natural resource. She feels that this is a good process to get people familiar with water and they could encourage all the hotels to do this.

She noted that staff met with the Watershed Association and the hotels on October 3rd and they would like to hear about that meeting.

Ms. Grosse said it was a status update from the representatives who are heading up the Green Lodging Initiative. They spoke about the steps they have made so far and it appears that 11 of the hotels have largely completed their steps and are going through the process. They expect to host a forum in March or April where other hotels will be invited.

Ms. Schmitt said they would like to communicate with them at one point. She asked if there was any way to acknowledge or reward the hotels.

Ms. Grosse said the Green Concierge program works with some of the online booking agencies to give them green ratings based on the particular categories that they opted to participate in and excel in.

With regards to Parks, Ms. Schmitt noted that Ms. McDonald presented a draft recommendation to POSAC asking them how they would like to proceed, and a Water Conservation Subcommittee has been created within the POSAC. Once they have established the subcommittee, the working group will liaison with them to see what can be done with them, and what they can work on with them in terms of water efficiency in parks. She said they also have some numbers on water use in the parks, and they also have a map of the maps, and they will be working on correlating that information. She said they also want to liaison with Lisa Randall from the public schools to see what they are doing and see if she wants any assistance from them.

D. GROUP #5 – Domestic Wells within the City Limits

A written report from Group #5 was distributed. Please see Exhibit "9d" for the specifics of this presentation.

Mr. Wiman reported that they had a committee meeting and the Working Group is interested in determining the impact of private wells within the City with respect, in particular, to 1) the drawdown of the Tesuque Formation aquifer, 2) the impact on the pumping of private wells on water flow on the City in reaches of the Santa Fe River, 3) the impact of private wells on effluent arriving at the water treatment plan and 4) the net impact of gains and depletion of the lower Santa Fe River below the plant.

Mr. Wiman said the number and usage of private wells in the city remains unknown. The range estimates are between 600 to 3,000 wells and 200 to 3,000 acre-feet per well per year. In order to determine the impact of the pumping of an unknown number of private wells, and before any other additional work such as physically inventorying wells is conducted, it is proposed by Working Group #5 that quantitative hydrologic modeling be conducted to determine the range of the possible impact of wells. It is anticipated that this modeling could be properly conducted by a qualified geotechnical firm already under contract by the City.

Chair Ives suggested that this be run by the legal department.

Ms. McDonald said there are a lot of wells that have replacement wells and the City has data on those that have been put in place. She said as part of the fiscal impact that will happen further down the line, on requiring metering, she would like to see some kind of provision or discussion for those who cannot afford the additional cost of a meter. What kind of program is going to allow them to get a meter?

Ms. Perez asked if they should set up a meeting with the legal department.

Chair Ives said yes, he thinks this would be prudent to do.

Ms. Perez noted that the hydrologist has a lot of on-the- ground experience dealing with some of the legal issues.

Ms. McDonald noted that she and her husband and several other people are working on a Water Harvesting Bill. They are meeting with some of the representatives tonight and she will give an update on this later.

E. GROUP #1 - Water Conservation and Drought Management Plan Update

Ms. Perez reported that they have started developing guiding principles.

MATTERS FROM STAFF

10. WATER CONSERVATION COMMITTEE PROPOSED 2014 SCHEDULE

Copies of the proposed 2014 Committee schedule were distributed in the Committee Members' packets. The Committee will vote on this at the next meeting.

MATTERS FROM THE COMMITTEE:

11. 2014 Legislative Recommendations

Chair Ives said he hopes to have recommendations to look at for the next meeting.

ITEMS FOR NEXT AGENDA – Tuesday, November 5, 2013

Ms. Gross noted that the next meeting was scheduled for November 5, 2013 due to the Thanksgiving holiday.

- Invitation to State Legislators
- Demand Elasticity, if available
- *Captions:* October 18, 2013 @ 3 p.m.
- Packet Material: October 23, 2013 @ 3 p.m.

ADJOURNMENT

There being no further business to come before the Committee, the Chair called for adjournment at 6:15 p.m.

Approved by:

Councilor Peter N. Ives, Chair

Respectively submitted by:

Jo Ann G. Valdez, Stenographer

EXHIBIT
tabbies
7A

Ethics and Open Government

Presented to:

Water Conservation Committee

By the City Attorney's Office

October 8, 2013

Laws To Be Reviewed

- An overview of the following will be provided, focusing on provisions applicable to municipalities:
  - City of Santa Fe Ethics Ordinance, SFCC § 1-7, et seq.
  - New Mexico Governmental Conduct Act, § 10-16-1, et seq.
  - New Mexico Open Meetings Act (OMA), § 10-15-1, et seq.
  - New Mexico Inspection of Public Records Act (IPRA), § 14-2-1, et seq.

Santa Fe Code of Ethics

- General Rules
  - Proper operation of City government requires (§ 1-7.1):
    - That public officials and employees be independent, impartial and responsible to the people
    - That decisions and policy be without conflicts of interest
    - That public office or employment not be used for personal gain
    - That the public has confidence in the integrity of its government
  - Purpose and intent (§ 1-7.2):
    - Standards of behavior for public officials and employees that ensure decisions are made without consideration of personal benefit
    - Provide clear guidance by clarifying acts allowed and prohibited
    - Adopt a code that suits the local concerns and needs

Code of Ethics

- Conflict of Interest
  - Definition (§ 1-7.5): a specific and identifiable prospect of pecuniary gain or loss (not shared with the public) from an official act of any public official or employee to:
    - Self or Family member
      - Family defined as household members, children, step-children, brothers, sisters, parents, step-parents, domestic partner and all persons claimed as dependents on latest tax return.
    - Business owned by self or household member
    - Employer, client or customer
    - Non-profit where public official, employee or household member is an officer or director
    - Contributor to council or mayoral race in last 2 years (if over $1,000 for council, or if over $2,500 for mayor)
  - Disclosure (§ 1-7.7(L))
    - Method
      - For member of governmental body, at a public meeting of that body
      - For the City Manager, City Attorney or city Clerk, to the Governing Body at a public meeting
      - For a City employee, to the City Manager
    - When there is a conflict, pubic official or employee shall not perform an official act or attempt to influence another person to perform an official act in a conflicted matter

Code of Ethics (cont.)

- Gifts (§ 1-7.7(A))
  - General rule: public officials shall not accept gifts or other financial benefits from persons or entities that have a prospect of pecuniary gain or loss from an official act (other than gains or losses shared with a substantial segment of the general public).
  - Exceptions:
    - Occasional meal or non-pecuniary gift less than $50
      - $250 limit for Governing Body, City Manager, City Attorney and City Clerk if related to official duties, must report within 10 days and post on website
      - $250 limit for employees if related to official duties and prior approval by City Manager, must report immediately and post on website
    - Other: certain awards, campaign contributions, commercially reasonable loan, certain real property transactions

Code of Ethics (cont.)

Political Activity

- Improper Political Campaigning (§ 1-7.7(H))
  - Public official or employee shall not knowingly request or authorize another to request a subordinate to make a campaign contribution or provide service to a campaign
    - All public employees are subordinates of the Governing Body(§ 1-7.5)
  - Public official or employee shall not engage in political campaigning while on duty
  - No use of City resources for campaigns (funds, equipment, vehicles, etc.
- No promise of an appointment to any City position as a reward for political activity or contribution (§ 1-7.7(I))

Code of Ethics (cont.)

- Honoraria (§ 1-7.7(J))
  - Public official shall not request or receive an honorarium for a speech or service rendered in the performance of his or her official duties
  - Reasonable reimbursement for meals, lodging or travel expenses are permissible
    - Reimbursements shall be reported within 10 days
- Annual Disclosures (§ 1-7.6)
  - Upon election/appointment and each July thereafter public officials and department heads shall disclose:
    - Name, address phone number
    - Employer if other than the City
    - Professional, occupational or business licenses
    - For-profit and non-profit board memberships
    - Businesses owned

Code of Ethics (cont.)

- Representation of Private Interests (§ 1-7.7(C)(3))
  - Governmental Body Members shall not accept monetary compensation to advise, consult or represent on an item before the governmental body, during the term of office or 1 year after.
- Other Important provisions:
  - *Quasi Judicial Proceedings*
  - Transactions with the City
  - Representation of Private Interests
  - Misuse of confidential information
  - Misuse of City resources
  - *Whistleblower Protection*
- Enforcement and Penalties:
  - Code of Ethics enforced by the ECRB (§ 1-7.9)
  - Penalties include public reprimand, fines, recommendation of removal or suspension, referral to the District Attorney (§ 6-16.7)

New Mexico Governmental Conduct Act

- General Rules for public officer or employee (§ 10-16-3):
  - Treat their position as public trust and use powers/resources only to advance the public interests, not obtain personal benefits or pursue private interests
  - Conduct themselves in a manner that justifies the confidence placed in them by the people
  - Full disclosure of real or potential conflicts of interest shall be a guiding principle for determining appropriate conduct
  - Make reasonable efforts to avoid undue influence and abuse of office

NMGCA (cont.)

- Prohibited Political activities (§ 10-16-3.1):
  - No coercion to contribute, vote or participate in political activity
  - No threats to deny promotion or pay increase
  - No requiring employee contribution or event ticket
  - No advising an employee to take part in political activity
  - No use of governmental property for non-authorized purposes
- Official Acts for personal financial interest prohibited (§ 10-16-3.1):
  - Knowing and willful violation is a 4th degree felony
  - Public officer or employee is disqualified from engaging in any official act directly affecting their financial interest

NMGCA (cont.)

- Other important provisions:
  - Honoraria
  - Confidential information
  - Contracts involving current or former officers or employees
  - Prohibited bidding
- Enforcement and penalties (§ 10-16-14, 17, 18):
  - Enforced by Attorney General or District Attorney
  - Penalties include discipline, dismissal, demotion or suspension
    - Criminal penalties include misdemeanor (unless otherwise specified) and up to $1,000 fine
    - Civil penalties of $250 per violation up to $5,000

Open Meetings Act

- NEW
  - Meeting notices published 74 hours in advance
    - No amendments within 72 hours
  - AG must be informed of emergency meetings within 10 days after the emergency meeting
    - Emergency: unforeseen circumstances that will likely result in injury or damage to persons or property or substantial financial loss to the public body
- General Rules (§10-15-1(A)):
  - A representative government is dependent upon an informed electorate
  - All persons are entitled to the greatest possible information regarding the affairs of government and the official acts of those officers and employees who represent them
  - The formulation of public policy or the conduct of business by vote shall not be conducted in closed meetings
  - All meetings of any public body shall be public meetings, all persons shall be permitted to attend and listen, reasonable efforts shall be made to accommodate use of audio and video devices

Open Meetings Act (cont.)

- Applicability (§10-15-1(D)):
  - All meetings by of a quorum of members of any board, commission, administrative adjudicatory body or other policymaking body of a municipality or political subdivision held for the purpose of formulating public policy
  - Any meetings at which the discussion or adoption of any proposed resolution, rule regulation or formal action occurs and at which a majority or quorum of the body is in attendance
  - Any closed meetings, shall be held only after reasonable notice to the public

Open Meetings Act (cont.)

- Meeting Notices (§10-15-1(D) and (F)):
  - Annual determination by the Body of reasonable notice to the public
    - Notice shall include broadcast stations and newspapers that have provided written request for such notice
  - Shall include an agenda containing a list of specific items of business to be discussed or transacted or information on how the public may obtain a copy of such an agenda
  - Agenda shall be available at least 72 hours before meeting (exceptions for emergencies) (City Resolution requires first agenda posting 72 hours in advance)
- Minutes (§10-15-1(G)):
  - *The policymaking body shall keep written minutes of all its meetings including:*
    - Date, time and place of meeting
    - Names of members in attendance and absent
    - Substance of the proposals considered and a record of votes
    - Minutes shall be prepared within 10 days, shall be approved at the next meeting with a quorum and are not official until approved by the policymaking body

Open Meetings Act (cont.)

- Exceptions (§10-15-1(E)), with proper notice, the portions of meetings dedicated to the following topics may be conducted in closed session such as:
  - Licenses. Discussion of the issuance, suspension, renewal or revocation of a license, final action in public.
  - Personnel. Discussion of limited personnel matters (hiring, promotion, demotion, dismissal, assignment, resignation, or investigation), final action in public
  - Adjudication. Deliberations in connection with an administrative adjudicatory proceeding
  - Collective Bargaining. Discussion of bargaining strategy preliminary to collective bargaining negotiations
  - Procurement. Certain discussions regarding procurement (sole source over $2,500 or competitive bids), final action in public
  - Litigation. Attorney-Client privileged discussions regarding threatened or pending litigation
  - Real property and water. Discussion of real property or water right purchase, acquisition or disposal
- Entering closed session: requires a majority vote of a quorum, the subject and authority for closure shall be stated with reasonable specificity in the motion and an individual vote shall be taken in open meeting
  - Scope. Only those subjects announced or voted upon prior to closure may be discussed
- Enforcement and penalties: AG, DA or individual enforcement; penalties include misdemeanor and/or fines, attorneys fees and costs (§10-15-3)

Inspection of Public Records Act (IPRA)

- NEW
  - Draft documents that are not otherwise protected are public record
  - Unless there is a specific exclusion, the document is public record. No "rule of reason"
- General Rules:
  - All persons entitled to greatest possible information regarding the affairs of Government and the official acts of public officers and employees (§ 14-2-5)
  - Providing persons with information is an essential function of a representative government (§ 14-2-5)
  - Every person has the right to inspect public records (§ 14-2-1(A))
  - City must designate at least one public records custodian (§ 14-2-17)

IPRA (cont.)

- Relevant statutory exemptions (§ 14-2-1(A):
  - Letters or memoranda which are matters of opinion in personnel files (including letters of reference)
  - Certain law enforcement records containing confidential sources, methods, information or individuals accused but not charged with a crime
  - Tactical response plans or procedures that could be used to facilitate the planning or execution of a terrorist attack
  - "As otherwise provided by law"
    - Includes federal, state and local laws and includes judicial decisions
    - Examples include attorney client communications, medical information, financial information, privacy laws, etc.

IPRA (cont.)

- Procedure for Requesting (§ 14-2-8):
  - Oral or written/emailed request (only written request requires response) to the public records custodian containing name address and phone number
  - Request shall identify the records sought with "reasonable particularity"
- Response Timelines (§ 14-2-8):
  - *Immediately or as soon as practicable but not later than 15 days*
  - Not required to create a record to respond to a request
  - Notice required if taking longer than 3 days
  - Longer deadlines for burdensome or broad requests (§ 14-2-10)
- Denials:
  - Any denials shall be in writing with a description of records sought, person making the denial and shall be delivered within 15 days of the request (§ 14-2-11)
- Enforcement:
  - An enforcement action may be brought by AG, DA or requestor (§ 14-2-12)
- Penalties:
  - Damages up to $100 per day, costs and attorneys fees (§ 14-2-11)

Questions?

- CoSF Ethics Ordinance
- NM Governmental Conduct Act
- NM Open Meetings Act
- NM Inspection of Public Records Act
- Other

EXHIBIT
tabbies
8

A review of City of Santa Fe Water Conservation Rebate Programs

Purpose

The purpose of the review is to understand the effectiveness of the city's rebate programs in order to identify the programs that have been most effective and those that have the potential to provide the largest water savings.

Overview

This paper is primarily based on information from the City of Santa Fe Annual Water Reports for the years of 2009 through 2012. The most recent, the 2012 Annual Water Report, is dated April 2013. The reports are available at http://www.santafenm.gov/index.aspx?NID=2300. The reports include information to 2004, and some of that is incorporated into this paper. A chronological summary of the rebate programs is included in Appendix 1.

Table 1 summarizes details on the population, number of connections and number of rebates. Although the city water utility serves more people than are in the metropolitan statistical area, rebates are available only to city residents. As of July 1, 2012, the city had a population of approximately 69,200[1]. Based on a 1% annual growth rate, the population at the same date in 2013 is estimated to be 69,900.

Commercial users include commercial, industrial and institutional accounts. To date, almost all commercial rebates have been awarded to lodging accounts (hotels/motels). For brevity, the term "commercial" refers to these accounts and rebates.

The term "residential (non-commercial)" refers to residential accounts and rebates. These might include both single and multi-family residential accounts. However, no rebates have been awarded to multi-family residential accounts; therefore, "residential (non-commercial)" refers to single-family residential accounts and rebates.

According to the annual water reports and city records, to the end of 2012, the city had awarded 7,959 rebates, and as of July 1, 2013, a total of 8,501. According to city records, there were in the range of 55,000 water utility connections, distributed among commercial, single-family residential and multi-family and other accounts as indicated below. Based on these values, the table indicates percentages of rebates relative to population and connections.

Table 1
Rebate Summary

	2012	2013 YTD
Population	69,200	69,900 est[a]
Total Rebates	7,959	8,501
• Commercial	1,371	1,632
• Residential (non-commercial) *all rebates to single-family residential accounts*	6,588	6,869
Total Connections	54,949[b]	55,200[c]
• Commercial (approximate)	16,480[d]	16,560[d]
• Single-family Residential (approximate)	30,220[d]	30,360[d]
• Multi-family Residential and Others (approximate)	8,240[d]	8,280[d]
Total Rebates as percent of Population	11.5%	12.2%
Total Rebates as percent of Total Connections	14.5%	15.4%
• Commercial Rebates as percent of Commercial Connections	8.3%	9.9%
• Residential Rebates as percent of Single-family Residential Connections	21.8%	22.6%

[a]Population estimated at 1.0% annual growth rate
[b]From City Water Data
[c]Connections estimate at 0.79 times population
[d]Commercial, single-family residential and multi-family approximations are based on records that connections are distributed at 30%, 55% and 15% respectively among the categories.

[1] U.S. Census Bureau, Population Division. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2012. Found at http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml, September 1, 2013.

Number of Rebates

Commercial Rebates

Commercial rebates have included high efficiency toilets (Flushometer, tank-type and hotel/motel), water-free urinals, high efficiency clothes washers, air-cooled ice machines, dishwasher replacements, and rebates for commercial process efficiency. As of July 2013, a total of 1,632 commercial rebates had been awarded. Some 97% were for high-efficiency toilets, and almost three-quarters of these were at hotels and motels. Almost all of the rebates have been awarded beginning in 2010. Annual details are shown below.

Table 2
Number of Commercial Rebates

	High-Efficiency Toilets				High-Efficiency Clothes Washers					
Year	Flushometer Valve	Tank Type	Hotel/Motel	Water Free Urinal	Replacement for top loader	Exchange for front loading washer	Air Cooled Ice Machine	Dishwashers	CPE (Commercial Process Efficiency)	Total
2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2006	NA	NA	NA	NA	NA	NA	1	1	NA	2
2007	NA	NA	NA	NA	NA	NA	5	0	NA	5
2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2009	NA	NA	NA	NA	NA	NA	NA	NA	NA	0
2010	197*	192	459	24	2	2	0	0	1	877
2011	2	13	461	5	0	0	0	0	0	481
2012	0	6	0	0	0	0	0	0	0	6
2013 YTD	0	0	261	0	0	0	0	0	0	261
Total	199	211	1181	29	2	2	1	6	1	1632

*Was this at hotel/motel?

Residential (non-commercial) Rebates

As indicated previously, although residential users might include both single and multi-family accounts, no rebates have been awarded to multi-family residential accounts; therefore, residential rebates are entirely single-family residential rebates.

As of July 2013, a total of 6,869 residential rebates had been awarded, including indoor devices (hot water recirculators high-efficiency toilets, and high-efficiency clothes washers), and outdoor devices (rain barrels, water harvesting technologies, and devices including rain and moistures sensors, evapotranspiration controllers, and pressure reducing valves).

Almost three-quarters of the total residential rebates have been for indoor devices. With the exception of the rain barrels that were distributed from 2004 to 2008, almost all of have been awarded beginning in 2010. Annual details are shown below.

Table 3
Number of Residential Rebates

	Indoor Devices					Outdoor Devices										
Year	Hot Water Recirculators	High-Efficiency Toilets	Clothes Washing Machines	HE Clothes Washer replacement for top loader	HE Clothes Washer exchange for front loading washer	Rain Barrels	Rain Barrel 50-99 gal	Rain Barrel 100-199 gal	Rain Barrel 200-299 gal	Water Harvesting	Rain Sensors	Moisture Sensors	ET Controllers	Pressure Reducing Valve	Other Outdoor Devices	Annual Totals
2004	62	NA	232	NA	NA	561	NA	NA	NA	NA	NA	NA	NA	NA	NA	855
2005	46	NA	332	NA	NA	291	NA	NA	NA	NA	NA	NA	NA	NA	NA	669
2006	36	NA	434	NA	NA	403	NA	NA	NA	NA	NA	NA	NA	NA	NA	873
2007	49	NA	456	NA	NA	368	NA	NA	NA	NA	NA	NA	NA	NA	NA	873
2008	34	NA	547	NA	NA	113	NA	NA	NA	NA	NA	NA	NA	NA	NA	694
2009	43	NA	460	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	503
2010	NA	236		782	35	NA	15	5	19	2	0	0	0	0	0	1094
2011	NA	174		266	35	NA	4	2	2	2	0	0	0	0	0	485
2012	NA	254		228	41	NA	12	3	1	1	2	0	0	0	0	542
2013 YTD	NA	147	0	112	14	NA	7	0	1	0	0	0	0	0	0	281
Total	270	811	2461	1388	125	1736	38	10	23	5	2	0	0	0	0	6869

Rebate Amounts

Commercial

From 2004 to 2009, rebates were $200 for air cooled ice machines and $400 for replacement dishwashers. One air-cooled ice machine and six dishwashers were installed.

In 2010, rebates of $504 were available for high-efficiency toilets and $630 for water-free urinals. Rebates were also available for washing machine replacements and commercial process efficiency improvements. Some 848 high-efficiency toilets and 24 water free urinals were installed. Four high efficiency clothes washers were installed and one commercial process efficiency rebate was awarded.

From 2011 to the current date, rebates for high efficiency toilets range from $125 to $500, and for high efficiency clothes washers from $150 to $350. There is a $500 rebate for water-free urinals. During this period, rebates were awarded for high-efficiency toilets (743), and for water-free urinals (5). No rebates were provided for high-efficiency clothes washers.

Table 4
Commercial Rebate Amounts

	High-Efficiency Toilets				High-Efficiency Clothes Washers					
Year	Flushometer Valve	Tank Type	Hotel/Motel	Water Free Urinal	Replacement for top loader	Exchange for front loading washer	Air Cooled Ice Machine	Dishwashers	CPE (Commercial Process Efficiency)	Number of Rebates
2004-2009	NA	NA	NA	NA	NA	NA	$200	$400	NA	7
2010	$504	$504	$504	$630	$480	$180			$874	877
2011	$500	$250	$125	$500	$350	$150				481
2012	$500	$250	$125	$500	$350	$150				6
2013	$500	$250	$125	$500	$350	$150				261

Residential (non-commercial)

From 2004 to 2009, rebates of $100 were available for hot water recirculators and for clothes washing machines and a $30 rebate was available for rain barrels. Rebates were awarded for 279 hot water recirculators, 2,461 clothes washing machines, and 1,736 rain barrels.

In 2010, rebates were available for high-efficiency toilets ($175), high efficiency clothes washer replacements ($180 for front loader and $480 for top loader), for rain barrels ($12 to $50), for water harvesting, rain sensors, moisture sensors, ET controllers, pressure reducing valves and other outdoor devices. Rebates were awarded for high-efficiency toilets (236), high efficiency clothes washer replacements (35 for front loader and 782 for top loader), for rain barrels (39), and for water harvesting (2).

Rebates for 2011 to the present are similar to the 2010 rebates, except that the front-loader clothes washer rebate was reduced to $150 and the top-loader clothes washer rebate was reduced to $350. During this period, rebates were awarded for high-efficiency toilets (811), front loader clothes washers (125), top loader clothes washers (1,388), rain barrels (71), water harvesting (5) and rain sensors (2).

Table 5
Residential Rebate Amounts

	Indoor Devices					Outdoor Devices									
Year	Hot Water Recirculators	High-Efficiency Toilets	Clothes Washing Machines	HE Clothes Washer replacement for top loader	HE Clothes Washer exchange for front loading washer	Rain Barrels	Rain Barrel 50-99 gal	Rain Barrel 100-199 gal	Rain Barrel 200-299 gal	Cisterns	Rain Sensors	Moisture Sensors	ET Controllers	Pressure Reducing Valve	Other Outdoor Devices
2004 to 2009	$100	NA	$100	NA	NA	$30	NA	NA	NA	NA	NA	NA	NA	NA	NA
2010	NA	$175	NA	$480	$180	NA	$12	$25	$50	$0.25	$40	$75	$300-$750	$120-$525	$2-$5
2011 to 2013	NA	$175	NA	$350	$150	NA	$12	$25	$50	$0.25	$40	$75	$300-$750	$120-$525	$2-$5

Cost of Appliance or Device

When planning rebate amounts, the city estimates water savings and then sets a rebate amount. This amount is typically not compared to actual costs to the end-consumer. However, the end-consumer, whether commercial or residential, is usually very aware of out of pocket outlays.

Rebates have ranged from $2 to $2000, while the costs of the end appliance or device range in cost from less than $5 to more than $20,000.

Table 6
Cost of Appliance or Device

Commercial Devices	Low Cost, $	High Cost, $	Median Cost ,$
HE Toilet - Flushometer Valve	0	0	
HE Toilet - Tank Type	150	1,500	300
Water-Free Urinal	300	1,200	600
Clothes Washer - Replacement for top loader	600	1,400	800
Clothes Washer - Exchange for front loading washer	600	1,400	800
Air Cooled Ice Machine	1,787	4,725	2,156
Dishwashers	2,799	24,368	5,681
Residential Devices			
Hot Water Recirculators	80	210	170
High-Efficiency Toilets	150	1,500	300
Clothes Washing Machines	600	1,400	800
HE Clothes Washer replacement for top loader	600	1,400	800
HE Clothes Washer exchange for front loading washer	600	1,400	800
Rain Barrel 50-99 gal			210
Rain Barrel 100-199 gal			325
Rain Barrel 200-299 gal			475
Cisterns			**1/gal est**
Rain Sensor	16.18	62.51	18.91
Moisture Sensor			**100 est**
ET Controllers	316	1495	500
Irrigation Pressure Reducing Spray Head	4.50	23.18	8.40
Irrigation Pressure Reducing Valve	52.61	68.15	52.61

Table 7
Relationship of the Rebate Amount and the Cost of the Device to the Number of Rebates Awarded

Commercial Devices	*Rebate Amount, $	Median Cost of Device, $	No. of Rebates Awarded
HE Toilet - Flushometer Valve	500	383	199
HE Toilet - Tank Type	125 or 250?	300	211
Water-Free Urinal	500	600	29
Clothes Washer - Replacement for top loader	350	800	2
Clothes Washer - Exchange for front loading washer	150	800	2
Air Cooled Ice Machine	200 (2004 to 2009)	2,156	1
Dishwashers	400 (2004 to 2009)	5,681	6
Residential Devices			
Hot Water Recirculators	100 (2004 to 2009)	170	270
High-Efficiency Toilets	$175	300	811
Clothes Washing Machines	100 (2004 to 2009)	800	2,461
HE Clothes Washer replacement for top loader	350	800	1,388
HE Clothes Washer exchange for front loading washer	150	800	125
Rain Barrel 50-99 gal	12	210	38
Rain Barrel 100-199 gal	25	325	10
Rain Barrel 200-299 gal	50	475	23
Cisterns	0.25/gallon	1/gal est	5
Rain Sensor	40	19	2
Moisture Sensor	75		0
ET Controllers	300-$750	500	0
Irrigation Pressure Reducing Valve **	120	52.61	0
Irrigation Pressure Reducing Spray Head	5	8.40	0

*2013 rebate amount unless stated otherwise **3/4"

It is difficult to draw conclusions from this data. For commercial users, the significant savings are not due to the relationship of the cost of the device to rebate amount, but to the amount of water saved and the resulting operating cost savings. It may be significant that there were 240 rebates awarded for tank-type high-efficiency toilets and water free urinals where the rebate was in the range of the cost of the device. There were only 11 commercial rebates awarded for clothes washers, dishwashers, and an air-cooled ice machine where the costs for the devices were 2 to more than 10 times greater than the rebate.

It may be true that residential users are sensitive to the relationship between the cost of the device and the rebate amount. Any conclusions must be based on the assumption that the numbers listed above for residential devices reflect those installed by end users and not new-home contractors.

Rebates for hot water recirculators and high-efficiency toilets amounted to more than one-half of the cost of the devices and more that 1,000 rebates were awarded. Rebates for clothes washing machines were less than 15% of the cost of the machines and almost 2500 rebates were awarded. Rebates for top loader replacements were about 45% of the cost, and almost 1,400 rebates were awarded. Rebates for front loader exchanges were about 20% of the cost and 125 rebates were awarded. Rebates for rain barrels were about 10% or less of the cost of the rain barrel, and 71 were awarded. Overall, it is difficult to draw any conclusions from this analysis. It might generally be said that rebates should be at least one-half of the cost of the device.

City Expenditures for the Rebate Program

Based on the rebate amounts, total city expenditures for rebates to date are in excess of $1,600,000. As Table 8 indicates, the majority has been from 2010 to the present, with more than half of the total in 2010.

Table 8
Rebate Program Expenditures

Year	Commercial Expenditures, $	Residential Expenditures, $	Total $
2004	0	46,230	46,230
2005	0	46,530	46,530
2006	600	59,090	59,690
2007	1,000	61,540	62,540
2008	0	61,490	61,490
2009	0	50,300	50,300
2010	444,706	424,216	868,922
2011	64,375	128,999	193,374
2012	1,500	130,749	132,249
2013 YTD	32,625	67,159	99,784
Total	544,806	1,076,302	1,621,108

It is also important to note that 2010 expenditures would have been higher, but the city ran out of funds for the program in August of that year. This spike in rebates was caused by the state rebate program. In 2010, the State of New Mexico offered a rebate on specific devices. The rebates for a clothes washer was $200 and were additive with city programs. This program was limited to a first come, first rebate basis with limited dollars. The rebate at the time from the city for a clothes washer was $180-$480 depending on the type.

Water Savings

The city has estimated water savings for the devices or technologies that are available for a rebate. Annual water savings in acre-feet are tabulated below:

Table X
Commercial Rebate Calculated Water Savings

Device	Flushometer Valve HE Toilet	Tank Type HE Toilet	Hotel/Motel HE Toilet	Water Free Urinal	HE Clothes Washer replacement for top loader	HE Clothes Washer exchange for front loader	Commercial Process Efficiency	Air Cooled Ice Machine	Dishwasher
Annual Water Savings, acre-feet	0.0336	0.0168	0.0022	0.0420	0.0233*	0.0088*	0.4500	0.67	1.15

*Both Commercial and Residential

Table X
Residential Rebate Calculated Water Savings

Device	Hot Water Recirculator	HE Toilet	Washing Machine	Rain Barrel	Rain Barrel 50-99 g	Rain Barrel 100-199 g	Rain Barrel 200-299 g	Water Harvesting	Rain and Moisture Sensor, ET Controller, Pressure Reducing Valve and other Outdoor Devices
Annual Water Savings, acre-feet	0.0215	0.0053	0.0250	0.0015	0.0008	0.0015	0.0031	0.000015	Not Determined

Rebate Allocation

Estimates of the value of the rebates and of how to allocate rebate resources can be based on the relationship of the rebate cost to the amount of water saved. Based on the amount of the rebate, the useful life of the water-saving device, and the water saved by the device, values can be developed for the cost of the rebate per acre foot of water saved:

- $ / acre-foot saved = ($ rebate $ / years of estimated life) / annual water savings in acre-feet.

These values are shown in Table 8. Values range from $60 to almost $15,000 per acre-foot of water saved. The majority of the values are in the $1,000 to $2,000 range, which nears the average cost of production of water of $1,749 per acre-foot (May 2006).

Some of the rebates for the high-efficiency toilets are particularly expensive when related to anticipated water savings.

Table 8
Rebate Costs Related to Water Savings

Device	Application*	Rebate $	Useful Life years	Water Saved gallons per year	Water Saved acre-feet per year	$ per acre-foot saved	Status
Air Cooled Ice Machine	C	200	5	218,320	0.67	60	Discontinued 2009
Commercial Dishwasher	C	400	5	374,728	1.15	70	Discontinued 2009
Commercial Process Efficiency	C	874	10	146,633	0.45	190	Last awarded 2010
Hot Water Recirculator	R	100	10	7,006	0.0215	465	Discontinued 2009
Water-Free Urinal	C	500	10	13,686	0.042	1,190	Currently Available
HE Toilet Tank Type	C	250	10	5,474	0.0168	1,490	Currently Available
Rain Barrel 50-99 gal	R	12	10	261	0.0008	1,500	Currently Available
HE Clothes Washer replacement for top loader	C & R	350	10	7,592	0.0233	1,500	Currently Available
Rain Barrel 200-299 gal	R	50	10	1,010	0.0031	1,610	Currently Available
Water Harvesting	R	0.25	10	5	0.000015	1,670	Currently Available
Rain Barrel 100-199 gal	R	25	10	489	0.0015	1,670	Currently Available
HE Clothes Washer exchange for front loader	C & R	150	10	2,867	0.0088	1,700	Currently Available
HE Toilet	R	175	10	1,727	0.0053	3,300	Currently Available
HE Toilet Hotel/Motel	C	125	10	717	0.0022	5,700	Currently Available
HE Toilet Flushometer Valve	C	500	10	1,095	0.00336	14,900	Currently Available

*C, Commercial; Residential; C & R, Commercial and Residential

History

Although the table above show data from 2004,

2002 Annual Water Budget Requirements (adopted by Resolution 2002-55 and revised by Resolution 2003-106). All new construction served by the City water utility was required to implement stringent water conservation requirements and offset new demand through retrofitting high-use toilets, typically 3.5 or 5 gallons per flush (gpf), with low flush toilets (1.6 gpf) or by purchasing pre-1907 Middle Rio Grande surface water rights.

The City purchased 75 gallon rain barrels for distribution; 1,000 customers were able to purchase one rain barrel each for $35, a significant savings from the actual cost of $74.95. This program only lasted a few months before the supply of rain barrels was exhausted.

2003 Establishment of the Water Budget Program, also known as the Toilet Retrofit Program, was created to track the number of toilet retrofits and accumulated water savings. Pre-certifications are water credits awarded to entities that have retrofitted any number of toilets but have not designated the water credits to a future project.

2004 A Rebates Program was introduced for hot water recirculators ($100), washing machines ($100) and rain barrels ($30) resulting in water savings of 67.26 acre/feet between 2004 and 2009, when the program ended.

2005 The Water Rights Transfer Program (SFCC 1987 § 25-12). The ordinance modified offset requirements for new development. The City code now requires offsets with Middle Rio Grande surface water rights, transferred to the City, instead of toilet retrofits for commercial developments greater than 5 acre-feet and residential developments greater than 10 acre-feet.

2006

2007

2008

2009 A 1998 analysis "Water Use in Santa Fe" was updated to include additional customer sectors. These sectors (e.g. single family, apartment, office, medical, religious, schools, parks) are used in creating development water budgets. The report, Water Use In Santa Fe (2009), is available on the City's website at http://www.santafenm.gov/index.aspx?NID=2300.

Water Demand Offset Requirements (adopted by Ordinance #2009-38). The ordinance replaced the Annual Water Budget Requirements (Toilet Retrofit Program). Outstanding toilet retrofit credits are moved into the Water Bank as they are being redeemed. Components of the new City code include:

- The development of a Water Budget and a Building Permit Requirement (SFCC 1987 § 14- 8.3): Applicants are required to offset demand through dedication of water conservation credits or transferred water rights.
- City's Water Budget (SFCC 1987 § 25-9): Water managers are required to prepare annual accounting of current and projected supply and demand, and allocate water made available by water rights purchases, leases, and conservation measures to meet priorities, including affordable housing.
- City Water Bank (SFCC 1987 § 25- 10): A water bank was established to account for water credits derived from conservation programs and water rights transfers to offset future demand. Some of the credits are available for purchase by developers or for allocation to City priorities.
- Conservation Credit Programs (SFCC 1987 § 25-11): credits generated by water conservation rebates and water conservation contracts.
- Water Rights Transfer Program (SFCC 1987 § 25-12): requires that new commercial development greater than 5 acre-feet and residential development greater than 10 acre-feet acquire and transfer water rights to City before obtaining building permit.

2010 A new rebate program was instituted for which credits would now go into the Water Bank instead of the Water Budget Program. Rebates were offered for high-efficiency toilets (HET) ($175/residential, $504/ commercial), water free urinals ($630), high-efficiency clothes washers ($480), rain barrels ($12-$50 depending on size) and water harvesting systems ($0.25/gallon), and for commercial process efficiency, resulting in 32.4626 acre/feet of conservation credits delivered to the Water Bank.

Note: This program was funded in part with a grant from the American Recovery and Reinvestment Act of 2009. The program was ended in July 2010 due to depletion of funds.

2011 Beginning, May 1, 2011, rebates were reinstated for high-efficiency toilets (HET) ($175/ residential, $125, $250, or $500/commercial depending on type), water free urinals ($500), high-efficiency clothes washers ($150 or $350 depending on type), rain barrels ($12-$50 depending on size) and water harvesting systems ($0.25/ gallon), and for commercial process efficiency, resulting in 9.0402 acre-feet of conservation credits delivered to the Water Bank.

2012 Rebates for the same products and at the same values as 2011 were continued in 2012, resulting in 7.1504 acre/feet of conservation credits delivered to the Water Bank.

Water Conservation in Santa Fe

Save Water Santa Fe

This presentation was prepared by the Water Conservation Committee with assistance from the City of Santa Fe Water Conservation Office.

Overview

EXHIBIT 9A

* What are the sources and uses?
* Is there enough?
* What are we doing?
* What do we need to do?

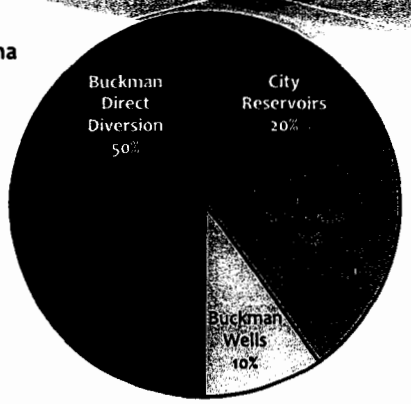
What are our sources of water?

*Surface Water
- Buckman Direct Diversion (Rio Grande and San Juan-Chama Project Water)
- City Reservoirs (Santa Fe River Watershed)

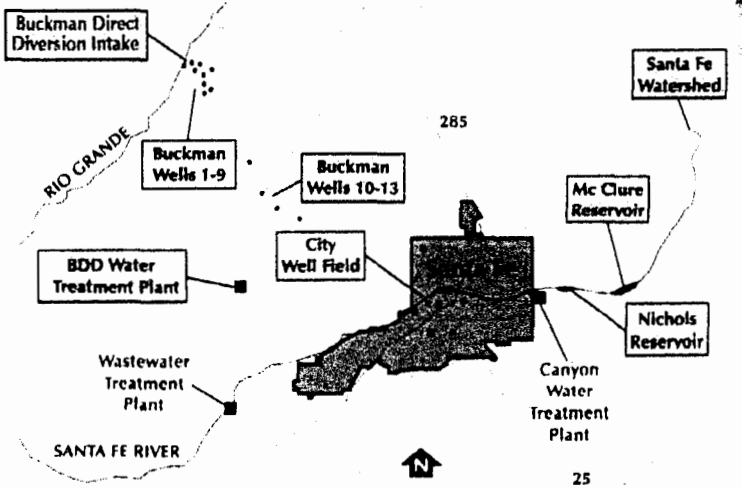
*Wells
- Buckman Wells
- City Wells

- Reclaimed Wastewater

*Conservation!

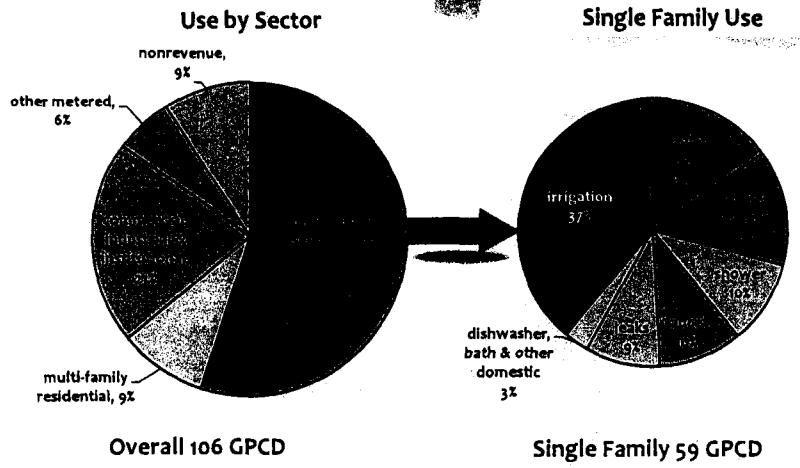


Sources of the City's Water

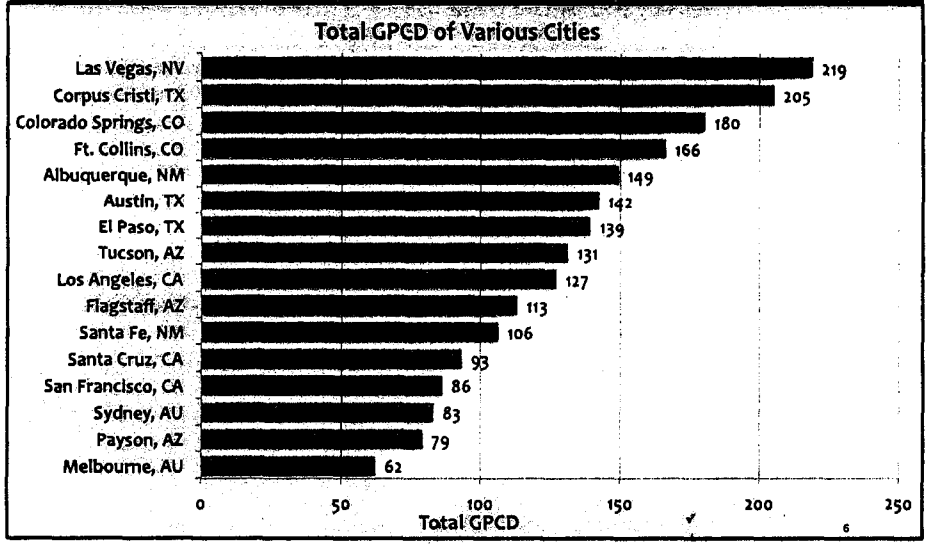


How Is It Used?

GPCD = annual water consumption ÷ population served



How do we stack up?



Is there enough?

Yes!

Our supply meets our current demand thanks to

* long-range planning,
* a diverse source portfolio
* and conservation efforts

What about in 2020? 2045?

Water for the future depends on...

* Annual precipitation and temperatures
* Length and severity of droughts
* Population
* Adaptation to climate change
* Emergency planning
* Improved conservation
* Level of concern for future generations

Conservation

* Most cost effective source of water [illegible] major capital outlays
* Preserves our groundwater "bank account"
* Helps community define *how* we want to use our limited water (i.e., conserve for <u>what</u>?)
* Conservation in the current 40-year plan for the city assumes a reduction in demand by over 20% by 2045!
* The city's goal is a 1% reduction of GPCD every 2 yrs.

9

Water Conservation does not promote development and growth

Developers must submit water budgets and [illegible] offset water. The city provides no net new water.

* Commercial Development
  < 5 acre-feet/year
* Residential Development
  < 10 acre-feet/year
* Mixed Use Development
  < 7.5 acre-feet/year

⬇

* Developer pays fee to City (or uses banked conservation credits) for water to offset new water demand.

* Commercial Development
  > 5 acre-feet/year
* Residential Development
  > 10 acre-feet/year
* Mixed Use Development
  > 7.5 acre-feet/year

⬇

* Developer transfers water rights to City to offset new water demand

10

What are We Doing? Year-Round Water Conservation

* 1987 ordinance requires citizens and businesses to comply with prescribed water conservation regulations
* 2007 City Code amendment requires year round water conservation vs. short term "fixes"
* Conservation ordinances apply to <u>*all*</u> water customers and <u>*all*</u> residents in the city limits, including domestic well owners

11

Year-Round Water Restrictions

* Eating establishments serve water only upon request. Notice required.
* Lodging facilities change linens no more frequently than every four days
* Outdoor irrigation prohibited 10AM – 6PM from May 1 through October 31. Maximum of 3 days/week recommended
* Turf grass or seed mixes shall not contain more than 25% Kentucky Bluegrass
* Cleaning of outdoor surfaces with water is prohibited
* Shut-off nozzles are required on hoses used for hand watering
* Swimming pools must be covered when not in use
* Fugitive water from landscape irrigation is prohibited
* Specified construction must use treated wastewater
* Public bathrooms must exhibit Water Conservation signage

12

Conservation Programs

* Education: calendar, TV and movie ads, booths, gardens, medians, PR Plan, youth programs
* Indoor/Outdoor irrigation efficiency and audits
* Aggressive rebate program offered
* Increased training (QWEL)

13

Conservation Programs

Residential – *free*

* ~~*Irrigation audit*~~

Residential – *rebates*

* *See separate slide*

Residential - *info*

* Irrigation efficiency
* Water budget calculator
* Demonstration gardens

Commercial - *free*

* Audit/leak detection
* Irrigation evaluation

Commercial – *rebates*

Commercial - *info*

* Water budget calculator
* Water waste reduction ordinances

14

Residential Rebates

Rebates for

* High-efficiency clothes washer
* High-efficiency toilet (HET)
* Rainwater harvesting
* ~~Irrigation efficiency~~

15

Commercial Rebates

Rebates for

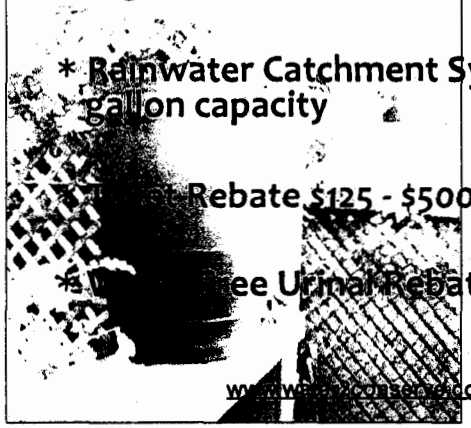
* High-efficiency toilets (HET)
* Water-free urinals
* Rainwater harvesting
* Commercial process efficiency

16

Sample Conservation Rebates

How much are the rebate

* High-Efficiency Clothes Washer $150 - $350
* Rainwater Catchment System $0.25 per gallon capacity
* [illegible] Rebate $125 - $500
* [illegible]ee Urinal Rebate $500



www.[illegible]conserve.com

17

Summary

* Broad portfolio of water sources available
* Ongoing year-round conservation program
* Threats: increasing local & regional demand, drought/fire and climate change
* Conservation is our cheapest water source
* Conservation awareness, education and practice help ensure water for the future

18

Community Involvement ... The Questions

How do you conserve water?
Are you doing enough? Is conservation a hardship?

What are your priorities?

* Parks, sports fields
* Gardens – ornamental & food
* Santa Fe River
* Long showers
* Smart growth
* Tourism

What would you like the City to do?

* Increase rebate amounts?
* Increase penalties for excessive use?

What would you like us to take back to the Water Conservation Committee?

19

Get Involved!

* Conserve!
* Take advantage of rebates!
* Join the Water Conservation Committee or one of our working groups
* We're actively recruiting water experts and motivated citizens

20

For Further Info

Water Conservation Committee Education and Outreach Working Group

* Stephen Wiman - skwiman@earthlink.net
* Tim Michael – timmichael@comcast.net
* Giselle Piburn – luminous@cybermesa.com
* Grace Perez – giperez@earthlink.net

City of Santa Fe Conservation Office

* Laurie Trevizo, Water Conservation Manager
  505-955-4223, lltreviso@santafenm.gov

Resources

* Chair, Water Conservation Committee : Peter Ives, City Councilor, District 2, 505-955-6816, pnives@santafenm.gov
* Savewatersantafe.com
* Water Conservation Office 505-955-4225
* Water Waste Hotline 505-955-4222
* City Parks 505-955-2100
* NM Drought conditions http://droughtmonitor.unl.edu
* NM Governor's Drought Task Force www.nmdrought.state.nm.us/links.html

WG #4
Promoting Conservation Strategies of Large Water Users

Task Report (October 8, 2013)

1. Residential (primarily single-family residential)

    - Efforts continue to promote the installation of electronic transmitting water meters

2. Lodging

    - Efforts continue to get an update on the status on the Green Lodging Initiative

3. Parks

    - Looking forward to having a representative of POSAC attend a WCC meeting

    - On September 18th, Melissa presented DRAFT recommendation to POSAC asking them how they would like to proceed. Melissa suggested that they form a working group to work with our working group on these initiatives.

    - Anticipating receiving park water usage numbers. Looking forward to compiling the numbers and relating them to park locations.

2014 SANTA FE WATER CONSERVATION COMMITTEE MEETING SCHEDULE

DATE	LOCATION	TIME
JANUARY 14, 2014	City Councilors' Conference Room	4-6 PM
FEBRUARY 11, 2014	City Councilors' Conference Room	4-6 PM
MARCH 11, 2014	City Councilors' Conference Room	4-6 PM
APRIL 8, 2014	City Councilors' Conference Room	4-6 PM
MAY 13, 2014	City Councilors' Conference Room	4-6 PM
JUNE 10, 2014	City Councilors' Conference Room	4-6 PM
JULY 8, 2014	City Councilors' Conference Room	4-6 PM
AUGUST 12, 2014	City Councilors' Conference Room	4-6 PM
SEPTEMBER 9, 2014	City Councilors' Conference Room	4-6 PM
[1]OCTOBER 7, 2014 10/13/14 Columbus Day	City Councilors' Conference Room	4-6 PM
[1]NOVEMBER 4, 2014 11/11/13 Veteran's Day	City Councilors' Conference Room	4-6 PM
DECEMBER 9, 2014	City Councilors' Conference Room	4-6 PM

City Councilors' Conference Room – 200 Lincoln Avenue
[1]First Tuesday meeting due to Holiday

January 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1				1	2	3	4
2	5	6	7	8	9	10	11
3	12	13	14	15	16	17	18
4	19	20	21	22	23	24	25
5	26	27	28	29	30	31	

February 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
5							1
6	2	3	4	5	6	7	8
7	9	10	11	12	13	14	15
8	16	17	18	19	20	21	22
9	23	24	25	26	27	28	

March 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
9							1
10	2	3	4	5	6	7	8
11	9	10	11	12	13	14	15
12	16	17	18	19	20	21	22
13	23	24	25	26	27	28	29
14	30	31					

April 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
14			1	2	3	4	5
15	6	7	8	9	10	11	12
16	13	14	15	16	17	18	19
17	20	21	22	23	24	25	26
18	27	28	29	30			

May 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
18					1	2	3
19	4	5	6	7	8	9	10
20	11	12	13	14	15	16	17
21	18	19	20	21	22	23	24
22	25	26	27	28	29	30	31

June 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
23	1	2	3	4	5	6	7
24	8	9	10	11	12	13	14
25	15	16	17	18	19	20	21
26	22	23	24	25	26	27	28
27	29	30					

July 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
27			1	2	3	4	5
28	6	7	8	9	10	11	12
29	13	14	15	16	17	18	19
30	20	21	22	23	24	25	26
31	27	28	29	30	31		

August 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
31						1	2
32	3	4	5	6	7	8	9
33	10	11	12	13	14	15	16
34	17	18	19	20	21	22	23
35	24	25	26	27	28	29	30
36	31						

September 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
36		1	2	3	4	5	6
37	7	8	9	10	11	12	13
38	14	15	16	17	18	19	20
39	21	22	23	24	25	26	27
40	28	29	30				

October 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
40				1	2	3	4
41	5	6	7	8	9	10	11
42	12	13	14	15	16	17	18
43	19	20	21	22	23	24	25
44	26	27	28	29	30	31	

November 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
44							1
45	2	3	4	5	6	7	8
46	9	10	11	12	13	14	15
47	16	17	18	19	20	21	22
48	23	24	25	26	27	28	29
49	30						

December 2014

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
49		1	2	3	4	5	6
50	7	8	9	10	11	12	13
51	14	15	16	17	18	19	20
52	21	22	23	24	25	26	27
1	28	29	30	31			

1 Jan	New Year's Day
20 Jan	Martin Luther King Day
12 Feb	Lincoln's Birthday
14 Feb	Valentine's Day
17 Feb	Presidents Day
4 Mar	Mardi Gras Carnival
9 Mar	Daylight Saving (Start)
17 Mar	St. Patrick's Day
1 Apr	April Fool's Day
18 Apr	Good Friday
20 Apr	Easter
21 Apr	*Easter Monday*
5 May	Cinco de Mayo
11 May	Mother's Day
17 May	Armed Forces Day
26 May	Memorial Day
8 Jun	Pentecost
9 Jun	Pentecost Monday
14 Jun	*Flag Day*
15 Jun	Father's Day
4 Jul	Independence Day
1 Sep	Labor Day
11 Sep	September 11th
17 Sep	Citizenship Day
26 Sep	Native American Day
13 Oct	*Columbus Day*
16 Oct	Boss's Day
18 Oct	Sweetest Day
31 Oct	Halloween
2 Nov	Daylight Saving (End)
11 Nov	Veterans' Day
27 Nov	Thanksgiving
7 Dec	*Pearl Harbor*
25 Dec	Christmas Day
31 Dec	New Year's Eve

Calendar & Holidays

2014

Calendar-365.com

NCSL

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State Rainwater Harvesting Statues, Programs and Legislation

Record droughts and water-supply worries have served as catalysts for state legislatures to consider legislation legalizing the catchment and use of rainwater for use in households and for lawns.

There has been increased interest over the past five years in legislation allowing, defining, and clarifying when rainwater harvesting can occur. Rainwater harvesting is the act of utilizing a collection system to use rainwater for outdoor uses, plumbing, and, in some cases, consumption. States have also passed legislation encouraging the use of Graywater. Graywater refers to the reuse of water drained from baths, showers, washing machines, and sinks (household wastewater excluding toilet wastes) for irrigation and other water conservation applications.

States must ensure water-quality standards and public health concerns are met. In some states, such as Colorado, previous water law stated that all precipitation belonged to existing water-rights owners, and that rain needed to flow to join its rightful water drainage. However, a 2007 study conducted by the Colorado Water Conservation Board and Douglas County determined that only 3 percent of rain actually reached a stream or the ground. Colorado followed-up by enacting two pieces of legislation, one allowing certain types of well owners to use rainwater and one authorizing pilot development projects.

Texas and Ohio are among states that have devoted a considerable amount of attention to this issue, and have numerous enacted laws regulating the practice of rainwater harvesting. Texas offers a sales tax exemption on the purchase of rainwater harvesting equipment. Both Texas and Ohio allow the practice even for potable purposes. Oklahoma passed the Water for 2060 Act in 2012, to promote pilot projects for rainwater and graywater use among other water saving techniques.

For updates on pending legislation and past years, please see the *NCSL Energy and Environment Legislation Tracking Database*

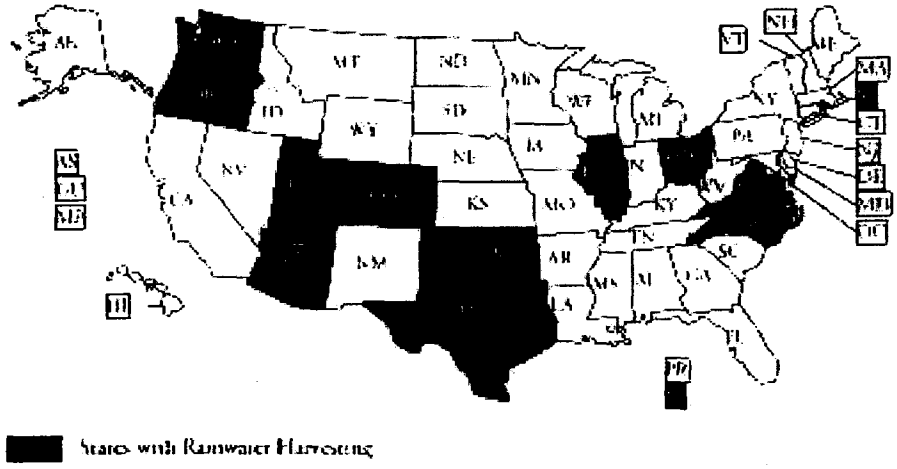
Featured Items

- NCSL Energy and Environment Legislation Tracking Database
- Map of Rainwater Harvesting Laws
- State Rainwater Harvesting and Graywater Laws and Programs
- 2012 Notable Rainwater Harvesting Legislation

NCSL Staff Contact

Douglas Shinkle

Map of Rainwater Harvesting Laws



States with Rainwater Harvesting

State Rainwater Harvesting and Graywater Laws and Programs

Arizona | Colorado | Illinois | North Carolina | Ohio | Oklahoma | Oregon | Rhode Island | Texas | Utah | Virginia | Washington | U.S. Virgin Islands

Arizona

Arizona had a tax credit for water conservation systems that included collection of rainwater; however, the credit expired on Jan. 1, 2012. The credit is equal to 25 percent of the cost of the system. The maximum credit in a taxable year could not exceed $1,000. From 2007 to 2010, over $360,000 was credited to homeowners that purchased a water conservation system. Arizona Revised Statutes §43-1090.01

AZ H 2363 (2012) – Established a joint legislative study committee on macro-harvested water. The committee shall study, analyze and evaluate issues arising from the collection and recovery of macro-harvested water, including reviewing scientific data on surface water, rainwater harvesting, methodology costs and benefits, potential impacts on water rights, downstream users, and potential aquifer management issues and groundwater management issues.
AZ H 2830 – This bill allows the governing body of a city or town to establish an energy and water savings account that consists of a designated pool of capital

investment monies to fund energy or water savings projects in public facilities, including rainwater harvesting systems. (Arizona Revised Statutes §9-499.16)

Colorado

Colorado had some of the nation's strictest rainwater harvest laws, essentially prohibiting the practice. In 2009, two laws were passed that loosened restrictions. CO SB 80 allowed residential property owners who rely on certain types of wells to collect and use rainwater. *Colorado Revised Statutes §37-90-105* CO HB 1129 authorized 10 pilot projects where captured precipitation was used in new real estate developments for non-potable uses. *Colorado Revised Statutes §37-60-115*

Resources:

- Colorado Division of Water Resources outlined information on SB 80
- Colorado Legislative Council Issue Brief on SB 80 and HB 1129 and Rainwater Harvesting in Colorado
- Criteria and guidelines for pilot projects

Illinois

In 2009, Illinois created the Green Infrastructure for Clean Water Act which relates to water conservation, efficiency, infrastructure and management while promoting rainwater harvesting. Illinois Revised Statutes Chapter 415 §56

IL H 991 of 2011 amended the Homeowners' Solar Rights Act. It requires that within 120 days after a homeowners' association, common interest community association, or condominium unit owners' association receives a request for a policy statement or an application from an association member, the association shall adopt an energy policy statement regarding: (i) the location, design, and architectural requirements of solar energy systems; and (ii) whether a wind energy collection, rain water collection, or composting system is allowed, and, if so, the location, design, and architectural requirements of those systems. Illinois Revised Statutes Chapter 765 § 165/20

North Carolina

NC H 609 of 2011 directed the Department of Environment and Natural Resources to provide statewide outreach and technical assistance regarding water efficiency, which shall include the development of best management practices for community water efficiency and conservation. This shall include employing water reuse practices that include harvesting rainwater and using grey water. North Carolina General Statutes § Session Law 143-355

Ohio

Ohio allows rainwater harvesting, even for potable purposes. Private water systems that provide drinking water to fewer than 25 people are regulated by the Ohio Department of Health (ODH). Ohio also has a Private Water Systems Advisory Council within the ODH. The nine member council is appointed by the governor with the advice and consent of the Senate. Ohio Revised Code §3701.344 and Ohio Revised Code §3701.346

Oklahoma

OK HB 3055 of 2012 created the "Water for 2060 Act." The bill initiates grants for pilot programs. The pilot projects shall be innovative programs that will serve as models for other communities in the state. Pilot projects may include, but are not limited to, community conservation demonstration projects, water use accounting programs, retrofit projects, school education projects, Xeriscape demonstration gardens, projects which promote efficiency, recycling and reuse of water, and information campaigns on capturing and using harvested rainwater and gray water.

Oregon

Since Oregon allows for alternate methods of construction of rainwater harvesting systems, the Oregon Building Codes Division (BCD) created methods for both potable and non-potable systems. Oregon Revised Statute §455.060

Senate Bill 79, passed in 2009, directs the BCD to increase energy efficiency, by including rainwater harvesting, in new and repaired buildings.

Resources:

- Potable Alternate Method
- Non-Potable Alternate Method
- Oregon Smart Guide - Rainwater Harvesting

Rhode Island

RI HB 7070 of 2012 created a tax credit for the installation of cisterns to collect rainwater. Any individual or business that installs a cistern on their property to collect rainwater for use in their home or business shall be entitled to a state income tax credit of ten percent (10%) of the cost of installing the cistern not to exceed one thousand dollars ($1,000). Each entity shall be allowed only one tax credit over the life of the cistern unless they are replacing an existing cistern with a larger cistern and have not received the maximum tax credit of one thousand dollars ($1,000). A cistern is defined as a container holding fifty (50) or more gallons of diverted rainwater or snow melt, either above or below ground.

Texas

Texas HB 3391 of 2011 is one of the most far-reaching and comprehensive pieces of legislation regarding rainwater harvesting in recent years. Among its provisions:

- Allows financial institutions to consider making loans for developments that will use harvested rainwater as the sole source of water supply.
- Requires rainwater harvesting system technology for potable and nonpotable indoor use and landscape watering be incorporated into the design and construction of each new state building with a roof measuring at least 50,000 square feet that is located in an area of the state in which the average annual rainfall is at least 20 inches.
- Requires the development of rules regarding the installation and maintenance of rainwater harvesting systems that are used for indoor potable purposes and connected to a public water supply system, prior to this bill it could only be used for nonpotable purposes. The rules must include criteria to ensure that safe drinking water standards are met and the water does not come in contact with the public water supply at a location off of the property.
- Requires a person who intends to connect a rainwater harvesting system to a public water supply system for potable purposes to give written notice to the municipality or the owner or operator of the public water supply system. A municipality or public water supply system may not be held liable for any adverse health effects allegedly caused by the consumption of water collected by a rainwater harvesting system that is connected to a public water supply system and is used for potable purposes if the municipality or the public water supply system is in compliance with the sanitary standards for drinking water.
- Encourages each municipality and county to promote rainwater harvesting at residential, commercial, and industrial facilities through incentives such as the provision at a discount of rain barrels or rebates for water storage facilities. Requires the Texas Water Development Board (TWDB) to ensure that training on rainwater harvesting is available for the members of the permitting staffs of municipalities and counties at least quarterly. School districts are strongly encouraged to implement rainwater harvesting systems.

- Prohibits a municipality or county from denying a building permit solely because the facility will implement rainwater harvesting.

Other Texas Statutes

Texas Health and Safety Code §341.042 outlines standards for harvested rainwater. Includes health and safety standards for treatment and collection methods for harvested rainwater intended for drinking, cooking, or bathing.

Texas Property Code §202.007 prevents homeowners associations from banning outdoor water-conserving measures, including rainwater harvesting installations. The legislation allows homeowners associations to require screening or shielding to obscure view of the tanks.

Texas Tax Code §151.355 allows for a state sales tax exemption on the purchase of rainwater harvesting equipment.

Resources:

The Texas Manual on Rainwater Harvesting provides information on the practice and outlines sales tax exemptions at the state and local level (pg. 53).

In 2005, the legislature ordered the creation of a Texas Rainwater Harvesting Evaluation Committee; see here for its 2006 Report to Texas Legislature with Recommendations.

The Texas Water Development Board sponsors the Texas Rain Catcher Award to advance the technology, educate the public, and to recognize excellence in the application of rainwater harvesting systems in the state.

Utah

Utah allows for the direct capture and storage of rainwater on land owned or leased by the person responsible for the collection. If a person collects or stores precipitation in an underground storage container, only one container with a maximum capacity of no more than 2,500 gallons may be used. For a covered storage container, no more than two containers may be used, and the maximum storage capacity of any one container shall not be greater than 100 gallons. Utah Code Annotated §73-3-1.5

Virginia

In 2001, Virginia passed Senate Bill 1416, which gave income tax credit to individuals and corporations that installed rainwater harvesting systems. "There is hereby established the Alternative Water Supply Assistance Fund to be administered by the Department to provide grants to localities to be used for entering into agreements with businesses and individuals to harvest and collect rainwater for such uses as determined necessary by the locality, including, but not limited to, irrigation and conservation." However money has not been allocated for these purposes.

Va. Code Ann. § 32.1-248.2 – Requires the development of rainwater harvesting and graywater guidelines to ease demands on public treatment works and water supply systems and promote conservation.

Resources:

Virginia Rainwater Harvesting and Use Guidelines

Washington

In Washington, state law allows counties to reduce rates for storm water control facilities that utilize rainwater harvesting. Rates may be reduced by a minimum of ten percent for any new or remodeled commercial building. However, the rate can be reduced more than ten percent, depending on the county. Kitsap County's Ordinance reduces surface and stormwater fees by 50 percent. Washington Revised Code §36.89.080

Uses for harvested rainwater may include water closets, urinals, hose bibbs, industrial applications, and for irrigation purposes. Other uses may be allowed when first approved by the authority having jurisdiction. Washington Revised Code §51-56-1623

Resources:

In 2009, the Washington Department of Ecology issued an Interpretive Policy Statement clarifying that a water right is not required for rooftop rainwater harvesting.

Washington Department of Ecology Rainwater Collection website

U.S. Virgin Islands

Since 1964, the U.S. Virgin Islands has required most buildings to be constructed with a self-sustaining potable water system, such as a well or rainwater collection system.

U.S. Virgin Island Code Title 29 §308

2012 Notable Rainwater Harvesting Legislation

State	Bill	Summary
California	CA AB 1750 (Pending: To Senate Committees on Natural Resources and Water and Rules.)	Would enact the Rainwater Capture Act of 2012. Would authorize residential, commercial and governmental landowners to install, maintain, and operate rain barrel systems and rainwater capture systems for specified purposes, provided that the systems comply with specified requirements. Would authorize a landscape contractor working within the classification of his or her license to enter into a prime contract for the construction of a rainwater capture system if the system is used exclusively for landscape irrigation.
	CA AB 2398 (Pending: In Senate Committee on Natural Resources and Water: Held in committee.)	Would enact the Water Recycling Act of 2012. Would establish a statewide goal to recycle specified amounts of water by specified calendar years. Would require the adoption of a drinking water criteria for groundwater recharge project utilizing recycled water and the development and adoption of drinking water criteria for advanced treated purified water for raw water augmentation projects. Establish a related research fund. Relates to permits and permit fees for raw water augmentation projects. Relates to inspections.
Illinois	IL HB 1585 (Pending: Referred to House Committee on Rules.)	Would provide that "plumbing" includes rainwater harvesting distribution systems, but does not include any rainwater harvesting distribution system or rainwater harvesting collection system unless otherwise required by the Illinois Plumbing Code.
Massachusetts	NJ AB 2890 (Pending: To Assembly Committee on Environment and Solid	Water Conserving Plants Purchase Tax Deduction – Would provide for a personal income tax deduction for the purchase of certain water conserving plants and items: WaterWise plants and landscaping items intended to reduce water usage, including, but not limited to: drought resistant plants that last for more

State	Bill	Summary
	Waste.)	than one year; kits or devices specifically designed for generating compost; grey-water recovery systems where the effluent is used for watering plants; rainwater recovery and storage devices where they are used for watering plants; rain sensors for irrigation systems; and, underground drip irrigation systems.
New Jersey	NJ AB 2890 (Pending: To Assembly Committee on Environment and Solid Waste.)	Rainwater Capture and Water Conservation - This bill would establish several incentives for installation and operation of a rainwater capture system and prohibiting any fees or taxation related to the purchase, installation and use of these systems.
New York	NY AB 6490 (Pending: Amended in Assembly Committee on Real Property Taxation.)	Would create a tax exemption program for commercial and residential real property owners who purchase or install systems for rainwater harvesting, which a municipality within Westchester or Putnam county could adopt by resolution.
North Carolina	NC HB 282 (Failed: Adjourned.)	Would provide that homeowners associations may not prohibit the installation of certain water and energy efficiency improvements by homeowners. Water efficiency improvement. - Rain gardens, cisterns, rain barrels, and other devices or landscaping installations intended to capture, collect, or store rainwater or to reduce the need for irrigation.
	NC SB 427/ NC HB 787 (Failed: Adjourned.)	Would improve the security of North Carolina's water resources. Employing water reuse practices that include harvesting rainwater and using grey water.
Washington	c WA HB 1025 (Failed: Adjourned.)	The rate a county may charge a school district under this section for storm water control facilities would be reduced by a minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system. Rainwater harvesting systems would be properly sized to utilize the available roof surface of the building. The jurisdiction would consider rate reductions in excess of ten percent dependent upon the amount of rainwater harvested.
	WA SB 5447/ WA HB 1746 (Failed: Adjourned.)	Related to utility rates and charges for unoccupied mobile home lots in manufactured housing communities: The rate a city or town may charge under this section for storm or surface water sewer systems or the portion of the rate allocable to the storm or surface water sewer system of combined sanitary sewage and storm or surface water sewer systems shall be reduced by a minimum of ten percent for any new or remodeled commercial building that utilizes a permissive rainwater harvesting system. Rainwater harvesting systems would be properly sized to utilize the available roof surface of the building. The jurisdiction would consider rate reductions in excess of ten percent dependent upon the amount of rainwater harvested.
Wisconsin	WI AB 737 (Failed to Pass.)	This bill would require DSPS to promulgate rules that establish standards for the installation of graywater and rainwater systems and that authorize the use of graywater and rainwater within the building, or on the property surrounding the building, from which the graywater was generated or the rainwater was collected.

Source: National Conference of State Legislatures, 2012

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Water Conservation: Federal, State, And Local Requirements Are Helping To Drive The Use Of Water Efficient Technologies

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By Amy Vickers - April 2005 - Green

Governing bodies are imposing rules and regulations on certain types of water use in a growing number of cities and regions. Although many facility executives are familiar with temporary water use restrictions, such as limited hours for lawn and landscape irrigation during drought, facility executives increasingly have to heed permanent water conservation rules.

Why are requirements for water conservation here to stay? In most communities the reason boils down to water demands outstripping supplies. Increasing growth — the U.S. population is projected to exceed 300 million by 2010 — is putting pressure on drinking water supplies. Pollution, such as contamination of ground water, is forcing some drinking water sources to close or require expensive treatment technologies to keep them potable. Alternative sources such as reclaimed wastewater and desalinated seawater are options in some locales. However, they require costly new infrastructure and are not trouble-free. Simply put, to keep water and sewer service available and affordable, everyone needs to get better at doing more with less water.

The good news is that regardless of whether water conservation is required, there is a bevy of ways to save water in commercial and institutional facilities.

Examples Of Water Conservation Ordinances And Rules

Water Efficiency Measure	Description	Est. Water Savings*	Jurisdiction	More Information
Low-volume toilets (≤1.6 gal/flush), urinals (≤1.0 gal.flush), faucets (≤ 2.5 gal/minute @ 80 psi or ≤ 2.2 gpm @ 60 psi), and showerheads (≤ 2.5 gal/minute @ 80 psi or ≤ 2.2 gpm @ 60 psi). Exceptions for certain special uses (i.e., prisons).	Sets maximum flow rates for plumbing fixtures	35 to 70 percent	United States (federal law applies to local, state, and federal level)	Click Here
Non-flushing Urinals	No water used for flushing urinals	1 to 5 gallons per flush	Arizona Oregon	Click Here

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Lawn irrigation restrictions (year-round)	Lawn watering limited to two applications per week, before 10 a.m. and after 4 p.m. only. Certain exemptions allowed.	5 to 15 percent	Southwest Florida Water Management District	Click Here Click Here
Turf limits	No more than 25 percent of an area set aside for landscaping can be grass in new non-residential developments. New golf courses are limited to an average of 5 acres per hole, with a maximum 10 additional acres for driving ranges. Rebate of $1 per square-foot of existing turf removed.	More than 50 percent per square foot of lawn replaced by native or adaptive plant material or ground cover	Las Vegas	Click Here Click Here
Pre-rinse kitchen sink spray valves	All models manufactured after January 2006 must be equal to or less than a flow rate of 1.6 gallon/minute	50 gallons per hour of use per valve, about 100 to 300 gallons per day per kitchen	California	Click Here Click Here
*Actual savings will vary depending on pre-conservation water use rates and related factors (e.g., occupancy levels, leakage, climate, etc.).				

Water Conservation Ordinances and Rules

Water conservation policy and program initiatives targeted at the commercial and institutional sector often focus on reducing the amount of water used by plumbing fixtures, cooling systems and irrigation. These types of uses are typically the largest components of water demand at commercial and institutional facilities. What follows is an overview of technologies and practices that can curb water consumption.

Low-Volume Plumbing Fixtures. By now, most facility executives are aware that under the U.S. Energy Policy Act of 1992 (EPAct) only low-volume toilets, urinals, faucets and showerheads can be installed in most facilities. EPAct sets maximum flow rates for fixtures. Since it was enacted, plumbing manufacturers have developed products that exceed EPAct's water efficiency requirements. For example, high-performance dual-flush and 1.0-gallon-per-flush toilets are now available, as are nonflushing urinals and models that use less than 0.5 gallons per flush. Showerheads and lavatory faucets with flow rates of 1.0 to 1.5 gallons per minute are also gaining acceptance as functional designs improve. EPAct was designed to save water through normal fixture replacements. It is estimated that by 2020, the United States, will save between 6 billion and 9 billon gallons of water a day, enough to supply four to six cities the size of New York City.

Urinals That Don't Use Water. What do the Baltimore/Washington International Airport, Walt Disney World and the El Paso, Texas, Independent School District have in common? They all use urinals that use no water for flushing. Waterless urinals look like conventional urinals, but instead of using water for flushing, a liquid, usually oil, or canister trap contain odors in the urinal drain. Two states have laws governing nonflushing urinals. Arizona requires all urinals installed in new state buildings after Jan. 1, 2005, to be waterfree fixtures. Recently, the Oregon State Plumbing Board approved a rule to promote the installation of waterless urinals by allowing them in city, county, state and federal government facilities. Several cities and water systems offer rebate incentives for urinals that don't use water, including Austin, Texas, and Seattle.

Recirculated Cooling Systems. Several water suppliers and cities require efficient water cooling practices and equipment. Denver Water requires all water used for evaporative or refrigerated cooling and air conditioning, including equipment such as condensers, and processes, to be recycled or reused. New York City requires recirculated water for medium and large refrigeration and air-cooled systems; properties with steam-source refrigeration must use some condensate for cooling tower makeup water.

Landscape Water Use. Lawn watering is restricted year-round in the cities and towns served by the Southwest Florida Water Management District. Irrigation applications to lawns are limited to twice a week, and only before 10 a.m. and after 4 p.m. Certain exemptions are allowed, but this is one of the more aggressive lawn watering rules that is not directly related to drought. Most lawn and turf areas, including playing fields, can survive and thrive on a

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reduced watering schedule if irrigations are ramped down carefully. Landscape and lawn health may actually improve under a more water-thrifty irrigation regime; excessive watering is a common culprit of root rot, plant diseases and bug infestations. In addition to water savings with reduced irrigation schedules, chemical — fertilizer, pesticide and herbicide — as well as labor costs may be reduced.

Turf Limitations. Las Vegas is cracking down on excessive lawn watering by applying turf limits to new properties, including commercial sites and golf courses. Existing multifamily and business property owners that convert grassy areas to water-thrifty native or adaptive plant materials or to waterfree ground covers can earn $1 per square foot in the Water Smart Landscape Rebate program offered by the Southern Nevada Water Authority.

Pre-rinse Spray Valves. Nearly 20,000 water-saving, pre-rinse spray valves have been installed in California restaurants and food service facilities as part of a commercial water conservation program. Wisconsin's Focus on Energy and the San Antonio Water System have similar programs. The 1.6-gallon-per-minute hand-held spray devices are similar to the 3- to 5-gallon-per-minute conventional spray heads used to remove food residue from dishes, flatware and other food-service items prior to cleaning in a commercial automatic dishwasher. A study of water-thrifty pre-rinse spray valves found that the valves saved about $300 per year in reduced water and energy costs. The payback on the valves was less than three months.

Amy Vickers, an engineer and water conservation specialist with Amy Vickers & Associates, Inc. in Amherst, Mass., is author of Handbook of Water Use and Conservation: Homes, Landscapes, Businesses, Industries, Farms *(WaterPlow Press).*

Nonflushing Vs. Low-volume Urinals

Considerable discussion, and some grumbling, has occurred in recent years over the performance of urinals that don't use water. While the numbers of nonflushing urinal installations and enthusiastic customers are growing — along with manufacturers who offer products — some facility executives have complained about increased odor, clogging, and failing or short-lived and expensive trap seal products that create unpleasant cleanup tasks for maintenance workers.

Aside from splash-back problems with some early models that have been corrected, surveys of users of nonflushing urinals show users are generally pleased with the new fixtures. However, facilities that don't have reliable drain-line pitch and maintenance workers who are reluctant to clean nonflushing urinals — hard water increases mineral build-up that can require more aggressive bowl cleaning — may avoid these problems by installing wash-down urinals that use only 0.5 gallon per flush or less.

Like most new technologies, the performance of nonflushing urinals will likely improve over time. For the right situation, the urinals will function just fine, save tons of water, and reduce water and sewer bills.

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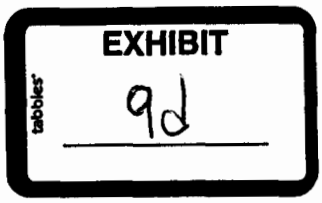

October 8, 2013

Report to the Water Conservation Committee from Working Group #5
Grace Perez
Doug Pushard,
Peter Balleau
Bob Kreger
Stephen Wiman

ASSUMPTIONS:

We understand that, under New Mexico law, the City of Santa Fe has the power to regulate both the drilling and operation of private wells within the city limits. The extent of that power merits legal review.

To date, the City has chosen only to prohibit the drilling of new wells and to issue permits for replacement wells and to not regulate the operation or production of water from existing private wells.

With the issuing of permits for replacement or re-drill wells, the City requires that meters be installed and that well owners turn in monthly water usage totals. Compliance with reporting has been minimal, as has been compliance enforcement by the City.

WCC Working Group #5 is interested in determining the impact of private wells within the City with respect, in particular, to 1) the drawdown of the Tesuque Formation aquifer, 2) the impact on the pumping of private wells on water flow in the City in reaches of the Santa Fe River, 3) the impact of private wells on effluent arriving at the water treatment plant and 4) the net impact of gains and depletion of the lower Santa Fe River below the plant.

The number and usage of private wells in the city remains an unknown. The range of estimates is between 600-3,000 wells and 200 to 3,000 acre-feet per well per year. An estimate of consumptive use would be a smaller number of acre-feet, which is also unknown but may lie in the range of 50% of the usage. The difference between water use and consumption is returned to the water treatment plant from indoor water use, and to the water table from outdoor water use. The variation of amounts of well water use among individual properties is thought to be wide, with some wells out of operation entirely and others probably exceeding the historically authorized maximum rate of 3 AFY.

If the City were to be involved in the monitoring and/or regulation of private wells, the issue would probably be quite contentious because of the value of the wells to property owners and the perception that the (presumed) water rights associated with those wells are in jeopardy.

ACTION PLAN – QUANTITATIVE HYDROLOGIC MODELING

In order to determine the impact of the pumping of an unknown number of private wells, and before any other additional work such as physically inventorying wells is conducted, it is proposed by WCC Working Group #5 that quantitative hydrologic modeling be conducted to determine the range of the possible impact of wells. It is anticipated that this modeling could be properly conducted by a qualified geotechnical firm already under contract to the City.

Model Input

The inputs would include the number and usage of wells and the routing of estimated return flow as described above. Other variables would include reservoir parameters such as permeability estimates, interval thickness, and other characteristics as specified in the most suitable available models.

The uncertain rates will be bracketed for these model runs by reasonable estimates from the judgment of the City hydrogeology contractors considering existing databases in this and other parts of the state. The sensitivity of the river and aquifer effects to the range of input will be used to decide if the acquisition of more specific data on the private wells is justified. We discussed the means of obtaining site-specific data, including using the Anaya case process.

WCC Working Group #5 will work with the City's choice of contractor to approve the input modeling parameters and coordinate the modeling work.

SUMMARY

Members of WCC Working Group #5 have discussed a range of positive and detrimental effects of domestic well operations on the water-management interests of the City and we are in agreement that the numbers need to be understood before a position is recommended to the Water Conservation Committee with respect to possible changes in City policies.

Through the proposed quantitative hydrologic modeling, the overall impact of private wells could be more properly assessed before the City undertakes any further action to properly count, monitor and possibly regulate these private wells.

MEMORANDUM

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**

VIA: **Nick Schiavo, Acting Public Utilities Department and Water Division Director**

DATE: **September 20, 2013**

SUBJECT: **Update on Drought, Monsoon, and Water Resource Management**

CURRENT UPDATE – GENERAL WATER RESOURCE MANGEMENT

As the Committee/Board is aware, our region is still suffering through a severe drought. Our region has gone through two consecutive years of record drought and heat. It is now apparent that we are wrapping up a third consecutive year of severe drought and heat which will present significant challenges to all water purveyors, utilities, and irrigators going forward into next year. Even though much of the State and our region have received moderate monsoonal rains overall (July – September), most of the state of New Mexico remains in "extreme" drought conditions. New Mexico appears to be the epicenter of the western U.S. drought. Although, rainfall associated with the September monsoonal flow produced record-breaking rainfall totals across the state, including the Santa Fe area. Weather prediction models indicate that, at least through October of this year, drought conditions in the southwest (especially Arizona and New Mexico) should improve slightly, but that overall drought conditions will still persist. Above average temperatures are also expected. Snowpack accumulation predictions for the coming winter are still somewhat nebulous but may be below normal according to some models.

This current drought is extreme, but what sets it apart from previous extreme droughts is that, absent significant winter snow the rest of this year, the region will enter into next spring and summer without very much carry-over water in regional reservoirs – they are at low levels (except for the local McClure reservoir in Santa Fe). This condition could make next year much more challenging than the current year has been. However, the 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.

Earlier this year, BoR/USACoE models indicated the probability of critically low flows in the Rio Grande at Otowi Gage, and they were correct - the last few months have seen flows as low as about 350 cubic feet per second (CFS). In a "normal" year flow ought to be around 1,000 cfs or more. However, during the prolonged rains of September 10th –>17th, the record-breaking rains produced flows exceeding 8,000 cfs at times at Otowi Gage.

Since CRWTP and BRWTP have been unable to produce very much water lately, City and Buckman wells are providing most of the water supply to meet demands.

LOCAL CONDITIONS

Source of Supply Utilization Summary

August 2013

City Wells	79.01mg	242.47af
Buckman Wells	208.40mg	639.55af
CRWTP	72.57mg	222.70af
BRWTP	8.18mg	25.10af
Other Wells	*0.10mg*	*0.32af*

Upper Santa Fe River/CRWTP

	Reservoir Level	Santa Fe Snow Gage	Reservoir Inflow
September 18, 2013	60.3%	0.0 inches	18.40 MGD
5-Year Average This Date (2008 – 2012)	54.4%	0.0 inches	1.56 MGD

Heading into September, water resource managers for the City were expecting the Canyon Road Water Treatment Plant to experience significant supply shortfalls later this year and into next year -- due in part to severely reduced inflows resulting from the drought, but also due to the planned construction projects inside of the reservoir footprints. However, as of September 18th, and due to the recent heavy rains, storage in McClure reservoir is up from 29.0% to 72.8%, and increasing daily (inflow = 18.35 mgd on 9/18/13). Flows into Nichols are being by-passed due to construction. Total combined storage for both reservoirs is therefore at 60.3% of capacity. Inflows are expected to continue for several more days and so McClure could actually reach close to full capacity by the time inflows decrease back down to normal levels for this time of year.

Buckman Regional Water Treatment Plant

The last few months have seen flows as low as about 350 cubic feet per second (CFS). In a "normal" year flow at this time of the year ought to be around 1,000 cfs or more. However, during the prolonged rains of September 10th – 17th, the record-breaking rains produced flows exceeding 8,000 cfs at times at Otowi Gage. Turbidity and suspended sediment has also been very high, especially following intense monsoonal rain storms (as high as 7,020 ntu). For this reason, the BDD Project has been more-or-less shut down during the months of July, August, and most of September.

Rio Grande Basin

Surface flows in the Rio Grande and its tributaries have been well below normal, storage levels in regional reservoirs are very low currently (but rising due to recent storms), and the federal BoR recently stated that if there is no "meaningful moisture" received this winter/spring then this would mark the lowest water levels ever in New Mexico reservoirs prior to entering into a new irrigation season. The recent rains have helped river flows (at least temporarily) and regional reservoirs are receiving needed inflow, but normal to above normal snow pack is still needed this coming winter or reservoir levels will still be critically low heading into next irrigation season. Recent weather forecast models seem to be suggesting that snow pack this coming winter may be disappointing.

Note: Wild Earth Guardians has recently filed a notice of intent (NOI) to file suit against Middle Rio Grande Collaborative Program signatories, citing violations of the current Biological Opinion under the auspices of the Endangered Species Act. However, the BDD Project is not a signatory to the Collaborative Program so the Project is not currently named. The outcome of the NOI and possible subsequent law suit are uncertain at this time.

San Juan Basin

The streamflow forecast for the San Juan River Basin is 75 percent of the 30 year avg. (1981-2010) for 2013. San Juan-Chama contractors have received full allocation of San Juan-Chama Project water this year (up from a previous forecast of only 80%). However, most of this water has already been used by the larger purveyors and irrigators in the middle Rio Grande, and so they are no longer calling for/releasing their water. The water that is currently in the Rio Grande at Otowi Gage is therefore not so much imported San Juan-Chama water as it is environmental flows and native Rio Grande water. However, when water quality conditions permit, the BDD Project is still able to call for and receive its allocation of San Juan-Chama water.

Albuquerque Bernalillo County Water Utility Authority recently announced at a public meeting that as soon as water quality in the Rio Grande clears up, they intend to start calling for some of their banked San Juan-Chama water from Abiquiu Reservoir (and reduce use of their local groundwater wells).

It should be stressed that, conditions could significantly worsen for San Juan Chama Project deliveries next year if the drought persists (i.e., low snow pack this coming winter in the San Juan Basin), due to a lack of carry-over storage in Heron Reservoir and other reservoirs in the system. If conditions do not change, after deliveries are made out of Heron Reservoir this year, that reservoir will be heading into the next water –year at very low levels.

City of Santa Fe, New Mexico

memo

Date: September 27, 2013

To: Water Conservation Committee

From: Laurie Trevizo, Water Conservation Manager

Via: Rick Carpenter, Water Resources and Conservation Manager
Nick Schiavo, Public Utilities Department and Water Division Director OSA

RE: Update on Water Conservation Office Upcoming Fall 2013 Events

The City of Santa Fe Water Conservation Office has a number of upcoming events which will provide education and outreach opportunities to a variety of audiences.

Green Lodging Initiative:
October 3, 2013

The Water Conservation Office has a partnership with the Santa Fe Watershed Association and will be participating in a Working Group Meeting for the Green Lodging Initiative. We provide the hotels and the Green Team with information about the water conservation requirements, resources and incentives that are available in Santa Fe.

Rio Rancho Water Festival:
October 28-29, 2013

Rio Rancho (and a number of other organizations) provides presentations for the Santa Fe Water Fiesta, and we reciprocate for theirs. Festival activities cover a wide range of core curriculum areas including language arts, math, science, social studies, visual arts, and health & wellness. Presenters demonstrate water related facts, concepts and values through fun, hands-on learning activities.

Spooky Showerhead Swap:
October 31, 2013

The following message will be included in the October Utility Bills:

"Is your showerhead scarier than the Bates Motel?

Give your water bill a treat and replace your spooky showerhead. On October 31st, bring your scary old high flow showerhead to the Water Division 801 W. San Mateo between 9am and 2pm and receive a EPA WaterSense approved 2.0 gallon per minute showerhead. This is a limited, one day only, promotion while supplies last. Installing efficient showerheads in one of the easiest ways to improve water efficiency in your home and reduce your water and energy bills and environmental impact."

Project WET Teacher Workshop:
November 2, 2013

Education provides one of the best approaches to ensuring responsible behavior toward our most precious resource, water. Project WET is a water education program for teachers, with the goal of facilitating awareness, appreciation, knowledge and stewardship of water. This program includes curriculum and activities for grades k-12 designed by educators for educators to present information about water in many different formats, ranging from large and small group learning, whole body activities, laboratory investigations, discussion of water topics both local and global, and involvement in community service projects.

QWEL (Qualified Water Efficient Landscaper) Training:
Registration Deadline: October 30, 2013
Training: November 5-6 & 12-14, 2013

The City of Santa Fe and the New Mexico Water Conservation Alliance will be co-sponsoring Qualified Water Efficient Landscaper (QWEL) training March 18-22, 2013. QWEL is an approved U.S. EPA WaterSense Irrigation Auditor certification program. Landscape professionals who achieve and maintain QWEL certification and have a current City of Santa Fe business license will become approved contractors for the City of Santa Fe Water Conservation Irrigation Efficiency Rebate Program. Training is limited to 25 participants. Invitations will be mailed and emailed (if available) to landscape design and installation firms.

11th Annual Children's Poster Contest:
Theme: Saving Water is Always in Season!
Marketing: News Release October 4, 2013
Submittal Deadline: November 22, 2013
Judging: January 2014 (Day to be determined)

This year's theme is Saving Water is Always in Season! The annual poster calendar is a favorite in the Santa Fe community. Winners of the poster contest receive a prize package that includes conservation kits for saving water at home. The grand prize winning poster is displayed for a year on the back of a city bus and on the calendar cover. First through third place winners will be featured monthly in the 2015 calendar. In the 10th Annual Poster Contest, which ended in January, nearly 300 posters were submitted, the winners of which will be showcased in the 2014 calendar which is currently in the design process.

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What is the HERS Index?

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The Home Energy Rating System (HERS) Index is the INDUSTRY STANDARD by which a home's energy efficiency is measured. It's also the NATIONALLY RECOGNIZED system for inspecting and calculating a home's energy performance.

What does a HERS rating say about a house?

The HERS Index MEASURES A HOME'S ENERGY EFFICIENCY and there are a lot of great reasons to have a home energy rating performed on your house.

It can tell you so much about the home you live in, like how efficiently it's operating and where you can make modifications for greater energy savings. When you're selling your home, a low HERS Index Score can command a higher resale price. And when you're buying a home you can anticipate the costs of energy bills and efficiency upgrades.

How does the HERS Index work?

A certified Home Energy Rater assesses the energy efficiency of a home, assigning it a relative performance score. The lower the number, the more energy efficient the home.

The U.S. Department of Energy has determined that a typical resale home scores 130 on the HERS Index while a standard new home is awarded a rating of 100.

- **A home with a HERS Index Score of 70 is 30% more energy efficient than a standard new home**
- **A home with a HERS Index Score of 130 is 30% less energy efficient than a standard new home**

More on what the scores mean.

To calculate a home's HERS Index Score, a certified RESNET HERS Rater does an energy rating on your home and compares the data against a 'reference home'- a designed-model home of the same size and shape as the actual home, so your score is always relative to the size, shape and type of house you live in.

Some of the variables included in an energy rating are:

- **All exterior walls (both above and below grade)**
- **Floors over unconditioned spaces (like garages or cellars)**
- **Ceilings and roofs**
- **Attics, foundations and crawlspaces**
- **Windows and doors, vents and ductwork**
- **HVAC systems, water heating system, and your thermostat.**

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